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# Innovation, Dynamics of Competition and Market Dynamics

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## Abstract

Largely from the perspective of network economics we look into a specific range of economic studies on competition, innovation and technological change with a view to relating theories, models and ideas on how best to analyze the impact of innovation and market dynamics on scale and scope of network industries. Innovation has a major network inducing effect, so has competition. Competition in this context always carries dynamic features and is intrinsically linked to games of strategy . Our review focuses on both the interaction of competition and innovation and discusses prevailing models of innovation and studies that fall within other traditions such as Schumpeterian economics.

**Keywords:** Innovation, Competition, Network Industry, Dynamic Markets, Schumpeterian Economics

## INTRODUCTION

Ever since Schumpeter (1942) was suggesting that large private organizations (firms) would count for the majority of product/process innovations in a dynamic (Schumpeterian) economy the discussion continues across industries, market structures and competitive scale whether and to which extent large companies as compared to small and mid-sized firms (SMFs) will continuously generate a larger bulk of innovations (in terms of revenues or profits).

An investigation would need to clarify how to capture and measure innovation in specific industries and how to identify success in the market context. Further what are the underlying diverse explanatory factors (variables) that incentivise firms to engage in serial innovations and result in structural growth of the company? Thus it carries a standardized operational measurement, an incentive and performance problem within an organization.

The two major hypotheses linked to Schumpeter's exploration would be:

1. Do most innovations increase more than proportionately with firm size?
2. Does innovation increase with market concentration?

With regard to measurement there are no standardized measures of innovation that clearly allow definable interindustry or even interfirm comparison except for certain kinds of product innovations that are technically identifiable such as performance in, say, semiconductors or new chemical entities in pharmaceuticals, and sometimes left for economic proxies such as welfare or quality changes.

For process innovations, productivity changes as in factor productivity in the respective organisation could be an appropriate measure. Further, patent data (counts) have been used frequently as approximations of innovative activity of firms in some industries -- though more relevant in some (pharmaceuticals) than in others (software). However, the economic value of patent counts is highly heterogeneous.

The diversity of organizations, and across industries, make it challenging to specify econometric models in which the major explanatory variables could reasonably explain the level of innovative activity of the organization as a dependent variable. For example, some variables expected to influence process innovation may have no impact on product innovation and vice versa. Also the importance of these variables may vary on innovative activities across types of industries.

For private organisations such as firms what has been of key interest is the relationship of firm size and market structure. Schumpeter was impressed by the qualitative difference between innovative activities of SMFs and large modern corporations with established R&D laboratories. It has been suggested in industrial economics since then, as a hypothesis, that there is a positive effect of firm size on innovative activity.

With firms the arguments for the positive relationship have been given by:

- i. Larger firms are better able to access financial assets for risky R&D projects;
- ii. Larger firms may have already built up a record of successful R&D projects that feeds into continuous research activities (cumulative innovation),
- iii. In some industries there are scale economies in R&D,
- iv. Larger firms are more likely to be diversified, and because of synergies R&D is more productive in large firms in view of complementarities and R&D covering other business activities.

A contrarian view was built on observations that as firms grow larger there appears a loss of managerial control impacting R&D performance negatively. Also individual incentives of researchers could suffer because of losing identification with the outcome -- what Schumpeter himself considered as the hazard of bureaucratization of inventive activity.

Empirical studies over the past fifty years, as cross-section analyses or regression type studies have produced mixed results at best, that is neither strongly confirming nor denying the relationship across a fairly broad section of industries. Up to the 1990s in a review of the literature, Cohen and Levin (1989, p.1069) mention: The most notable feature of this considerable body of empirical research on the relationship between firm size and innovation is its inconclusiveness“.

They explain this with the experimental design of the industry samples and the sample selection biases.

However, in areas of high-tech industries including ICT, advanced industrial technologies and pharmaceuticals gaining a higher share of industry compositions in

OECD countries it appears that very small firms (startups) and very large firms were more R&D intensive as the ratio of R&D expenditures to product sales than firms of intermediate size in respective industries (Scherer, 1984,1992).

For high-tech industries with a global focus innovation by itself is a strategic choice and 'imperative' - according to the CEO of General Electric(GE) Jeff Immelt. Growth of the firm and innovation are intimately related. For example, GE constantly evolves its product/service portfolio to drive growth despite its large size and already significant presence in major markets. It encourages its business units to take an expansive view of its markets to pursue growth opportunities. This continual questing and drive toward innovation lies behind its strategic positioning. In such a scenario input variables are dominated by research resources



and the output by some innovation index. This is corroborated by strong rivalry positions of oligopolistic firms as reflected by technological racing in respective industries (Gottinger, 2006, Chaps.1-3). Early on Scherer (1984, Chap.9) suggested that SMFs with high entrepreneurial input may be a more important source of innovation in the U.S. But for parts of Europe, in particular, Germany, this is matched by the characteristics of firms as 'hidden champions' although some of them would be considered large with more than USD 1 billion of annual revenue (Kucher, 2009).

Thus for firms in high-tech industries continuous innovation is the name of the game as competition in innovation drives the outcomes in growth, welfare changes and survival.

Without it structural growth in markets would not be possible whether in product technologies, services or operational performance. Innovation based firm growth would be a key indicator for a firm's sustainable future.

After resolving the issue how and why large firms are actively engaged in innovative activity an implicated next step could be how they continue to be innovative organisations. Under the presumption that large firms became 'large' because of 'growing through innovation' there is the question how they keep on being innovative for their lifetime.

Through studies of innovation in industrial organizations we learn that roughly two-third of innovations are of the product improvement type while one-third is of the process innovation type (cost reducing or productivity enhancing). We make use of this observation by assigning the first kind to private organizations (industrial firms) while the second to a public service centered organization, designed and regulated as such.

### **COMPETITION, MARKET STRUCTURE AND INNOVATION**

We focus here on some key results from behavioral economic models in industrial organization( IO) that leave footprints for exploring the innovation drive and capability of firms in particular industry settings.

In characterizing and portraying the internal economy of large firms R. Radner (1986, p.5) has this to say on stakeholder analysis:

"[T]here are many 'players' in the firm's internal economy: shareholders, directors, managers and workers ... These different players typically have at least partially divergent interests; hence the difficulty of imputing to the firm a single objective. Among the objectives of the several players in the firm are profits, growth, monetary compensation for managers and workers, quality of work, perquisites, and status. In addition, in the pursuit of these objectives, the different players may have different attitudes toward risk."

But to satisfy and justify overwhelmingly and sustainably all the diverse interests it would be ongoing innovation and increasing returns to scale.

A long-standing question in the economics of technological change has been the nature of the relationship between market structure and innovation.

The relationship between concentration of an industry and its rate of technological innovation is complex. Market structure may have an impact on the rate of innovation, but innovation is also an important factor that shapes market structure. In fact, it is necessary to recognize that the relationship between concentration and innovation is not a causal one: both are the

endogenous outcomes of the operation of market forces and exogenous factors such as the nature of demand, technological opportunity, the conditions governing use, and some chance.

The classical point of departure in the economic analysis of the relationship between static market structure (i.e. concentration) and innovation is the work by Arrow (1962). Arrow considers the case where a cost-reducing innovation is exogenously available and investigates firms' willingness to pay for the innovation under different market structures. For a drastic innovation, Arrow's analysis shows that a firm that is already a monopolist would have lower incentives to innovate than a firm that is currently in a perfectly competitive environment, essentially because it would have the lower profit incentive.

On the other hand, innovation is certainly an important factor that affects market structure: innovation is a means by which a firm tries to escape the constraints imposed by competition. Studies in the Schumpeterian tradition have emphasized the importance of ex-post market power for firms' incentives to innovate. Some degree of market power is necessary for a firm to cover its R&D outlays: dynamic and static efficiency are somehow conflicting. This is a theme that has been well developed in the recent literature on endogenous economic growth.

The industrial organization literature has studied the relationship between concentration and innovation in firms' rivalry positions. If there are exogenous entry barriers, an increase in the number of firms causes each firm to spend less on R&D in equilibrium, however total R&D expenditure increases with the number of firms. When entry is considered to be endogenous, one would observe more innovation in those industries that are characterized by a higher degree of monopoly power, although no causality should be imputed to this relationship.

Some models consider the relationship between product market structure (i.e. concentration) and innovation. In the context of models where firms race to innovate another interesting question concerns the relationship between the number of firms that are part of the race and the pace of technological advance.

These are racing models of innovation where R&D expenditures are committed upfront (that is, the probability of success depends on the scale of the R&D activity) and shows that increasing the number of firms reduces the expected date of invention.

One class of models consider a setting where firms can vary the research intensity but does not assume that the rate of expenditure is constant over time. Instead, firms may adjust R&D intensity in response to elapsed time and rival progress. Then in this setting, when imitation is not possible, an increase in the number of firms increases the equilibrium rate of investment for each firm and decreases the expected time of innovation. When there is no full patent protection, the relationship is ambiguous and depends on the relative payoffs to the innovator and the imitators.

### **Dominance**

In many advanced industries characterized by long-term market dynamics competition may take the form of competition for the market rather than competition in the market. In these markets the issue is not whether more or less concentration is associated with faster technological progress but whether market dynamics would be characterized by persistent dominance of the incumbent leader or by action-reaction whereby incumbents are overtaken by some rivals whose incumbency is itself of short duration. The dynamic evolution of market structure depends on both abilities and incentives of the incumbent and the rivals to innovate. Game theoretical models in industrial organization are well suited to analyze the incentives

underlying R&D investments and the resulting evolution of market structure. If we focus on economic incentives, and set aside differences in R&D abilities, persistence of monopoly or action-reaction can be related to the different profit incentive and competitive threat faced by the leader and the follower(s).

The profit of a successful incumbent who innovates is that of a monopolist firm, whereas if it were the entrant to innovate each firm would get the profit of a duopolist. Hence, the competitive threat of the incumbent can be measured as the difference between the profit of a monopolist firm and the profit of a duopolist firm. The incumbent's competitive threat, instead, is simply equal to the profit of a duopolist. This implies that the incumbent would have more incentives to innovate (i.e. the larger competitive threat) if, as it is normally the case, the profit of a monopolist is greater than the combined profits of two duopolists.

For minor innovations, the industry leader will typically be the innovator, whether or not imitation and licensing are feasible. For markets where patent protection is strong, it is likely that the major innovations will be made by industry leaders. But if imitation is easy, industry followers or entrants will make the major discoveries. Racing models show that when the first innovator captures a sufficiently high share of the post innovation market, then the incumbent firm invests less on a given project than does the potential entrant. This is because the incumbent has less incentive than the challenger to shorten the period of its incumbency.

Market dynamics have also been investigated in models that consider a sequence of innovations. They consider a sequence of drastic innovations and show that market dynamics are characterized by a process that resembles Schumpeter's process of creative destruction: the incumbent invests less than each challenger in each stage. In comparing market dynamics under Bertrand and Cournot competition one finds that when the product market is very competitive then there is increasing dominance, but when it is not very competitive there is action-reaction. When innovation is drastic, then market dynamics are characterized by increasing dominance. The differences in the results obtained in industry models can be ascribed to the different roles that the profit incentive and the competitive threat play in innovation racing on rivalry. In a deterministic model the incentive to pre-empt (larger for the incumbent) dominates the firms' decision. When success is stochastic, however, the threat from the rival innovating is less acute. In the case of drastic innovations, the competitive threat is the same for both firms and it is the profit incentive (which is larger for challengers), next to diverse non-monetary incentives, that determines the level of R&D investments. The relevance of the profit incentive extends to the case for some non-drastic innovation. Also even for large private enterprises the availability of venture capital, externally or internally, could provide an added incentive for facilitating continuous innovation (Lerner, 2012).

### **Competition Intensity and Innovation**

Market structure is often associated with the concept of competitiveness: usually, a high level of concentration in an industry is interpreted as weak competition. This view is based on a symmetric Cournot model, where price-cost margins are higher as the number of firms increases. However, it is preferable to disentangle the notions of market structure and toughness of price competition as, among others, in Sutton (1998).

In a simple world with homogeneous firms, toughness of price competition can be considered as being related to the level of price-cost margins given any level of concentration. Hence, a differentiated Bertrand market would be considered to be more competitive than a differentiated Cournot market because price-cost margins would be lower in the former, for

any level of concentration. As a result, more competitive markets may allow fewer firms to profitably survive.

When intensity of competition is low it is the follower that would be the next innovator, whereas when intensity of competition is large, it is the current technological leader that is likely to innovate. When it is the follower that innovates, tougher competition implies lower profits and hence lower incentives to innovate. However, when it is the current leader to innovate, an increase of toughness of price competition would further increase the profits related to his technological leadership and hence would increase the value of innovation for the firm. Hence, the relationship between toughness of price competition and innovation would be inversely-shaped. (Aghion and Griffith, 2005).

### **SOURCES OF INNOVATION AND COMPETITION**

It has been only recently, mainly over the last four decades that the economic forces behind technological innovation have started to be investigated in more detail within modern economics. As a result, a wide variety of theories and models, sometimes very diverse in spirit, describing the economics of innovation are now available. All these theories share the common aim of providing a conceptual foundation for understanding how innovation affects the economy, how economic forces affect the emergence of technological changes, and the decision-making processes through which technological innovation occurs.

Traditional models of innovation focus on the study of firms' incentives to invest resources in Research and Development (R&D) activities. Game-theoretical models (GTMs) developed in industrial organization have investigated firms' R&D decisions in strategic environments (Gottinger, 2006).

GTMs in networks (Easley and Kleinfeld, 2010) - being genuinely competitive - suggest that there are two main forces that underlie firms' investment in R&D: the search for higher profits and the threat posed by falling behind potential innovating rivals. They study these forces in a variety of market situations and address issues such as the interplay between innovation and market structure, the dynamics of competition and the nature of the relationship between intensity of competition and innovation.

These models provide a rich picture of what the plausible strategies and industry equilibria in dynamic markets can be. However, general predictions, that can be considered appropriate across all situations and industries, are scarce. On one hand, this is a result that seems to stress the lack of predictive power of these models, i.e. (almost) everything can be rationalized; on the other hand, however, the variety of results seems well to fit with the variety of observed behaviors and 'equilibria'. There is no general model that can uncritically be applied to any case: they have to be adapted to specific market situations.

Despite the absence of general results, these models are certainly useful tools to understand firms' incentives to invest in R&D activities in strategic environments and to suggest what main factors may be central in shaping the nature of dynamic competition. For instance, these models suggest that: in order to understand R&D investments it is necessary to understand how innovation may affect profits both of successful and unsuccessful innovators. One perspective captures the idea that firms want to innovate to increase their profits, another that firms want to innovate to maintain competitiveness.

The relationship between concentration of an industry and its rate of technological innovation is certainly complex and in general not a causal one: both should be thought of as the outcomes

of the operation of market forces and exogenous factors such as the nature of demand, technological opportunity and specific industry related conditions.

Dynamic competition may be characterized by persistent dominance of the incumbent leader or by action-reaction whereby incumbents are overtaken by a rival whose incumbency itself could then be short-lived. The nature of market dynamics depends on a number of factors, such as the type of innovation, i.e. drastic or non-drastring, the uncertainties involved in R&D activities, the nature of patent protection and of knowledge spillovers, the intensity of product market competition, among others.

When the relationship between competition and innovation is investigated, it is necessary to be clear what the notion of intensity of competition describes and how this relates to market structure. Indeed a market where competition is tougher may be more concentrated simply because inefficient firms cannot survive. There may be trade-off between the intensity of static competition and innovation. In general, the relationship between intensity of competition and innovation need not be monotonic at all.

Endogeneous growth models suggest that innovation, resulting from intentional R&D investments by profit-seeking firms or simply by unintentional learning-by-doing, is a fundamental driver of economic growth in the long run.

Early endogenous growth models stressed the importance of ex-post rents for innovation: competition would have a detrimental effect on innovation by decreasing the rents that an innovator would be able to gain. More recent models have emphasized another mechanism by which competition affects innovation: tougher competition may increase the incentives of firms to innovate in order to escape from fierce competition (see Tirole, 1988, Chapters 8-10; Aghion and Griffith, 2005). More recent studies suggest that the relationship between competition and innovation may not well be monotonic and that instead, one should expect an inverse-shaped relationship: when competition is low, an increase in competition would foster innovation; the reverse would happen when competition is fierce.

The result that competition may be conducive to innovation is also obtained in studies where the traditional behavioral assumption of profit-maximizing firms is relaxed. When principal-agent considerations are introduced to explain managers' behaviors, another mechanism by which competition may favor innovation is suggested: the speed of innovation may be retarded by the slack of managers who tend to avoid private costs associated with innovation. When competition intensifies, the higher threat of bankruptcy may force managers to speed up the process at which new ideas are adopted. Hence, competition may be conducive to faster rates of innovation.

The evolutionary approach to the study of innovation has been developed on very different methodological basis than those underlying traditional economic models of innovation. In particular, we observe the rejection of the modeling assumptions of rationality and equilibrium that are fundamental to the traditional approach.

Evolutionary economics looks from the outset at dynamic processes. In particular, it is associated with the use of analogies from evolutionary biology to explain economic growth and the process of competition. Thus the cornerstones of an evolutionary analysis of competition and innovation are variety, selection and imitation (Jacquemin, 1987, Chaps 2, 3).

At a basic level, using Darwinian analogies, we can begin to appreciate the role of the market in selecting the more fit firms (efficient and profitable), products and techniques at the expense of

less fit firms. In addition to this effect, we would expect to see imitation of winning ideas by those whose survival is otherwise threatened (although this is limited by the tacit nature of knowledge).

Inherent in this model of competition is the association between competition, experimentation and variety. A variety of experiments allows, through the process of selection, far greater economic progress than would be available through uniform optimization.

The economic development and innovation can be seen as a combined effect of selection (via competition) from a variety of competing routines and practices as well as the more endogenous process of agents seeking improved routines and practices. While the latter is certainly incorporated, if treated somewhat differently, under the mainstream neoclassical approach, the emphasis on selection from variety seems an important addition to this approach.

This suggests that models found in other branches of economics might miss something important when they analyze dynamics with reference to homogenous profit-maximizing firms: namely the benefits of selection from heterogeneity in capabilities and innovative experimentation.

### **COMPETITION FOR NETWORK INDUSTRIES**

Product market competition can be understood as competition between firms in the supply of existing products. This competition can be conceptualized as the rivalry between firms in terms of marketing, and notably pricing, of their products taking as given the characteristics of products (including production processes and costs). In markets that are considered relatively 'static', product market competition is the main channel through which the competitive process takes place.

Competition in innovation or 'innovative competition' (Fisher et al., 1983, 38) can be understood as the competition between firms to develop new products and production processes; this competition is often associated with the ideas of a competitive threat from innovation. Two firms are competing in innovation if they are undertaking (uncoordinated) innovative activity that can be identified with the prospect of introduction of products or services that will compete in the future. This innovative activity could be investment in R&D or less formalized activity such as product improvement through a process of learning-by-doing. Where two firms are competing in innovation, we expect their decisions regarding innovative strategy to be influenced significantly by the innovative strategies employed by rival firms. Failure to innovate successfully will lead not just to loss of potential profit but also risk falling behind innovative rivals (Brenner, 1987, Chap. 3).

Traditional industrial economics. As covered in essays by George Stigler (1968), also makes use of the terminology of 'static' and 'dynamic' competition. Along the same lines as above, the static dimension of competition is usually related to price competition, which takes place given the set of products or services that are marketed by firms. Dynamic competition, on the other hand, refers to the process whereby new and improved products, services and production processes are introduced. However, in the context of 'innovation and competition' we consider it more appropriate to use the terminology of 'product market competition' and 'competition in innovation' as this is more specific and more conducive to the development of applied competition analysis and policy.

### **Winner-takes-all markets**

Industrial organization models, and the review of studies of network industries, suggest that competitive interaction in innovative activities may take different forms according to the structure of payoffs of innovative activities to 'winners' and 'losers'.

In some organization models, and the review of studies of network industries, suggest that competitive interaction in innovative activities may take different forms according to the structure of payoffs of innovative activities to 'winners' and 'losers'.

In the first case, competition in innovation may be the essential, or at the limit the only dimension of the competitive process, i.e. winner-takes-all markets. Persistence of monopoly may be observed in a winner-takes-all market, but provided that competition in innovation is effective, this does not necessarily imply that competitive forces are muted. On the other hand, in these markets, competition in innovation is the area where the current dominant firm may be more likely to abuse its dominance (since, by definition, such markets are not conducive to sustained product market competition).

These considerations suggest that it is useful to distinguish between different economic environments, according to the relative importance of competition in innovation and competition at the product market level that can be expected in the market. The literature on network industries is particularly useful in explaining why a market may exhibit winner-takes-all properties.

### **Network Effects**

Network effects may be an important factor in determining the competitive environment. A (positive) direct network externality exists when the demand for a service increases by an extra unit. In order for this effect to be 'direct' the reason for the increase in demand must come directly from the additional consumption of the service in question, without need for a strategic response by suppliers in the same or related market. For example, the demand for public telephony services (i.e. the demand for subscriptions to networks) may increase as more users consume this product (e.g. enter into subscription agreements with public network operators) simply because more users allow a greater number of potential connections to be made of the network.

By contrast, a (positive) indirect network externality exists where the demand for a service supplied in one relevant market has a significant effect on supply of another product (typically in a different relevant market) such that this in turn increases demand in the first relevant market.

An example of indirect network effects is that of computer software for a particular operating system platform. An increase in consumption in the market for supply of operating systems is likely to bring benefits to the markets for supply of compatible software, by expanding the market such that a greater variety of software is offered or the unit price decreases (since fixed costs of software development can be spread over a greater number of potential buyers). In turn, the benefits to the software markets render the same operating system more valuable, and thus increase demand for it. But the effect is indirect because it relies on a strategic response of software suppliers to the increase in the consumption of operating systems.

### **Horizontal and Vertical Innovation**

The study of industrial organization and endogenous growth models suggests that the distinction between 'horizontal' and 'vertical' innovation may be useful. Horizontal innovation

entails the discovery of a new product which, setting aside price considerations, is considered better than existing products only by some users (or for some uses). By contrast, vertical innovation entails the discovery of a new product which, setting aside price considerations, is considered better than existing products by all users (for all uses); hence the idea that products can be ranked according to a 'quality ladder' (Grossman and Helpman, 1993, Chap. 4).

The importance of this distinction derives from the differences in market dynamics that are associated with the two types of innovation. In particular, horizontal innovation generally results in the creation of new product groups that can coexist with older product groups.

Vertical innovation, on the other hand, is generally associated with a process whereby new and better products displace older obsolete products from the market. In markets subject to vertical differentiation, a firm (or more accurately a product) that does not follow the pace of technological advance may be driven out of the market. In other words, in order to survive, a firm needs some basic capabilities, and the need to improve these capabilities over time as its competitors improve theirs (hence the idea that a rising 'quality window' exists, outside which firms cannot survive in the market). This economic process can guide on the nature of market dynamics that may affect a particular industry.

### **Step-Wise Innovation versus Incremental Innovation**

Step-wise innovation involves a relatively substantial degree of novelty, e.g. a new product or production process that is substantially different and/or better than older products. By contrast, incremental innovation is characterized by minor cumulative changes to products or production processes.

The extent to which an innovation is novel may be an important factor in assessing whether incumbent firms have an advantage over potential entrants or vice versa. In fact, industrial organization models suggest that incumbent firms may have different incentives to innovate than entrants. Similarly, given the difficulties that incumbent leading firms may have to deal with drastic changes as a form of of intrafirm systemic inertia, the opportunities for step-wise innovation may relatively favor incumbent firms.

### **Intensity of Competition and Innovation**

There is little consensus about the relationship between intensity of competition (however defined) and innovation. At a general level, there is some evidence in favor of an inverse shape, indicating that innovation may be relatively less rapid at both very low and very high intensities of competition.

However, there is the question of at what point is more competition worse? This cannot be answered at the generic level, given the current level of understanding of these effects. Many of these problems derive from the difficulties involved in understanding the link between product market competition and innovation. This issue is best addressed on a case-by-case basis.

### **Firms' heterogeneity and capabilities**

Prevailing models of dynamic competition deal essentially with firms' incentives to innovate. Not much attention is paid by theories rooted in the neoclassical tradition to the resources that firms need to innovate, nor to the importance that firms' heterogeneity may have in affecting market dynamics. For instance, whether a market is prone to dynamic persistence of monopoly depends not only on the incentives to innovate that an incumbent firm has compared to a potential entrant, but also on their relative capabilities, which may not be immediately ostensible.



The notion of firms' capabilities seems crucial to the understanding of market dynamics driven by innovative activities. In fact, we believe that it is by emphasizing the importance and nature of different firms' capabilities that evolutionary theories of innovation are most useful to apply.

Capabilities to innovate may depend on a number of factors: having (the ability) to access external sources of knowledge (e.g. scientific knowledge); having access to some tacit knowledge which is not transferable (perhaps because embodied in organizational routines); and having access to some specific complementary resources, e.g. specific input factors.

### **Tacit knowledge**

The capability of a firm to innovate in particular areas will be affected by the extent of tacit knowledge supporting its innovative activity, and whether the firm has access to this knowledge (e.g. acquired through a process of learning-by-doing).

Tacit knowledge cannot be codified, transferred or imitated by external parties but is rather embodied in routines and skills of the firm. The term 'tacit knowledge' is used to encapsulate the idea of knowledge that is found to be useful (e.g. in an organizational routine or a skill) without being articulate, and therefore without being directly transferable (e.g. sold as information).

## **INNOVATION AND LEARNING**

Innovation is associated with the learning process that results from the combination of both internal and external sources. It is useful to assess the extent to which sources of learning associated with innovation observed in the relevant market are external or internal to the firms in the market. As for practical purposes, we shall draw the distinction between:

1. markets based on invention, where the sources of learning are essentially internal and dynamic change is largely due to firms' own creative and inventive actions, possibly in the form of R&D, or other sunk costs, investments or activities that lead to learning-by-doing,
2. Markets based on adoption, where innovation derives largely from external sources such as suppliers or other sectors in the economy (research organizations).

We should accept that this distinction is not absolute. Each innovation, in every market, would generally involve both elements of invention and adoption. Few innovative improvements will be genuinely unique to the innovating firm since they will always involve a degree of imitation and adoption from observation of the world outside of the firm. Any invention will draw to some extent on past innovations and knowledge. Conversely, even where a firm seems to be directly adopting innovations associated with inventive effort by other organizations, it will need to adapt these to its own characteristics and circumstances, which requires an element of invention. Even where innovation is largely driven by inventive improvements in the services provided by suppliers, firms using such services may need some creative effort to incorporate these into their production processes and products. This view is underlined by comments from Nelson (1996, p.244) following an extensive cross-country empirical study on innovation: "...the bulk of the effort innovation needs to be done by the firms themselves. While they may draw on outside developments, significant internal effort and skill is needed to complement and implement these."

Nonetheless, we can conceive of distinguishing the extent to which the innovation associated with supply of a future market is adoptive rather than innovative, even if both elements must be present to some degree.

In markets based on invention, a further distinction can be drawn on the basis of the sources of internal learning which has implications for the nature of the knowledge bases:

- i. R&D based markets. R&D is in many markets an important source of learning at the firm level both because it is associated with the production of new knowledge and because it allows the firm to access externally available knowledge.
- ii. In some other markets innovation is mainly driven by learning-by-doing. Learning results in a form of knowledge that is likely to be tacit, specific and relatively immobile, which implies that a firm would have to go down the learning curve without possibly relying on major knowledge spillovers from other firms .

An example of an adoptive market is a supplier-driven market where innovations are largely exogenous to the market and mainly embodied in equipment and components bought from other sectors. In these markets the process of innovation is essentially the process of diffusion of state-of-the-art capital goods and innovative intermediate inputs. The capability to supply in these markets requires essentially access to suppliers at terms that do not put it at a disadvantage relative to incumbent firms. The term 'suppliers' needs to be interpreted broadly to include both supplier firms and also organizations such as universities.

All else equal, innovation associated with adoption will yield a larger set of firms with capability to supply the future market which derives from that innovation.

### **Knowledge Base**

Another important determinant of the ability to supply through innovation is the nature of the knowledge base on which innovation in the market is mainly built.

Dosi (1988) defines the notion of 'knowledge base' as:

*"...the set of information inputs, knowledge, and capabilities that inventors draw on when looking for innovative solutions".*

For instance, Dosi suggests that in the case of microelectronics there are three major and complementary forms of knowledge: advances in solid-state physics; knowledge related to the construction of semiconductor manufacturing and testing equipment; and programming logics.

Technologies may differ in terms of the degrees of 'publicness' and 'universality' versus tacitness and specificity of their knowledge bases (Winter 1987). The tacit/codified nature of the knowledge base can be considered very important to determine the firms' capability to supply in a future product market.

All else equal, innovation associated with a codified, rather than tacit, knowledge base will yield a larger set of firms with capability to supply the future market which derives from that innovation.

### **Similarly for the general/specific nature of the knowledge base**

All else equal, innovation associated with a general, rather than specific, knowledge base will yield a far larger set of firms with capability to supply the future market which derives from that innovation.

This latter consideration suggests that an important element to consider is whether the knowledge base underlying innovation in the relevant markets is shared with other sectors in the economy. It may be the case that different sectors are similar in terms of the underlying

knowledge base, so that a firm that operates in one would find it relatively easy to supply in the other market, with a similar knowledge base.

### **ADJUNCT MARKETS**

An adjunct market can be defined, for current purposes, as one where the existence of demand in the market is dependent entirely on consumption in a related, but separate, relevant market (the primary market).

A commonly cited example is that of printers and compatible ink-refill cartridges, where demand for the latter is derived entirely from consumption of the former. In this case, the scope for competition in innovation directed to refill cartridges will be affected by whether cartridge manufacturers can interact successfully with the printers market.

A less obvious example is markets concerned with advertising (the supply of advertising space). In most cases, the existence of the advertising market is dependent on consumption in a related content market (be that the supply of television services, the supply of newspapers, magazines, or the supply of content on the Internet). Analysis of competition in the innovative activity related to entry in the advertising markets must pay attention to the need for the firm to simultaneously operate successfully in the content markets. So the relationship between advertising relevant markets and content relevant markets falls under the category of adjunct markets.

Of particular importance is where a competitive primary market is associated with an adjunct market in which there is monopoly. Thus firms compete in a broad primary market and each achieves monopoly supply in a narrow adjunct market (printers and refill cartridges). In such cases we may expect firms to use any marginal increase in profits realized in the secondary market to fund a decrease in price in the competitive primary market and thereby improve their relative position against competitors. Moreover, we would expect there to be checks against certain types of anti-competitive behavior in the monopoly linked markets due to the transfer of competitive effects from the primary market.

Thus in adjunct market cases, the effect may be such that innovative activity related to the secondary markets will depend on the ability of the firm to enter the primary market successfully; or the ability of the firm to 'gain access' to the necessary links between the primary and linked markets.

### **Network Effects**

There seem to be clear similarities between adjunct markets and network effects, but the former is defined above as where consumption of a product in one market creates demand in another, while network effects are more related to how consumption of a product in one market increases demand for either (i) that product or (ii) a product in a different market that in turn may lead to increases in demand for the original product (see Gottinger (2003) for discussion of network effects).

Again network effects have important implications for the capability of firms to supply future markets associated with innovation. Supply to the future market will require a strategy for interacting with the network effects in such a way as to make the entry successful and sustain a position in the market. In particular, network effects can generate important benefits for incumbent technologies and thus create inter-temporal links between current and future markets, as discussed in the following section.

### **Intertemporal Dimension**

Assessment of the capability to supply a future market may hinge dramatically on analysis of the 'intertemporal links' that exist between suppliers in a current market and potential suppliers to a future market. At a basic level there exist links over time between relevant markets wherever a firm's supply on a current market affects its capability to supply a future market, either positively or negatively. In many cases this is trivial, but cases may exist where the cumulative effects are so strong as to be the driving force of which firm will succeed in a distinct future market.

In particular, we would be interested in whether conditions are such that it is necessary to be competing strongly in a current market in order to have the capability to supply the future market, or whether the innovation associated with the supply of the future market is so drastic that entrants and incumbents have a similar capability to supply the future market. These factors will be key drivers of whether there is persistence of market power.

The links between different markets over time may be a critical factor in determining the ability of the process of competition to select the 'right' innovations from a new variety of products in a future market. If there are strong factors favoring persistence of leaders in current markets into future markets, this may undermine the benefits of competition in the innovation itself.

In many cases incumbency advantage should not be seen as detrimental. Consumers are likely to value similarities between current and future products, while producers will be able to make efficiency savings from use of similar production processes and reputation effects between current and future markets. But, to the extent that competition is possible in innovation and the supply of the future generation of products and technologies, this may bring sufficient benefits to warrant protection. The discussion of high profile competition cases shows (Hahn,2003), even if there are benefits in only one operating system dominating current markets (e.g. due to economies of scale and customer familiarity) this does not preclude the benefits of competition to be the dominant supplier of 'next generation' operating systems.

Finally and very importantly, it should be possible to distinguish cases where any positive relationship between current and future markets is due to less-strategic characteristics of the market, such as its cost structure and nature of demand and the type of innovation associated with it; or the opportunity it provides incumbent firms to behave anti-competitively, in particular as regards competition in innovation.

### **Supply and Demand Side Links**

The standard link on the supply side from one market to another comes simply from the fact that the production processes used to supply a current relevant market may be capable of use to supply a future market, even if the nature of the product supplied changes over time. This arises in particular where the same sunk costs are incurred to supply both current and future markets and therefore incumbents in the current market have an advantage to the extent that they have already incurred the costs.

In addition to standard production processes links, where the knowledge associated with the innovation into the future market is largely tacit, or non-imitable in another way, incumbents are in possession of a further advantage derived from the nature of the innovation itself. Conversely, where the innovation is more drastic and does not particularly build on tacit knowledge embodied in the supply of previous products we would not expect a strong

advantage for current incumbents. Therefore analysis of the nature and source of innovation will feed into this analysis of inter-temporal effects.

When considering inter-temporal relationships, it is beneficial to understand that network effects can work through mechanisms based on both actual events and expectations. Most commonly, network effects are due to consumers at one period in time taking into account past consumption either by themselves or other consumers, when making their current purchase decision.

But network effects can also be generated by expectations. Consumers may form today expectations of what technologies and services other consumers will consume, and in turn lean towards products associated with this in order to benefit from network effects. Where this occurs firms are likely to be active in advertising and marketing their products to create an impression of high future consumption on current consumers, and to signal staying power in the market.

A further but perhaps less obvious type of (direct) network effect is economies of learning. Where consumers must invest in obtaining some specific knowledge and skills that facilitates consumption of the product, network effects may set in between products.

In the case of direct network effects, the relevant link between markets is actually directly between the current relevant market and the future market. In essence, network effects mean that on the demand-side the future market is linked to the current relevant market by the fact that consumption of a product in the current relevant market enhances demand for that product (or its descendant) in the future market.

In the case of indirect network effects, the relevant link between markets is indirect between the current relevant market and the future market, because it exists through a horizontally related market.

Such relationships are therefore important in a later stage, and discussed further below. The following table suggests possibilities for inter-temporal links between markets that may put firms which currently supply a related current market at a significant competitive advantage in the capability to supply the future market than firms that do not.

## References

Aghion, P. and R.Giffith (2005) *Competition and Growth*, Cambridge, Ma. MIT Press

Arrow, K.J. (1962), "Economic Welfare and the Allocation of Resources for Invention", in *The Rate and Direction of Inventive Activity: Economic and Social Factors*, Princeton: Princeton Univ. Press, 609-625

Brenner, R. ((1987), *Rivalry in Business, Science, Among Nations*, Cambridge: Cambridge Univ. Press

Cohen,W.M. and R.C. Levin (1989), "Empirical Studies of Innovation and Market Structure", in *Handbook of Industrial Organization*, Vol. II, R. Schmalensee and R.D.Willig, eds, Amsterdam:North Holland

Dosi, C. (1988), "Sources, Procedures and Macroeconomic Effects of Innovation",

*Journal of Economic Literature* 26(3), 1120-1171

Easley, D. and J.Kleinberg (2010), *Networks, Crowds and Markets*, Cambridge: Cambridge Univ. Press

Evans, D., Hagiu, A. and R. Schmalensee (2006), *Invisible Engines, How Software Platforms Drive Innovation and Transform Industries*, Cambridge, Ma. MIT Press

- Fisher, F.M, McGowan, J.J. and J.E. Greenwood (1983), *Folded, Spindled, and Mutilated*, Economic Analysis and U.S. v. IBM, Cambridge, Ma. MIT Press
- Gottinger, H.W. (2003), *Economies of Network Industries*, London: Routledge
- Gottinger, H.W. (2006), *Innovation, Technology and Hypercompetition*, London: Routledge
- Grossman, G.M. and E. Helpman (1993), *Innovation and Growth in the Global Economy*, Cambridge, and Ma: MIT Press
- Hahn, R.W., ed. (2003), *High-Stakes Antitrust, The Last Hurrah?*, Washington,D.C.: AEI-Brookings Joint Center for Regulatory Studies
- Jacquemin, A. (1987), *the New Industrial Organization, Market Forces and Strategic Behavior*, Cambridge, Ma. MIT Press
- Kucher, H. (2009), *Hidden Champions of the 21st Century*, New York: Springer
- Lerner, J. (2012), *the Architecture of Innovation, the Economics of Creative Organizations*, Boston: Harvard Business Review Press
- Nelson, R.R. (1996), "The Sources of Growth", Chap.10 in *National Innovation Systems*, Cambridge, Ma. Harvard Univ. Press, 274-301
- Radner, R. (1986), "The Internal Economy of Large Firms", Annual Conference of the Royal Economic Society, Supplement to the Economic Journal 96, 1-22
- Scherer, F.M. (1984), *Innovation and Growth, Schumpeterian Perspectives*, Cambridge, Ma. MIT Press
- Scherer, F.M. (1992), *International High Technology Competition*, Cambridge, Ma. Harvard Univ. Press
- Schumpeter, J.A. (1942), *Capitalism, Socialism and Democracy*. New York: Harper
- Stigler, G. (1968), *the Organization of Industry*, Chicago: Univ. of Chicago Press
- Tirole, J. (1988), *the Theory of Industrial Organization*, Cambridge, Ma. MIT Press

## The Progressivity of the First Income Tax in the United Kingdom: Data from 1799/1800 and 1815/1816

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### Abstract

William Pitt the Younger's government introduced a national income tax in the United Kingdom in 1799 to help pay for the war against France. When the war ended, income tax was repealed. The tax was unpopular from the beginning and was regarded as being unfair. Progressivity is generally regarded as being a measure of equity. This research looks at the progressivity at the beginning and end of the first UK income tax. Both the Suits and Kakwani indices are used to measure the level of progressivity. It was found that at the beginning the tax was very progressive for taxpayers. However, by the time it was repealed it, the level of progressivity was much reduced.

**Keywords:** Income Tax; Progressivity; United Kingdom; Suits Index; Kakwani Index; William Pitt

### INTRODUCTION

Equity is one of the main canons of an ideal tax system (Smith 1963[1776]). One of the elements of equity, vertical equity, is often regarded to be progressivity. Progressivity is a method of taxation in which the rate of tax increases as the base (income) increases but more rapidly (Shehab, 1953). However, the origin of the principle is much older and probably lost in antiquity. Both the Greeks and the Romans adhered to the principle (Plutarch circa 100:1992, Gibbon, 1776:1909 p.204). The violation of the principle has had some dramatic effects. For example, the English Peasants' Revolt (including the beheading of the Chancellor by the rioters) in 1381 had, as one of its main triggering events, the abandonment of the progressivity of the poll tax (Corbett, 1901). The tax had been charged at graduated levels from £6 13s 4d for rich nobles to a groat (4d) for a labourer. In 1380, the tax was made a flat three groats for all persons over fifteen years old (Corbett, 1901). In 1990, again in England, a graduated property-type tax was replaced by an almost flat poll-type tax (Smith, 1991). This change resulted in riots in London and widespread civil disobedience (as well as possibly contributing to the downfall of the Prime Minister, Margaret Thatcher) (James and Nobes, 1992, Slemrod and Bakija, 1996).

When Congress, in the United States, debated introducing a federal income tax strong references were made to the UK income tax system and rationales (Seligman, 1911). The UK system at the time was very much predicated on the original tax system under Pitt (Shehab, 1953). Since progressivity is a mainstay of the US system, understanding progressivity in Pitt's (and immediate successors') income tax would be of considerable interest.

### INCOME TAX DURING THE NAPOLEONIC WAR

In 1799 the British Parliament, under Prime Minister William Pitt (the Younger), passed what is often considered to be the first major national Income Tax (39 George III c.13). This tax was essentially a war tax and, indeed, was often referred to as the War Income Tax. In fact, it has

been called “the tax that defeated Napoleon” (Sabine, 1966). However, the income tax was generally regarded as being odious and unfair and was extremely unpopular. The tax was repealed in 1803 with the Treaty of Amiens, but since hostilities resumed in the same year, it was reinstated by Henry Addington’s government. On the reintroduction of the income tax there were some major technical amendments. Further technical amendments were made in 1805 and 1806, but in each case, the tax retained its overall structure. The 1806 Act ( 43 Geo III c. 65) stated that the Property Tax (as Income Tax was known since 1803) would continue “during the present war until the Sixth Day of April next after the Ratification of a Definitive Treaty of Peace”. The Napoleonic War ended with the battle of Waterloo and the Second Treaty of Paris in 1815. The government was keen to continue with the tax. The people were not so keen for it to continue. Many petitions for its repeal were presented to parliament in 1815 and 1816 (Hansard, 1816a: Tayler, 1853).

As a result of the petitions, the government acquiesced to go to Parliament, hoping that it would vote in favor of the continuance of income tax. In May 1816, on behalf of Lord Liverpool’s government, the Chancellor of the Exchequer, Nicholas Vansittart, introduced a motion to let the income tax (the Property Tax) continue. Vansittart spoke eloquently, but denied that the government had pledged to end the tax with the end of the war. However, it was pointed out that the 1806 Act had the above quoted wording (to “Shouts of Hear, hear, hear”) (Hansard, 1816a, col.450). The motion was defeated. The votes were 201 for the continuance and 238 against. Thus, the motion was defeated by only thirty-seven votes. Hansard reported “a loud cheering took place which lasted several minutes. Similar exultation was manifested by the crowd of strangers in the lobby and the avenues of the House” (Hansard, 1816a, col. 451). The government ordered all records regarding the income tax be destroyed (Hansard, 1816b: Seligman, 1911). If this had happened efficiently, then this research would have been impossible. Luckily some documents have survived and data for the years 1799 (ending April 1800) and 1815 (ending April 1816) will be used in this research.

### **1799/1800 Tax Rates**

Fairness, or equity, was regarded as a major reason for the introduction of a tax on income. An anonymous contemporary commentator stated “the intention of the Legislature [is] to establish an equity of Taxation, as far as it is practicable by human means ... namely, the ascertainment, by just and fair rules, of each person’s Income, in order to [sic] a proportionate Assessment.” (Anon., p 1)

The concept of fairness acknowledges that persons who are in dis-similar economic situations should be taxed differently (Smith 1963[1776]). Though, as can be seen, Adam Smith wrote this before the income tax system was used in Britain. Often, this view of fairness is interpreted as meaning that taxpayers who have higher incomes should bear a relatively greater proportion of the tax burden. This is known as progressivity. Overall, in a progressive system, the richer taxpayers pay a disproportionately greater amount of the overall tax. Pitt’s 1799 income tax is generally considered to have a 10% rate. This is true but only for incomes over £200. Below that income level the tax system was designed with a certain amount of progressivity. All income below £60 was exempt. Income between £60 and £200 was taxed at different rates rising from 1/120th to 1/11th, and incomes over £200 were taxed at a flat 1/10th. There were very few deductions, mainly for children and based on the age of the child and the income of the taxpayer. Even this child deduction was progressive in that taxpayers’ with lower incomes received a higher rate of income. For example for taxpayers with income between £60 and £400 the deduction was 5%; with incomes £400 to £1,000 the deduction was



4% for children six and over and 3% for younger children and so on. Table 1 shows the tax rates for 1799/1800.

**Table1: Tax Rates for Tax Year 1799/1800**

<u>Income range</u>		<u>Rate</u>	<u>Rate %</u>	<u>Income range</u>		<u>Rate</u>	<u>Rate %</u>
£	£			£	£		
<60			0.0000%	130 to <135	1/28		3.5714%
60 to <65	1/120	0.8333%		135 to <140	1/26		3.8462%
65 to <70	1/95	1.0526%		140 to <145	1/24		4.1667%
70 to <75	1/70	1.4286%		145 to <150	1/22		4.5455%
75 to <80	1/65	1.5385%		150 to <155	1/20		5.0000%
80 to <85	1/60	1.6667%		155 to <160	1/19		5.2632%
85 to <90	1/55	1.8182%		160 to <165	1/18		5.5556%
90 to <95	1/50	2.0000%		165 to <170	1/17		5.8824%
95 to <100	1/45	2.2222%		170 to <175	1/16		6.2500%
100 to <105	1/40	2.5000%		175 to <180	1/15		6.6667%
105 to <110	1/38	2.6316%		180 to <185	1/14		7.1429%
110 to <115	1/36	2.7778%		185 to <190	1/13		7.6923%
115 to <120	1/34	2.9412%		190 to <195	1/12		8.3333%
120 to <125	1/32	3.1250%		195 to <200	1/11		9.0909%
125 to <130	1/30	3.3333%		≥200	1/10		10.0000%

### 1815/16 Tax Rates

In 1806, there was another major change in the rates of income tax. By that time (in fact, from 1803) the tax was called the Property Tax. This was done mainly to hide the fact that it was a tax on income, as the 1799 Income tax was hated and often evaded. Table 2 shows how much tax there was to be charged on each pound of income between £50 and £150, as set out in the legislation

Table 2: Tax Amounts for Tax Year 1815-1816

Income	Tax	Income	Tax	Income	Tax	Income	Tax
£	£ s. d.	£	£ s. d.	£	£ s. d.	£	£ s. d.
≤50	Exempt	75	3 15 0	100	7 10 0	125	11 5 0
51	0 3 0	76	3 18 0	101	7 13 0	126	11 8 0
52	0 6 0	77	4 1 0	102	7 16 0	127	11 11 0
53	0 9 0	78	4 4 0	103	7 19 0	128	11 14 0
54	0 12 0	79	4 7 0	104	8 2 0	129	11 17 0
55	0 15 0	80	4 10 0	105	8 5 0	130	12 0 0
56	0 18 0	81	4 13 0	106	8 8 0	131	12 3 0
57	1 1 0	82	4 16 0	107	8 11 0	132	12 6 0
58	1 4 0	83	4 19 0	108	8 14 0	133	12 9 0
59	1 7 0	84	5 2 0	109	8 17 0	134	12 12 0
60	1 10 0	85	5 5 0	110	9 0 0	135	12 15 0
61	1 13 0	86	5 8 0	111	9 3 0	136	12 18 0
62	1 16 0	87	5 11 0	112	9 6 0	137	13 1 0
63	1 19 0	88	5 14 0	113	9 9 0	138	13 4 0
64	2 2 0	89	5 17 0	114	9 12 0	139	13 7 0
65	2 5 0	90	6 0 0	115	9 15 0	140	13 10 0
66	2 8 0	91	6 3 0	116	9 18 0	141	13 13 0
67	2 11 0	92	6 6 0	117	10 1 0	142	13 16 0
68	2 14 0	93	6 9 0	118	10 4 0	143	14 19 0
69	2 17 0	94	6 12 0	119	10 7 0	144	14 2 0
70	3 0 0	95	6 15 0	120	10 10 0	145	14 5 0
71	3 3 0	96	6 18 0	121	10 13 0	146	14 8 0
72	3 6 0	97	7 1 0	122	10 16 0	147	14 11 0
73	3 9 0	98	7 4 0	123	10 19 0	148	14 14 0
74	3 12 0	99	7 7 0	124	11 2 0	149	14 17 0
						≥150	15 0 0

Table 2 show the tax rates in terms of tax payable. To put these rate in terms that can be compared to the 1799/1800 tax rates, table 3 converts the tax payable to percentages.

**Table 3: Tax Rates for Tax Year 1815-1816**

Income	Rate %	Income	Rate %	Income	Rate %	Income	Rate %
£		£		£		£	
≤50	0.00%	75	5.00%	100	7.50%	125	9.00%
51	0.29%	76	5.13%	101	7.57%	126	9.05%
52	0.58%	77	5.26%	102	7.65%	127	9.09%
53	0.85%	78	5.38%	103	7.72%	128	9.14%
54	1.11%	79	5.51%	104	7.79%	129	9.19%
55	1.36%	80	5.63%	105	7.86%	130	9.23%
56	1.61%	81	5.74%	106	7.92%	131	9.27%
57	1.84%	82	5.85%	107	7.99%	132	9.32%
58	2.07%	83	5.96%	108	8.06%	133	9.36%
59	2.29%	84	6.07%	109	8.12%	134	9.40%
60	2.50%	85	6.18%	110	8.18%	135	9.44%
61	2.70%	86	6.28%	111	8.24%	136	9.49%
62	2.90%	87	6.38%	112	8.30%	137	9.53%
63	3.10%	88	6.48%	113	8.36%	138	9.57%
64	3.28%	89	6.57%	114	8.42%	139	9.60%
65	3.46%	90	6.67%	115	8.48%	140	9.64%
66	3.64%	91	6.76%	116	8.53%	141	9.68%
67	3.81%	92	6.85%	117	8.59%	142	9.72%
68	3.97%	93	6.94%	118	8.64%	143	9.76%
69	4.13%	94	7.02%	119	8.70%	144	9.79%
70	4.29%	95	7.11%	120	8.75%	145	9.83%
71	4.44%	96	7.19%	121	8.80%	146	9.86%
72	4.58%	97	7.27%	122	8.85%	147	9.90%
73	4.73%	98	7.35%	123	8.90%	148	9.93%
74	4.86%	99	7.42%	124	8.95%	149	9.97%
						≥150	10.00%

### RESEARCH METHODOLOGY

In this research I use two indices, the Suits index and the Kakwani index to measure progressivity. The Suits index is based on the Gini Coefficient. If the cumulative tax burden is graphed against the cumulative income, this is the income concentration curve. A tax that is totally proportional (such as a flat tax) would have an income concentration that is along the diagonal (45° line). A progressive tax will have the income concentration (Lorenz curve) below the diagonal and a regressive tax would have the income concentration above the diagonal (Suits, 1977). The Suits index is constructed by depicting the area under the diagonal as K and area below the income concentration curve as L. The Suits index is  $S = 1 - L/K$ . The Suits index goes from -1.0 to +1.0. A proportional tax would have a Suits index of zero. A Suits index of above +0.2 is regarded as being very progressive. The Suits index has often been used in tax research by accounting faculty (Dunbar and Nordhauser, 1991; Luttmann and Spindle, 1994; Ricketts, 1990)

The Kakwani index has been used much by economists and others (Kakwani, 1977, 1987; Loizides, 1988; Seetharaman, 1994; Seetharaman and Iyer, 1995). The Kakwani index is similar to the Suits index, however the Kakwani index uses two concentration curves; the cumulative percentage of tax liability and the cumulative percentage of income, against the cumulative population in each tax band. In other words, the x-axis is the cumulative percentage of taxpayers and the y-axis is the cumulative percentage of tax liability and the cumulative percentage of income. The Kakwani index can be defined as the difference between

concentration index of the tax ( $\frac{1}{2}$  - the area under the tax curve) /  $\frac{1}{2}$ ) and the concentration of the income ( $\frac{1}{2}$  - the area under the income curve) /  $\frac{1}{2}$ ).

It can be more formally depicted as:

$$K = 2 \int_0^1 T(P)dP - 2 \int_0^1 Y(P)dP$$

Where P = cumulative percentage of taxpayer

T (P) = Lorenz curve of Tax payment: thus, the first term is twice the area under the Tax curve.

Y (P) = Lorenz curve of Pre-tax Income curve: thus, the second term is twice the area under the pre-tax income curve.

A purely proportional tax would make the tax curve lie exactly over the income curve and the index would be zero. A progressive tax system would be positive, whereas a regressive tax system would be negative.

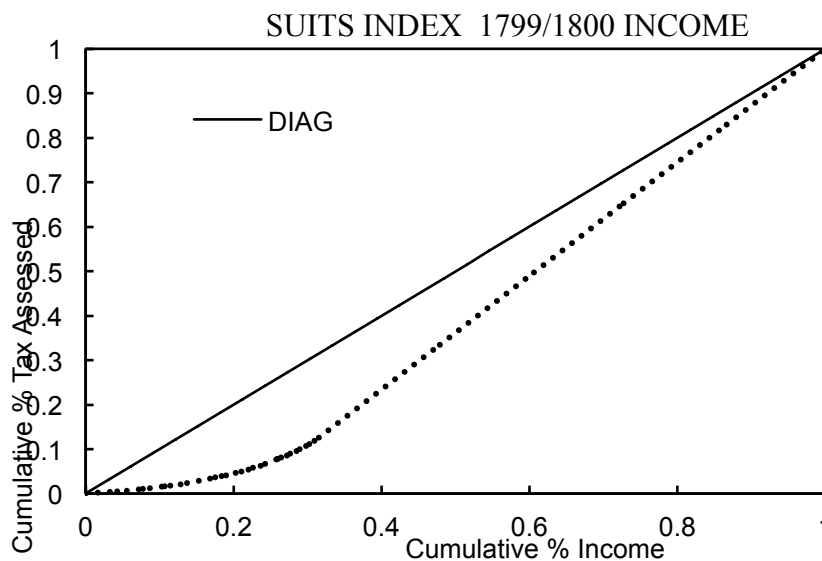
The two indices differ in emphasis. The Suits index is concerned with the income of the taxpayers, whereas the Kakwani index is concerned with the number of taxpayers (Seetharaman and Iyer, 1995). By looking at both, a better view can be had of the progressivity of the early income tax system.

Data was obtained from such sources as: Digest of all the Accounts relating to Population, Productions, and Revenues, Financial Operations Etc. Edited by J. Marshall and Hand-book of Income Tax Law and Practice by Charles Senior. A Short History of English Agriculture by W.H.R. Curtler.

## RESULTS

### 1799/1800 Tax Year

Suits Index the two indices give consistent results. The Suits Index for the 1799/1800 tax year is 0.20 which is regarded as being very progressive.

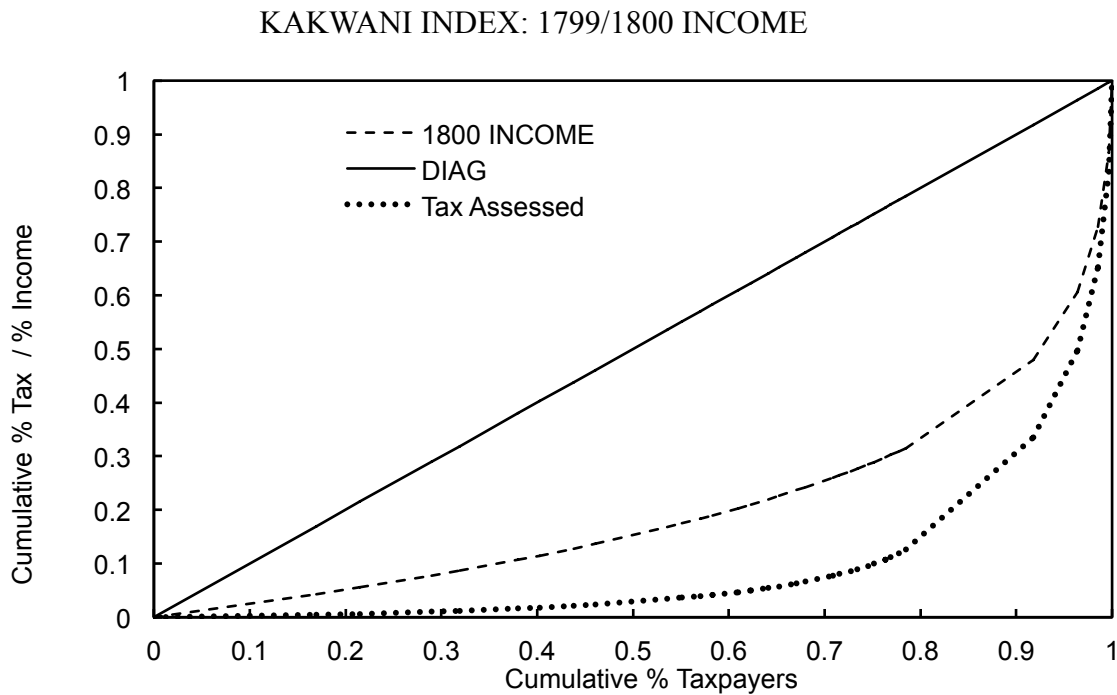


**Figure 1: Suits Index for 1799/1800 Income**

As can be seen from the graph the area under the diagonal shows that the tax assessed on persons with little income (but over £60) is less than on those with higher income.

**Kakwani Index**

The Kakwani index is 0.21. This supports the conclusion of the Suits index.



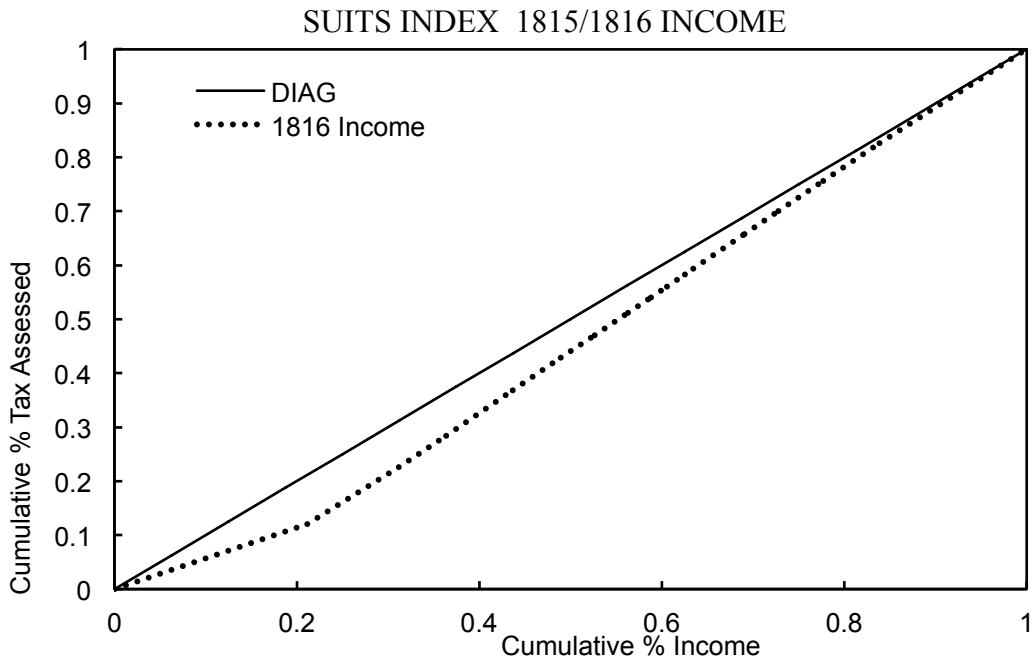
**Figure 2: Kakwani Index for 1799/1800 Income**

This graph compares the income and tax assessed with respect to the number of taxpayers in each tax group. The graph shows that the area between the income and the tax assessed curves is large. Thus, the income tax system, when introduced, was very progressive.

**1815/1816 Tax Year**

**Suits Index**

The progressivity of the 1815/1816 tax year is much lower than that of the 1799/1800 tax year. The Suits Index is 0.09, which indicates a low level of progressivity. This is seen in the figure 3 below.

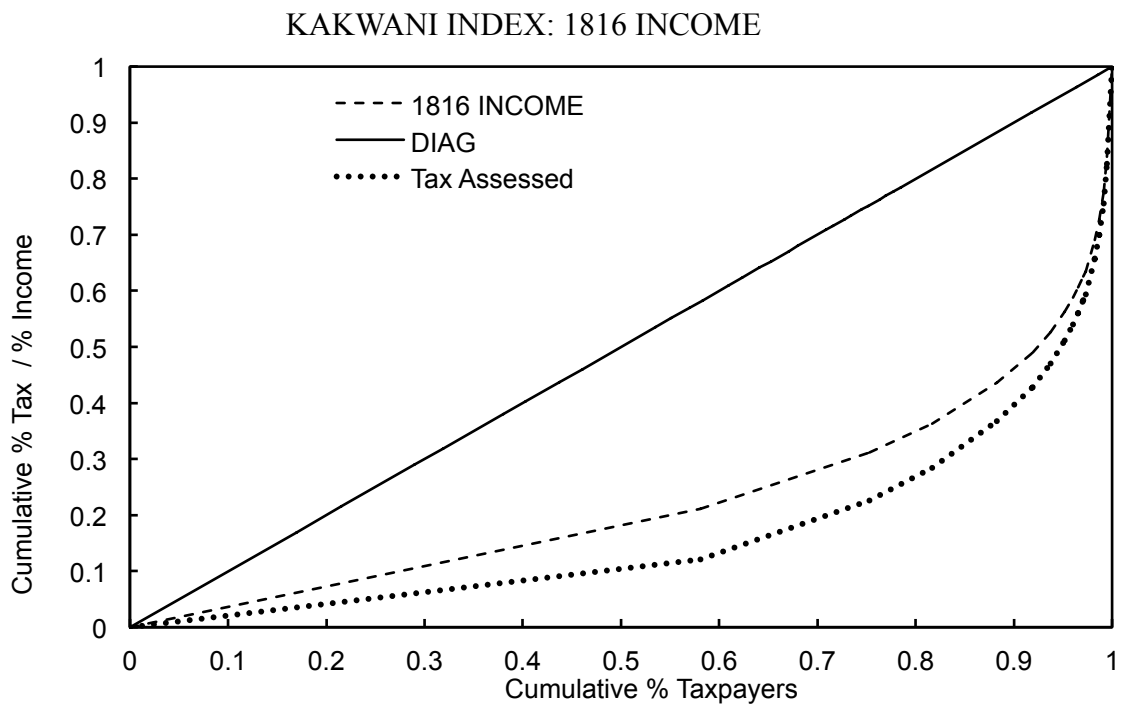


**Figure 3: Suits Index for 1815/1816 Income**

The graph in figure 3 shows that the area between the income line and the diagonal is fairly small. This indicates that there was little progressivity in the tax system in 1815/1816.

**Kakwani Index**

The Kakwani Index is 0.12 and thus, again, similar to the Suits Index. Again, the graph below shows the relative areas between the lines.



**Figure 4 Kakwani Index for 1815/1816 income.**

The graph in Figure 4 shows that area between the income line and the tax assessed curve is relatively small. This indicates that by the time the first income tax was repealed, the system was not very progressive for taxpayers. Thus, the Income tax system during the Napoleonic War became started as being very progressive, but by the time it was repealed at the end of the war, progressivity was much reduced.

### CONCLUSION AND FUTURE RESEARCH

William Pitt's income tax lasted from 1799 to 1816 to help pay for the Napoleonic war. The tax lasted until the end of the war and was repealed in 1816 as a result of popular demand; even though the government wished to continue the tax. Although the tax was considered to be unfair, the rate schedules did have some progressivity built-in, as shown in the results.

The results show that the 1799/1800 rates were fairly progressive for taxpayers in the system. By the time that the income tax was repealed, the scale of progressivity had been reduced. The 1815/16 income tax rates were still progressive but somewhat less so than when the War Income Tax was introduced.

A limitation of this research is that the information on income and number of persons with income is limited to those assessed to tax. That is, only persons with income over £60 in 1799 and over £50 in 1815 were used in the analysis. An extension of this research would be to estimate the number of persons with income less than those amounts and the unassessed income. This would require obtaining information on working persons and their wages. The results of such an extension to this research would be most interesting.

### References

- Anonymous, 1799. Observations, etc. upon the Act for Taxing Income in Which the Principles and Provisions of the Act are fully Considered etc. etc." London: Bunney and Gold.
- Brunt L. and Meidell, E. (n.d.) "How fast and how broad was British industrialization? Evidence from a synthetic occupational census for 1801" Working Paper NHH Bergen.
- Clark, G. (n.d.). Farm Wages and Living Standards in the Industrial Revolution: England, 1670-1850. Working Paper Series. University of California-Davis. Department of Economics.
- Commissioners of Inland Revenue, 1857. First Report of the Commissioners of Inland Revenue on Inland Revenue, London: Her Majesty's Stationary Office.
- Corbett, W.J. 1901. "The Agricultural Revolution" in Social England, vol III, Eds. Trail, H.D. and J.S. Mann, Cassel and Co Ltd.
- Curtler, W.H.R. 1909. A Short History of English Agriculture. Oxford: Clarendon Press
- Dunbar, A. and S. Nordhauser. 1991. "Is the child Care Credit Progressive?" National Tax Journal 44 pp. 519-528.
- Field, J. F. 2013 "Domestic Wages: Domestic service, gender, and wages in rural England, c.1700-1860." The Economic History Review 66, 1, pp. 249-272.
- Gibbon, E. 1776:1909. the Decline and fall of the Roman Empire. Reprinted, ed. J.B. Bury, London: Methuen and Co.
- Hansard. T.C. 1816a. The Parliamentary Debates from the year 1803 to the Present Time. HC deb. 18 March 1816, Vol 33. Cols. 421-451.
- Hansard. T.C. 1816b. The Parliamentary Debates from the year 1803 to the Present Time. HC deb. 30 May 1816, Vol 34. Cols. 928-929.
- James, S. and C. Nobes. 1992. The Economics of Taxation, 4th ed. London: Prentice Hall International (UK) Ltd.
- Kakwani, N.C., 1977. "Measurement of Tax Progressivity: An International Comparison." Economic Journal 87 (March) pp. 71-80.

- Kakwani, N.C. 1987. "Measures of Tax Progressivity and Redistribution Effects: A Comment." *Public Finance*. 42, 3: 431-434.
- Marshall, J. 1833. *Digest of all the Accounts relating to Population, Productions, Revenues, and Financial Operations Etc.* Ed. J. Marshall, London: J Haddon.
- Loizides, I. 1988. The Decomposition of Progressivity Indices with Applications to the Greek Taxation System. *Public Finance*. 43, 2: 236-247.
- Luttman, S. and R. Spindle. 1994. "An Evaluation of the Revenue and Equity Effects of Converting Exemptions and Itemized Deductions to a Single Non-refundable Tax Credit." *Journal of the American Taxation Association*. 16, pp. 43-62.
- Plutarch. C.100:1992. *Lives of the Noble Grecians and Romans*. Reprinted in Great Books series, Encyclopædia Britannica.
- Ricketts, R. C. 1990. "Social Security Growth versus Income Tax Reform: An Analysis of Progressivity and Horizontal Equity in the Federal Tax System." *Journal of the American Taxation Association*. 11, pp. 34-50.
- Sabine, B.E.V. 1966. *A History of Income Tax*. London: George Allen & Unwin Ltd.
- Seetharaman, A. 1994. An Isolation of the Effects of Personal Deductions, Tax Credits, and the Tax Rate Schedule on U.S. Individual Income Tax Progressivity and Income Inequity. *The Journal of the American Taxation Association*. 16 (spring): 101-121.
- Seetharaman, A. and G.S. Iyer. 1995. "A Comparison of Alternative Measures of Tax Progressivity: The Case of the Child and Dependent Care Credit". *The Journal of the American Taxation Association*. 17 (spring): 42-70.
- Seligman, E.R.A. 1911. *The Income Tax: A Study of the History, Theory, and Practice of Income Tax at Home and Abroad*. New York: The Macmillan Company.
- Senior, C. 1863. *Hand-book of Income Tax Law and Practice*. London: Simpkin, Marshall & Co.
- Shehab, F. 1953. *Progressive Taxation*. Oxford: The Clarendon Press.
- Smith, A. 1776:1963: *An Inquiry into the Nature and Causes of the Wealth of Nations*. Reprinted. Chicago: Irwin.
- Smith, P. 1991. "Lessons from the British Poll Tax Disaster". *National Tax Journal*. 44 (December): pp. 421-436.
- Slemrod, J. and J. Bakija. 1996. *Taxing Ourselves: A Citizen's Guide to the Great Debate Over Tax Reform*. Cambridge, MA: The MIT Press.
- Suits, D. 1977. "The Measurement of Tax Progressivity." *The American Economic Review* 67(4) pp. 747-752
- Tayler, W. 1853. *The History of the Taxation of England*. London: Hope & Co.



## Inclusive Educational Technology

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### Abstract

**Educational technology is a collection of research approaches to improve education aiming at effective use of technological tools to facilitate learning processes. There is little literature about inclusive educational technology. In this paper we present first a literature research about inclusive educational technology fostering inclusive education and improving the quality of life by increasing participation and reducing social exclusion. Organisational factors which assure an inclusive education like competent teachers/trainers for the new roles and adequate educational technology curriculum are also presented in the paper. Inclusive educational technologies have been researched and applied by the authors also within some European projects. Within two of the projects ICT based platforms are in the development based on the research results.**

**Keywords:** Educational technology, learning theories, inclusive education, inclusive ICT, learners with disabilities

### INTRODUCTION

Educational technology is a complex field and there exist many definitions of it. We consider it as a collection of research approaches to improve education aiming at effective use of technological tools to facilitate learning processes.

Some learning theories are considered in educational technology approaches. The first one is behaviourism (developed in the 20th century) primarily concerned with observable behaviour, as opposed to internal events like thinking and emotion (Skinner, 1954).

Cognitivism concept involves how we think and gain knowledge examining learning, memory, problem solving skills, and intelligence. Cognitive researchers try to understand how problem solving changes throughout childhood, how cultural differences affect the way we view our own academic achievements, language development (deJong, 2010).

Constructivist learning is based on the use of students' prior knowledge and experiences to formulate new, related, and/or adaptive concepts in learning (Termos, 2012). The role of the teacher becomes that of a facilitator, providing guidance so that learners can construct new own knowledge.

Social learning (Bandura, 1977) consider learning as a cognitive process that takes place in a social context and can occur purely through observation or direct instruction. It expands on traditional behavioural theories.

Some advantages to support learning through technology are open and flexible access to course materials, better interactions between students, teachers/trainers and student motivation, taking into consideration different learning styles by personalised learning environments.

Information and communication technologies (ICTs) should be used in all sectors of education and training, because technology skills are essential for global citizenship (European Agency, 2014). ICTs can be particularly efficient for learners with special needs who are vulnerable to the digital divide and to exclusion from some educational opportunities.

In this paper we refer to support particularly learners with disabilities but the measures and principles to support learners with disabilities are of benefit for other learners vulnerable to exclusion in any sector or education phase.

In our approach we speak about „inclusive educational technology” that foster inclusive education improving the quality of life by increasing participation and reducing social exclusion.

Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. As an overall principle, it should guide all education policies and practices, starting from the fact that education is a basic human right and the foundation for a more just and equal society” (European Agency, 2014). Inclusive education is in many European countries at the beginning. In Germany 80 percent of learners with special needs are in special schools, only about 20 percent attend a regular school. Sure the special educational schools are one way for development of learners with special needs but almost three quarters of all students at special schools do not achieve a secondary school qualification (UNESCO, 2008). Suitable ICT to support inclusive education are missing.

In this paper we present existing literature results of inclusive ICT (see part 2) as facilitators of inclusive education, promoting communication and learning and breaking down barriers that determine under-achievement and educational exclusion (Becta, 2007).

Inclusive educational technology research address not only increasing of efficiency of current ICT practices but also issues of learning, teaching and social organisation. So additional to inclusive ICT other organisational factors are important to assure an inclusive education like competent teachers/trainers for the new roles and adequate educational technology curriculum which are also presented in this paper. The topic of inclusive educational technologies is researched by the authors also within some European projects. Within two of the projects ICT based platforms are in the development based on the research results.

## LITERATURE RESEARCH

### **Inclusive Educational Technology**

Increasing inclusive education demands require significant changes in all education settings; so mainstream schools have to adapt to diverse groups of students having different needs (O’Gorman 2005; Istenic Starcic, 2009). Learning methods have to be adapted within a diverse population; technologies which support this aspect have to be integrated. ICT play an important role in creating efficient, accessible and adaptable learning environments particu-

larly in inclusive classrooms but most existing hardware and software do not take into consideration different competences/capabilities particularly of people with special needs (Wong et al, 2009). Inclusive ICTs supporting flexible personalised learning approaches and incorporating support for self-accommodation which could be used by learners with different needs are missing.

Some inclusive ICT which could be used in inclusive education are (European Agency, 2014):

- Mainstream technologies including computers, web browsers, word processors, whiteboards and mobile phones that contain in-built accessibility features to provide equally effective access for learners with and without disabilities;
- Assistive Technologies including medical aids and also learning aids such as screen readers, alternative keyboards, augmentative and alternative communication devices and other specialised applications of technology used by individual learners with specific limitations in gaining access to ICTs;
- Compatibility between assistive technology products and mainstream technologies;
- Accessible media and formats;
- Accessible digital learning content and platforms based on learning management systems (LMS) and software.

As an important inclusive ICT tool „The Internet has acted as a platform for collaboration for all types of organisations. It has allowed for all citizens including people with disabilities, to engage more actively in social life. The Internet in itself could be considered as an assistive technology, allowing voices to be heard that traditionally could not be” said Anriette Esterhuysen, Executive Director, and APC.

Social media services supporting social interactions in learning communities, cooperation and communication promote the development of social communication skills and feeding knowledge to one another, which learners have to possess as adults, through social learning.

Providing inclusive ICT for students with disabilities involves removing barriers i.e. physical barriers, content and materials which are not accessible, cognitive barriers for some learners with intellectual disabilities or specific learning problems, content barriers that may occur when the operating language of a device or software is not the same as a learner’s mother tongue, didactical barriers where learning is inflexible and teachers lack of the skills to facilitate inclusive education, financial barriers relating to the costs of devices and software.

The use of ICT in inclusive educational technology requires many sectors of expertise and activities (European Agency, 2014) like stakeholders input and views, training of education professionals and of ICT developers.

Some principles to be taken into consideration in inclusive educational technology are:

- an active involvement of learners with disabilities, their families/representatives in the development,
- implementation and evaluation of services which facilitates learners access to an inclusive educational technology and other inclusive opportunities,
- The provision of inclusive ICT in education of people with disabilities to be aligned with the goals of inclusive education and should be available for formal, informal, blended, social and other forms of learning.

- The implementation of an inclusive ICT in inclusive education should take a systemic approach.

### **Organisational Problems In Inclusive Educational Technology**

Teacher education has been recognized as a future development area also at the 48th International Conference on Education, Inclusive Education: The Way of the Future (UNESCO, 2008).

In order to support inclusive education teacher education should be promoted i.e. through (Donnelly and Watkins, 2011):

- Integrating special and general education of teachers
- Learning to develop innovative teaching way to promote active student learning and adaptations to meet students with special needs
- Learning to develop curriculum strategies which include broad common goals, flexible structures, and different assessments.

Despite guidelines and plans for teacher training for inclusive education, many of them report that they are unprepared to work effectively with the students with special needs. Lack of training, planning time and resources to research suitable approaches are some causes.

The education of the teaching staff should promote the inclusive educational technology that means the use of inclusive ICT which play a decisive role in the learning process. It requires a change in the work of teachers who have to consider that the learning for the students is different from that they know until now. The teachers have to achieve digital competences for using blended methods i.e. to combine face to face sessions with virtual environments, to use digital content which has to be defined according to criteria which assure accessibility for all students. The review of existing literature shows a lack of attention to the use of inclusive ICT in education (Istemic Starcic, 2010).

Referring the inclusive educational technology curriculum for students to become teachers it has to be changed to incorporate topics of inclusive ICT use within inclusive education. Students have to understand the potential of inclusive ICT in inclusive classrooms and for accommodation of students with special needs in the integrated classes. Learning environments have to be used to foster cooperative learning of students.

In the schools and higher institutions learning communities for students and environments have to be used to foster cooperation and exchanged of ideas between teachers and also with parents of learners with special needs in order to improve the efficiency of inclusive education.

### **RESEARCH APPROACH**

Inclusive educational technologies have been researched within European projects. The methods were literature research, questionnaires, and focus group discussions, dynamic session with the participation of learners with disabilities, trainers/teachers and in some cases parents. Some developments have been done and tested with learners with disabilities. In the following we present the activities in this context done within some projects worked by the authors in the last two year and in present.

In the frame of the European learning partnership TRAINDIPICTS ([www.traindipicts.eu](http://www.traindipicts.eu)) the project partners collected best practices for the use of ICT to best address the problems appearing in the integration of people with disabilities education. The project paid particularly attention on best practices for motoric-, visual- and hearing impaired people in order to integrate them in ordinary education and working places with the help of ICT.

### **ICT Support for Motoric Impaired People**

Motor impairment is the partial or total loss of function of a body part, usually a limb or limbs. This may result in muscle weakness, poor stamina, and lack of muscle control or total paralysis. Motor impairment is often evident in neurological conditions such as cerebral palsy, Parkinson's disease, stroke and multiple sclerosis.

For people with motor impairments who can handle with computers in principle, but with limitations, the use of special keyboards adjusted to their needs (large field, small field, mini field) will often be enough to use a computer. Those who are not able to use mouse and keyboard can use the computer with the help of sensors and special software to control it by knees, elbows, head motions, mouth or even through eye tracking.

People, who are not able to talk, depend on alternative communication means to express their needs. Modern computer with a voice synthesizer offer a number of input devices and alternates the voice of the person. It works on basis of pictures and written texts. There also exist some apps with speak synthesis for modern tablet computers, which can be used by eye control or touch screen.

### **ICT Support for Hearing Impaired People**

All levels of qualification are open for young people with hearing loss in principle. Almost all children who have received a cochlear implant, a prosthetic device that enables them to perceive sound and understand speech, at an early age attend kindergarten and go to an ordinary school. But they need much more support; the levels of assistance they obtain are nowhere near adequate. Other approaches to help people with loss of hearing are systems to translate spoken or written sentences into sign language. A computer records the spoken or written sentences and shows the translation on the computer screen. Examples are the Thetos by the Silesian University of Technology in Poland or CONSIGNOS from the company AETecnoAmeco.

### **ICT Support for Visual Impaired People**

Blind people rely on tools to use a computer. They can make use of tactile sense and on hearing to operate on a computer. A best practice, conducted by the Dresden University of Technology, is to make study material accessible by blind and partially sighted people i.e. documents available on the World Wide Web. The university developed a transformation service for HTML documents into English, French and German braille following the guidelines of the International Committee for Accessible Document Design ICADD. The project „Audio-tactile CBT for blind masseurs and physiotherapists” dealt with gap in the training of blind people as masseurs and physiotherapists in subjects like anatomy, electrotherapy, because they do not have complete access to the textbooks in these subjects and they cannot use modern multimedia software for education and training. The general in of the project was the development and use of audio-tactile information systems for the blind. Speaking maps, ground plans, network diagrams, plans of museums and exhibitions and so on are available. The user puts a tactile overlay onto a touch pad, touches it with his fingers and gets spoken information controlled by a PC. Within the project an ATT system was developed, which involved these technologies and successfully fulfilled every requirement to train blind masseurs.

The main objective of the ongoing Erasmus + project IDIPOWER (Empowering disabled people through collaborative learning) is a reorientation of the roles of ICT based learning support services and their providers/developers so that to help people with disabilities to integrate in education and life and be more independent. By using collaborative learning within the support systems, people with disabilities should become active participants in planning of their learning processes and could obtain the help which best meets their education and life needs and goals.

Within the project existing support systems of the project partner countries (coming from five European countries) - also for learning - have been discussed and compared. Questionnaire have been sent to people with disabilities, trainers and parents and working dynamic sessions have been organised in the partner countries to discuss improving in the existing supporting systems and the learning technologies used. It has been discussed, together with parents, the possibilities to send their children with disabilities in classes together with people without disabilities (inclusive classes). Training modules for three levels of users are in the development based on the researched inclusive educational technologies. The training helps also teachers/trainers who worked supplementary with people with disabilities in inclusive classes.

An online platform of IDIPOWER has been developed by using TikiWiki to support learners in collaborative work and to enable people with disabilities access to learning material. They can learn by the use of blended learning methods and discussion forums for trainers and families. A social network with user profiles provides the learner the possibility of creating a learning community and use social learning (Figure 1).

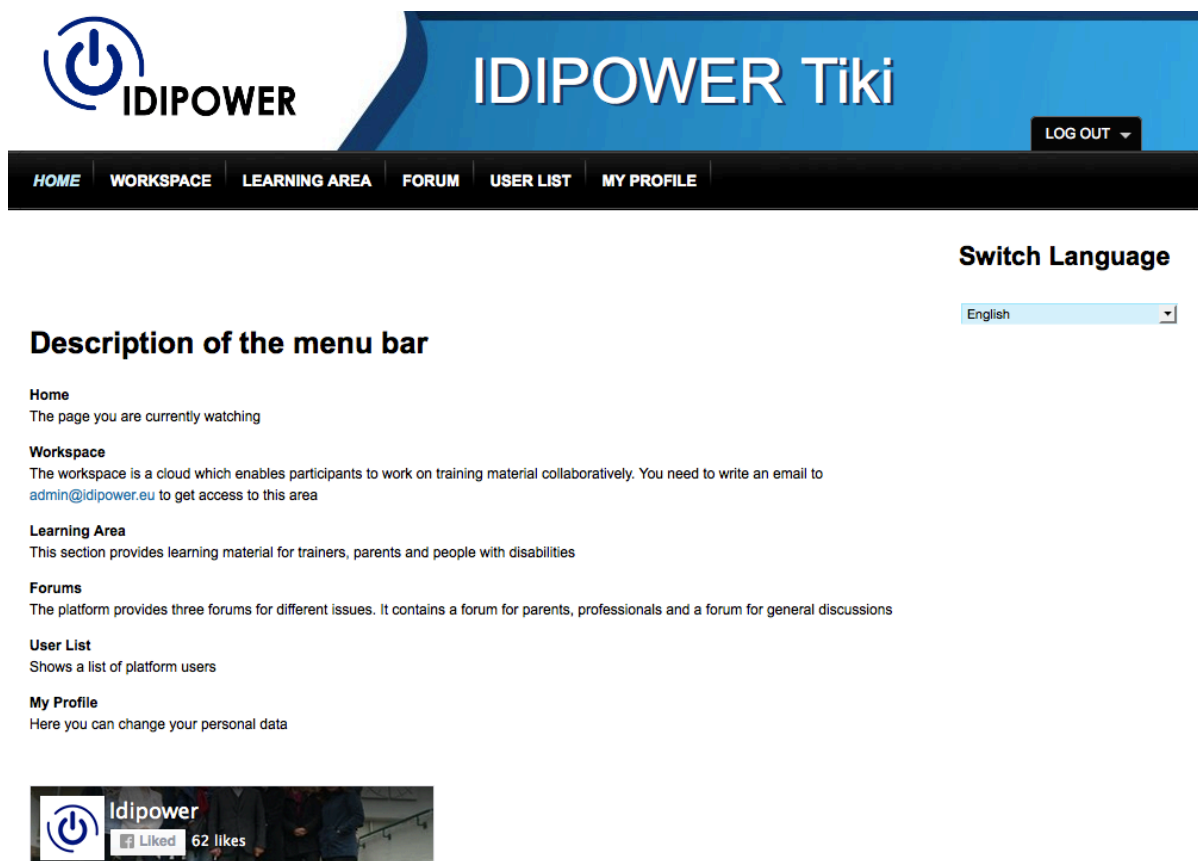


Figure 1: IDIPOWER Platform – <http://tiki.idipower.eu>

The ongoing European Erasmus+ project idICT - Development of a training program for improving the Quality of Life of Persons with Intellectual Disabilities through the use of ICT solutions - aims at the use of inclusive educational technologies to improve the education and independent living particularly of this group. Existing ICT and possibilities to be used in inclusive education will be identified and asses. Training programs to use such inclusive ICT for people with intellectual disabilities and trainers will be developed and tested in five Eu-ropean partner countries. It is intended to promote inclusive education for people with intel-lectual disabilities.



Figure 2: idICT website – www.id-ict.eu



Figure 3: idICT website in easy to read language

The web-site and the platform which are in the development are based on easy to read language (Figure 3).

## RESULTS AND CONCLUSIONS

It is known that ICT competences both for people with disabilities as well as for their teachers/trainers are enabler for an active participation in a knowledge based society.

Ensuring inclusive ICT for persons with disabilities and expanding access to these technologies should become a key element in improving inclusive educational technology. So ICT must be an integral part of an inclusive education. Results of our projects show that a vision of an inclusive development and a society in which persons with disabilities are participants and beneficiaries of development brings advantages at all educational levels, help people with disabilities to be competitive in the labor market, to participate in public life and to live independently.

Two research questions will be considered in the future work of the authors: how could be maximized the role or advanced ICT in inclusive education and what are the social and human consequences of adopting inclusive ICT.

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This paper described work within the on-going European Erasmus+ projects IDIPOWER and idICT.

## References

- Baglieri, S., Shapiro, A., 2012. *Disability Studies and the Inclusive Classroom*. New York, NY: Routledge
- Bandura A.J., 1977. *Social learning theory*. New York: General Learning Press
- Becta, 2007. *Inclusive learning: an essential guide*. Retrieved from <http://bee-it.co.uk/Guidance%20Docs/Becta%20Files/Publications/29.%20Inclusive%20learning%20An%20essential%20guide.pdf>
- David, A., Hamburg, I. 2013. Integrating vulnerable and marginalized groups into vocational education and training through innovative solutions. In *Problems of education in the 21st century*, 56, pp. 42-58
- DeJong, T., 2010. Cognitive Load Theory, Educational Research, and Instructional Design: Some Food for Thought. *Instructional Science: An International Journal of the Learning Sciences*, p. 38
- Donelly, V., Watkins, A., 2011. Teacher education for inclusion in Europe. *Prospects*, 41, 3, pp. 341-53
- European Agency, 2014. *Model policy for inclusive ICTs in education for persons with disabilities*. Retrieved from <https://www.european-agency.org/Sites/default/files/UNESCO-G3ict%20Model%20Policy%20on%20Inclusive%20ICTs%20for%20Education%204-2014.pdf>
- Hamburg, I., Bucksch, S., 2015. ICT-based approaches to support learners with disabilities. In *Journal of educational policy and entrepreneurial research (JEPER)* 2, no. 6, pp. 1-12
- IstemicStarcic, A., 2009. Educational technology syllabus. In *UP PEF higher education*, pp. 12-15 Koper
- O'Gorman, E., 2005. Setting Standards for Teacher Education in Special Educational Needs in Ireland. In *30th Annual Conference ATEE*. Amsterdam, October 2005, pp. 377-381
- Porter, L., Smith, D. (Eds.), 2011. *Exploring inclusive educational practices through professional inquiry*. Boston, MA: Sense Publishers
- Richey, R.C., 2008. Reflections on the 2008 AECT Definitions of the Field. In *TechTrends* 52 (1), pp. 24-25



Skinner, B.F., 1954. The science of learning and the art of teaching. Harvard Educational Review 24, pp. 86-97

Termos, M., 2012. Does the Classroom Performance System (CPS) Increase Students' Chances for Getting a Good Grade in College Core Courses and Increase Retention? In International Journal of Technologies in Learning 19 (1), pp. 45-56

TiKiWikicms groupware <http://www.tikiwiki.org>

UNESCO, 2008. Inclusive education in Germany. Retrieved from <https://www.unesco.de/en/bildung/inklusive-bildung/inklusive-bildung-deutschland.html>

Wong A.W.K., Chan, C.C.H., Li-Tsang, C.W.P., Lam, C.S., 2009. Competences of people with intellectual disabilities in using human-computer interface. In Research in Development disabilities, 30, pp. 107-123

## Determinants Impacting Efficacy of Organizational Blogs

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### Abstract

Recent revolution in the Information and Communication Technology has brought forth several tools for organizational learning and knowledge transfer. Organizational blogging has received considerable attention for its use for managed socialization leading to dialogue, reflection and knowledge transfer among the employees of large organizations. However this powerful tool of knowledge sharing can lead to adverse consequences in the absence of suitable checks in organizations. The paper uses the framework of interpersonal relationships proposed by Hon and Grunig to identify determinants that can impact efficacy of organizational blogs as a knowledge sharing tool. A case study of organizational blog of a leading service provider of India in the field of communication is presented for validating the findings from the literature. We suggest the possibility of using moderator to overcome the anticipated pitfalls in use of this popular medium of knowledge sharing in organizations.

**Keywords:** Organizational blog, knowledge sharing, discussion board, managed socialization.

### INTRODUCTION

The term Weblog (combination of word 'web' and 'log'), which was first used by Jorn Barger on his Robot Wisdom website in 1997 (Kaiser et al., 2007), got contracted with its frequent use and is now widely known as blog. It has gained increasing importance since the advent of Web 2.0 as a tool for disseminating knowledge internally among staff and externally among customers and suppliers (McAfee, 2009). Several variants of this common term have come in vogue in recent times like discussion boards, forums, message boards, bulletin boards, wikis and organizational blogs. Though these terms are used interchangeably due to similarity of purpose such as publishing thought, opinions and ideas on the web, collaboration within a group, and commenting on other people's contribution, there are subtle differences between them which are non-trivial. While discussion forums are topic centred, blogs are author centred and wikis are content/document centred (<http://www.adelaide.edu.au/myuni/staff/resources/tutorials/content>)

Organizational blog is generally regarded as an online tool which is initiated by an organization for knowledge sharing among its members. According to Kelleher & Miller (2006), 'organizational blogs are Web logs that meet three criteria. They are maintained by people who post in an official or semi-official capacity at an organization, endorsed explicitly or implicitly by that organization, and posted by a person perceived by public to be clearly affiliated with the Organization'. The topics in this group are more focused on the specific business unit and not on the general information which the employees would engage in. The majority of these

blog topics focus on the organization and the functional activities defined by being part of that group (Stephens, 2013). The membership of the organizational blogs is in most cases limited to its members and it is hosted on the intranet of the organization with access control.

The types of organizational blogs can be further categorized either on the basis of the user group or the purpose of the blog. Some of the examples of organizational blogs are employee blogs, group blogs, executive blogs, promotional blogs and newsletter blogs (Lee et al., 2008). The discussions in these blogs are organised into topics by 'threads' and can be initiated by anyone in the community on a topic of choice. All participants have an equal voice and they make use of technologies to facilitate communications and collaboration either in a corporate or personal environment (Carlin et.al. 2008, Hasan & Pfaff, 2006).

Blogs are widely believed to be a very useful tool for knowledge sharing in an organization by promoting dialogue (Efimova and de Moor, 2005), supporting the process of reflections (Roll, 2004) and leading to formation of communities of practice (Silva et al., 2006) for collaboration and sharing of best practices (Ojala, 2004). However, in spite of these apparent advantages of blogs and their widespread use in recent times for creating knowledge-sharing environment, there have been instances in which the organizations have experienced negative effects of such an open communication channel in the organization (Bishop, 2003; Cone, 2005) and the organization had to fire employees for their acts of discretion.

Several empirical studies have been carried out to measure the usefulness and success of internal blogs in specific contexts in the organization such as Microsoft (Efimova & Grudin, 2007) and IBM (Jina et al. 2007). However, there is a paucity of research in the reverse direction, i.e., there are not many studies to understand the organizational factors that have a positive impact on the use of blogs in the organizations for the purpose of organizational learning. The objective of this paper is to attempt to fill this research gap by identifying a set of factors which can have an impact on the efficacy of blogs as a tool of managed socialization in organizations.

### **RESEARCH METHODOLOGY**

Since much research is not available for such kind of study, exploratory research methodology is used for the current study wherein a literature review is carried out to identify the existing frameworks for identifying the factors that impact the efficacy of organizational blogs. Based on the review, we put forth a set of propositions for efficacy of organizational blogs. In order to validate these propositions, we carried out a content analysis of the posts on the discussion forum of a leading service provider of India in the field of communication. Two time frames were chosen for the study – one (2009) when the organizational blog was running without any problem and the second (2011) just before it was decided to be closed by the management. The content analysis is carried out by going through the posts and replies on the blogs and categorizing them as either useful for knowledge sharing or otherwise. The analysis is validated by review by an expert faculty who was suitably briefed about the context of the study.

By such comparison in two periods where the organization environment was significantly altered, we seek to highlight how the changes in organizational environment can result in the negative changes in content of the discussion forum. In this way, the validity of our propositions for efficacy of discussion forum is triangulated.

## LITERATURE REVIEW

Blogs are defined in various ways in the literature starting from the original definition of Jorn Barger in 1997 as mentioned in the previous section. In general, a blog is essentially considered to be a diary of personal reflections- called as post- that is shared on the World Wide Web. Readers can react to the posts of the blogger, and these comments are attached to the main post for other readers to examine (Wattal, 2009). According to Baoill (2004), the format of a blog includes small chunks of content referred to as posts, date stamped, reverse chronological order, and content expanded to include links, text and images.

Therefore, it is essentially a chronological and interactive tool for communication and collaboration because the “conversational nature” of blogs allow members of that blog to share ideas and opinions about particular topics and subject matters of interest to them (Baxter & Connolly, 2013)

Blogs are used as an important tool for organizational learning which, according to the interpretive view, “occurs through shared insights, knowledge, and mental models...builds on past knowledge and experience – that is, on memory” (Stata, 1989). This view of organizational learning is supported by Wenger (1991) who believes that learning in organisations must be perceived as being a social phenomenon because individuals are essentially social beings. Moitra and Kumar (2007) argue that the inability to capitalize on the tacit knowledge stems from a missing ‘social’ dimension in the design of knowledge management strategies, which when addressed leads to unleashing the valuable tacit knowledge. Drawing on real-world research spanning twelve leading companies, they discuss Managed Socialization—the most vital management process for harnessing global knowledge. They further argue that only by instituting managed socialization firms can truly succeed in leveraging global knowledge. Organizational blogs are very powerful tool for ‘managed socialization’.

Williams and Jacobs (2004) postulate that blogs can generate knowledge from existing information by contextualising the information in a way that adds value to that information. Such knowledge can be shared with the use of the blogs and thus blogs are useful tools for organizational learning as well as knowledge transfer.

We believe that Stafford and Canary’s (1991) taxonomy of relational maintenance strategies is relevant for study of the phenomenon of blogs as it provides a theoretical link between strategies that are found to be effective in context of interpersonal communications and the resulting favourable outcomes in public relations. Later work by Canary and Stafford’s (1992) listed the five maintenance strategy factors as follows: ‘positivity (interacting with partners in a cheerful, uncritical manner); openness (directly discussing the nature of the relationship and disclosing one’s desires for the relationship); assurances (communicating one’s desire to continue with the relationship); social networks (relying on common affiliations and relations); and sharing tasks (performing one’s responsibilities)’.

In another significant contribution, Hon & Grunig (1999) built on the works of Huang (1997) and Canary & Stafford (1992) in the context of relationship between organization and the public. They adapted important terms from the study of interpersonal relationships which include definitions of ‘trust, satisfaction, commitment, control mutuality, exchange relationships and communal relationships’. These terms have been conceptually as well as operationally well defined, and tested extensively as key variables in the study of organization-public relationships. Relationships between these variables and other constructs of central concern to public relations are thought to be of importance for empirical research for studying the success of the blogs.

Apart from the above, Du and Wagner (2006) have proposed a techno-social success model for weblogs. This model postulates that the ability of a weblog to provide value for its users and readers at the content, the technology, and the social levels will determine its success. Several metrics are generally used for measuring the success of a blog (Stephens, 2013). The first metric is the number of blog entries which provides an indication of the frequency of updates. Another metric is the end user comments which provide us a degree of interaction between the blog author and the reader. The third metric is the number of visits on the blog itself. Finally, the rating of the end user by number of likes or rating of the blog too is another measure of success.

Microsoft's internal blogging community was studied by Efimova & Grudin (2007) to understand how, where, and why employees blog. They concluded that "for an employer, this can result in accelerated information flow, increased productivity, improved reputation and customer engagement, but also in greater dependence on personalities, less control over the corporate face to the outside world and possible challenges to hierarchy". Within the organization, they found that there was disagreement on the topics and contents appropriate for blogging. They observed that while too restrictive scope of the organizational blog may stifle the purpose for which the blog is set up, employees have to be responsible enough to see that their comments do not adversely affect the team relationships in the organization.

Jina et al. (2007) explored employees' use of internal corporate blogs in large multi-national corporations such as IBM and found that the blogs are an important enabling tool for providing easy access to tacit knowledge that is embedded with experts. The blogs contribute towards developing collaboration across a broad range of such experts with communities in the enterprise.

Moderation and censorship are some of the tools used by organizations to control the nature of comments on organizational blogs (Wright, 2006). Some organizations lay down a detailed policy for guiding employee's online behaviour and provide links for reporting obnoxious comments to the administrators. Edward (2002) has described the possible roles of administrators in such situations.

## **IDENTIFICATION AND SELECTION OF FRAMEWORK FOR THE STUDY**

### **Identification of frameworks**

From the literature review it is evident that there are not many frameworks to understand the organizational factors that are likely to have an impact on the level of adoption and use of blogs in the organizations for the purpose of organizational learning. We were able to identify only two such framework in the literature referred in the previous section, namely, Canary and Stafford's (1992) five maintenance strategy factors and Hon & Grunig's (1999) six factors of interpersonal relationships in the context of organization-public relationships which may be for identification a set of factors which can have an impact on the efficacy of blogs as a tool of managed socialization in organizations. A comparison of these two frameworks presented in Table 1 will enable to appreciate the similarities and differences in the factors which are likely to affect the success of the organizational blogs.

The frameworks above suggest that the blogs which support these factors are likely to lead to greater social exchange of information. This is critically important in the organizational setting because organizational structures create politics and barriers to communications. Therefore the social media, in the form of organizational blogs, provides opportunities for the employees

to move beyond the barriers imposed by such organizational structure by creating the sense of a one-on-one communication.

**Table 1: Frameworks of Organizational Factors**

<b>Canary &amp; Stafford’s Maintenance Strategy Factors</b>	<b>Hon &amp; Grunig’s Factors of Interpersonal Relationships</b>
<i>Positivity of cheerful interaction with partners in a uncritical manner</i>	<i>Trust of the other party</i>
<i>Openness of the relationship by clearly spelling out one’s desires for the relationship</i>	<i>Satisfaction due to favourable disposition toward the other leading to reinforcing of relationship</i>
<i>Assurances by way of articulating one’s desire to continue with the relationship</i>	<i>Commitment built by the belief that the efforts required to maintain and promote the relationship are worthwhile.</i>
<i>Social networks by depending upon common affiliations and relations</i>	<i>Control mutuality which implies that parties agree on the extent of the power that they have to influence one another</i>
<i>Sharing tasks by performing one’s responsibilities</i>	<i>Exchange relationships in which benefits are exchanged among the parties for mutual benefits in return for exchanges that have taken place earlier or are likely to occur in future</i>
	<i>Communal relationship where benefits are exchanged only for welfare of the other party.</i>

**Selection of Framework for the Study**

The framework suggested by Hon and Grunig is focussed at organizational level in public relations context whereas the framework suggested by Canary & Stafford is set up at individual level of relationship building in the context of marriage. Although both the frameworks include the constructs that affect interpersonal relationship- one for public relationships and the other for personal relationships, it is felt that the framework of Hon & Grunig is more suited to the research question that is being discussed in this study as it is more closely linked to organizational settings and provides a more holistic view of managed socialization by including the construct of control mutuality which is essential for success of knowledge sharing through managed socialization. Therefore we select the framework suggested by Hon and Grunig for the present study.

**Propositions for the Study**

Based on the selected framework of Hon & Grunig, we put forth the following propositions that will be tested and validated in this study:

- P1: Presence of trust among the stakeholders of an organizational blog will lead to its efficacy.
- P2: Presence of satisfaction among the stakeholders of an organizational blog will lead to its efficacy.
- P3: Presence of commitment among the stakeholders of an organizational blog will lead to its efficacy.
- P4: Presence of control mutuality among the stakeholders of an organizational blog will lead to its efficacy.
- P5: Absence of exchange relationships among the stakeholders of an organizational blog will lead to its efficacy.
- P6: Presence of communal relationships among the stakeholders of an organizational blog will lead to its efficacy.

These propositions are depicted in Figure 1

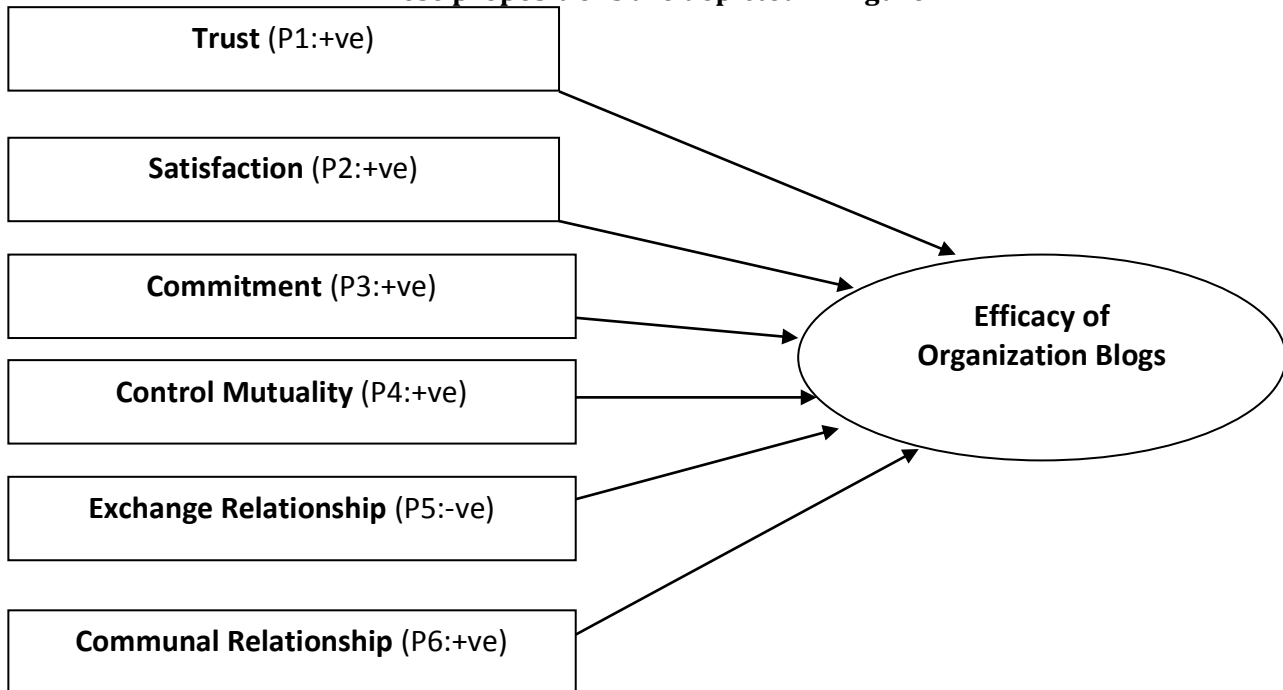


Figure 1: Model depicting the propositions of the study

### VALIDATION OF PROPOSITION

In order to validate the propositions, we studied a leading service provider of India in the field of communication. Two sets of data were used: one when the discussion forum was being used by employees mainly for knowledge sharing and second just before it was decided to be closed by the management.

The organization under study has wide geographic dispersion with high knowledge diversity among the employees across locations. The employees positioned at nodal centres acquire latest tacit knowledge of new technologies and processes by way of their continuous interaction with peers and vendors while the employees at other locations depend on employees at nodal centres for dissemination of information. This situation adversely impacts business prospects as well as employee morale. While non-uniform distribution of knowledge among the employees results in customer dissatisfaction leading to loss of business, it also results in a feeling of inadequacy among the employees.

The company introduced discussion board on its intranet to address this critical issue of knowledge sharing. The discussion board was envisaged to enable knowledge sharing of the common issues being faced by its employees in its pan-India operations. Access to discussion board was restricted to the employees of the company with a username and password for accessing intranet. It was very successful in its objectives as it allowed the employees to post their queries related to operational problems. It facilitated diffusion of tacit expertise of few employees across the organization. It was used as a valuable tool for implementing managed socialization which denotes a managed process with the support of knowledge activists to induce socialization within organization by creating platforms that promote interaction and collaboration for circulating and assimilating tacit knowledge. In this way, it helped in building a sense of belongingness and sharing among its employees.

However, a series of events in the organization led to abuse of this successful technology tool which ultimately led to its closure. A bulk of middle and senior management employees were working in this company on deputation from another government organization. As a result of

some judicial intervention, they were ordered to be repatriated to their parent organization. In order to ensure continuity of operations, the management decided to relieve them in phases rather than in one go. This hesitation on part of management irked the permanent employees of the organization as they wanted complete repatriation.

This tussle between permanent employees and employees on deputation reflected in posting on the discussion board which was available as a means for sharing views across the organization. The bickering on this organizational platform resulted in decrease in trust, reduced satisfaction and doubts about the commitment of employees on both sides. We capture these changes in organizational environment based on discussions with several officers and employees of the company in Table 2.

**Table 2: Comparison of Factors affecting efficacy of blogs in 2009 and 2011**

Hon & Grunig's Factors	2009	2011
Trust	High due to assurance resulting from solution of problems	Low due to mutual feeling of betrayal among the two employee groups
Satisfaction	High as both groups of employees perceived the other as contributing to the company	Low as action of each group were perceived to be harming the company
Commitment	Moderate as each group did not question the commitment of the other	Low as each group doubted the commitment of the other
Control mutuality	High as hierarchy of control was unambiguous	Low as the officers group was perceived to be hanging on inspite of court orders
Exchange relationships	Low because relationship between two groups was based on hierarchy, not on exchange of benefits	High because the thread of hierarchy was broken by the court order for relieving the officers
Communal relationships	High because of long-standing relationship between two groups	Very low because each group identified self-interest in action of the other.

Based on perception of several employees and officers of the company as per their discussion with authors

**Data Analysis of posts on discussion forum**

We collected the contents of the posts for the period of 20 days just preceding closure of discussion forum in 2011 and compared it with a sample period of equal duration in 2009 to understand the difference in frequency and contents of the posts and the results are presented in Table 3.

**Table 3: Comparison of count of threads and responses**

Item	3rd May-21st May 2009		10th Nov-29th Nov 2011	
	Count	Average per day	Count	Average per day
New threads	106	6	145	8
Responses to threads	475	25	792	42
<b>Total</b>	<b>581</b>	<b>31</b>	<b>937</b>	<b>50</b>

**Source: Intranet discussion forum data obtained from the company**

For the period 3rd May-21st May 2009, there were 581 entries out of which 106 were new threads initiated and 475 posts were in response to these threads which indicated that the



forum was widely used by the employees with 31 posts per day on average. However, during the turbulence period in 2011, this increased by nearly 66% to average 50 posts per day.

Next, category-wise analysis of these threads entries was done to find out the topics which led to such drastic increase in number of posts in 2011. Comparison of topic-wise count of threads is shown in Table 5 below which shows that posts in Administration section increased from 26 to 98 and comprised 67.6% of total posts as compared to earlier 23.5% in 2010.

**Table 4: Comparison of topic-wise count of threads on Discussion Board**

Category of comment	3rd May-21st May 2009		10th Nov-29th Nov 2011	
	Count	% of total	Count	% of total
Administration	26	24.5	98	67.6
Basic Services	4	3.8	1	0.7
Business Development	3	2.8	6	4.1
Customer Service	2	1.9	2	1.4
Finance	7	6.6	6	4.1
Internet	12	11.3	2	1.4
Marketing	10	9.4	3	2.1
Mobile	13	12.3	8	5.5
Technical Issues	7	6.6	8	5.5
Miscellaneous	22	20.8	11	7.6
<b>Total</b>	<b>106</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>

(Source: Intranet discussion forum data obtained from the company)

This increase in administration related posts was accompanied with significant decrease in posts related to Internet, marketing and mobile services which shows that the blog was not used as productive knowledge tool for important technical and business related discussions but more for issues arising out of the repatriation issue. Next, content analysis of the posts in these two periods was carried out to see whether the discussion forum was used as a means of flaming and polarized debates among the employees. Some of the contents during 2009 and 2011 are reproduced in Table 5 and Table 6 respectively to illustrate the tone of the discussions.

**Table 5: Sample comments on discussion board in 2009**

<i>Whenever I try to open a site i am redirected to a webpage The webpage asks to enter username and password to continue. I have tried all the usernames and passwords but am not able to continue surfing. Please tell how this prob can be solved...thanx</i>
<i>Kindly guide me how to provide 20% rebate to existing multiplay customers.</i>
<i>Sir I got difficulties in login using Nokia E-71. Every time login window gets hided bellow the gif image window. It should be on top all the time. Moreover the viewing experience also is poor using mobile though it's having full HTML browser and it was similar to pc view earlier. Thanx.</i>
<i>After opening DB and selecting a discussion there should be a navigation for previous and next discussion. This will help to one who wants to participate in the discussion in sequence. Also we can give numbering to discussions and navigation for directly accessing the discussion by entering the numbering.</i>
<i>When I go for update profile I am getting the following error message "Warning: mysql_select_db (): supplied argument is not a valid MySQL. It was replied by Reddy on 7th May that this problem was solved. But still exists. Mr.Reddy pl look in this!</i>
<i>The new website has problems when viewed with Google Chrome..</i>

**Table 6: Sample comments on discussion board in 2011**

<i>It is the need of the hour to throw out all ROTTEN EGGS early to make our HOUSE clean and worthy.</i>
<i>They are dreaming of becoming DGM, GM directly. Let us wait till they wake up.</i>
<i>They are not worried of job, they are worried about their salary and pension which they will get even they fail to get the work.</i>
<i>They are inefficient and direction less who contribute minimum (though some officers in this lot too are reasonably good but not the majority) totally confused lot.</i>
<i>Unending hatred against deputed officers seems to be the order of the day. Better it should end.</i>
<i>It is not possible to get freedom as board is dominated by officers on deputation.</i>
<i>And there should not be any dual standards in respect of protection of salary, pension and seniority between two groups.</i>

The table illustrates the discussion forum’s misuse by some section of employees to spread distrust and hatred in the organization and points towards potential pitfalls of the medium.

By looking at the data in Tables 2 to 6 it is seen that the propositions in section 3 are supported. The efficacy of discussion forum went down as the organization environment deteriorated in 2011.

**CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH**

We started the study with the objective of examining the factors which may lead to efficacy of the organizational blog which is an exciting tool of knowledge sharing and collaboration, especially in a large organization where the knowledge is geographically dispersed. We identified from literature that the Hon & Grunig’s framework for interpersonal relationships factors may be appropriate for this purpose. The propositions were then tested using a case study of an Indian company which had to resort to the extreme step of closing down its online discussion forum due to misuse of the forum by section of employees.

The results demonstrate that our propositions regarding impact of factors identified in Hon and Grunig framework on efficacy of organizational blogs hold valid. It can be inferred that once the atmosphere of the organization is vitiated, this forum stands to lose its appeal and may, in fact, lead to accelerated deterioration of the relations among the employees. Therefore the organizations have to be very careful in handling this double edged sword.

The issues raised in the case study can perhaps be resolved using Wright’s (2006) concept of use of moderators for democratic participation in online discussion forum. The use of a moderator can help to improve the quality of the discussion although not much has been established about the extent of their exact role. Should they work towards evolving consensus or simply act as a censor by deleting controversial posts? Edwards (2002) has outlined three primary functions of a moderator. First is that of defining the boundaries of discussion by displaying policy guidelines for the users at the time of login. This method might have worked perfectly well in the case study discussed above- the moderator could have clearly stated that the forum is only for technical and knowledge sharing discussions and other non-related posts will be straightaway deleted. Further, second function of the moderators is to enrich the discussion by providing information and attracting participants while the third function is related to housekeeping functions such as keeping the discussion board up-to date, providing schedule for discussion etc.

Operationally, a link for reporting acidic comments can be provided on the organizational blog. It is to be ensured that the reported content is seen and acted upon by the administrator in a fair and transparent manner for gaining trust of all users of the organizational blogs.

The limitation of the study is that it has evaluated factors contained in Hon and Grunig framework only. It is possible that some other factors may be able to explain the phenomenon more comprehensively. Further, our conclusions are based on single case study using qualitative research. More robust result can perhaps be obtained by using quantitative studies using scales of measurement on each factor on multiple organizations. It would also be useful to study the actual participants of the blogs in order to ensure that these are not some disgruntled employees who are using blogs for negative posts.

In spite of the aforementioned limitations, the paper contributes to academia as well as to the practitioners. From the academic point of view, it is an interesting research which validates the theoretical frameworks used in the study to identify the determinants of this powerful knowledge sharing tool which is widely used in recent times by many organizations with the belief that it essentially produces good knowledge sharing results.

From a practising manager's perspective, the study enables them to prepare the organization for taking preventive action for possible misuse of this knowledge sharing tool and avoid the possible pitfalls by suggesting the strategy of deployment of moderators to improving the efficacy of this powerful tool.

## Bibliography

- Baoill, A. (2004). Conceptualizing the weblog: Understanding what it is in order to imagine what it can be. *Interfacings: Journal of Contemporary Media Studies*, 5(2), 1-8.
- Baxter, G. J., & Connolly, T. M. (2013). The "state of art" of organisational blogging. *Learning Organization*, the, 20(2), 104-117.
- Bishop, T. Microsoft Fires Worker over Weblog. *Seattle Post-Intelligencer*, 30 October 2003
- Canary, D. J., & Stafford, L. (1992). Relational maintenance strategies and equity in marriage. *Communication Monographs*, 59(3), 243-67.
- Carlin, S., Lee, J., Lemons, D., O'Dell, C., & Swift, G. (2008). The Role of Evolving Technologies: Accelerating Collaboration and Knowledge Transfer: APQC. Cone, E. Rise of the Blog. *CIO Insight*, 5 April 2005
- Du, H. S., & Wagner, C. (2006). Weblog success: Exploring the role of technology. *International Journal of Human-Computer Studies*, 64(9), 789-798.
- Edwards, A. 2002. The Moderator as an Emerging Democratic Intermediary: The Role of the Moderator in Internet Discussions about Public Issues. *Information Polity* 7(1): 3-20.
- Efimova, L. & Grudin, J. (2007). Crossing boundaries: A case study of employee blogging. Proceedings of the Fortieth Hawaii International Conference on System Sciences (HICSS-40). Los Alamitos: IEEE Press.
- H. Jina, J. Lauretta, E. Thomas, A. K. Wendy, K. E. B. Rachel, and C. T. John, "BlogCentral: the role of internal blogs at work," in CHI '07 extended abstracts on Human factors in computing systems San Jose, CA, USA: ACM, 2007.
- Hasan, H., & Pfaff, C. (2006). The Wiki: a tool to support the activities of the knowledge worker. Paper presented at the Proceedings at the Transformational Tools for 21st Century
- Hon, L. C., & Grunig, J. (1999). Guidelines for measuring relationships in public relations. Gainesville, FL: The Institute for Public Relations. Retrieved January 26, 2006, from [http://www.instituteforpr.com/pdf/1999\\_guide\\_measure\\_relationships.pdf](http://www.instituteforpr.com/pdf/1999_guide_measure_relationships.pdf)

Huang, Y. H [1997]. Public Relations Strategies, Relational Outcomes, and Conflict Management Strategies, Unpublished Doctoral Dissertation, University of Maryland, College Park.

Kaiser, S., Müller-Seitz, G., Lopes, M. P., & e Cunha, M. P. (2007). Weblog-technology as a trigger to elicit passion for knowledge. *Organization*, 14(3), 391-412.

Kearns, I., J. Bend, and B. Stern. 2002. E-participation in Local Government. London: Institute for Public Policy Research.

Kelleher, T. (2009). Conversational voice, communicated commitment, and public relations outcomes in interactive online communication. *Journal of communication*, 59(1), 172-188.

Kelleher, T., & Miller, B. M. (2006). Organizational blogs and the human voice: Relational strategies and relational outcomes. *Journal of Computer-Mediated Communication*, 11(2), 395-414.

Lee, H. H., Park, S. R., & Hwang, T. (2008). Corporate-level blogs of the Fortune 500 companies: an empirical investigation of content and design. *International Journal of Information Technology and Management*, 7(2), 134-148.

McAfee, A. P. (2009). Shattering the myths about Enterprise 2.0. *IT Management Select*, 15(4), 28.

Moitra, D., & Kumar, K. (2007). Managed socialization: how smart companies leverage global knowledge. *Knowledge and Process Management*, 14(3), 148-157.

Ojala, M. (2004), "Weaving weblogs into knowledge sharing and dissemination. Nord I&D, knowledge and change", Proceedings of the 12th Nordic Conference on Information and Documentation, 1-3 September 2004, Aalborg. Nord I&D Knowledge and Change, available at: [www2.db.dk/NIOD/ojala.pdf](http://www2.db.dk/NIOD/ojala.pdf) (accessed 30 September 2008).

Roll, M. (2004), "Distributed KM – improving knowledge workers' productivity and organizational knowledge sharing with web log-based personal publishing", paper presented at BlogTalk 2.0, "The European Conference on Weblogs", Vienna, July 5-6.

Silva, L., Mousavidin, E. and Goel, L. (2006), "Weblogging: implementing communities of practice", in Trauth, E., Howcroft, D., Butler, T., Fitzgerald, B. and DeGross, J. (Eds), IFIP International Federation for Information Processing, Vol. 208, Social Inclusion: Societal and Organizational Implications for Information Systems, Springer, Boston, MA, pp. 295-316.

Stafford, D. J., & Canary, L. (1991). Maintenance strategies and romantic relationship type, gender and relational characteristics. *Journal of Social and Personal Relationships*, 8(2), 217-42.

Stata, R. (1989), "Organizational learning – the key to management innovation", *Sloan Management Review*, Vol. 30 No. 3, pp. 63-74.

Stephens, R. T. (2013, April). Success in a large scale corporate blogging environment. In Southeastcon, 2013 Proceedings of IEEE (pp. 1-6). IEEE.

Wattal, S., Racherla, P., & Mandviwalla, M. (2009, January). Employee adoption of corporate blogs: A quantitative analysis. In System Sciences, 2009. HICSS'09. 42nd Hawaii International Conference on (pp. 1-10). IEEE.

Website [http://www.adelaide.edu.au/myuni/staff/resources/tutorials/content/Differences between Discussion Boards Blogs and Wikis.html](http://www.adelaide.edu.au/myuni/staff/resources/tutorials/content/Differences%20between%20Discussion%20Boards%20Blogs%20and%20Wikis.html) accessed on 24th Feb 2014.

Website [http://www.bsnl.co.in/opencms/bsnl/BSNL/about\\_us/finance/finance.html](http://www.bsnl.co.in/opencms/bsnl/BSNL/about_us/finance/finance.html) accessed on 15th Feb 2014.

Wenger, E. (1991), "Communities of practice: where learning happens", *Benchmark*, fall, pp. 1-6.

Williams, J. B., & Jacobs, J. (2004). Exploring the use of blogs as learning spaces in the higher education sector. *Australasian Journal of Educational Technology*, 20(2), 232-247.

Wright, S. (2006). Government-run Online Discussion Fora: Moderation, Censorship and the Shadow of Control. *The British Journal of Politics & International Relations*, 8(4), 550-568.

Wright, S. (2009). The role of the moderator: problems and possibilities for government-run online discussion forums. *Online deliberation: Design, research, and practice*, 233-242

## Sustenance of Tax Administration by Information and Communications Technology in Nigeria

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### Abstract

The focus of this paper rests on the nexus of information and communications technology in administration of tax in Nigeria. Nearly every sector of the national life has been affected by the ICT. ICT has defined the business, social and personal environment of the country. The study used content analysis method to highlight challenges that are peculiar to tax administration in Nigeria. The periods where the rule of the thumbs were used in determining the assessable income of tax payers compared to the recent times where ICT are used in tax administration to near pinpoint accuracy were analysed. With the use of ICT, leakages were reduced. It was found out that there is no hiding place for tax evaders with the use of this modern technology since the all potential taxpayers are captured by the system. Nevertheless the use of ICT can be catastrophic if carelessly employed by both the tax payers and the tax administrators as scammers and hackers of the internet facilities can utilize the ignorance or the lax security of the system.

**Keywords:** e-payment, e-tax, tax payer identification number, agbekoya, opon imo, 'tax officials'

### INTRODUCTION

In discharging its duties to the governed, the government has to use resources from the citizenry and the state in order to provide essential services to the people. These services varied from security and infrastructural development to the welfare of the people. In whatever types of government being practiced, these services are sine qua non to the existence of the government. Socialist, democratic or monarchy types of government are also involved. The major sources of funds used in running the machineries of government are taxes collected by various tiers of government which are mainly direct and indirect taxes (Oseni, 2014a). During the pre-colonial periods and before modern taxation were introduced, traders moving their wares from one region to another were required to pay toll charges on their merchandise. Agricultural produce were also taxed in the development of the land. Large estates left behind by wealthy citizens were also taxed. In fact, taxation itself is as old as human existence (2014, Dike).

Whenever the purse of the town council was lean, the workers in the council would be gathered to participate in an ad hoc assignment. The assignment would be to go for tax defaulters in the areas. Before dawn, these ad hoc staff would require the eligible tax payers in the council's jurisdiction to present their current tax receipts. Those who are unable to present these tax receipts would be arrested and taken to the headquarters of the council where they would be detained for the whole day. In the old Ibadan metropolitan council, these defaulters would be taken to Mapo, the city town hall, where they would be subjected to the inclement weather for the whole day. At the end of the day, those captured or arrested would be released

and that would be the end of the matter for that day. That does not mean that the raid would not be carried out the next day. The person arrested today may also be arrested the following day. The cat and mouse game would start for those who are unwilling or unable to pay tax to be dodging these 'tax officials' by either changing the routes or going to their activities early in the morning before these 'tax officials' are on the road. In determining those who are qualified to pay these taxes, those who are grown up physically were the main targets. Inability to pay these poll taxes often results to seizure of chattels and other valuables.

Civil unrest in Nigerian towns and villages in 20th century were often attributed to excessive tax assessment of the people. The Aba riot of 1929 and that of Agbekoya riot of 1969 during the Nigerian civil war were typical examples of open resentment by people against the government authorities for excessive taxes (Oseni, 2014a).

Assessable incomes of taxpayers were determined by the rule of the thumb. Financial statements that should be used as basis for computing chargeable tax were inadequate if at all any existed. This then invariably created rooms for sharp practices in the administration of tax which eventually result in low revenues for the government. It is the responsibility of the tax authority to determine the tax payers in its area of jurisdiction. So also a business enterprise is expected to register at the tax office.

The aversion to pay tax by corporate citizens is easily noticeable despite the fact that the laws are clear on amount to be paid as tax. Every taxable person is expected to file in his returns every tax year. Special incentives of 1% are given to those who render self-assessment returns while those who refused to render returns are assessed on what is known as best of judgment assessment. The tax authority has the prerogative of assessing the tax payer on what it thinks best -but mostly on higher rate. The results of the last financial year are mostly used to determine assessable tax for business enterprise while the current income is used for those in employment. Simply put, businesses are taxed on preceding year basis while incomes from employment are taxed on actual year basis. But not all types of businesses are taxed on preceding year basis. Petroleum profit taxes are on actual basis.

Capital allowances in lieu of depreciation, disallowable expenses, dependents and other allowable expenses like assurance payments are taken into consideration before finally arriving at chargeable profits. If it is employment, the tax payable is supposed to be paid in equal installments throughout the year while business enterprises are expected to pay once the notice of assessment is final and conclusive?

Workers in employment are normally required to file their tax returns at the beginning of the year. They are expected to declare the number of children, dependent relatives they were having during the preceding year which would be used to determine the amount of reliefs to be claimed in the current year. It is also provided to state if the taxpayer is married. The reliefs are limited to four children who are under the age of 18 and unemployed or in full time education or training. The dependents are limited to two but there is no provision for a woman to claim relief for having a husband. Spurious claims are made with the intention of having as much reliefs as possible resulting to lower tax being paid.

For failure to pay tax based on reliefs available or rendering false returns, most tax authorities now give consolidated reliefs to the tax payers. Children, wife and dependent allowances are now grossed up to give a single relief allowance. In government establishments like tertiary

institutions, taxes are now deducted from employees' salaries before the emoluments after tax are remitted to establishments.

Certain transactions involving government establishments now require showing evidence of payment of taxes as and when due by the presentation of tax clearance certificates showing payments of taxes for the past three years. These certificates are issued by the relevant tax authorities after confirming that taxes due were actually paid and whenever shortfalls were found, the taxpayers would be required to pay additional tax.

The administration of tax now requires competent and effective human resources in order to make sure that all taxes due are collected promptly and correctly. For this reason, it is necessary to professionalize all the tax agencies in the country. The Federal Inland Revenue Service and States Internal Revenue Services are established at the centre and in all the states of the federation respectively. The third tier of government which is the local government councils are statutorily required to have Local Government Revenue Committees.

As taxes are no longer being administered as in those days when the rule of thumb was the order of the day and the services of the governments are more challenging, the use of modern tools in technology is of paramount importance.

What are then the contributions of information communication technology to the administration of tax in Nigeria? Is ICT effective in the administration of tax in Nigeria as in other lands? What are the imminent and peculiar challenges of ICT in the administration of taxes in Nigeria? The main focus of this paper will be finding answers to these questions. The paper will thereafter be divided into four sections. Section two is on conceptual framework and literature review while section three is on model specification and research methodology. Section four is on findings and discussions. Summary, conclusion and recommendation will be in chapter five.

## **CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW**

### **Conceptual Framework**

#### ***Tax***

A tax is a compulsory financial charge or other levy imposed upon a taxpayer by the government in order to fund various public expenditures for the benefits of the people. Some of these various public expenditures include but are not limited to the cost of providing enforcement of law and public order, economic infrastructure, welfare and public services. State's debts are also paid from the taxes collected. Taxes may be levied by different levels of government or its agents, and the inclusion of "compulsory" serves to remind that evasion is punishable by law. Taxes may be direct and indirect and it may be paid in cash or its labour equivalent. The income of individuals and business entities, including corporations are subject to tax. Tax is generally imposed on net profits from business, net gains and other income. The computation of income subject to tax may be determined under accounting principles and conventions. There are clear jurisdictions in respect of what is collectible by the national government and what is collectible by the local governments. It is the responsibility of the Federal Inland Revenue Service (FIRS) to collect the company income tax while the state governments are responsible for personal income tax. For effective administration, a tax system has to observe the fundamental principles of taxation which are equity, simplicity, economy, and certainty. In order to discharge its duties to the people it governs, a good government in power has to put in place a good system of taxation. The distribution of the tax burden has to be ascertained in respect of who will pay taxes, how much they will pay and how the taxes collected will be spent. Tax imposed may be progressive, regressive or proportional. A progressive tax leads to increased tax rate as the amount of income increases while the

opposite is the case with the regressive tax. In proportional tax, the effective tax rate is fixed whatever the amount of income.

### ***Information and Communications Technology***

Information and communications technology which is often abbreviated to ICT and sometime called information technology (IT) is the convergence or integration of telecommunications, computers which enable users to access, store, transmit and manipulate information. This involves telephone networks and computer networks. Telecommunications involve the usage of telephone lines and wireless lines.

### ***Self assessment***

In its 2014 Tax Year Planner, The Federal Inland Revenue Service (IFRS) described self assessment as a method in which a taxpayer completes his tax returns forms where his tax liabilities are properly computed and thereafter pay the self assessment tax with supporting documents on or before due date. Voluntary tax compliance is a legal obligation that requires an individual, enterprise, company or institution to register for tax, keep accurate records, disclose business affairs in full, file tax returns and pay tax due on or before due date.

### ***Literature Review***

Efunboade (2014) put forward three areas where the use of Information Communication Technology is being synchronized with the Nigerian tax system. These moving innovations in the use of ICT which has enhanced tax administration include the TIN (Taxpayer Identification Number), Project FACT (Factual Accurate Complete Timely) and ITAS (Integrated System of Tax Administration). The TIN is a computer-generated unique identifier to every taxable person identifier made it possible to drag all taxable Nigerians into the tax net. The FACT is an integrated electronic system of tax registration, tax payment and accounting while ITAS includes, Business Process Reengineering, Systems Development, Change Management and automation of Finance and Accounts Functions such as Tax clearance verification, Tax refund application software and contact management centre. He concluded that these emerging global infrastructures could make it increasingly possible for eligible taxpayers to pay tax online anywhere and anytime.

ICT is not only a useful tool for tax administration, but also useful in international tax differential by choosing the optimal location and form of investment and the risks associated with the business. In regards to business locations, ICT has made it possible to have business units not to be centralized in one country. Schafer and Spengel (2004) are of the opinion that due to the increased use of ICT, geographic distances within a company, between different companies as well as between companies and consumers tend to be less relevant. Besides, firm-specific factors such as intangible assets and services nowadays constitute the main factors for the creation of value. Consequently, many functions of a company are becoming more mobile and more independent of physical location factors. But they argued further that due to the use of ICT, it has now become more and more difficult to identify the source of income, and the source is more often susceptible to manipulation.

The right tools in human resources and equipments are necessary to achieve good results in the administration of taxes in Nigeria. Abiola and Asiweh (2012) are of the opinion that management and organisational approaches in the implementation of tax policy is very weak. And these weaknesses can be traced to the use of poor tools, inadequate staffing of the tax-collecting organisations, poor funding, bad access road to the interior of the rural areas and poor enlightenment. They concluded that what is obtainable in most tax system is paper documentation that have been characterised with mutilation and falsification of figures both



on the part of the tax officers and the tax payers as well. In highlighting factors that militate people not to pay tax, the poor performance of social amenities like electricity supply have to a large extent discouraged tax payment.

Agusiy (2003) is of the opinion that information technology play vital roles in developing countries where data accuracies are hindrances to effective tax administration. He highlights the benefits to include speed and improved efficiency; accuracy of tax computation; reliability of data used; consistency in the information generated and improved productivity. Information technology is being applied in intelligence gathering, the issue of unique tax identification number and the use of electronic payment (e-payment).

Virtually all aspects of life have been taken over by Information Communication Technology. Governance, health, banking, oil and gas are enjoying tremendous sustenance by the modern phenomenon. The Bank Verification Number (BVN), Permanent Voter's card, card reader, biometric driving license, national identity card etc are some of the beneficiaries. Even Osun state has adopted the Opon Imo (Table of Knowledge) to students in its tertiary institutions (Business Day, 2015).

The ICT revolution came to Sub-Saharan Africa when countries in other continents had got their fair bites. The local internet access was only available in few African countries some years ago. But ever since, the use of the technology is on the increase enabling countries to depend on public and commercial internet access points. The rudimentary access points like the cybercafé exploit the dearth and infancy of the industry to exploit the opportunity by charging fees for their services (Longe, Ngwa, Wada, Mbarika and Kvasny, 2009). The fundamental problems of erratic power supply and inadequate telecommunication infrastructure has hindered the continent from uninterrupted access to innovative information technology applications such as e-government, e-commerce, telemedicine, teleconferencing and teledemocracy. So also access to ICT has also provided a platform for a criminal invasion and a spree of cyber abuses (Longe et al., 2009).

Provision of good governance is the major role of government. This is enshrined in the 1999 Nigerian constitution where it was expressly stated that the role of the government is the provision of security and welfare to the people. Therefore, the provision of electricity, potable water, good roads, telecommunications, etc to the general public by government is part of good governance. Where government does not provide these facilities to citizens in exchange for taxes paid, citizens become reluctant to pay taxes. As Akpo (2009) points out, the administration of taxes are bound to have challenges. And these challenges highlighted are economic, environmental, educational, structural, political, social, constitutional, cultural and religious. All these are interwoven and each one is as important as the other. In order to attain effective tax payment, he concludes that a comprehensive approach is needed to tackle these identified challenges.

Taxation is the imposition by government of compulsory contributions or levies on the citizens, property, income, commodities, transactions and so forth, for the purpose of raising revenue for government expenditure. Chatama (2013) in his studies on the impact of ICT on taxation in Tanzania concluded that application of ICT affected both the design and administration of tax system. It has also helped to maintain consistent record keeping; timely access to such records and fast processing of return which together improved the performance of tax revenue.

In their submission on the efficiency gains from dynamic tax reforms, Auerlach, Kotlikoff and Skinner (1981) concluded that a switch to consumption taxation generates a sustainable

welfare gain of almost 2 percent of lifetime resources while a transition to wage taxation generates a loss of greater than 2 percent of lifetime resources. The taxation dependence in Nigeria is skewed to production tax in form of petroleum tax which heavily financed Nigeria's recurrent and capital budget.

Business activities and the way people live and work had been changed by the adoption of Information and Communication Technology (ICT). Medium and large firms used the computers and internet facilities more than the small firms that cannot afford the high cost of equipments coupled with limited knowledge and skills in computer technology and their responsiveness to taxation (Ssewanyana and Busler, 2007).

In highlighting the external factors that militated against the smooth operation of tax administration in Tanzania, Kitillya (2011) mentioned poor ICT Backbone as one of the external factors beyond the control of Tanzania Revenue Authority. It may not be for the country alone but all developing countries may suffer the same.

## **RESEARCH METHODOLOGY**

### **Technique of Analysis**

For the purpose of this paper, secondary data were used. Relevant materials such as textbooks, Journals, Newspaper and other official documents of Federal Inland Revenue Service (FIRS) both in prints and electronics were widely consulted. Available literature on entrepreneurship and its effects on Nigerian economy were incorporated into this study.

## **FINDINGS AND DISCUSSIONS**

At its 2015 budget defense before the Senate Committee on Drugs, Narcotics, Financial Crimes and Anti-Corruption, the chairman of ICPC Mr. Ekpo Nta said that out of 156 contractors with the Federal Ministry of Works, 50 of them operated with forged tax certificates. This shows how really bad things are in the system. If 32% forgery could be detected in one agency, it is better imagined how the rot would have permeated the whole system in the country. What would be the result of this forgery? Government is denied revenue and this affect the development that would have had permanent effects on the lives of the people (Vanguard Editorial, 2015).

The mission of Japan's National Tax Agency is to "Help taxpayers properly and smoothly fulfill their tax duties." In order to fulfill this, various measures including online national tax return filing and tax payment system (e-Tax) were introduced using the ICT. With additional publicity and briefings more taxpayers are using ICT to file their tax returns. In a period of four years, the National Tax Agency, Japan reported that the users of ICT in tax related issues increased 1.4 times (National Tax Agency, 2013).

The electronic processing of tax collections which include accuracy and promptness was noticeable in Tanzania between 1996 and 2007. A remarkable increase was recorded by virtue of using ICT in processing tax. According to Chatama (2013), iTAX contributed to improved revenue by increasing tax collected from US\$25 million per month in 1996 to US\$300 million per month in 2007.

The new innovation for payment of tax online introduced by the Federal Inland Revenue Service (FIRS) is worthwhile. According to the representative of the acting chairman of the board, the e-payment would not only boost tax revenue collection but also strengthen the self-assessment regime and improve voluntary tax compliance using the online payment options. It

would greatly reduce time and cost of compliance for tax payers as well as easing the interface between taxpayers and authorities. The new system would not only ease compliance for the taxpayers, but also enable FIRS to ensure greater transparency in tax operations (Mashi, 2015) From time immemorial, the payments of taxes - be corporate or personal are often not rigidly implemented by the taxpayers. Payments of taxes, if the system allows it are often neglected by the taxpayers. Effective collections of taxes are the responsibilities of the tax authorities and this in most cases require the experience and human resources. The ICT has now made it easier to administer tax computation and payment. Tax identification numbers are now issued to all the tax payers and every tax payer can be tracked down in respect of his tax responsibilities at any time of the year. Taxpayers are now being reminded electronically when tax is due. Motor licensing authorities now send short message reminders to owners of vehicles shortly before their vehicle particulars are due for renewal.

The speed and accuracy which lead to optimum efficiency in Information Communication Technology can be abused if not properly managed. The online payment of taxes can be short circuited if not properly managed. This can lead to cybercrimes of various proportions. Taxpayers are warned through advertisements in order not to fall victims of the scammers. They are advised not to respond to any email or short messages (sms) purportedly from FIRS requesting you to remit your taxes online and all tax payment transactions should be made only to designated banks and collection of e-receipts should be made thereafter. In addition, public computer should not be used for private banking transactions (Businessday, 2014).

But with the introduction of ICT to the tax administration of Lagos state, the internally generated revenue has improved. The automation of records and taxpayers had helped to boost the revenue of the state and the employees in the state revenue service are easily tracked (Businessday, 2015).

### **SUMMARY, CONCLUSIONS AND RECOMMENDATION**

The use of ICT in tax administration was the focus of this paper. The old method of the rule of thumb compared to the modern tools being used to assess taxable income was discussed.

The ICT has brought many innovations to the administration of tax and this has invariably increased the net revenue collected. There seems to be no hiding place for tax evaders with the use of the modern tools. Continuous training of employees should be encouraged so as to meet challenges created by the systems.

The users i.e. the taxpayers are to be aware of the scams that are prevalent in the use of internet especially the payment of tax online.

Responsible corporate citizens should be encouraged and tax evaders should have their names published every year by the relevant tax authorities to serve as deterrent to others. So also, responsible corporate citizens who pay their taxes as and when due should be appreciated

### **References**

- Abiola, J and Asiweh, M (2012) Impact of Tax Administration on Government Revenue in a Developing Economy – A Case Study of Nigeria International Journal of Business and Social Science Vol. 3 No. 8 [Special Issue - April 2012] 99
- Agusiy, B. A. (2003) Effects of Information Technology on the efficiency of Tax Administration in Nigeria (A case study of Enugu State Board of Internal Revenue) An unpublished project for the award of BSc. (Accounting) by Caritas University, Amorji-Nike Enugu, Enugu State, Nigeria, pp 65-67.

Akpo, U. (2009) the people as government: Imperatives of tax payment. Paper presented at 1st Akwa Ibom State Revenue Submit April 6 & 7, 2009

Alan J., Auerlach, A.J., Kotlikoff, L.J and Skinner, J (1981) the efficiency gains from dynamic tax reform, Working Paper No. 819 National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138 December 1981

Businessday, (2014) Don't fall victim to online Tax Fraudsters Protect yourself, Being Federal Inland Revenue Service (FIRS) advertisement, Businessday Newspaper, May 16 p15.

Businessday,(2015) Boosting ICT's contribution to economic growth. Businessday Editorial May 4, 2015 p12

Businessday, (2015) Sustaining development in the ICT sector. Businessday Editorial December 8, 2015 p12

Chatama, Y. J. (2013) The impact of ICT on Taxation: the case of Large Taxpayer Department of Tanzania Revenue Authority/, *Developing Country Studies*, ISSN 2224-607X (Paper) ISSN 2225-0565 (Online) Vol.3, No.2, 2013 [www.iiste.org](http://www.iiste.org)

Dike, M. A, (2014) Taxation is as old as human existence, Businessday Thursday22, May 2014 Being Interview granted by President of Chartered Institute of Chartered Taxation of Nigeria.

Efunboade, A. O. (2014) Impact of ICT on Tax Administration in Nigeria *Computer Engineering and Intelligent Systems* ISSN 2222-1719 (Paper) ISSN 2222-2863 (Online) Vol.5, No.8, 2014 [www.iiste.org](http://www.iiste.org)

Kitillya, H. M. (2011) Tax Administration Reforms in Tanzania – Experience and Challenges, Being paper presented to the Conference on Revenue Mobilisation in Developing Countries, IMF - Fiscal Affairs Department Washington D.C. April 17-19, 2011 Retrieved from [www.imf.org](http://www.imf.org) on Friday? March 3, 2015

Longe, O., Ngwa, O., Wada, F., Mbarika, V and Kvasny. L (2009) Criminal Uses of Information & Communication Technologies in Sub-Saharan Africa: Trends, Concerns and Perspectives *Journal of Information Technology Impact* Vol. 9, No. 3, pp. 155-172, 2009

Mashi, K. (2015) Nigerians can now pay their taxes online Retrieved from [www.mynewswatchtimesng.com/Nigerians-can-now-pay-their-taxes-online/](http://www.mynewswatchtimesng.com/Nigerians-can-now-pay-their-taxes-online/) on Tuesday May 5, 2015.

National Tax Agency, Japan, National Tax Agency Report 2013 [http:// www.nta.go.jp](http://www.nta.go.jp)

Oseni, M. (2014a) Multiple Taxation as a Bane of Business Development in Nigeria, *Academic Journal of Interdisciplinary Studies* MCSER Publishing, Rome-Italy Vol. 3 No 1 March 2014 E-ISSN 2281-4612 ISSN 2281-3993 [www.msceser.org](http://www.msceser.org)

Schafer, A and Spengel, C (2004) International Tax Planning in the Age of ICT, ZEW (Centre for European Economic Research) Discussion Paper No. 04-27 <ftp://ftp.zew.de/pub/zew-docs/dp/dp0427.pdf>

Ssewanyana, J and Busler, M (2007) Adoption and usage of ICT in developing countries: Case of Ugandan firms *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2007, Vol. 3, Issue 3, pp. 49-59.

Vanguard, (2015) ICPC's Partial Shocks, the Vanguard Newspaper Editorial, March 4, 2015

Weick, T. (2014) Nigeria needs efficient ICT platform to sustain GDP growth. *The Sun Newspaper*, July 31, pp 8

# Gender, Voice and Silence: Strategies for Inclusion of Female Employees

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## Abstract

Employee voice has been mostly scrutinized as a general idea with inadequate attention to workforce gender diversity. Diverse employees present an important central position from which to study employee voice instruments. Female employees are often silenced by what is recognized as usual in work organizations. The lack of physical markers for gender differentiation, the deficiency of legal protections in many locations, the comparative need of union support, and the prevalent downbeat attitudes toward the female gender consequence in more silence for women employees than for men. This paper identifies some of the antecedents and harmful corollaries of such silencing and suggests ways in which the voices of female employees can be heard, arguing that effective management of gender diversity and inclusion would embrace machineries of voice through which gender differences are identified and organizational appraisals conducted to contain those differences in the procedures of decision making and career development. The status quo can shift by breaking the cycle of invisibility and silence by giving female employees room to make constructive contributions to work, unobstructed by fear of violence, prejudice, discrimination, and harassment. To achieve this plan, organizations must develop voice mechanisms that include the specific needs of women employees' in the workforce. Specific recommendations are provided for HR managers to facilitate the expression of voice for female employees in today's increasingly diverse organizations.

**Keywords:** Gender, Voice, Silence, Strategies, Inclusion, Female, Employees

## INTRODUCTION

With globalization, organizations anticipate their employees taking initiative and responsibility for elevated productivity, meeting customer expectations and succeeding in a competitive market. Consequently, the organizations care for employees who are prepared to articulate their ideas, share information and knowledge. However, while organizations centre on open communication, the existence of norms and procedures, often stop employees from articulating their views. Most employees think that organizations functions with a closed mind and do not sustain their knowledge and relationships. The outcome of this is that employees often discuss the concerns only in private, and lack the audacity to share the information with supervisors and managers. This results in silence, a situation which Morrison and Milliken (2000) describes as the employee's choice to hold back their views and concerns about organizational problems. Hirschman (1970) delineates voice as any effort at all to alter, instead of fleeing from, an unpleasant state of affairs, whether by individual or collective appeal to the management directly in charge, through petition to a superior power with the aim of compelling a change in management, or by diverse types of actions and protests, including those that are intended to muster public opinion. Studies on employee voice have frequently

treated voice as a general concept that applies to all workers. Consequently, the voices of minorities in general and female employees in particular have been ignored in much of the academic research on employee voice. Additionally, somewhat owing to their seeming invisibility, overt discrimination, and lack of widespread protective legislation, female employees tend to be at high risk of silencing at work. In this circumstance, women face dual difficulty of reduced voice at work and inadequate research attention on their voice experiences. Creed (2003) contends that it is important whose voices and silence we reflect on; the environments of both voice and silence might differ across gender groups that have different historical heritage of subjugation and opportunities of resistance.

Voice and silence are firmly linked to the identity development process because they are tactical communicative resources that individuals exploit to build a sense of self that will facilitate their survival, coping and development in the organization. This paper posits that gender is an important, aspect of diversity and then examines gendered aspects of the voices and silence of employees. It scrutinize relationships between employee voice systems and the enlarging diversity of workforces, with a particular focus on female employees, who are frequently silenced by what is seen as normal in formal organizations. It also reflects on some of the negative outcomes of this silencing and proposes ways in which the voices of female employees and other minorities can be heard. It also provides precise suggestions for human resource managers seeking to give voice to female employees in increasingly diverse organizations.

## LITERATURE REVIEW

### Employee Voice and Silence

Creed(2003)observes that Voice and silence are interconnected and entwined tactical forms of communication which indicate articulating or disclosing ideas, opinions and features of identity, correspondingly withholding or non-disclosing them . Voice and silence are typified by being active, cognizant, deliberate and decisive, and develop into significant elements of social interaction. Van Dyne et al (2003)suggests that voice and silence presume each other and social actors have both voice and silence since they function at several levels and deal with various concerns at diverse moments in time. They add that voice and silence are theoretically opposed only initially, since one denotes articulating, whereas the other one hold back. Actually, voice and silence assume each other. Voice cannot exist devoid of silence and silence cannot survive without voice. One gives meaning and significance to the other and the nonexistence of one totally diminishes the significance of the other one's existence. This re-conceptualization brings several implications into the foreground, the most important of which is that voice and silence should be considered as social activities, rather than a state of being/state of affairs, since they are strategic and communicative forms of interaction. Social actors are not voice or silence. Social actors can have voice and silence; they can do both. This places more emphasis on agency, dynamicity, change and opens up the road to emancipation, while viewing them as a state of being/state of affairs removes their strategic nature and leads to a certain determinism which minimizes the possibility of change and transformation. There are three main concepts that are tightly connected to voice and silence: power, discourse and identity.

Van Dyne (2003) posits that employee silence as an organizational behaviour has to do with consciously refraining from expressing ideas, information and opinions related to the job. Henrikson and Dayton (2006) describes organizational silence as a mass phenomenon where very few people participate and comment in response to the problems faced by the organization. According to Pinder and Harlos (2001), employee silence is withholding of any form genuine expression about the individuals behavioural, cognitive and/or affective

evaluations of his or her organizational circumstance to persons who are perceived to be capable of effecting change or redress. Employee silence results in employees deliberately holding back opinions and concerns about organizational matters. It may consequence in employees' feelings of not being appreciated and recognized lack of control. Argyris (1977) affirms that there are customs and practices that often stop employees from speaking or understanding people and the organization. Wilkinson ET. Al (2004) adds that in many organizations there exists a tradition of silence among the members, so that most employees know about organizational issues and they provide accurate information, but they do not have courage to give the information to the manager or the supervisor.

As Hewlin (2003) asserts employee silence constitutes a compartment of a superior class of behaviours that include both communicative and non communicative options of employees. Organizational silence affects organization development because it checks the negative feedbacks by influence of which the organization is unable to scrutinize and address mistakes.

### **Antecedents of Voice and Silence**

Studies like Argyris and Shon (1978) ; Korsgaard et al., (1998); Donaghey et al., (2011) and Pierce et al., (1984) identify the antecedents of organizational silence at the management level to include top management attitude to silence, supervisor attitude to silence and communication opportunities. Change management literature studies like Beer and Nohria (2000) Kotter (1996) deem the role of top management decisive for the success of change because as Weber and Weber (2001) observes, trust in top management decreases feelings of insecurity and groundless fears. Others are negative feedback; fears of managers ; prejudices towards work and workers ; character of the manager ; homogeneity of the management team ; individual reasons ; lack of confidence ; considering talking risky ; fear of isolation ; past experiences ; fear of damaging relationships ; character and personality ; national and cultural reasons ; cultural structure and norms as well as power distance. At the organizational level, the reasons for organizational silence encompass culture of injustice; silence climate and organizational culture.

According to Morrison and Milliken (2000), organizational silence results in feelings of not being appreciated, supposed lack of control and cognitive discord, which consequence low satisfaction, commitment and motivation. Also, Oliver (1990) contends that these determinants influence results like turnover, stress level and job effort towards the organization. Hirschman (1970) observes that voice embraces efforts to change, rather than flee from, unpleasant situations in the workplace and has several demonstrations.

### **Types of Voice and Silence**

Dundon et al. (2005) segregated voice in large organizations into four major threads of thought. The first involves voice as an expression of individual dissatisfaction (e.g. protests to line managers, grievance procedures, speak-up programmes); the second is voice as the expression of collective organization (e.g. union recognition, collective bargaining, industrial action); the third is voice as a type of input to management decision making (e.g. upward problem solving groups, quality circles, suggestion programmes, attitudinal surveys, self-managed teams) while the fourth is voice as a form of mutuality (e.g. partnership agreements, joint consultative committees, and works councils).

Voice is also of different types. A very relevant one to female employees especially in African societies is the idea of dormant or protective voice, which Ellis & Van Dyne (2009) affirms is intended to shield oneself from abuse or mistreatment. In contrast, compliant voice refers to detached expressions founded on resignation, which may manifest as female employees

withdrawing from social aspects of work. Moreover, Van Dyne, Ang, and Botero (2003) depicts pro-social voice as articulating ideas, information, and opinions in beneficial ways to advance work and organizations based on supportive intentions.

Morrison & Milliken (2000) opine that silence involves employees' calculated, cognizant decision to hold back their opinions and concerns about organizational problems or issues. Similar to voice, silence is complex and can be quiescent or defensive, acquiescent or pro-social. Pinder & Harlos (2001) notes that quiescent or defensive silence involves the self-protective and more active behaviour founded on the apprehension that the corollaries of speaking up will be individually expensive, while acquiescent silence refers to detached behaviour founded on resignation. Van Dyne et al., (2003) adds that acquiescent silence is inert and deep-rooted, in which employees have given up hope for development and have accepted the problematical state. Finally, pro-social silence is holding back ideas, information, or opinions with the goal of benefiting other people or the organization-based on self-sacrifice or supportive motives.

### **Gender, Voice and Silence**

Regardless of the now extensively distinguished significance of dealing with diversity both in research and practice, several facets of diversity, like gender does not seem to have received enough attention. Consequently, notwithstanding the obvious significance of women employees' experiences of diversity in organizations, they are often neglected in studies. In the same vein, gender equality is considered unthinkable or even illegitimate across several societies and countries especially in Africa. Gender based discrimination generates remarkable difficulties for individuals and the organizations where they work. Supportive human resource management practices that promote openness and disallow unfair practices can, however, make a distinction.

In the workplace, women tend to occupy more subsidiary positions compared to men; however, arising from the persisting rise in women's labour force participation, studies are now exploiting female concerns in their research. Bekker, Nijssen and Hens (2006) proposes that a critical feature and basic rationalization for the continuation of gender differences, in organizational voice and silence among employees, is the existence of disparities in the types of drivers faced by both genders in their workplaces. Several of the organizational drivers are psycho-social in nature and it is universally recognized that individuals react differently to introduction to these dynamics. It is therefore essential to think gender when examining organizational voice and silence-associated difficulties. Meijer (2007) affirms that women and men are open to diverse employment milieu and dissimilar forms of requirements and pressures, even while employed in identical industries and occupations.

Ojo (1998) notes that in the workplace men have added tendencies to hold superior spots. Furthermore, Baum (2009) indicates that women (who constitute 42% of the active population in the EU) have greater tendencies for part-time work than men. 26% of women in contrast to 5% of men confirmed that they work part-time and numerous women are engaged in low-paid, insecure jobs that influence their employment situations and consequently the exposure to hazards. Fapohunda (2012) indicates that women are predisposed to stay in the same job longer than men; consequently their familiarity with any existing perils lasts longer. Women are also apt to work in employments with poorer union representation.

Robertson (2006) affirms that inclusion which is a very significant element in employee voice involves a person's ability to contribute fully and effectively to an organization. In the same vein, Pless & Maak (2004) contends that gender diversity features necessitate creating a



culture of inclusion in which the different voices of a diverse workforce are respected and heard. In such cultures, those with noticeable or imperceptible differences know they can be contented in their differences. Gender based diversity is thus considered critical to unlocking the potential contribution of individual differences at work.

Pless & Maak (2004) adds that in diverse and inclusive organization cultures, people are distinguished as being diverse, nonetheless they are also distinguished and valued as equally free organizational citizens, with equal rights as everybody else.

The ability to go out to work and to boast similar rights, benefits, and privileges as all and sundry is a significant characteristic of employee voice. With the existence of both diversity and inclusion, employees experience a sense of belonging, and inclusive behaviours such as eliciting and valuing contributions from all employees are part of the daily life in the organization. Eliciting and valuing employees' contributions are also crucial elements of employee voice.

For female employees, silence about discrimination, harassment, benefits, or other inequalities can therefore be analysed through quiescent, acquiescent, defensive, and pro-social lenses. When fear of harassment, termination, or other negative corollaries subsists, acquiescent or defensive silence may be produced. When there is no hope of change, for example, silence may exist as a form of resignation. Pro-social silence of allies may occur when others fear for their female friends and colleagues in an organization.

Bowen and Blackmon (2003) affirms that the interaction between an employee's individual characteristics (like gender and ethnicity) and the environment within which the employee operates establishes voice and silence. Where female employees feel that expressing their personal opinions is undesirable at work, they will not share their experiences and speak up. Morrison & Milliken (2000) asserts that a frequent form of silence that women employees may manifest is that silence as an organizational act is often suggestive of organizational processes, structures, and work cultures that are hostile to the inclusion of women employees.

Women harbour more self-doubt and questions about potentials and intellectual proficiency than men. Light(1990) in a study of Harvard undergraduates found that regardless of educational accomplishment, success, or fulfilment, when the women incited failure, they were swift to doubt themselves and they credited their difficulties to self-restraints and personal insufficiencies while their male colleagues described failures by attributing blame to others or circumstances.

Social forces merge to make self-doubt an associate in women's career and work lives. Cultural and historical definitions of femininity emphasize the idea that it is easier for women to achieve respect and attention for their bodies and physical features than for the value of their intellects. Modern women receive contradictory messages requesting them to disregard the stereotypes but remain feminine and they feel penalized for doing either. Since such penalties are maddening, self-doubt becomes a logical and safer alternative.

Early school experiences reveal society's mixed messages about women's fitness for learning and career. Studies like Williams & Jones (2005) and Trebilcock (1991) indicate the potent certainty that schools short change girls. At all levels of education, the classroom is often a doubt-provoking experience for girls who sometimes contend with teacher behaviour, attitudes and pedagogy that favour boys. Consequently, they begin to perceive external occurrences as personally originated, to interpret their continuous marginal status to

questions of their inabilities. Roberson (2006) observes that girls often come out of early school experiences with half the confidence and self-esteem of boys. Cameron (1990) and Thorne and Henley (1983) argue that women carry this educational bequest into the adulthood compounded by years of cultural and personal experiences that support women's public silence.

Belenky et.al. (1986) and Berman (1989) see the problem as deeper and point out that communal notions of knowledge and individual development are androcentric. As Hubbard (1988) observes men have historically been the "information-architects," who have created and conducted the research, served as the research subjects, suggested the theories, written the histories, described the processes, instituted standards for successful achievements, managed admittance to institutions, and set the public policies that direct both men and women. Women on the other hand have been requested to study the experiences of men and admit it as representative of all human experience. Kohlberg (2008) suggests that when women are unable to match these experiences to their own lives or see them as pertinent to their vital needs or concerns, the women, not the facts, theories, and curricula are deemed deficient.

### **Corollaries of Voice and Silence**

Coupled with the lack of physical markers for gender differentiation, the deficiency of legal protections in many locations, the comparative need of union support, and the prevalent downbeat attitudes toward the female gender may consequence in more silence for women employees than for men. Studies like Morrison & Milliken (2000); Pinder & Harlos (2001); Van Dyne et al. (2003) suggest that defensive silence, owing to fear, or acquiescent silence, arising from loss of hope for change, can result further in separation and withdrawal and eventually embrace employee turnover.

Consequently, both the women employees who are silenced and their employers suffer. This study argues that effective management of gender diversity and inclusion would embrace machineries of voice through which gender differences are identified and organizational appraisals conducted to contain those differences in the procedures of decision making and career development. Because many countries especially in Africa do not have sufficient prohibitions against gender based discrimination, and owing to general battle against equality for women in some areas, leaders concerned with voice for all workers must take precise steps to let female employees recognize that their voices will be valued rather than silenced. The status quo can shift by breaking the cycle of invisibility and silence by giving female employees room to make constructive contributions to work, unobstructed by fear of violence, prejudice, discrimination, and harassment. To achieve this plan, organizations must develop voice mechanisms that include the specific needs of women employees' in the workforce.

Research on diversity like Cox (1993) and Rayside (2000) indicate that significant gender differences frequently generate mistrust and fear of the unknown. Hence, the greater the gender divergences between top management and others within the organization, the greater the tendency that top management will perceive employee participation with suspicion. Collins (2012) opines that the extent of gender differences between employees and top managers may contribute to a climate of silence. The study found that gender variations of the top management team in contrast to that of lower-level employees has the capacity to influence the predominance of silence-generating beliefs. Eliam (2004) indicates that the ordinary incident of being dissimilar to those occupying positions of power results in various expected responses by those at lower hierarchical levels. Once a great number of employees observe that people like themselves are underrepresented at the top, there is the tendency for them to conclude that the organization does not value the contributions of people like themselves. This

conclusion may consequently promote the conviction that it is even more dangerous for them to truthfully voice their opinions as opposed to employees who are more similar to those at the top.

### **Voice Mechanisms for Female Employees**

Various systems afford employees the prospect of articulating their voice. Some of these include legal regulations, trade unions, and specific gender and human rights organizations. Legislation can be helpful in reducing the silence of female minorities, although the legal case for gender equality is fairly new and weaker evaluated against other types of anti discriminatory legislation. Trade union membership can often serve as a legal protection for women employees. Urwin, Murphy, & Michielsens (2007) posits that in reality, employee voice has been seen as a traditional role of trade unions; though, in recent decades, union membership has been on the decline, making this voice mechanism less powerful than it formerly was. Even where employee voice is legally protected by trade unions, however, women employees can still remain silent. As Benson and Brown (2010) observes, unions vary in their ability to represent their members. Morehead, Steele, Alexander, Stephen, and Duffin (1997) demonstrates that only 24% of unionized workplaces in Australia are portrayed as active, with senior delegates present, membership meetings held, and negotiations taking place between management and labour. More than three-quarters of unionized workplaces had no union structure that could provide for employee voice.

Fapohunda (2008) found that while women constitute as much as 50% of the Nigerian population and 25% of the total workforce, only 2.5% of them participate actively in unions. Women are not adequately represented in trade union leadership and policy making. Even women dominated professions have their union leadership positions occupied by men. The NLC national executive council of 14 members had no woman. Only 10 out of the 281 accredited delegates at the NLC conference were females and in the February 2007 conference of 267 delegates only 23 were females. Consequently, females tend to be invisible in the union structure.

Moreover, active unions can present their own difficulties for female employees' expressing voice. Hunt & Rayside (2000) ascertains that minority groups like women face numerous structural and cultural obstacles to partaking in trade unions. If more women employees are involved in union procedures, their representation by unions might prove useful. However as Kirton & Greene (2002) observes, men control the governing bodies and decision-making structures of most unions and are consequently able to manipulate policies and practices to mirror their own interests. Kirton & Greene (2002) notes that the unrepresentative nature of union leadership limits the ability of unions to effectively encourage equality, diversity and inclusion in employment. Although various unions are making strides in adopting structural and organizational changes to improve member equality, equal priority is not given to all groups; indeed, gender equality has not been pursued vigorously enough.

Although women may be supported to voice their differences, their experiences and their opinions, they frequently meet complexities being heard. Belenky et al (1997) indicates the problems females' countenance in affirming their authority and in articulating themselves in public for others to listen. They advocate that men have better success than women in obtaining and sustaining the attention of others for their ideas and opinions and that women often feel unheard even when they feel they have something vital to say. This implies that 'voice' should include not only the physicality of expression but also the more political procedure of listening and paying attention.

Voice is an instrument through which employees can achieve organizational change; however conventional Instruments of voice become ineffective in expressing the requirements of workers from different backgrounds arising from alteration of workforces and overriding practices. The need therefore arises to initiate innovative and changed instruments of voice that use systems and structures pertinent to both new work structures and increasingly diverse profiles of current and potential workers. Owing to the controversial and politicized nature of equality for female employees, proactive leaders must execute policies and practices that sustain gender equality and signify voice. Executing the policies devoid of the coercion of legislation makes it more significant to employees and successful, since it speaks volumes on the organization’s degree of dedication to equality to employees and component groups. A generally communicated non-discrimination policy constitutes a clear expression of dedication to gender equality.

**Table 1: Implementing Voice Mechanisms for Female Employees**

Types of Voice	Mechanisms of Voice at Work for Female Employees
Expression of individual dissatisfaction	<ul style="list-style-type: none"> <li>• Provision of anonymous grievance mechanisms</li> <li>• Permitting feedback devoid of harassment</li> <li>• Analyzing every guideline and procedures for gender prejudice</li> <li>• Offering a secure place for gender networking and giving staff time for participation</li> </ul>
Expression of collective organization	<ul style="list-style-type: none"> <li>• Establishing inclusive diversity commissions</li> <li>• Instituting intra-organizational gender networks</li> <li>• Ensuring that Union Representation is gender sensitive</li> </ul>
Contribution to management decision making	<ul style="list-style-type: none"> <li>• Formulating a clear dedication to concerns exclusive to female employees to be considered in decision-making procedures</li> <li>• Apportioning sufficient human and financial resources to gender equality endeavours</li> <li>• Incorporating female employees’ voice in training and development programmes</li> <li>• Incorporating gender questions in human resource monitoring systems</li> </ul>
Mutuality	<ul style="list-style-type: none"> <li>• Fabricating representatives of internal and external gender networks</li> <li>• Joining gender equality schemes to bring external inspection to the organization</li> <li>• Recognizing and encouraging gender equality advocates</li> </ul>

In adopting a practical attitude for inclusion, leaders can follow a wealthy gamut of definite voice systems from literature; the important issues in applying these methods to encourage voice is initiating methods that permit participation by employees whose voices have formerly been silent.

For female employees, the four subdivisions of voice should have definite features to aid voice. For the expression of personal discontent, various systems should subsist for both female employees and supporters to put forth grievances on discrimination, harassment, and exclusion. The systems may be real or practical, anonymous or open. While the eventual plan is to present real and open systems to reveal dissatisfaction, the contemporary environment of the workplace should be measured in creating voice mechanisms for female workers if they are to be used. Offering employees chances to articulate their dissatisfaction to managers and providing grievance processes and speak-up programmes benefits not only female employees, but the entire organization. More distinctive to female employees is the provision of specialists to address dissatisfaction prompted by harassment, silence, or female -specific concerns added to the accessibility of grievance channels that are devoid of additional dangers of harassment and bullying.

For the expression of collective organization, organizations can legitimize the voice of female employee arrangements in trade unions and other collective institutions. Building networks of diversity and equality at work to include gender issues provides an excellent starting point after which valuable systems to influence gender diversity and eliminate inequality,

discrimination, and harassment must be initiated. An intra-organizational gender network could in addition assist dialogue among female workers to help recognize, and possibly address, problems associated with workplace dissatisfaction.

Voice as a type of input to management decision making is principally significant because management decision making occupies a vital position in behaviours at work. West (2011) affirms that when management visibly expresses that female employees are appreciated contributors to organizational success, and that gender discrimination is not tolerated, female employees are more comfortable voicing out.

Finally, voice as a form of mutuality could imply bringing in representatives of women networks to put together efficient ties with the organization. Women rights campaign groups and human rights associations assist in the provision of opportunities for female employee voice outside the employing organization. Developing attachments with such groups can ease relocation of progressive practices elsewhere to the organization, bringing the organization in line with modern voice mechanisms. Identifying high-profile gender campaigners at work can also boost the profile of women issues and aid assimilating these issues into the strategic decision making at work. This could indicate that gender equality is accepted both in theory and in practice, as female employees are represented in high-level positions, devoid of consequence.

Voice and its connections with diversity and inclusion are vital to the success of change management efforts.

By managing gender diversity efficiently across a rising set of threads and numerous junctions of these threads organizations will capture the voices of all workers in their continuous processes of organizational change.

Organizational leaders, as change agents must recognize the dynamics of their organizational and national environment and recognize a wider gamut of voice mechanisms that can provide for diverse component groups in workplaces. Organizational leaders must deviate from command-and control-based managerial approaches to promoting involvement and building trust to support use of voice by non-conventional workers.

For female employees, managing diversity should consider facets of inclusion that specifically think of their particular, distinctive anxieties. Tackling these concerns, organizations can anticipate superior levels of satisfaction, organizational commitment, and positive work attitudes from female employees. The estimated over 60 million females in Nigeria constitute important present or prospective employees, customers with considerable purchasing power, and stakeholders with interest and influence. Organizations that appreciate gender diversity will have benefits in terms of attracting and retaining workers. Aside from obvious business benefits, moral and social cases can be made for providing voice to female workers. Providing such voice will require committed leadership.

### **RECOMMENDATIONS**

To mainstream female employees in the workplace, organizations should work with trade union representatives and female employee networks to promote commitment to the diversity programme. This could include inviting gender network members to become diversity representatives. Adequate resourcing of gender initiatives is imperative. Also, to mainstream gender issues in decision procedures at work, organizations must initiate gender monitoring in their human resource reporting systems. The value of legislation prohibiting gender

discrimination in reducing hiring discrimination and prejudice cannot be overemphasised. Though initiated various times, national legislation prohibiting gender discrimination has continually failed to succeed in Nigeria. It is central for organizations to focus intentionally on fairness toward female employees in HR processes with or without definite legislation. Diversity training and education should include gender diversity as it can help prevent discrimination by raising awareness, creating open dialogue, and reducing misperceptions, stereotypes, and fears. All workers should be educated on the organization's position on gender diversity and inclusion. Diversity training should include support-based training, emphasizing how to be a fair and supportive colleague or supervisor to female employees. Female employees must make mindful endeavours to seek organizations that are intolerant of gender discrimination.

## CONCLUSION

This paper contends that increasing workforce diversity necessitates new and different organization voice systems. It offers types of recognized voice mechanisms, suitably applied to female employees, which can be employed to give voice to females at work and therefore generate a culture of inclusion. The need arises to recognize and promote moral entrepreneurs who can champion and encourage the importance of autonomous and reasonable use of voice at work and who can consequently correct the normative landscape of organizations. From the model that moral entrepreneurs will set, the point of democratic and fair systems of voice can be legitimized and made routine in workplace practices, processes, and systems. Moreover, human resource managers can play an important part in recognizing and encouraging moral entrepreneurship to advance voice for female employees and other minority groups.

## References

- Argyris, C. (1977), "Double loop learning in organizations", *Harvard Business Review*, Vol. 55 No. 5, pp. 115-29.
- Argyris, C. and Schön, D. (1978). *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
- Baum, A. (2009). Stress, intrusive imagery, and chronic distress. *Health Psychology*, 9(6), 653-675
- Beer, M. and Noria, N. (2000), "Cracking the code of change", *Harvard Business Review*, May-June, pp. 133-141.
- Bekker, M.H.J., Nijssen, A., Hens G., (2006), 'Stress prevention training: sex differences in types of stressors, coping, and training effects', *Stress and Health*, 17, 207-218.
- Belenky, M., Clinchy, B., Goldberger, N. Tarule, J. (1997) *Women's ways of knowing: The development of self, voice and mind*, Basic Books, 1997
- Benson, P.G & Brown R.G., (2010) an instrument for measuring the critical factors of quality management. *Decision Sciences*, 20, 810-829.
- Berman, L. M. (1989). When flexibility "works" and when it "fails": An in-depth analysis of alternatives to the nine-to-five work week. Unpublished doctoral dissertation, University of Maryland, College Park.
- Bowen, F., & Blackmon, K. (2003). Spirals of silence: The dynamic effects of diversity on organizational voice. *Journal of Management Studies*, 40(6), 1393-1417.
- Cameron, D. (ed.) (1990) *the Feminist Critique of Language: A Reader*. New York: Routledge, 1990.
- Collins, P. (2012) Felt violations: Who reacts more strongly when expectations are not met? Paper presented at the 67th annual conference of the Academy of Management, Philadelphia.
- Cox, T.S. (1993). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Executive*, 5(3), 45-56.
- Creed, W. E (2003). Voice lessons: Tempered radicalism and the use of voice and silence. *Journal of Management Studies*, 40(6), 50-56.

- Donaghey, J., Cullinane, N., Dundon, T., Wilkinson, A., 2011. Reconceptualising Employee Silence: Problems and Prognosis, *Work, Employment and Society*, 25:1, 51-67.
- Dundon, T., Wilkinson, A., Marchington, M., & Ackers, P. (2005). The management of voice in non-union organisations: Managers' perspectives. *Employee Relations*, 7(3), 307–319.
- Eliam, P (2004) the social construction of relationships among professional women at work. In M. Davidson & R. Burke (Eds) *Women in Management: Current Research Issues*, London: Paul Chapman,
- Ellis, J. B., & Van Dyne, L. (2009). Voice and silence and observers' reactions to defensive voice: Predictions based on communication competence theory. In J. Greenberg & M. S. Edwards (Eds.), *Voice and silence in organizations* (pp. 37–61). Bingley, UK: Emerald Group.
- Fapohunda, T. M. (2012) "Towards Improved Access to Full Employment and Decent Work for Women in Nigeria." *International Journal of Humanities and Social Science* Vol. 2. No.8. (Special Edition) April 2012 pp. 104-112. Centre for Promoting Ideas, USA.
- Henrikson, K., E. Dayton, 2006. "Organizational silence and Hidden Threats to patient safety," *HSR: Health service Research*, 41(4part11): 1539-1554.
- Hewlin, P. F. (2009). Wearing the cloak: Antecedents and consequences of creating facades of conformity. *Journal of Applied Psychology*, 94(3), 727–741.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty*. Cambridge, MA: Harvard University Press.
- Hubbard, R. (1988) "Some Thoughts about the Masculinity of the Natural Sciences," in M. Gergen (ed.), *Feminist Thought and the Structure of Knowledge*. New York: New York University Press, 1988, pp. 1-15.
- Hunt, F & Rayside, D. (2000). Labor union response to diversity in Canada and the United States. *Industrial Relations*, 39(3), 401–444.
- Greene, A. M., & Kirton, G. (2002). Trade unions and equality and diversity. In A. M. Konrad, P. Prasad, & J. K. Pringle (Eds.), *Handbook of workplace diversity* (pp. 489– 510). London: Sage.
- Kohlberg, L. (2008). *The Psychology of Moral Development*. San Francisco: Harper & Row.
- Korsgaard, M. A, Schweiger, D. M. and Sapienza, H. J. (1998) "Building commitment, attachment, and trust in strategic decision-making teams: The role of procedural justice," *Academy of Management Journal*, vol. 38, no. 1, pp. 60-84.
- Kotter, J.P. (1996), *Leading Change, Why Transformation Efforts Fail*, Harvard Business School Press, Cambridge, MAZ.
- Light, R. (1990) "Explorations with Students and Faculty about Teaching, Learning, and Student Life: the First Report," Cambridge, MA: The Harvard University Assessment Seminars.
- Meijer, J. (2007). Correlates of student stress in secondary education. *Educational Research*, 49(1), 21-35.
- Morehead, A., Steele, M., Alexander, M., Stephen, K., & Duffin, L. (1997). *Changes at work*. Melbourne, Australia: Longman.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review*, 25(4), 706–725.
- O'Donnell-Trujillo, N. (2012). Communication and organizational cultures. *Western Journal of Speech Communication*, 46, 115-130.
- Ojo, F. (1998): *Human Resources Management Theory and Practice*. Panaf, Lagos.
- Oliver, N. (1990), "Rewards, investments, alternatives and Organizational commitment: Empirical evidence and theoretical development", *Journal of Occupational Psychology*, Vol. 63, pp. 19-31.
- Pierce, J., Dunham, R. and Cummings, L. (1984), "Sources of environmental structuring and participant responses", *Organizational Behavior and Human Performance*, Vol. 33, pp. 214-242.

Pinder, C., & Harlos, K. (2001). Employee silence: Quiescence and acquiescence as responses to perceived injustice. In G. Ferris (Ed.), *Research in personnel and human resources management* (Vol. 20, pp. 331-369). Greenwich, CT: JAI Press.

Pless, N. M., & Maak, T. (2004). Building an inclusive diversity culture: Principles, processes, and practices. *Journal of Business Ethics*, 54(2), 129-147.

Roberson, Q. (2006). Disentangling the meanings of diversity and inclusion in organizations. *Group and Organization Management*,

31(2), 212-236.

Thorne, B. and Henley, N. (Eds.) (1983) *Language, Gender, and Society*. Rowley, MA: Newbury House, 1983.

Trebilcock, A. (1991). Strategies for strengthening women's participation in trade union leadership. *International Labour Review*, 130(4), 407-426.

Urwin, P., Murphy, R., & Michielsens, E. (2007). Employee voice regimes and the characteristics of conflict: An analysis of the 2003 survey of employment tribunal applications. *Human Resource Management Journal*, 17(2), 178-197.

Van Dyne, L., Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence and employee voice as multidimensional constructs. *Journal of Management Studies*, 40(6), 1359-1392.

Weber, P. and Weber, J. (2001) "Changes in employee perceptions during Organizational change", *Leadership & Organization Development Journal*, Vol. 22, pp. 291-300.

West, L. (2011) the case for mandatory diversity education. *Academy of Management Learning and Education*, 8(4), 597-609.

Wilkinson, A., Dundon, T., Marchington, M., & Ackers, P. (2004). Changing patterns of employee voice. *Journal of Industrial Relations*, 46(3), 298-322.

Williams, M. & Jones, G (2005) *Voice and silence in organizations: Historical review and current conceptualizations*. In J. Greenberg

& M. S. Edwards (Eds.), *Voice and silence in organizations* (pp. 1-33). Bingley, UK: Emerald Group.



## International Financial Reporting Standards (IFRS) for International Accounting and Financial Integration: With special focus on Wipro Limited of India

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### Abstract

There is a growing international consensus on the International Financial Reporting Standards (IFRS) as acceptable standards for assessment of the financial health of a company across the globe. With the world becoming a global village, companies and investors who operate business in several countries need to understand each nation's accounting principle. Although basic accounting principles such as the accrual basis and the going-concern assumption are widely accepted, the application of these principles in different economic and cultural environments has led to significant differences as to how accountants report similar transactions. Local differences exist in, for example, the treatment of goodwill, the definition of a group, treatment of borrowing costs, measurement of impairment, and the treatment of deferred taxes. The author considered the Annual reports of Wipro Limited of India. Where in the reconciliation of the equity as per IFRS and Indian Generally Accepted Accounting Principles (IGAAP) were reported for the year beginning 2010 and for the year ended 2011. The 2011-2012 Annual Reports of Wipro presented the consolidated financial statement in both Indian GAAP and IFRS. Reconciliation of equity as per IFRS and IGAAP was reported for the year beginning 2010 and for the year ended 2011, which is considered in this study for examination.

**Keywords:** International Financial Reporting Standards (IFRS), Indian Generally Accepted Accounting Principles (IGAAP), Wipro Limited, International Accounting Standards Board (IASB)

### INTRODUCTION

There is a growing international consensus on the International Financial Reporting Standards (IFRS) as acceptable standards for assessment of the financial health of a company across the globe. With the world becoming a global village, companies and investors who operate business in several countries need to understand each nation's accounting principle. Although basic accounting principles such as the accrual basis and the going-concern assumption are widely accepted, the application of these principles in different economic and cultural environments has led to significant differences as to how accountants report similar transactions. Local differences exist in, for example, the treatment of goodwill, the definition of a group, treatment of borrowing costs, measurement of impairment, and the treatment of deferred taxes.

For entities that are globally active, these differences in financial reporting requirements create extra complications in terms of preparing, consolidating, auditing, and interpreting financial statements. This is because financial statements have to be reconciled before

consolidated financial statements can be prepared, the analysis of potential acquirers in a foreign country increases the costs of the mergers and acquisitions department because they have to familiarize themselves with a foreign accounting system, and investors have to be informed about differences in financial reporting. In general, the differences in accounting treatments create non-optimal information for users of financial statements, which in turn leads to less than optimal allocation of resources. It has been said that accounting is the "language of business," and though not all users need to create the language, all users should be able to "read" the language. For decades, however, it has been difficult to read and understand company performance when financial information originated from different global locations. Many of these companies effectively prepared financial statements under different accounting rules and regulations. As a result, the different rules created different values or measures for the same economic event. [1]

In India, the Institute of Chartered Accountants of India (ICAI) has made IFRS mandatory in India for financial statement from 1st April 2011. [35] The rules for the first-time adoption of IFRS are set out in IFRS 1 –First time-adoption of International Financial Reporting Standards. IFRS 1 states that a company should use the same accounting policies in its opening balance sheet and throughout all periods presented in its IFRS financial statements. The standard requires these policies to comply with IFRS effective at the reporting date of the first published financial statements under IFRS. IFRS 1 permits certain mandatory exemptions and also allows exemptions from the application of certain IFRS in order to assist companies with the transaction process. According to an Oracle White Paper (2008) the International Accounting Standards Board (IASB) has since 1970 worked to develop a single set of International Standards, the IFRS. The world's capital market ebb and flow continuously, and participants in that market place must have access to financial information that factually reflects their economic performance, is consistent among companies around the globe, and is governed by a trusted and respected authority of corporate compliance. [4]

Beginning from 1st April 2011, Companies listed in National Stock Exchange(Nifty 50), Bombay Stock Exchange(Sensex 30),Companies whose stocks are listed outside India and Companies which are listed or not but which have their net worth exceeding INR 1000 crores are required to carry out the convergence of Indian Accounting Standard with IFRS. [35] Reliable, consistent and uniform financial reporting is important part of good corporate governance practices worldwide in order to enhance the credibility of the businesses in the eyes of investors to take informed investment decisions. In pursuance of G-20 commitment given by India, the process of convergence of Indian Accounting Standards with IFRS has been carried out in Ministry of Corporate Affairs through wide ranging consultative exercise with all the stakeholders. International Financial Reporting Standards (IFRS) have recently emerged as the numero uno accounting framework, with widespread global acceptance. The IASB, a private sector body, develops and approves IFRS. The IASB replaced the IASC in 2001. The IASC issued IAS from 1973 to 2000. Since then, the IASB has replaced some IAS with new IFRS and has adopted or proposed new IFRS on topics for which there was no previous IAS. Through committees, both, the IASC and the IASB have issued interpretations of standards.

IFRS refers to the new numbered series of pronouncements that the IASB is issuing, as distinct from the IAS series issued by its predecessor. More broadly, IFRS refers to the entire body of IASB pronouncements, including standards and interpretations approved by the IASB, IFRIC, IASC and SIC. Currently, 41 IAS and 9 IFRS are effective. In addition, 11 SICs and 16 IFRICs provide guidance on interpretation issues arising from IAS and IFRS. IFRS is principle based, drafted lucidly and is easy to understand and apply. However, the application of IFRS requires

an increased use of fair values for measurement of assets and liabilities. The focus of IFRS is on getting the balance sheet right, and hence, can bring significant volatility to the income Statement.

### OBJECTIVES

The prime objective of the present work is to study impact and consequences on financial statement due to IFRS adoption with the help of case study of Wipro Limited.

More specifically, this article has the following objectives:

1. To observe the effects of voluntary convergence of IFRS on financial statement of Wipro Ltd, an IT based company.
2. To scrutinize the effects of voluntary convergence of IFRS on financial ratio of Wipro Ltd.

### RESEARCH METHODOLOGY

#### Study Area

This study has been conducted by incorporating the provisions of IFRS adopted / to be adopted by the Wipro Ltd, a software company running business in India.

#### Research Design

This study is analytical as well as descriptive in nature. The study gives the comparative details about the IFRS and IGAAP for the purpose of better understanding and analysis. We have not taken any hypotheses in the study because adoptions of IFRSs are in progress and it takes time to come in full-fledged manner.

#### Data Collection

The study is based on secondary data on selected variables sourced from the published annual reports of Wipro for the year ended 31st March 2012. Wipro had voluntarily prepared its annual report on the basis of Indian GAAP and IFRS for the year ended 31st March 2008 & 31st March 2012, wherein reconciliation of equity based on Indian GAAP and IFRS is presented for the opening Balance Sheet as at 1st April 2010 and for Balance Sheet ended 31st March 2011. The main sources of secondary data are company's manual, annual general reports, journals, newspapers and concerned websites.

#### Data Analysis

Comparative study and chart has been prepared for bird's eye view. Since the data has been analyzed and provided by the company itself, we have elaborated the reasons behind the differences and suggested tentative solutions towards better convergence of IFRS.

**Table.1 How IFRS was implemented: Road Map I**

Companies other than Insurance companies, Banking companies and Non-Banking finance companies		
Applied to	Applicability	Not applied to
<b>Phase I</b> :- (i) NSE-Nifty 50 and BSE-Sensex 30 companies (ii) Companies listed in overseas stock exchanges (iii) Companies with net worth above INR 1000 crore	1st April, 2011	(i) Unlisted companies having a net worth of INR 500 crore or less and whose securities are not listed overseas (ii) Small and medium companies (SMCs) They can voluntarily opt to follow the converged Accounting Standards
<b>Phase II</b> :- Companies whether listed or not having a net worth exceeding INR 500 crore but not above INR 1000 crore	1st April, 2013	

<b>Phase III</b> :- Listed companies having a net worth of INR 500 crore or less	1st April,2014	
* When the accounting year ends on a date other than 31st March, the conversion of the opening Balance Sheet will be made in relation to the first Balance Sheet which is made on a date after 31st March.		

Source: <http://www.icai.org/>

**Table 2. How IFRS was implemented: Road Map II**

Insurance companies, Banking companies and Non-Banking finance companies		
Applied to	Date of Applicability	Not applied to
<b>Phase I</b> (i) All insurance companies	1st April,2012	(i) Urban co-operative banks having net worth $\geq 200$ crore and regional rural banks (ii) Listed NBFCs and unlisted NBFCs, not being part of Nifty and Sensex, with net worth above INR 500 crore (iii) Unlisted NBFCs having a net worth of INR 500 crore or less. <ul style="list-style-type: none"> <li>▪ They can voluntarily opt to follow the converged accounting standards</li> </ul>
<b>Phase II</b> (ii)(a) NSE-Nifty 50 or BSE- Sensex 30 NBFCs and NBFCs, listed or not, having a net worth above Rs 1000 crore. (b) Scheduled commercial banks and urban co-operative banks with net worth above INR 300 crore	1st April,2013	
<b>Phase III</b> (iii) Urban co-operative banks having a net worth in excess of INR 200 crore but not exceeding 300 crore	1st April,2014	

Source: <http://www.icai.org/>

After postponing its implementation once, India is again attempting to adopt International Financial Reporting Standards (IFRS). India originally decided to implement IFRS from 1 April 2011 in a phased manner but it was postponed. In January 2013, the ministry for corporate affairs (MCA) sought the opinion of the Institute of Chartered Accountant of India (ICAI) as to when India could converge to IFRS. ICAI gave its recommendations in February, suggesting that companies with net worth above Rs 1,000 crore should implement IFRS from 1 April 2015; those worth Rs 500-1,000 crore by 1 April 2016 and all others by 1 April 2017.

India has no choice but to adopt IFRS. More than 100 countries have already adopted IFRS, including China, Canada and Australia. Even US is now considering moving from US GAAP to IFRS. India is one of the few countries in the world which has yet to adopt IFRS or come out with a clear timeframe for the same. Many of India's peer countries have also implemented the IFRS- China (a couple of years ago), Brazil (in 2008) and Russia (in 2012). Japan is one of the few developed countries that have not yet implemented IFRS. The whole of Europe is already in the IFRS mode.

### Rationale behind adopting IFRS in Indian Accounting scenario

A set of financial reporting standards issued by the International Accounting Standards Board is recognized under the brand name International Financial Reporting Standards (IFRSs). IFRS

is a trade mark of the International Accounting Standards Committee Foundation. The main objective of International Financial reporting Standard (IFRS) is to harmonize accounting between countries which will make it easier to conduct business internationally and can subsequently raise funds in global capital market.

International Financial Reporting Standards (IFRSs) comprise of:

- International Financial Reporting Standards (IFRS)—standards issued after 2001
- International Accounting Standards (IAS)—standards issued before 2001
- Interpretations originated from the International Financial Reporting Interpretations Committee (IFRIC)—issued after 2001
- Standing Interpretations Committee (SIC)—issued before 2001
- Framework for the Preparation and Presentation of Financial Statements (1989)

Presently, there are nine IFRS, forty one IASs, eighteen IFRIC interpretations and twelve SIC interpretations (Given in Appendix). [35]

In general connotation, ‘convergence’ means to achieve harmony with IFRS; in precise term, convergence can be considered “to design and maintain national accounting standards in a way that financial statements prepared in accordance with national accounting standards draw unreserved statement of compliance with IFRS”. In this context, attention is drawn to paragraph 14 of International Accounting Standard (IAS) 1, Presentation of Financial Statements, which states that financial statements shall not be described as complying with IFRS unless they comply with all the requirements of IFRS.

Thus, ‘convergence with IFRSs’ means adoption of IFRS.

### **IFRS — A truly global accounting standard**

The year 2000 was significant for IAS, now known as IFRS. The International Organization of Securities Commission formally accepted the IAS core standards as a basis for cross-border listing globally. In June 2000, the European Commission passed a requirement for all listed companies in the European Union to prepare their CFS using IFRS (for financial years beginning 2005). Since 2005, the acceptability of IFRS has increased tremendously. There are now more than 100 countries across the world where IFRS is either required or permitted. This figure does not include countries such as India, which do not follow IFRS but whose national GAAP is inspired by IFRS.

The table below provides a snapshot of IFRS acceptability globally.

**Table 3. Snapshot of IFRS acceptability**

<b>Domestic listed entities</b>	<b>Number of countries</b>
IFRS required for all domestic listed companies	85
IFRS permitted for domestic listed companies	24
IFRS required for some domestic listed companies	4
IFRS <i>not</i> permitted for domestic listed companies	34
<b>Total</b>	<b>147</b>

**Source:** <http://www.icaai.org/>

### **Benefits of adopting IFRS for Indian companies**

The decision to converge with IFRS is a milestone decision and is likely to provide significant benefits to Indian corporates.

#### ***Improved access to international capital markets***

Many Indian entities are expanding or making significant acquisitions in the global arena, for which large amounts of capital is required. The majority of stock exchanges require financial information prepared under IFRS. Migration to IFRS will enable Indian entities to have access to international capital markets, removing the risk premium that is added to those reporting under Indian GAAP.

#### ***Enable benchmarking with global peers and improve brand value***

Adoption of IFRS will enable companies to gain a broader and deeper understanding of the entity's relative standing by looking beyond country and regional milestones. Further, adoption of IFRS will facilitate companies to set targets and milestones based on global business environment, rather than merely local ones.

#### ***Escape multiple reporting***

Convergence to IFRS, by all group entities, will enable company managements to view all components of the group on one financial reporting platform. This will eliminate the need for multiple reports and significant adjustment for preparing consolidated financial statements or filing financial statements in different stock exchanges.

#### ***Reflects true value of acquisitions***

In Indian GAAP, business combinations, with few exceptions, are recorded at carrying values rather than fair values of net assets acquired. Purchase consideration paid for intangible assets not recorded in the acquirer's books is usually not reflected separately in the financial statements; instead the amount gets added to goodwill. Hence, the true value of the business combination is not reflected in the financial statements. IFRS will overcome this flaw, as it mandates accounting for net assets taken over in a business combination at fair value. It also requires recognition of intangible assets, even if they have not been recorded in the acquirer's financial statements.

#### ***Lower cost of capital***

Migration to IFRS will lower the cost of raising funds, as it will eliminate the need for preparing a dual set of financial statements. It will also reduce accountants' fees, abolish risk premiums and will enable access to all major capital markets as IFRS is globally acceptable.

#### ***New opportunities will open up for corporates***

Benefits from the adoption of IFRS will not be restricted to Indian corporates. In fact, it will open up a host of opportunities in the services sector. With a wide pool of accounting professionals, India can emerge as an accounting services hub for the global community. As IFRS is fair value focused, it will provide significant opportunities to professionals including, accountants, valuers and actuaries, which in-turn, will boost the growth prospects for the BPO/KPO segment in India.

### **IFRS challenges**

Financial reporting systems must be amenable to change so that finance professionals can respond to investor and analyst with confidence. According to Oracle White Paper (2008) most

companies are able to adopt a new accounting standard, but a truly successful transition depends on a company's ability to provide full audit trails, variance analysis, and reconciliation of prior standards to satisfy internal and external inquiries:

### ***Shortage of resources***

With the convergence to IFRS, implementation of SOX, strengthening of corporate governance norms, increasing financial regulations and global economic growth, accountants are most sought after globally. Accounting resources is a major challenge. India, with a population of more than 1 billion, has only approximately 145,000 Chartered Accountants, which is far below its requirement.

### ***Training***

If IFRS has to be uniformly understood and consistently applied, training needs of all stakeholders, including CFOs, auditors, audit committees, teachers, students, analysts, regulators and tax authorities need to be addressed. It is imperative that IFRS is introduced as a full subject in universities and in the Chartered Accountancy syllabus.

### ***Information systems***

Financial accounting and reporting systems must be able to produce robust and consistent data for reporting financial information. The systems must also be capable of capturing new information for required disclosures, such as segment information, fair values of financial instruments and related party transactions. As financial accounting and reporting systems are modified and strengthened to deliver information in accordance with IFRS; entities need to enhance their IT security in order to minimize the risk of business interruption, in particular to address the risk of fraud, cyber terrorism and data corruption.

### ***Distributable profits***

IFRS is fair value driven, which often results in unrealized gains and losses. Consideration of computing distributable profits will have to be debated, in order to ensure that distribution of unrealized profits will not eventually lead to reduction of share capital.

### ***Taxes***

IFRS convergence will have a significant impact on financial statements and consequently tax liabilities. Tax authorities should ensure that there is clarity on the tax treatment of items arising from convergence to IFRS. For example, will government authorities tax unrealized gains arising out of the accounting required by the standards on financial instruments? From an entity's point of view, a thorough review of existing tax planning strategies is essential to test their alignment with changes created by IFRS. Tax, other regulatory issues and the risks involved will have to be considered by the entities.

### ***Communication***

IFRS may significantly change reported earnings and various performance indicators. Managing market expectations and educating analysts will therefore be critical. A company's management must understand the differences in the way the entity's performance will be viewed, both internally and in the market place and agree on key messages to be delivered to investors and other stakeholders. Reported profits may be different from perceived commercial performance due to the increased use of fair values, and the restriction on existing practices such as hedge accounting. Consequently, the indicators for assessing both business and executive performance will need to be revisited.

### **Management compensation and debt covenants**

The amount of compensation calculated and paid under performance-based executive, and employee compensation plans may be materially different under IFRS, as the entity's financial results may be considerably different. Significant changes to the plan may be required to reward an activity that contributes to an entity's success, within the new regime. Re-negotiating contracts that referenced reported accounting amounts, such as, bank covenants or FCCB conversion trigger, may be required on convergence to IFRS.

### **First-time adoption of IFRS**

ICAI has announced convergence with IFRS for accounting periods commencing on or after 1 April 2011. As per the Announcement, all listed entities, public interest entities, such as banks, insurance entities and large-sized entities shall adopt IFRS. In addition, the Ministry of Corporate Affairs (MCA) had issued a press release in which the Ministry had committed to IFRS convergence from 1st April 2011.

Nearly all the studies highlighted the need of IFRS and how to move from country specific accounting standards to globally accepted reporting standards. In fact the above mentioned studies ignored the practical aspect, problems which a company might face while converging from country specific accounting standards to IFRS. There is very limited text which talked about implementation of the internationally recognized financial reporting standards i.e. IFRS. Therefore our study is based on to gauge the impact of adoption of IFRS and the problems a company face at the time of conversion period through case study of Wipro Limited. Few studies have been carried out in India with regard to convergence effect of IFRS on Indian companies.

### **The Company overview**

Wipro Limited ("Wipro" or the "Parent Company"), together with its subsidiaries and equity accounted investees (collectively, "the Company" or the "Group") is a leading India based provider of IT Services, including Business Process Outsourcing ("BPO") services, globally. Further, Wipro has other businesses such as IT Products, Consumer Care and Lighting and Infrastructure engineering. Wipro is a public limited company incorporated and domiciled in India. The address of its registered office is Wipro Limited, Doddakannelli, Sarjapur Road, Bangalore - 560 035, Karnataka, India. Wipro has its primary listing with Bombay Stock Exchange and National Stock Exchange in India. The Company's American Depository Shares representing equity shares are also listed on the New York Stock Exchange. These consolidated financial statements were authorized for issue by Audit Committee on May 31, 2010.

## **ANALYTICAL RESULTS**

### **Impact of Convergence to IFRS on Financial Statements-study on Wipro Ltd**

Companies have started the process of preparing IFRS compliant financial statements and have already adopted the change in a timely manner. Few companies such as Wipro, Infosys Technologies, NIIT, Mahindra & Mahindra, Tata Motors, Bombay Dyeing and Dr Reddy's Laboratories have already began to align their accounting standards to IFRS.

The author considered the Annual report of Wipro prepared for the year ended 31st March 2012 where in the reconciliation of the equity as per IFRS and Indian GAAP were reported for the year beginning 2010 and for the year ended 2011. The 2011-2012 Annual Report of Wipro presented the consolidated financial statement in both Indian GAAP and IFRS. Reconciliation of equity as per IFRS and Indian GAAP was reported for the year beginning 2010 and for the year ended 2011, which is considered in this study for examination.



**Table 4: Reconciliation of Profits between IFRS and Indian GAAP (INR in millions)**

	Notes	Fiscal 2012	Fiscal 2011
Profit after tax as per Indian GAAP		46,310	38,999
Intangible asset amortization	A	(259)	(43)
Difference in revenue recognition norms	B	26	(32)
Stock Compensation Expense	C	15	(101)
Others	D	(21)	(75)
Tax adjustments		(140)	13
Net Income as per IFRS		45,931	38,761

**Source: Annual Report of Wipro, 2012.**

Under IFRS, a portion of the purchase consideration in a business acquisition is allocated to intangible assets which meets the criteria for being recognized as an asset apart from goodwill. These intangible assets are amortized over their useful life in proportion to the economic benefits consumed in each reporting period. The increase in intangible amortization is primarily due to acquisition of CITI Technologies in fiscal 2011.

Under IFRS, revenue relating to product installation services is recognized when the installation services are performed. Under Indian GAAP, the entire revenue relating to the supply and installation of products is recognized when products are delivered since installation services are considered to be incidental / perfunctory to product delivery and the cost of installation services is also accrued upon delivery of the product.

Under IFRS, the Company amortizes stock compensation expense relating to share options which vest in a graded manner on an accelerated basis, as compared to straight-line basis under Indian GAAP.

Also under IFRS, the stock compensation expense is recognized net of expected attrition as compared to Indian GAAP, where stock compensation expense is reversed for options which do not vest due to attrition at actual.

This includes difference in accounting for certain foreign currency forward contracts and basis of interest capitalization under IFRS and Indian GAAP.

**Table 5. Consolidated Financial Statement under IFRS of WIPRO Limited, Reconciliation of Equity as at April 1, 2010**

Particulars	Amount as per Previous IGAAP	Amount as per IFRS	Effect of Transaction to IFRS	% of Change	Relevant Notes for adjustments
Goodwill	42209	42635	(426)	(1.01)	8
PPE and Intangibles	41583	41344	239	0.57	1,2
Available for Sales investment	14679	15247	(568)	(3.87)	3
Investment in equity accounted	1343	1343	0	0	

Inventories	6664	6664	0	0	
Trade receivables	40453	40353	100	0.25	4
Unbilled revenue	8514	8514	0	0	
Cash and cash Equivalents	39270	39270	0	0	
Net tax assets	3632	4486	(854)	(23.51)	5
Other assets	13980	15379	(1399)	(10.01)	2(a),4,9,10,13
<b>Total Assets</b>	<b>212327</b>	<b>215235</b>	<b>(2908)</b>	<b>(1.37)</b>	
Share capital and share premium	28296	28296	0	0	
Share application money pending allotment	40	0	40	100	12
Retained earnings	87908	94728	(6820)	(7.76)	
Cash flow hedging reserve	(1097)	(1097)	0	0	
Other reserves	1807	3658	(1851)	(102.43)	3,7,11
<b>Total Equity</b>	<b>116954</b>	<b>125585</b>	<b>(8631)</b>	<b>(7.38)</b>	
Minority Interest	116	0	116	100	11
Loan and Borrowings	44850	44850	0	0	
Trade Payables	27873	27873	0	0	
Unearned revenues	4269	4269	0	0	
Other liabilities and provisions	18265	12658	5607	30.7	6,8,10,12
<b>Total Liabilities</b>	<b>95373</b>	<b>89650</b>	<b>5723</b>	<b>6</b>	
Total liabilities and equity	212327	215235	(2908)	(1.37)	

**Source: Annual Report of Wipro, 2010, p170-71.**

## Notes

1. Under IFRS, the amortization charge in respect of finite life intangible assets is recorded in proportion of economic benefits consumed during the period to the expected total economic benefits from the intangible asset. Under Previous GAAP, finite life intangible assets are amortized usually on a straight line basis over their useful life. As a result, the accumulated amortization under IFRS is lower by INR 101 as at April 1, 2010.
2. Listed below are the key differences in property, plant and equipment between IFRS and Previous GAAP:
  - a. Under IFRS, leases of land are classified as operating leases unless the title to the leasehold land is expected to be transferred to the Company at the end of the lease term. Lease rentals paid in advance and lease deposits are recognized as other assets. Under Previous GAAP, the lease rentals paid in advance and lease deposits are recognized in property, plant and equipment. Under IFRS, INR 645 of such payments towards lease of land has been reclassified from property, plant and equipment to other assets. This adjustment has no impact on equity.

- b. Difference in the basis of interest capitalization between Previous GAAP and IFRS resulted in higher interest capitalization by INR 305 under IFRS, net of related depreciation impact.
3. Under IFRS, available for sale investments are measured at fair value at each reporting date. The changes in fair value of such investments, net of taxes, are recognized directly in equity. Under Previous GAAP, short-term investments are measured at lower of cost or fair value. Consequently, carrying value of the available for sale investments under IFRS is higher by INR 568 (tax effect INR 165).
4. Under IFRS, an entity is required to allocate revenue to separately identifiable components of a multiple deliverable customer arrangement. The revenue relating to these components are recognized when the appropriate revenue recognition criteria is met. Under IFRS, in respect of multiple element arrangements comprising delivered products and installation services, the Company defers and recognizes revenue relating to installation services when those services are rendered. Under Previous GAAP, installation services are considered to be incidental / perfunctory to product delivery. Entire revenue is recognized, when the products are delivered in accordance with the contractual terms, and expected cost of installation services is also accrued. Consequently, under IFRS the Company has unearned revenue of INR 100 and reversed INR 78 of cost accrued for installation services. The deferred revenues are recognized when the related installation services is performed.
5. Under IFRS, tax benefits from carry forward tax losses is recognized if it is probable that sufficient taxable profits would be available in the future to realize the tax benefits. Under Previous GAAP, deferred tax asset in respect of carry forward tax losses is recognized if it is virtually certain that sufficient future taxable income would be available in the future to realize the tax benefits. Further, Previous GAAP requires an entity to follow the income statement approach for recognizing deferred taxes, while IFRS mandates the balance sheet approach in recognizing deferred taxes. As a result, net deferred tax assets under IFRS are higher by INR 854.
6. Under Previous GAAP, a liability is recognized in respect of proposed dividend on Company's equity shares, even though the dividend is expected to be approved by the shareholders subsequent to the reporting date. Under IFRS, liability for dividend is recognized only when it is approved by shareholders. Accordingly, provisions under IFRS are lower by INR 6,842.
7. The Company grants share options to its employees. These share options vest in a graded manner over the vesting period. Under IFRS, each tranche of vesting is treated as a separate award and the stock compensation expense relating to that tranche is amortized over the vesting period of the underlying tranche. This results in accelerated amortization of stock compensation expense in the initial years following the grant of share options. Previous GAAP permits an entity to recognize the stock compensation expense, relating to share options which vest in a graded manner, on a straight-line basis over the requisite vesting period for the entire award. However, the amount of compensation cost recognized at any date must at least equal the portion of the grant-date value of the award that is vested at that date. Accordingly, the stock compensation expense recognized under IFRS is higher by INR 1,332 as at April 1, 2010 in respect of the unvested awards.
8. Under IFRS, contingent consideration relating to acquisitions is recognized if it is probable that such consideration would be paid and can be measured reliably. Under Previous GAAP, contingent consideration is recognized after the contingency is resolved and additional consideration becomes payable. As a result, under IFRS, the Company has recognized INR 426 of contingent consideration as additional goodwill and liability. This adjustment has no impact on equity.

9. Under IFRS, loans and receivables are recognized at amortized cost, which is carried at historical cost under Previous GAAP. As a result, the carrying value of such loans and receivables under IFRS is lower by INR 154.
10. Indian tax laws, levies Fringe benefit Tax (FBT) on all stock options exercised on or after April 1, 2009. The Company has modified share options plan to recover FBT from the employees. Under IFRS 2, Share based payment, the FBT paid to the tax authorities is recorded as a liability over the period that the employee renders services. Recovery of the FBT from the employee is accounted as a reimbursement right under IAS 37, Provisions, contingent liabilities and contingent assets, as it is virtually certain that the Company will recover the FBT from the employee. Accordingly, under IFRS, the Company has recognized the reimbursement right as a separate asset, not to exceed the FBT liability recognized at each reporting period. Under Previous GAAP, FBT liability and the related FBT recovery from the employee is recorded at the time of exercise of stock option by the employee. Accordingly, under IFRS the Company has recognized INR 766 as other liabilities and reimbursement right in respect of outstanding stock options. This adjustment has no impact on equity.
11. Under IFRS, minority interest is reported as a separate item within equity, whereas previous GAAP requires minority interest to be presented separately from equity.

**Table 6. Consolidated Financial Statements under IFRS - WIPRO Limited Reconciliation of Equity as at March 31, 2011**

Particulars	Amount as per Previous IGAAP	Amount as per IFRS	Effect of Transaction to IFRS	% of Change	Relevant Notes for adjustments
Goodwill	56521	56143	378	0.67	1,10
PPE and Intangibles	52563	53287	(724)	(1.38)	1,2,3
Available for Sales investment	16426	16293	133	0.81	4
Investment in equity accounted	1670	1670	0	0	
Inventories	7587	7587	0	0	
Trade receivables	50370	50123	247	0.49	5
Unbilled revenue	14108	14108	0	0	
Cash and cash Equivalents	49117	49117	0	0	
Net tax assets	2672	5759	(3087)	(115.53)	6
Other assets	20984	23203	(2219)	(10.57)	3(a),5,9,13
<b>Total Assets</b>	<b>272018</b>	<b>277290</b>	<b>(5272)</b>	<b>(1.94)</b>	
Share capital and share premium	29667	29667	0	0	
Share application money pending allotment	15	0	15	100	12
Retained earnings	119957	126646	(6689)	(5.58)	
Cash flow hedging reserve	(16886)	(14533)	(2353)	13.93	6
Other reserves	3546	5601	(2055)	(57.95)	4,8,11
<b>Total Equity</b>	<b>136299</b>	<b>147381</b>	<b>(11082)</b>	<b>(8.13)</b>	

Minority Interest	237	0	237	100	11
Loan and Borrowings	56892	56892	0	0	
Trade Payables	40191	40191	0	0	
Unearned revenues	8734	8734	0	0	
Other liabilities and provisions	29665	24092	5573	18.79	7,9,10,11,13
<b>Total liabilities</b>	<b>135719</b>	<b>129909</b>	<b>5810</b>	<b>4.28</b>	

**Table 6. Consolidated Financial Statements under IFRS - WIPRO Limited  
Reconciliation of Equity as at March 31, 2011  
Source: Annual Report of Wipro, 2011.**

## Notes

1. Under IFRS, all the assets and liabilities arising from a business combination are identified and recorded at fair value. Accordingly, a portion of purchase price is allocated towards customer related intangible in respect of business combination consummated subsequent to the Transition date. Under Previous GAAP, assets and liabilities arising from a business combination are recognized at carrying value in the books of the acquired entity. Internally generated intangible assets would not have been recognized by the acquired entity and therefore customer related intangible arising from the business combination is not recognized under Previous GAAP. Accordingly, goodwill under IFRS is lower by INR 1,139 (net of deferred taxes) and intangible assets are higher by INR 1,535 (net of amortization of INR 91).
2. Under IFRS, the amortization charge in respect of finite life intangible assets is recorded in the proportion of economic benefits consumed during the period to the expected total economic benefits from the intangible asset. Under Previous GAAP, finite life intangible assets are amortized usually on a straight line basis over their useful life. As a result the accumulated amortization under IFRS is lower by INR 149 as at March 31, 2011.
3. Listed below are the key differences in property, plant and equipment between IFRS and Previous GAAP:
  - a. Under IFRS, leases of land are classified as operating leases unless the title to the leasehold land is expected to be transferred to the Company at the end of the lease term. Lease rentals paid in advance and lease deposits are recognized as other assets. Under Previous GAAP, the lease rentals paid in advance and lease deposits are recognized in property, plant and equipment. Under IFRS, INR 1,293 of such payments towards lease of land has been reclassified from property, plant and equipment to other assets. This adjustment has no impact on equity.
  - b. Difference in the basis of interest capitalization between Previous GAAP and IFRS resulted in higher interest capitalization by INR 331 under IFRS, net of related depreciation impact.
4. Under IFRS, available for sale investments are measured at fair value at each reporting date. The changes in fair value of such investments net of taxes are recognized directly in equity. Under Previous GAAP, short-term investments are measured at lower of cost or fair value. Consequently, available for sale investments under IFRS is higher by INR (tax effect INR 33). Additionally, investment in non-convertible debentures amounting to INR 250 is classified as investments under Previous GAAP whereas the same is shown under other assets in IFRS. This has no impact on equity.
5. Under IFRS, an entity is required to allocate revenue to separately identifiable components of a multiple deliverable customer arrangement. The revenue relating to these components are recognized when the appropriate revenue recognition criteria is

- met. Under IFRS, in respect of multiple element arrangements comprising delivered products and installation services, the Company defers and recognizes revenue relating to installation services when those services are rendered. Under Previous GAAP, installation services are considered to be incidental / perfunctory to product delivery. Entire revenue is recognized, when the products are delivered in accordance with the contractual terms, and expected cost of installation services is also accrued. Consequently, under IFRS the Company has deferred revenue of INR. 247 and reversed INR. 195 of cost accrued for installation services. The deferred revenues are recognized when the related installation services is performed.
6. Under IFRS, tax benefits from carry forward tax losses is recognized if it is probable that sufficient taxable profits would be available in the future to realize the tax benefits. Under Previous GAAP, deferred tax asset in respect of carry forward tax losses is recognized if it is virtually certain that sufficient future taxable income would be available in the future to realize the tax benefits. Further, Previous GAAP requires an entity to follow the income statement approach for recognizing deferred taxes, while IFRS mandates balance sheet approach in recognizing deferred taxes. As a result, net deferred tax assets under IFRS are higher by INR. 3,087 (including impact of foreign currency translation adjustment, where necessary).
  7. Under Previous GAAP, liability is recognized in respect of proposed dividend on Company's equity share, even though the dividend is expected to be approved by the shareholders subsequent to the reporting date. Under IFRS, liability for dividend is recognized only when it is approved by shareholders. Accordingly, provisions under IFRS are lower by INR 6,856.
  8. The Company grants share options to its employees. These share options vest in a graded manner over the vesting period. Under IFRS, each tranche of vesting is treated as to that tranche is amortized over the vesting period of the underlying tranche. This results in accelerated amortization of stock compensation expense in the initial years following grant of share options. Previous GAAP permits an entity to recognize the stock compensation expense, relating to share options which vest in a graded manner, on a straight-line basis over the requisite vesting period for the entire award. However, the amount of compensation cost recognized at any date must at least equal the portion of the grant-date value of the award that is vested at that date. Accordingly, the stock compensation expense recognized under IFRS is higher by INR 1,432 as at March 31, 2011, in respect of unvested awards.
  9. Indian tax laws levy Fringe Benefit Tax (FBT) on all stock options exercised on or after April 1, 2009. The Company has modified share options plan to recover FBT from the employees. Under IFRS 2, Share based payment; the FBT paid to the tax authorities is recorded as a reimbursement right under IAS 37, Provisions, contingent liabilities and contingent assets, as it is virtually certain that the Company will recover the FBT from the employee. Accordingly, under IFRS, the Company has recognized the reimbursement right as a separate asset, not to exceed the FBT liability recognized at each reporting period. Under Previous GAAP, FBT liability and the related FBT recovery from the employee is recorded at the time of exercise of stock option by the employee. Accordingly, under IFRS, the Company has recognized INR 741 as other liabilities and reimbursement right in respect of outstanding stock options. This adjustment has no impact on equity.
  10. Under IFRS, contingent consideration relating to acquisitions is recognized if it is probable that such consideration will be paid and can be measured reliably. Under Previous GAAP, contingent consideration is recognized after the contingency is resolved and additional consideration becomes payable. As a result, under IFRS, the Company

has recognized INR 761 of contingent consideration as additional goodwill and liability. This adjustment has no impact on equity.

11. Under IFRS, minority interest is reported as a separate item within equity, whereas Previous GAAP requires minority interest to be presented separately from equity. This presentation difference between IFRS and Previous GAAP has resulted in an increase in equity under IFRS by INR 237 as at March 31, 2011.
12. Under IFRS, share application money received and pending allotment is reported under other liabilities, whereas Previous GAAP requires share application money pending allotment to be presented as a separate item within equity. This presentation difference between IFRS and Previous GAAP has resulted in a decrease in equity under IFRS by INR 15 as at March 31, 2011.
13. Difference in accounting for certain foreign currency forward contract has resulted in a decrease in other assets by INR 260 and other liabilities by INR 236 under IFRS as of March 31, 2011.

Evaluating the closing financial statement of Wipro for the year 31.3.2011 it is observed there is 1.94% increase in the Total assets value as per IFRS when compared with the total assets value as per Indian Accounting standards. There is increase in the value of Net tax asset including deferred taxes in IFRS reporting by 115.53% when compared with the amount reported under Indian Accounting Standard. There is 10.57% increase in other assets in IFRS reporting compared to Indian Accounting standards. The total equity has increased by nearly 8.13% in IFRS when compared to the Indian accounting standards. The total liability has decreased by 4.28% in IFRS when compared to Indian accounting standards.

**Table 7. Reconciliation of Profit for the Year Ended March 31, 2011**

Particulars	Amount as per Previous GAAP	Effect of Transition to IFRS	Amount as per IFRS	Relevant Notes for adjustments
Revenues	INR 256,995	INR (104)	INR 256,891	1
Cost of revenues	(179,230)	(985)	(180,215)	1,2,5
Gross profit	77,765	(1,089)	76,676	
Selling and marketing expenses	(17,853)	540	(17,313)	1(c),2,3,5
General and administrative expenses	(14,356)	(154)	(14,510)	2,5
Foreign exchange gains/(losses), net	(1,553)	0	(1,553)	
Results from operating activities	44,004	(704)	43,300	
Finance expense	(3,865)	41	(3,824)	
Finance and other income	5,057	0	5,057	
Share of profits of equity accounted investees	362	0	362	
<b>Profit before tax</b>	<b>45,558</b>	<b>(6630)</b>		
Income tax expense				
Profit for the year				
Attributable to: Equity holders of the Company				
Minority Interest				

**Source: Annual Report of Wipro, 2011**

## Notes

The following are the primary differences in revenue between IFRS and Previous GAAP:

- a. Under Previous GAAP, revenue is reported net of excise duty charged to customers. Under IFRS, revenue includes excise duty charged to customers. As a result, revenues and cost of revenues under IFRS is higher by INR 1,055.
- b. Under IFRS, revenue relating to product installation services is recognized when the installation services are performed. Under Previous GAAP, the entire revenue relating to the supply and installation of products is recognized when products are delivered in accordance with the terms of contract. Installation services are considered to be incidental to product delivery and the cost of installation services is accrued upon delivery of the product. Accordingly, revenue and cost of revenue under IFRS is lower by INR 147 and INR 117, respectively.
- c. Under IFRS, generally cash payments to customers pursuant to sales promotional activities are considered as sales discounts and reduced from revenue. Under Previous GAAP, such payments are considered as cost of revenue and selling and marketing expense. As a result, under IFRS, revenue is lower by INR 1,011 and cost of revenues and selling and marketing expenses are lower by INR 275 and INR 736, respectively.

Under IFRS, the Company amortizes stock compensation expense, relating to share options, which vest in a graded manner, on an accelerated basis. Under Previous GAAP, the stock compensation expense is recorded on a straight-line basis. As a result, under IFRS the Company has recognized additional stock compensation expense of INR 40 in cost of revenue, INR 30 in selling and marketing expenses and INR30 in general and administrative expenses.

Under IFRS, the amortization charge in respect of finite life intangible assets is recorded in the proportion of economic benefits consumed during the period to the expected total economic benefits from the intangible asset. Under Previous GAAP, such finite life intangible assets are amortized on a straight-line basis over the life of the asset. Further, the Company recorded additional amortization in respect of customer related intangible arising out of business combination consummated subsequent to the Transition date. Accordingly, amortization under IFRS is higher by INR 43.

This includes difference in accounting for certain foreign currency forward contracts and basis of interest capitalization under IFRS and Previous GAAP.

Under Indian tax laws, the Company is required to pay Fringe Benefit Tax (FBT) on certain expenses incurred by the Company. Under Previous GAAP, FBT is reported in the income statement as a separate component of income tax expense. Under IFRS, FBT does not meet the definition of income tax expense and is recognized in the related expense line items. Accordingly, the cost of revenue, selling and marketing expenses and general and administrative expenses under IFRS are higher by INR 165, INR 124 and INR 124, respectively and income tax expense is correspondingly lower.

## Impact of Convergence to IFRS on Financial Ratios

Researcher have examined five ratios that depends on financial statements for the year as at March 31, 2011

1. Return on Equity defined as net income divided by book value of equity;
2. Return on Assets, defined as net income divided by total assets;



3. Total Asset Turnover, defined as sales revenue divided by total assets;
4. Leverage, defined as total liabilities divided by book value of equity
5. Net Profit ratio defined as Net income divided by sales revenue.

**Table 7: Financial Ratios for the year ended 31st March 2011 of WIPRO Ltd.**

<b>RATIO</b>	<b>As Per IGAAP</b>	<b>As Per IFRS</b>
Return on Equity	0.29	0.26
Return on Asset	0.14	0.14
Total asset turnover	0.94	0.93
Leverage	1	0.88
Net Profit Ratio	0.15	0.15

Source: Annual Report of Wipro Limited. 2011.

The author examine that the Return on Equity and Net profit ratio as reported under IGAAP and IFRS remains the same. There is a decrease in the leverage or debt equity ratio in IFRS accounting when compared to IGAAP accounting. The reduction in this ratio in IFRS is due to increase in value of Equity by 8.13% in IFRS accounting and reduction in value of Total Liabilities by about 4.28% in IFRS accounting when compared with IGAAP accounting. There is reduction in return on equity mainly because of increase in the equity value by about 8.13% and decrease in Net profit by about 0.61% in IFRS reporting when compared to IGAAP reporting. There is reduction in Total asset Turnover mainly because of increase in Total assets by about 1.94% and decrease in turnover by about 0.04% in IFRS reporting when compared with IGAAP reporting.

### **CONCLUSIONS**

The study investigates empirically the effect of voluntary adoption and convergence of IGAAP with IFRS. It has been found from our study that there is not much deviations and fluctuations in the net income position as disclosed by financial statement of Wipro Ltd in IFRS reporting and Indian GAAP. But deviation is rather prominent when observing the total liability and equity position which is mainly because of reclassification between equity and total liability. The provision under IFRS is reduced mainly because dividend provision is not recognized in IFRS. Fair value measurement of Available for sale investment and the share compensation expense recognized in IFRS is higher, as in IFRS reporting accelerated amortization of stock compensation expense in the initial years following the grant of options, whereas in Indian GAAP reporting recognizes the stock compensation expenses in graded manner on a straight line basis over the requisite vesting period for the entire award which resulted in increase in share based payment reserve. In true generalized sense, the return on equity, return on asset, total asset turnover and net profit ratio are not significantly affected by converging to IFRS but the leverage ratio shows significant change on converging with IFRS. There are also significant changes in the total equity and total liability position on convergence to IFRS but not prominent changes in the total asset position.

The study suffers with some limitations also. The content discussed in this article is drawn, by and large, from secondary sources, i.e., journal articles, magazines, newspapers, annual report etc. The study is qualitative as well as quantitative in nature but there is less possibility of judging or analyzing the data on basis of our own best judgment because readymade comparative analysis of financial statement of Wipro Ltd under IFRS and IGAAP has been considered in the study due to difficulty in examining the issues through quantitative tools at the very budding stage of this adoption process.

In summary, it can be said that differences in accounting methods create information costs for the preparers, auditors, and users of financial statements. Several organizations recognized the need to harmonize financial reporting, and the European Union was one of the first to publish directives to reduce differences in the reporting of similar transactions. Convergence in India would be facilitated by the fact that historically Indian accounting standards have been based on principles as against rules. However, given the nature of accounting and peculiarities of the Indian economic environment, the process of convergence has its own set of challenges. The conflicting legal and regulatory requirements related to financial statements, the technical preparedness of industry and accounting professionals and the economic environment prevailing in the country will pose challenges to this convergence. Given the task and challenges, all the entities should ensure that their convergence plan are designed in such a way as to achieve the objective of doing it once, but doing it right.

## References

- Ali, A. and Hwang, L., Country-specific factors related to financial reporting and the value relevance of accounting data. *Journal of Accounting Research*, 2000. 38(1): p. 1-21.
- Armstrong, S, Christopher, Barth, E, Mary, Jagolinzer, D, Alan, Riedl and J, Edward, Market Reaction to the adoption of IFRS in Europe', *The Accounting Review*, 2010. 85(1): p. 31-61.
- Barth, M. E., Landsman W. R., Lang, M. H. and Williams, C. D., Accounting quality: International Accounting standards and US GAAP, SSRN, 2008.
- Benzacar, K., IFRS- the Next Accounting Revolution CMA Management publication.
- Brian B. Stanko and Thomas L. Zeller, Arrival of A New GAAP: International Financial Reporting Standards, *Journal of Business & Economics Research*, October, 2010. 8 (10).
- Chand, Pramod and White, Michael, 'A critique of the influence of globalization and convergence of accounting standards in Fiji', *Critical Perspective on Accounting*, 2007. 18 (5): p. 605.
- Chen.C. J, Chen. S and Su. X., Is Accounting Information Value-Relevant in the Emerging Chinese Stock Market. *Journal of International Accounting Auditing and Taxation*, 2010.10: p.1-22.
- Capkun V. Jeny A.C Jeanjean T. and Weiss L.A, "Earnings management and value relevance during the Mandatory Transition from Local GAAP to IFRS in Europe" available at <http://ssrn.com/abstract=1125716>, retrieved on 5 August 2010.
- Callao, Susana, Jarne, I, José, Laínez and A, José, 'Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting', *Journal of International Accounting Auditing & Taxation*, 2007. 16 (2): P.148.
- Devalle, Alain, Onali, Enrico and Magarini, Riccardo, 'Assessing the Value Relevance of Accounting Data After the Introduction of IFRS in Europe', *Journal of International Financial Management & Accounting*, 2010. 21 (2): p. 85.
- Ghosh T. P., –IFRSs Adoption in India: A Review of Regulatory and Accounting Issues, *Journal of Company Secretariat*, 2010.
- Epstein, J, Barry, 'The Economic Effects of IFRS Adoption', the *CPA Journal*, 2009.79 (3): p. 26-31.
- Elena, Hlaciuc, Catalina, Camelia, Mihalciuc, Stefana, Irina, Cibotariu, Niculina and Anisoara, Apetri, 'Some Issues About the Transition from U.S. Generally Accepted Accounting Principles (GAAP) To International Financial Reporting Standards (IFRS)', *Annales Universitatis Apulensis: Series Oeconomica*, 2009. 11 (1): p. 275-289.
- Hope O.k Jin and Kang, "Empirical Evidence on Jurisdictions that Adopt IFRS", 2006. Available at <http://ssrn.com/abstract=751264> retrieved on 7 August 2010.
- Iatridis, George, 'IFRS Adoption and Financial Statement Effects: The UK Case', *International Research Journal of Finance and Economics*, 2010. (38): p.165-172.

- Jun-Ke Liu and Ying-Ju Sun, Game Analysis of the Equity Incentive Mechanism of Listed Company, *Advance in Applied Economics and Finance*, 2012.1(3): p.197-201.
- Kothari, S. P., The role of financial reporting in reducing financial risks in the market. Paper presented at the Federal Reserve Bank of Boston in its Journal Conference Series, 2000.
- Lantto A.M and Sahlstrom P, "Impact of International Financial Reporting Standard Adoption on Key Financial Ratio", *Accounting and Finance*, 2009. 49: p. 341-361.
- Lantto A.M, Does IFRS improve the usefulness of accounting information on code law country? 2007. Available at <http://ssrn.com/abstract=905218> retrieved on 10 August 2010.
- Mingyi Hung and K.R. Subramanyam, "Financial Statement Effects of Adopting IFRS: The case of Germany, 2004. Available at <http://ssrn.com/abstract=622921>.
- Paananen, Mari and Lin, Henghsiu, 'the Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany', *Journal of International Accounting Research*, 2009. 8 (1): p. 31-55.
- Rui-zhiWu and Lu-ying Hao, An Empirical Study on Impacts of China Listed Companies' Intangible Assets to Operating Performance, *Advances in Applied Economics and Finance*, 2012. 1 (3): p.149-52.
- Ray, Sarbapriya, and Applicability of International Financial Reporting Standards in India: Some Key Issues and Challenges, *Journal of Expert Systems*, 2012.1(1): p.1-15.
- Stent W, Bradbury M. and Hooks J., "IFRS in New Zealand: Effects on Financial Statements and Ratios", *Pacific accounting Review*, 2010. 22 (2): p.92-107.
- Sujatha B, *Accounting Standards in India: Towards convergence* published by ICAI
- Steffee, S, 'IFRS Discrepancies Vary by Country, Company', *the Internal Auditor*, 2009. 66 (4): p.13
- Tripati, R and Gupta, S, *International Financial Reporting Standard: Away to global consistency*, *Australian Journal of Business and Management Research*, 2011. 1(1): p.38-51.
- Xi Zhao and Ying-Jun Sun, Performance Change and Its Influence Factors in IPO- An Empirical Study on China Growth Enterprise Market, *Advance in Applied Economics and Finance*, 2012. 1(4): p.202-206.
- Xi Zhao1 and Ying-Jun Sun, an Empirical Study of Chinese Treasury Bonds Scale in the Background of European Debt Crisis, *Advances in Applied Economics and Finance*, 2012. 1(3): p.153-58.
- Zhou, Haiyan, Xiong, Yan and Ganguli, Gouranga, 'Does The Adoption Of International Financial Reporting Standards Restrain Earnings Management? Evidence from an Emerging Market', *Academy of Accounting and Financial Studies Journal*, 2009. 13 (Special Issue): p.43-56.
- Zakari, M.I., and "IFRS as a tool for Cross-Border Financial Reporting" A paper Presented at ICAN Conference on IFRS, 2010.
- <http://www.articlebase.com/accounting-articles/working-towards-a-global-convergence-of-accounting-standards-1379167.html>
- IFRS: A quick reference Guide by Robert Krik
- <http://online.library.wiley.com/doi/10.1002/jcaf.20406/abstract>
- <http://icai.org/resource>
- [http://www.pwc.com/en-GX/gx/ifrs-reportingservices/pdf/viewpoint\\_convergence.pdf](http://www.pwc.com/en-GX/gx/ifrs-reportingservices/pdf/viewpoint_convergence.pdf) 39
- Annual Reports of Wipro, 2010, 2011 and 2012.

# Total Quality Management: Insight from Donyma Steel Complex, Ghana.

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## Abstract

**Total Quality Management (TQM) is considered a very important factor for the long-term success of an organisation. Service quality is a major component of TQM. This paper ascertains whether service quality leads to customer satisfaction and what accounts for that at Donyma Steel Complex. The study uses survey data from staffs and customers to explain issues on TQM and challenges associated with total quality service. Results revealed mean of 4.00 and standard deviation of 0.577 of respondents, which supports the notion that high performing department(s) share strategies with other departments. The only negative gap score was on a component of reliability. Difficulty in changing the standpoint of staff on quality had the highest mean of 3.84 as the key challenge of TQM implementation. It is recommended that measures and policies that promote cordial relationship should be encouraged to enhance TQM practices and management should target service quality dimensions that had a low score as a starting point of improving service quality.**

**Key words:** Total Quality Management, Service Quality, Donyma Steel Complex, Ghana

## INTRODUCTION

Asubonteng et al., (1996), stated that due to intense competition and the hostility of environmental factors, service quality has become a cornerstone marketing strategy for all companies. This highlights how important the improvement of an organizations' service quality to propel growth and survival since it could help them to tackle these challenges they face in the competitive markets. For this reason, service-based companies are compelled to provide excellent services for their customers in order to have a lasting competitive advantage over their competitors. There is therefore the need for organizations to understand what total service quality is all about in order to stay in business.

According to previous studies it is very difficult to measure and grade service quality because of its intangible nature and moreover it has gotten to deal with perceptions and expectations of customers which are very difficult to determine because of the complex nature of human behaviour. Douglas and Connor, (2003), and Ladhari, (2009) made mentioned of the fact that, the intangible nature of a service is the critical determinant influencing service quality perceived by a consumer. This means that services must be defined well by the one providing it in terms of its characteristics for better understanding of how service quality is perceived by their customers.

The importance of service quality cannot be overlooked in the area of practice and theory due to its relevance to organisations. This interest has motivated several researchers to find ways to measure this by developing models to measure it, even though others claim it is very hard to measure because it is intangible and one cannot quantify it (Eshghi et al., 2008), (Douglas and Connor, 2003). Evaluation of the customer's perception of quality can be done through the interaction with the personnel offering the services in an organisation, (Magi and Julander, 1996). By their suggestion, it will be very easy to measure service quality through the interaction between service providers and consumers, this is because the service provider could be in better position to understand the consumer and identify his or her needs and wants.

The study is interested in the dimensions of service quality from the customer's perspective through assessing their expectations and perceptions of service quality and the staff's appreciation of Total Quality Management (TQM) at Donyma Steel Complex Limited in Ghana. To achieve this, the study was guided by the following objectives: identification of the various TQM practices by Donyma Steel Complex, its service quality and the challenges associated with implementing total service quality.

## LITERATURE REVIEW

### Understanding Quality Concept

According to Sower and Fair (2005) and Wicks and Roethlein (2009), there are many different definitions of quality and there is not a universally acceptable definition of quality. They all claim that because of the elusive nature of the concept when viewed from different perspectives and directions and the measures applied in a particular context by the person defining it. For this reason the definition of quality normally varies between manufacturing industries and service provision industries and also between the academicians and practitioners. These variations in context are caused by how intangible its components are since this makes it more difficult in evaluating quality which one cannot assess physically implying that other ways must be known in order to measure this quality.

According to Ghylin et al, (2006), quality is an attribute of an item, a unique and important character of a person or product, a degree of excellence and of a high social status. Hardie and Walsh (1994) also defined quality as the perfection of a product which will result in customer satisfaction as a result of free from defects. According to Wicks and Roethlein, (2009) definition, quality is the total affective assessment of each customer satisfaction level.

According to Ghylin et al (2006), management believes that the power of quality is a guarantee of high profits in any business. For this reason organisations try as much as possible to always maintain a high level of quality at every point of their production, manufacturing and even provision of services.

### Service Quality Concept

According to Ladhari (2009), service quality is considered as an important tool a firm's use to differentiate itself from its competitors. Service quality is very relevant to companies for the fact that it gives a competitive advantage to companies that always strive to improve upon it and thereby bringing out customer satisfaction.

Service quality is defined by Negi, (2009), as the overall evaluation of a service received by a customer. The understanding of service quality must involve the acknowledgement of the characteristics of service that are intangibility, heterogeneity and inseparability as stated by Parasuraman et al, (1985). In this way, service quality would be easily measured.

In this study too one could define service quality as the difference between what a customer was expecting from service performance before an encounter with the service and their perception after receiving the service. The expectations of consumers serve as the basis for evaluating service quality. This is because, quality is very high when performance also exceeds expectation and quality will be low when performance also does not meet their expectations, Asubonteng et al, (1996). Expectation is normally viewed in service quality literatures as desires or wants of consumer, thus what they feel a service should be other than what a service would be, Parasuraman et al, (1985). Therefore having a better understanding of consumer's attitudes will enable organisations to know how they perceive service quality.

Negi (2009) suggested that customer-perceived service quality has recently been given increased attention. This is due to its immense contribution to business competitiveness and development in customer satisfaction. This makes service quality a very important issue to understand by firms by knowing how to measure it and making the necessary improvements in its areas where appropriate, especially in areas where there are gaps between expectations of customers and perceptions of customers are wide.

Douglas and Conner (2003) emphasized that the customer who has developed a more heightened perception of quality is more demanding and less tolerant for shortfalls in service or product quality. It is very important that, service quality is not assessed only as end results but also how it is been delivered during the process of receiving the service.

### **Service Quality Gap**

A conceptual model of service quality was developed by Parasuraman et al (1985). In their development they identified five service quality gaps that could have an impact on the consumers evaluation of the service quality in four industries namely; Credit card, retail banking, securities brokerage and product repairs and maintenance. The gaps were;

#### **Gap 1: Consumer expectation – management perception gap**

This comes when service firms are not able to understand the features that a service must have before it can meet consumers' needs and the level of performance of those features in order to deliver more quality service. The result of this affects the way consumers assess service quality.

#### **Gap 2: Management perception – service quality specification gap**

This gap comes about when the organisation identifies what the consumers need but does not have what it takes to deliver those expectations. Some of the factors that bring about this gap could be limited resources, market conditions and management indifference. These factors could affect the service quality perception of the consumer.

#### **Gap 3: Service quality specifications – service delivery gap**

Organisations may have the guidelines on the performance of service well to their customers but that does not guarantee that high service quality performance is assured. Employees normally play a vital role in the assurance of good service quality perception. This has an effect on delivery of service which has a bearing on the way consumers will perceive service quality.

#### **Gap 4: Service delivery – external communication gap**

External communications can affect not only consumer expectations of service but also consumer perceptions of the delivered service. Companies can neglect to inform consumers of special efforts to assure quality that are not visible to them and this could influence service quality perceptions by consumers.

**Gap 5: Expected Service – perceived service gap**

From their study, it showed that the key to ensuring good service quality is meeting or exceeding what consumers expect from the service and that judgement of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected.

**Customer Satisfaction**

Customer satisfaction is been considered as an attitude as stated by Yi (1990). In the case of supermarkets, there is some kind of relationship existing between the customer and the service provider and customer satisfaction will be based on the assessment of several interactions between both parties. Therefore satisfaction is considered as part of the overall customer attitudes that are towards the service provider that makes up a number of measures.

According to Giese and Cote, (2002), there is no generic definition for customer satisfaction and after their study on various definitions for satisfaction they defined customer satisfaction as the identification of a response that pertains to a particular focus, thus a purchase experience and the associated product occurs at a certain time been post-purchase and post-consumption. From their definition it is clearer that the consumer's satisfaction is determined for his or her shopping experience and this was supported by Sureshchandar et al (2002) who also believe that customers' level of satisfaction can be determined by their total experiences at all of their points of contact with the supplying organisation.

According to Huddleston et al (2008), satisfaction is likely to occur if the shopping experience provides qualities that will be valued by consumers. Fornell, (1992), clearly defined customer satisfaction as the overall post-purchase evaluation by the customer and this is also similar to the definition by Tse and Wilton (1988). They define customer satisfaction as the response of consumers to the evaluation of the assumed discrepancy between expected expectation and actual performance of the product or service used.

All the definitions consider customer satisfaction as a post-purchase response and in the case of supermarkets shopping experience is more important in evaluating customer satisfaction. For Wicks and Roethlein, (2009), customer satisfaction is formed through affective evaluation processes and this affective evaluation can be done following the purchase experience by the consumer. A company enjoys a higher level of customer retention and profitability when they consistently satisfy their customers. It is vital to always keep consumers well satisfied and this is done in different ways and one way is by trying to know the expectations and perceptions of services offered by service providers.

***Factors that Affect Customer Satisfaction***

Customer satisfaction is viewed in various industries differently as well as that of individuals. Moreover, its approach is totally different when it has gotten to do with services and products. Many writers have been trying to understand service quality, product quality and satisfaction both in the area of comfortability and in terms of utility that a product or service fulfils the actual intended purpose for which it was made for and bought.

Sahin et al (2006), made an effort to find out whether consumers were satisfied with food served and its services at the military in Turkey. They realized that specific demographic characteristics were not significant in determining the satisfaction level of the patients but rather the appearance and the taste of food. They emphasize on demographic features as an important factor.

Another study was also done in Jiangsu province in China seeking to find out the differences in food taste among students of different socio-cultural background and characteristics stated in their literature that, socio-cultural factors as well as environmental factors shape children's choices of food, Spreng et. al., (2005). Their differences makes them to appreciate the quality of food differently and this is often because they are new to it, or they do not totally like it or due to their traditional beliefs associated with their different demographic factors.

Bailey and Pearson (1983) in their study identified thirty-eight (38) factors that affect the satisfaction of consumers of computer users of which some were the quality of the product, flexibility, reliability, priorities determinations, expectations and security. According to Spreng et. al., (2005) and Bailey and Pearson (1983) they all identified that quality of services and products, user friendly nature of product and services, human needs and comfort assurance were some of the relevant determinants of customer satisfaction.

### ***Relationships between Service Quality and Customer Satisfaction***

Sureshchandar et al (2002) opined that customer satisfaction can be seen as a dimensional construct just as service quality. Meaning, it can occur at different levels in an organisation and that it should be given attention along the same factors on which service quality works.

According to Negi, (2009), the idea of finding a link between service quality and customer satisfaction has been there for a long period. A study was carried out by him to find out the relevance of customer-perceived service quality in the overall determination of customer satisfaction in the area of telecommunication services and found out that reliability in the network and network quality were the key factors in the evaluation of overall service quality but also stressed that tangibles, empathy and assurance should not be overlooked when evaluating perceived service quality and customer satisfaction. His study was based on only a specific service industry like telecommunication service and it is very important to identify and evaluate those factors which do contribute significantly in the determination of customer-perceived service quality and overall satisfaction.

According to Fen and Meilian, (2005), they found out that both service quality and customer satisfaction do have positive impact on customer's intention to re-patronize shows that both service quality and customer satisfaction plays a crucial role in the success and survival of any business in the competitive market. Their study proved a close relationship between service quality and customer satisfaction.

Sureshchandar et al, (2002), also carried out a study to find out the link that existed between service quality and customer satisfaction. In their study, they came to the conclusion that, there exist a great dependency or direct relationship between both constructs and an increase in one variable is likely to lead to an increase in another variable. They again pointed out that service quality is more abstract than customer satisfaction. This is because, customer satisfaction do reflect the consumer's feelings about his or her many encounters and experiences with the service provision firm whiles service quality may be affected by the perceptions and values or by experiences of other consumers that may not be good.

Magi and Julander, (1996), also carried out a study among supermarkets in Sweden and showed a positive relationship between perceived service quality, customer loyalty and customer satisfaction. It was proven in their study that customer satisfaction results from high perceived service quality and this makes the customer to be loyal. However, it can be possible that a more satisfied customer may not necessarily become loyal customer.



## STUDY AREA AND METHODOLOGY

### Study Setting

The organization under study is Donyma Steel Complex. It is a manufacturing and retail company located in Kumasi. Donyma Steel Complex deals basically with steel products in the construction firm namely tropical roofing sheets of all kinds and sizes, tropical binding wire, iron rods, tropical nails, roller shutter gates and warehouse gates. Its factory is housed in an ultra-modern office complex with a large factory size and well located for business. The organizational structure combines a range of roles-sets that functions to add value to customer needs.

As a fast growing manufacturing industry, Donyma, presently has state-of-the-art equipment that has effectively established the organisation as the number one manufacturing industry in the Kumasi Metropolis so far as steel products in the construction industry is concerned.

## METHODOLOGY

### Respondents for the study

A cross sectional study was conducted between January and August 2015. The study was carried out in Adum, Asafo, Pankrono and Bantama; these are towns within the Kumasi Metropolis of Ghana. Permission for the study was obtained from the company hence their cooperation was great. The main criteria for the sample selection were the ability and knowledge of the respondents to evaluate service quality and total quality management by the customers and staffs of Donyma Steel Complex respectively. All the staffs from the company and top one hundred customers were informed of the study and their possible inclusion in the sample. After meeting sample selection criteria, the respondents were reminded about the purpose of the study and those who accepted to participate voluntarily were included in the sample

### Sampling Approach

A Multiple stage sampling procedure was used to sample the respondents. At the first stage, purposive sampling procedure was used to sample the Donyma Steel Complex and five (5) key distributors of the company while the second stage of the sampling process involved quota sampling in which set target numbers guided the sampling of respondents as shown in Table 1. In all ninety-eight (98) respondents were sampled for the study. The third stage was simple random sampling where both the customers and the staffs of Donyma Steel Complex were recruited for the study for the set target number. With the exception of the key distributors who were recruited purposively, the other forty-five respondents were through the customer database from the Trade Census of the company while the staffs were through the personnel information system which hosts this data.

**Table 1: Composition of Respondents**

Theme	Number of respondents
<b>Type of customer</b>	
Key Distributors	5
Retailers/Wholesalers	30
Customers (who buy from the sales office)	14
<b>Sub total</b>	<b>49</b>
<b>Section of staff</b>	
Management	10
Administration	8
Operatives	31
<b>Sub total</b>	<b>49</b>
<b>Total</b>	<b>98</b>

### Data Collection

A questionnaire was employed as the data gathering technique. The questionnaire consisted of five sections. Section A dealt with the biographical details of respondents, Section B to Section E contained sixty-five (65) items on sectional themes such as TQM awareness, TQM practices, expected and perceived services and challenges of TQM in Donyma Steel Complex. A Likert Scale was used to measure these pertinent constructs of the questionnaire. Ninety-eight (98) copies of self-administered questionnaires were submitted to the sampled respondents. A likert scale was used to indicate the responses from the respondents to measure the TQM awareness, TQM practices, expected and perceived results and challenges of TQM at Donyma Steel Complex.

### Statistical Analysis

Descriptive statistics was used to analyse the data with the aid of Statistical Package for the Services Solution (SPSS) version 14.0. Descriptive statistics such as frequency table, mean values and standard deviation were used to present the TQM practices and challenges of TQM implementation. The SERVQUAL Analysis was used for service quality. The results were presented using mean values, standard deviations and gap scores. The mean values, standard deviations as well as the gap scores were calculated using the five point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5= strongly agree). However, for easy presentation, the percentages for strongly disagree and disagree were combined and strongly agree and agree were also combined.

## RESULTS AND DISCUSSION

### Explanation of the columns of Tables 2-4

There is the need to make these explanations to guide our readers. “SD+D” represent strongly disagree and disagree respectively, while “N” is neutral which is indifferent feedback from the respondents and “SA+A” denotes strongly agree and agree respectively. “SD” is the standard deviation which measures the degree of deviation to the theme/statement outline. Mean is the degree of consensus to the theme/statement outline. “VLiE+LiE” indicate very little extent and little extent respectively to the response and “VLaE and LaE” denotes very large extent and large extent respectively.

### Total quality management practices

This section assessed the various TQM practices at Donyma Steel Complex. The essence was to examine the various levels at which elements of TQM are being implemented. The result is presented in Table 2 as shown below.

**Table 2: Total Quality Management Practices by staffs**

TQM Practices	SD + D	N	SA + A	Mean	SD
The management of the company has vision objectives and shares it	-	-	49	4.51	.505
Management involves staff and others in decision making	-	-	49	4.29	.456
Management has cordial relationship with staff	-	-	49	4.90	.306
Staff and departmental meetings are consistently organized	-	3	46	4.18	.527
Specific targets are set for departments to meet periodically	-	6	43	4.10	.586

Management facilitates the provision of the needs and requirements of the departments in the company	-	-	49	4.92	.277
The company's culture is based on teamwork	-	-	49	4.37	.487
Platforms are created for high performing departments to share strategies with other departments	-	8	41	4.00	.577
There is strong link between the company and its customers	-	-	49	4.31	.466
There is an avenue for receiving and addressing customers' concern	-	1	48	4.84	.426

**Source: Fieldwork, 2015**

The study examined whether the Management of Donyma Steel Complex has vision, objectives and shares them with workers. Twenty five respondents strongly agreed whereas twenty four respondents agreed that management of the company has vision objectives and shares with workers. The strength of consensus from respondents on this variable is depicted in high mean value of 4.51 which corresponds to "strongly agree" on the five point Likert scale.

Management involvement of staff in decision making was also one of the TQM practices examined. All the respondents either agreed or strongly agreed. This variable had a mean value of 4.29 which relates to "agree" on the Likert Scale. Similarly, majority of the respondents agreed that management has cordial relationship with staff with high mean value of 4.90. Relationship between management and staff is seen as a vital element of TQM. In other words, TQM cannot thrive without good management-staff relationship since it involves continuous improvement of all the units/sections of an organization.

This section also examined if staff and management consistently organizes meeting. It is expected that regular meetings between staff and management will aid continues improvement as such platforms offers the opportunity for each unit and individual to discuss issues that enhances organizational goal. Management is able to solicit views from staff whilst staff is made known of the direction of management when meetings are often held. Majority of the respondents agreed that meetings are consistently organized between staff and management of Donyma Steel Complex.

The result also shows that in a bid to ensure total quality management, specific targets are set for each department/unit of the company. Management facilities the provision of the needs and requirements of the departments in the company as shown in the general consensus of the respondents. Specifically, the highest mean value of 4.92 which corresponds to "strongly agreed" on the Likert scale implies that majority of the respondents agree management of Donyma Steel Complex facilitates the provision of the needs and requirements of the departments in the company.

Teamwork was another element of TQM assessed. It is assumed that team work will aid total quality management as the team works for a particular goal through continuous improvement. The study found that the company's work culture is based on team work as depicted in mean value of 4.37. This conclusion was also made by Hardie and Walsh (1994) that for customers to

experience defect free products teamwork and effective coordination by the various departments is key to achieve that objective.

The study also examined the extent to which the various departments share ideas. The result shows that platforms are created for high performing departments to share strategies with other departments. This helps for adoption of strategies and ideas by non-performing/low performing departments to enhance TQM. Apart from the intra-departmental links within Donyma Steel Complex, the study also found inter-relationship between the company and its customers. This element is very important for continuous improvement. It helps to solicit concerns and regular feedbacks from customers on services offered in order to formulate measures that improve TQM. Customer feedback through strong links between company and customers were found by Yi (1990) to be important element of successful TQM implementation and customer satisfaction. Due to the strong links between the company and its customers, there is an avenue for receiving and addressing customers' concern as reflected in second highest mean value of 4.84. In other words, majority of the respondents agreed that there is avenue for addressing concerns of customers. Yi (1990) concluded that customer satisfaction which is a function of TQM is considered as an attitude. Simply put, there is some kind of relationship existing between the customer and the service provider and customer satisfaction will be based on the assessment of several interactions between both parties. Similarly, Fornell, (1992), posited customer satisfaction as the overall post-purchase evaluation by the customer and further reiterated by Tse and Wilton (1988). They define customer satisfaction as the response of consumers to the evaluation of the assumed discrepancy between expected expectation and actual performance of the product or service used.

### SERVQUAL Analysis

This section presents the results of measuring quality of service at Donyma Steel Complex. The study employed the SERVQUAL model in measuring service quality. The result is shown in the Table 3 below.

**Table 3: Service Quality by customers**

<i>Reliability</i>	Perceived Service	Expected Service	GAP Score	Average for Dimension
Bills/charges will be accurate (No errors)	4.63	4.20	0.43	
Services will be perfectly rendered.	4.28	4.29	-0.01	
Services can be demanded any time.	4.42	3.69	0.73	
Services rendered will motivate me recommend the company to others.	4.69	4.34	0.35	
Services will be timely executed.	4.36	4.29	0.07	0.39
<i>Responsiveness</i>				
Charges/Bills will be given on time	4.46	4.10	0.36	
Management/staff will be willing to work extra if the service demanding is difficult.	4.48	4.31	0.17	
The management will address customers' concerns promptly.	4.48	4.24	0.24	0.19

<b><i>Assurance</i></b>				
Staff/management will show some level of courtesy to customers	4.62	4.45	0.17	
I will be able to confide in service providers or customers when I have problems	4.41	4.00	0.41	
Relationship between service providers and customers will be good	4.60	4.18	0.42	
Communication in my organization will be bottom-up	4.33	3.86	0.47	0.37
<b><i>Empathy</i></b>				
Service providers will be approachable	4.40	4.08	0.32	
Company will give individual attention to customer needs.	4.36	4.06	0.3	
Management will be interested in staff and customers' welfare.	4.57	4.23	0.34	0.32
<b><i>Tangibles</i></b>				
Resources will be in good state	4.73	4.20	0.53	
Adequate resources will be available	4.79	4.31	0.48	
The tiles/steel/buildings will be attractive	4.87	4.28	0.59	
The tiles/steel/buildings will be durable.	4.91	4.38	0.53	0.53
<b>Overall Gap</b>				0.36

**Source: Fieldwork, 2015**

This part is subdivided into five sections. The first part looks at the reliability of the service offered by Donyma Steel Complex. Accuracy of bills and charges, timely execution of projects, etc. were used to measure reliability of services rendered. The result shows that the services rendered is reliable as depicted in the positive gap scores for all the elements of reliability except "perfection of services rendered" and average score of 0.39. Among the reliability factors envisaged, customers' ability to demand services any time ranked as the most reliable as it scored the highest positive gap score of 0.73.

Another factor envisaged was responsiveness of the company to the needs of customers. The responsiveness examined how the company reacts to demands of customers. That is, the willingness of managements and staff to help and provide prompt services to customers. The result as shown in Table 3 depicts that management and staffs of Donyma steel company are willing and offer prompt services as a positive gap score of 0.58 was recorded. It can therefore be concluded that customers of Donyma Steel Complex are satisfied by the company's responsiveness to their demands. In line with that, Tse and Wilton (1988) defined customer satisfaction as the response of consumers to the evaluation the assumed discrepancy between expected expectation and actual performance of the product or service used.

Majority of the respondents agreed that bills are given on time, management and staffs are willing to work overtime and customers concerns are promptly addressed. As shown in the

Table 3, all the elements of responsiveness had positive gap score. Again, the average dimensional score for responsiveness is positive. Bailey and Pearson (1983) included flexibility and reliability as a factor that influences customer satisfaction. The flexibility of management and staff to working hour(s) to meet customer demand is expected to be a key determinant of customer satisfaction.

The study also assessed service quality based on assurance. The result shows that the company exhibits assurance by showing customers some level of courtesy, measures in place to ensure confidence in the operations of the company when there is a problem, existence of cordial relationship between service providers and customers as well as good flow of communication. Assurance had a positive average dimensional score of 0.37. In furtherance, the result shows that staff and management shows empathy to the customers as a positive gap score of 0.32 was recorded. Management's interest in welfare of staff and customers scored the highest positive gap score therefore making it most well performed empathy variable envisaged.

Finally, this section examined the tangibles of Donyma Steel Complex. It is shown from the results that respondents agreed resources used in operation are in good state and available, the tiles, steel and buildings are attractive and durable and gives some level of security to customers. In general, the average dimensional score for tangible was positive and the highest among all the dimensions of service quality. Notwithstanding that all the dimensions of service quality examined scored a positive gap score, result show real cause for concern to improve on the negative components of the dimensions.

In all and sundry, an overall positive unweighted average SERVQUAL score of 0.36 as seen in Table 3 indicates a significant quality of service delivery in meeting expectations of customers across all service areas and dimensions. The overall positive gap score is an indication of customer satisfaction. According to Fen and Meilian, (2005), the found out that both service quality and customer satisfaction do have positive impact on customer's intention to re-patronize goods and services of a company thereby showing that both service quality and customer satisfaction plays a crucial role in the success and survival of any business in the competitive market. It is also concluded that a positive gap score means the presence of customer loyalty. Similar finding was made by Magi and Julander, (2009) in a study carried out among supermarkets in Sweden and showed a positive relationship between perceived service quality, customer loyalty and customer satisfaction. It was proven in their study that customer satisfaction results from high perceived service quality and this makes the customer to be loyal. However, it can be possible that a more satisfied customer may not necessarily become loyal customer.

The summary scores for each dimension are shown in Table 3, with the unweighted average scores per dimension having been totaled to achieve the overall SERVQUAL score. As can be seen from Table 3, the only negative gap scores was on a component of reliability; this is real cause for concern and provides a definite starting point for service improvements by striving towards perfection.

From Table 4 above, majority of the respondents agreed to a large extent that, the challenges of practicing TQM in Donyma Steel Complex is due to difficulty to change the stand point of staff and the high cost outlay involved in training staff. Thus, the difficulty involved in changing the standpoint of staff on quality had the highest mean of 3.84 followed by the expenditure involved in TQM training with mean of 3.53. This implies that the expenditure involved in TQM training staff is one of the main hindrance to successful TQM implementation.

**Challenges of TQM implementation****Table 4. Challenges of TQM implementation**

TQM Practices	VLiE + LiE	N	VLaE + LaE	Mean	S.D
Difficulty to change staff stand point of quality	8(16.3%)	6(12.2%)	35(71.4%)	3.84	1.34
Bad relationship between staff and customers	47(95.9%)	-	2(4%)	1.69	0.77
The outlay/expenditure involved in TQM training.	14(28.5%)	10(20.4%)	25(51%)	3.53	1.36
Insufficient resources	47(95.9%)	-	2(4%)	1.24	0.751
Improper planning	49(100%)	-	-	1.04	0.20
Lack of staff commitment	49(100%)	-	-	1.12	0.33
Lack of clear vision and concrete quality policy for the company	49(100%)	-	-	1.10	0.31
Poor communication between members of departments.	49(100%)	-	-	1.53	0.50
Lack of feedback from management	48(98%)	1(2%)	-	1.59	0.54

**Source: Fieldwork, 2015**

**CONCLUSION AND RECOMMENDATION**

The study found high level of TQM awareness among the respondents. It is therefore expected that TQM practices among staff and management will be high. Management and staff must be encouraged to pursue further education and engage in training programs as they were found as means of TQM awareness. Policies like study leave and sponsoring of training programs on TQM can be used to further enhance TQM awareness.

Measures and policies that promote cordial relationship should be encouraged to enhance TQM practices. Also, management should be encouraged to clearly define and communicate the vision and objectives of the company. By so doing, TQM practices would be enhanced. Put differently, the absence of cordial relationship among staff and management, and clearly defined vision and objectives of the company could spell dire consequences for TQM practices and its associated effects.

Respondents gave good assessment of service quality. Thus, all the dimensions of service quality had a positive gap score. However, management should review sections of service dimensions that had negative gap score. In other words, management could target sections of service dimension that had negative gap score as a starting point to improve service quality.

Successful TQM implementation is hindered by difficulty to change the stand point of staff. This could be dealt with regular reorientation exercises for staff in order to change staff attitude and encourage flexibility in operations. Another challenge of TQM implementation is high cost outlay to train and educate staff.

## RECOMMENDATION

Policies like study leave and sponsoring of training programs on TQM can be used as a tool to further enhance TQM awareness. Special sponsorship packages for staff members pursuing further studies on TQM can be instituted whereby those individuals will go into agreement to return to the company after studies. By so doing, TQM will be promoted and the company reaps its associated benefits.

Measures and policies that promote cordial relationship should be encouraged to enhance TQM practices. Also, management should be encouraged to clearly define and communicate the vision and objectives of the company. Other TQM practices such as the culture of teamwork, strong linkage between customers and the company should be encouraged.

Respondents gave good assessment of service quality. However, some dimensions of service quality had a lower score comparatively. Management should target service quality dimensions that had a low score as a starting point of improving service quality. Specifically, responsiveness which had the least average dimensional score should be the primary target to enhance service quality.

Successful TQM implementation is hindered by difficulty to change the stand point of staff. This problem could be dealt with by organizing regular training and programs on TQM to reorient staff attitude. The company can also partner with other institution with similar goal of enhancing service quality by organizing training sessions for the staff. By so doing, the cost outlay of training staff on TQM will be borne by both companies. This could be a way of reducing high cost outlay associated with training staff.

## References

1. Asubonteng, P. McCleary, K.J. and Swan, J.E (1996), "SERVQUAL revisited: a critical review of service quality", *The Journal of Services Marketing*. Vol. 10 (6), pp. 62-81
2. Bailey, J. E and Pearson, S. W, (1983). Development of a tool for measuring and analyzing computer user satisfaction. *Management Science*, Vol. 29 (5), pp. 530-575
3. Douglas, L and Connor, R. (2003). Attitudes to service quality – the expectation gap, *Nutrition and Food Science*, Vol. 33 (4) pp. 165-172.
4. Eshghi, A., Roy, S.K and Ganguli, S. (2008). Service quality and customer satisfaction: An empirical investigation in Indian mobile Telecommunications services, *Marketing Management Journal*, Vol. 18 (2) pp. 119-144.
5. Fen, Y.S and Meilian, K. (2005), Service quality and customer satisfaction. Antecedents of customer's re-patronage, *Sunway Academic Journal*. Vol. 4, pp. 60-73.
6. Fornell. C, (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, Vol. 56, pp. 6-21.
7. Ghylin, K.M, Green, B. D, Drury, C G, Chen, J, Abraham, J.K (2006). Clarifying the dimensions of four concepts of quality, *Theoretical Issues in Ergonomics Science*, Vol. 9 (1), and pp. 73-94.
8. Giese, J, L and Cote, J.A (2002). Defining Customer Satisfaction, *Academy of Marketing Science*, Vol. 2000 (4), pp. 1-24
9. Hardie N and Walsh P. (1994). Towards a better understanding of quality. *International Journal of Quality and Reliability Management*, Vol. 11, pp. 53-63.
10. Huddleston, P. Whipple, J. Mattick R.N and Lee S.J (2008). Customer satisfaction in food retailing: comparing specialty and conventional grocery stores. *International Journal of Retail and Distribution Management*, Vol. 37(1), pp. 63-80



11. Ladhari, R. (2009), A review of twenty years of SERVQUAL research, *International Journal of Quality and Service Sciences*, Vol. 1(2), pp. 172-198
12. Magi, A and Julander, C. R (1996), Perceived service quality and customer satisfaction in a store performance framework. An empirical study of Swedish grocery retailers, *Journal of Retailing and Consumer Services*, Vol. 3(1), pp. 33-41.
13. Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, *International Journal of Mobile Marketing*, Vol. 4(1), pp. 31-38.
14. Parasuraman, A, Zeithaml, V.A and Berry, L.L (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, Vol. 49(4), pp. 41-50.
15. Sahin, B, Demir, C, Celik, Y and Teke, A.K (2006). Factors affecting satisfaction level with the food services in a military hospital, *Journal of Medical Systems*, Vol. 30(5), pp. 381-387
16. Sower, V and Fair F, (2005). There is more to quality than continuous improvement: Listening to Plato, *Quality Management Journal*, Vol. 12(1), pp. 8 -20.
17. Spreng, R., Shi, L. and Page, T. (2005), Perceived Service Quality, Customer Satisfaction and Intentions in NA- *Advanced in Consumer Research*, Vol. 32, and pp. 358-359.
18. Sureshchandar, G.S, Rajendran, C. and Anantharaman, R.N. (2002). The relationship between service quality and customer satisfaction. A factor approach. *Journal of Services Marketing*. Vol. 14(4), pp. 363-379
19. Tse, D.K. and Wilton. P.C. (1988). Models of Customer Satisfaction: An Extension, *Journal of Marketing Research*, Vol. 25 (May), pp. 204 -212.
20. Wicks, A.M and Roethlein, C.J (2009). A Satisfaction-Based Definition of Quality. *Journal of Business and Economics Studies*, Vol. 15(1), pp. 82-97
21. Yi, Y. (1990). A critical review of consumer satisfaction in *Review of Marketing*, Ed. Valarie A. Zeithaml: Chicago: American Marketing Association, pp. 68-123

## Understanding the Concept of Job Satisfaction, Measurements, Theories and its Significance in the Recent Organizational Environment: A Theoretical Framework

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### Abstract

Job or work is an important aspect of an individual's life and it occupies a lot of personal and professional time compared to any other activity. Satisfaction is the pleasure felt after a need is fulfilled. One would suppose a person is satisfied when his or her expectations or desires or requirements have been met. Job satisfaction describes how much extent an individual is pleased, comfortable or satisfied with his or her job. It is a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. In current organisations Job Satisfaction is a crucial subject of attention which is very considered by the higher authorities, policy makers and top executives because this issue is related to many other significant and important issues of organisations. Employees are the core assets and key part of any organisations by which all means of production are handled. As a human being this is human nature that employee are satisfied or dissatisfied what work they are assigned. This is the prime objective of the organizations that they should make and implement such type of policies that can make an employee to satisfy with his/her job which is assigned to them. It is clear from previous studies that how Job Satisfaction is important for any organisations. It is very important issue nowadays when organizations are facing with many types of employee related problems and challenges i.e. organizational performance, organizational commitment, employee turnover, employee productivity etc. Keeping in view the significance and importance of Job Satisfaction in organizations, scholar had endeavored to elaborate the construct of Job Satisfaction, its measurements, theories and its significance in current organizational issues. The research paper is theoretical in nature and subjects have been clarified with the help of concerned literatures and previous studies regarding this area.

**Key Words:** Job Satisfaction, Organizational Performance, Employee Turnover, Organizational Commitment, Employee Productivity.

### CONCEPT OF JOB, SATISFACTION AND JOB SATISFACTION

Job or work is an important aspect of an individual's life and it occupies a lot of personal and professional time compared to any other activity. It provides the financial basis for a person's life (Santhapparaj & Alam, 2005). Warr Cook & Wall (1979) have defined the job and differentiate it with work as job to the task undertaken in a particular setting whereas, work is taken to cover job more generally. Job can be looked at as the means used to achieve personal goals relating to ones career. On the other hand satisfaction is the contentment felt after a need is fulfilled (Robbins & Stephen, 1998). Satisfaction, as defined by Thorndike & Barnhart (1979), is the "fulfillment of conditions or desires". Therefore, one would suppose a person is satisfied

when his or her expectations or desires or requirements have been met. Job satisfaction describes how much extent an individual is pleased, comfortable or satisfied with his or her job. It is a relatively modern term since in earlier centuries the jobs available to a particular person were often predetermined by the occupation of that person's parent. A person's Job Satisfaction level is influenced by many factors. Some of these factors include the level of pay and benefits, the alleged fairness of the promotion system within a company, the quality of the working conditions, leadership and social relationships, the work itself, the diversity of tasks involved, the opportunity and challenge the job generates, and the clearness of the job description/requirements). The happier people are within their job, the more satisfied they are said to be. Job satisfaction is not the same as motivation, although it is clearly linked with other issues. Job design aims to enhance job satisfaction and performance methods include job rotation, job enlargement and job enrichment. Other influences on satisfaction include the management style and culture, employee involvement, empowerment and autonomous workgroups. Job satisfaction is a very important attribute which is frequently measured by organizations (Kabir & Parveen, 2011).

The issue of Job Satisfaction has initiated with the beginning of scientific management by F.W. Taylor in 1911 when he introduced piece rate system and linked employees' affluence with organization's prosperity through enhancing employee productivity (Ghafoor, 2012). The early use of scientific management by industries significantly increased productivity because workers were forced to work as a faster way. However workers became bushed and dissatisfied, thus leaving with the new question to answer regarding job satisfaction. But the concept of Job Satisfaction was much highlighted when Hawthorne Studies were conducted in late 1920s and early 1930s. These studies were accomplished by Elton Mayo of the Harvard Business School, at the Hawthorne plant of the Western Electric Company in Chicago. The Hawthorne studies were firstly designed to study the effect of working condition on workers' productivity, but the emphasis soon moved to the study of attitude. The finding of these studies provides strong evidence that people work for purpose other than pay which lined the way for researchers to investigate other factors in job satisfaction. After that Hoppock (1935) began to analyze job satisfaction systematically and identified a range of factors contributing to job satisfaction.

### **JOB SATISFACTION IN THE VIEW OF PROMINENT SCHOLARS**

Hoppock (1935) describes the construct of job satisfaction as being any number of psychological, physiological and environmental circumstances that causes a person to say that I am satisfied with my job. Vroom in his view focuses on the role of employees in the workplace. He defined Job satisfaction as affective orientation on the part of individuals, towards work roles which they are present occupying (Vroom, 1964). According to Locke (1976) Job Satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". As defined by Feldman & Arnold (1983) Job satisfaction as the amount of overall positive affect (or feelings) that individuals have towards their jobs. In the opinion of Davis et al. (1985) Job satisfaction represents a combination of positive or negative feelings that workers have towards their work. Meanwhile, when a worker employed in a business organization, brings with it the needs, desires and experiences which determinates expectations that he has dismissed. Job satisfaction represents the extent to which expectations are and match the real awards. Job satisfaction is closely linked to that individual's behavior in the work place (Davis et al., 1985).

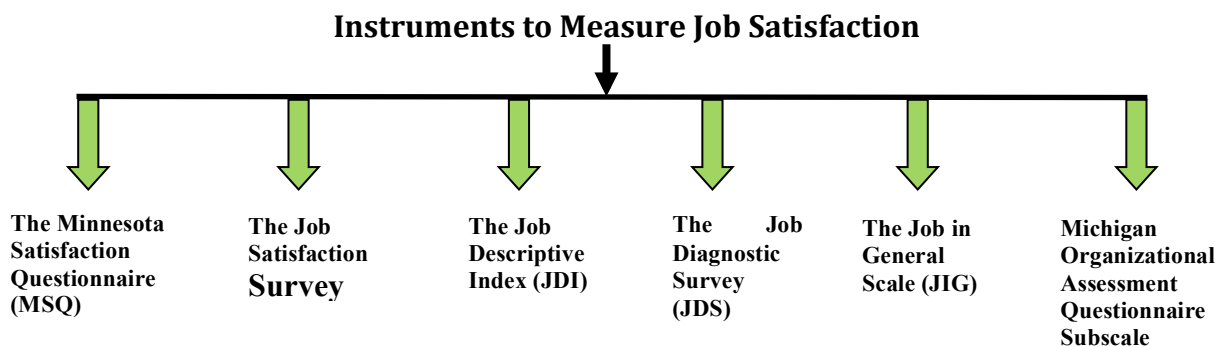
Andrew (1988) stated that job satisfaction is the amount of pleasure or contentment associated with a job. Spector defines job satisfaction is the extent to which people like (satisfaction) or dislike (dissatisfaction) this jobs According to this definition Job satisfaction is

a general or global affective reaction that individual goal about their job (Spector, 1997). In the view of Statt (2004) Job satisfaction can be defined as the extent to which a worker is content with the rewards he or she gets out of his or her job, particularly in terms of intrinsic motivation (Statt, 2004). Kreitner & Kinicki (2004) defines Job Satisfaction as “an affective and emotional response to various facets of one’s job”. Mullins (2005) defines this construct as a complex and multifaceted concept which can mean different things to different people. Job satisfaction is usually linked with motivation, but the nature of this relationship is not clear. Satisfaction is not the same as motivation. Job satisfaction is more of an attitude, an internal state. It could, for example, be associated with a personal feeling of achievement, either quantitative or qualitative (Mullins, 2005). According to Armstrong’s (2006) definition job Satisfaction refers to the attitude and feeling people have about their work positive and favourable towards the job indicates job satisfaction, negative and unfavourable attitude towards the job indicates job dissatisfaction (Armstrong, 2006).

About Job Satisfaction words of (Kaliski, 2007) are “Job satisfaction is a worker’s sense of achievement and success on the job. It is generally perceived to be directly linked to productivity as well as to personal well-being. Job satisfaction implies doing a job one enjoys, doing it well and being rewarded for one’s efforts. Job satisfaction further implies enthusiasm and happiness with one’s work. Job satisfaction is the key ingredient that leads to recognition, income, promotion, and the achievement of other goals that lead to a feeling of fulfillment” (Kaliski, 2007). George et al. (2008) concluded that Job satisfaction is the collection of feeling and beliefs that people have about their current job. People’s levels of degrees of job satisfaction can range from extreme satisfaction to extreme dissatisfaction. In addition to having attitudes about their jobs as a whole. People also can have attitudes about various aspects of their jobs such as the kind of work they do, their coworkers, supervisors or subordinates and their pay (George et al., 2008). According to Aziri (2008) job satisfaction represents a feeling that appears as a result of the perception that the job enables the material and psychological needs (Aziri, 2008).

### MEASURES OF JOB SATISFACTION (SPECTOR, 1997)

There are various types of measures available provided by many scholars and authorities to assess the Job Satisfaction of any individual. A brief description of some important measures of job satisfaction is as follows:



#### The Minnesota Satisfaction Questionnaire (MSQ)

The Minnesota Satisfaction Questionnaire (MSQ; Weiss et al., 1967) is a job satisfaction scale that has been very popular and is easy in applicability among researchers. The MSQ contains in two forms, a 100-item long version and 20-item short form. It covers 20 facets, many of which are more specific than other satisfaction scales. Most of the researcher who use the short form

combines all the items into a single total score or compute extrinsic and intrinsic satisfaction subscales from subset of items. Extrinsic satisfaction concerns aspect of work that has little to do with the job task or work itself, such as pay. Intrinsic satisfaction refers to the nature of job task themselves and how people feel about the work they do. Subscales, which have better reliabilities than individual items, are better preferred.

### **The Job Satisfaction Survey**

The Job Satisfaction Survey (JSS; Spector, 1997) assesses 9 facets of Job Satisfaction, as well as overall satisfaction. The Scale Contains 36 items and uses a summated rating scale format. This format is most accepted for job satisfaction scales. The format of JSS makes it relatively easy to modify. Each of the nine facet subscales contains four items, and a total satisfaction score can be computed by combining all of the items.

### **The Job Descriptive Index**

The Job Descriptive Index (JDI; Smith, Kendall, & Hullin, 1969) has probably been the most popular facet scale among organizational researchers. It also may have been most carefully developed and validated. The scale assesses five facets:

- a. Work
- b. Pay
- c. Promotion
- d. Supervision
- e. Coworkers

The entire scale includes 72 items with either 9 or 18 items per subscales. Each item is an evaluative adjective or short expression that is descriptive of the job. Responses are "Yes" or "No". For each facet scale, a brief clarification is provided, followed by the items relating to that facet. Both favorable or positive and unfavorable or negative worded items are offered in the scale.

### **The job Diagnostic Survey**

The job Diagnostic Survey (JDS; Hackman & Oldham, 1975) is a measure that was developed to study the impact of job characteristics on the people. It includes the subscale to measure the nature of the job and job tasks, motivation, personality, psychological states, (cognition and feelings about job tasks), and reaction to the job. The JDS is discussed here as a facet measure because it covers several areas of job satisfaction, specially growth, pay security, social, and supervision, as well as global satisfaction. The format for the facet items is a 7 point Likert scale ranging from 'Extremely dissatisfaction to "Extremely Satisfied". The forms for global satisfaction subscale are a 7 point ranging from "Disagree Strongly" to "Agree Strongly".

### **The Job in General Scale (JIG)**

The Job in General Scale (JIG; Ironson et al., 1989) was designed to evaluate overall job Satisfaction rather than facet. Its format is similar to JDI, and it contains 18 items. Each item is an adjective and short phrase about the job in general rather than a facet. The total score is a combination of all items. Ironson et al. argue that overall job satisfaction is not the total of individual facets and that should not be assessed with a general scale like the JIG. The JIG uses three response choices. For each item, respondents are asked if they agree (yes), aren't sure (?) or disagree (no). Negatively worded items are reverse-scored, and the total score is the sum of the responses.

### **Michigan Organizational Assessment Questionnaire Subscale**

Michigan Organizational Assessment Questionnaire Subscale contains a three item overall satisfaction subscale (Cammann et al., 1979). The scale is simple and short, which makes it

ideal for use in questionnaire that holds many scales. For each item there are seven response choices: “Strongly disagree to “Strongly Agree”. The responses are numbered from 1 to 7, respectively, but the second item is adversely scored. The items are totaled to yield an overall job satisfaction score.

### **THEORIES OF JOB SATISFACTION**

Scholars had offered various types of views and opinion regarding the theories of Job Satisfaction. In the followings, theories of Job Satisfaction presented by various intellectuals are mentioned:

#### **Maslow’s Need hierarchy Theory:**

One theory of human motivation that has received a enormous deal of publicity in the past was developed by Abraham Maslow. Maslow (1943) conceptualized that people are driven by unsatisfied needs that shape their behavior. In his theory Maslow classified human needs into five categories that ascend in a definite order as follows:

1. Physiological needs
2. Safety and security needs
3. Belonging and love needs
4. Esteem needs and
5. Self- actualization needs.

He suggested that after a person has moved from a lower to a higher level of need, the higher level needs suppose to be less importance since they have been adequately met. At a lower tier, essential life sustaining requirements as food, clothing and shelter were identified. Next were physical and security need were considered, thirdly social acceptance, belongings and love, fourth was self esteem needs and recognition by people and finally fifth was self actualization need such as personal autonomy and self direction. According to Maslow the needs of an individual subsists in a coherent order and that the basic lower level requirements must be satisfied before these higher level, then once the basic needs are fulfilled, they no longer serve as motivators for the individual. The more a job allows for development and attainment of higher level needs, the more likely the individual is to report satisfaction with his or her job.

#### **Herzberg’s Motivation/ Hygiene Theory (Two factors theory)**

This theory was developed by Frederick Herzberg, Manusner, Peterson and Capwell (1959) in extension to Maslow’s work. Herzberg and his colleagues revealed in their theory that job satisfiers were linked with the job content and job dissatisfaction were associated to job context. The satisfiers were worded as motivators while dissatisfiers were termed as hygiene factors. While hygiene factors were responsible for preventing dissatisfaction, motivators were essential to keep employee satisfy. Factors such as achievement, recognition, responsibility etc, are satisfiers, the presence of which causes satisfaction but their absence does not result in dissatisfaction. On the other hand, factors such as supervision, salary, working conditions etc are dissatisfiers, the absence of which causes dissatisfaction. Their presence however, does not result in job satisfaction.

#### **Alderfer’s ERG Theory**

Clayton Alderfer’s (1969) theory is referred to as ERG theory and is based on the three needs: Existence, Relatedness and Growth. Existence is referred as providing individuals physiological and safety needs. Relatedness is the desire to keep good interpersonal relationships to which Maslow marked as social and esteem needs. Growth needs are an intrinsic need for personal

development based on the self actualization needs of Maslow. According to ERG theory a person's background or cultural surroundings may cause the relatedness requirements to outweigh to unfulfilled existence needs. It is also possible that the intensity of growth needs will enhance with an increase in the degree to which they are satisfied.

### **Vroom's Expectancy Theory**

Victor Vroom (1964) proposed an expectancy theory which is also known as VIE theory to explain work motivation. In his theory he point out three variables as:

- Valance
- Instrumentality
- Expectancy

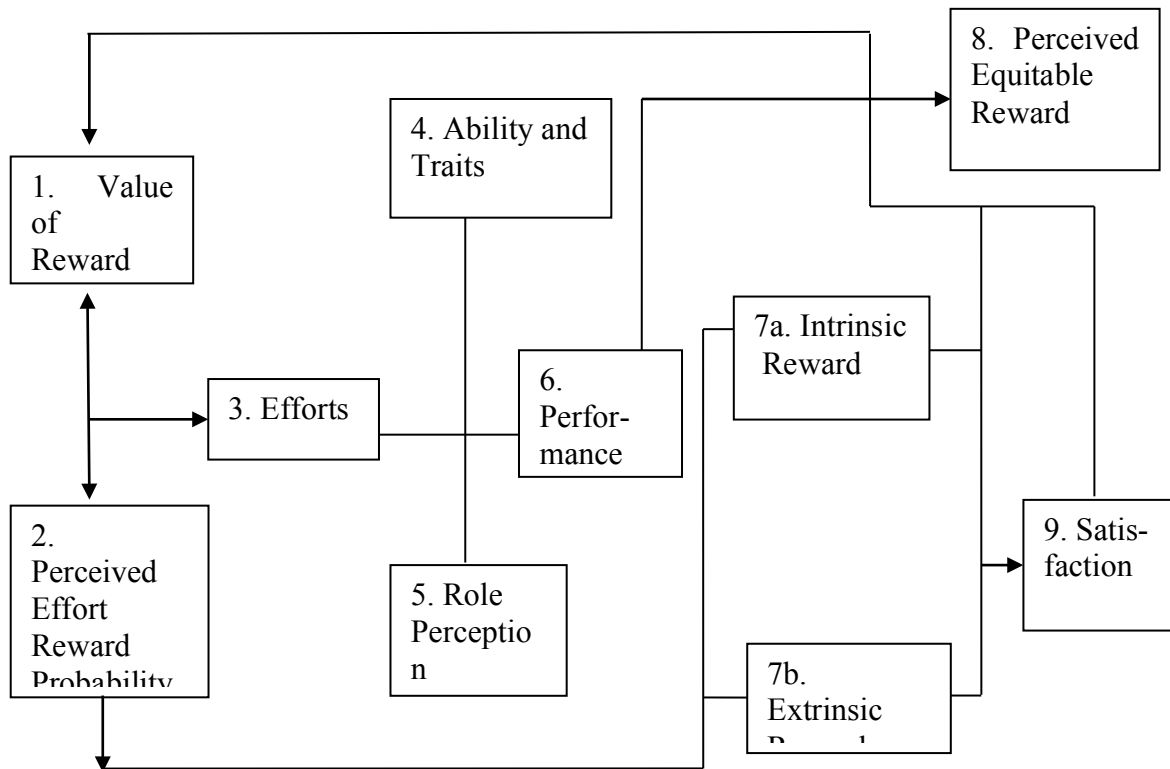
Vroom's theory of Job Satisfaction was equivalent in that it looked at the interaction between personal and workplace variables; however he also incorporated the elements of workers' expectation in his theory. The core of this theory is that if workers put forth much effort and give better and enhanced performance at work, then they will be compensated accordingly. Discrepancies that arise between expected compensation and actual outcome leads to dissatisfaction. If employees receive less than they expect or otherwise feel as if they have been treated unduly, then dissatisfaction may occur. Conversely, overcompensation may also lead to dissatisfaction and employee may experience feeling of guiltiness. In Vroom's formula each variable is given a probability value, and when all three factors are high, employees will be more satisfied and have more motivation, If any of the factors are low, work performance and employee motivation will decline.

### **Porter-Lawler Model (Needs Fulfillment Theory)**

The Porter-Lawler model was developed by Lyman W. Porter and Edward E. Lawler III (1967). It was an expansion of Vroom's Expectancy theory. In their model Porter-Lawler endeavored to explore the complex relationship between motivation, satisfaction and performance. They pointed out that efforts made by any employees did not directly result in performance. Their model was comprehensive explanation of work motivation. The model describes that performance in an organization is depended on these factors;

- Employee have willingness to perform a work and should be motivates to do a task;
- Motivation alone cannot ensure successful performance of a task. The employee should also have the capabilities and skill to perform a job successfully.
- The employee has a clear perception of his role in the organizations and an accurate knowledge of the job requirements.

The porter-Lawler Motivation Model is as follows:



**Fig: 1 the porter-Lawler Motivation Model**  
**Source: ICFAI Book, Organization Behavior, p. 136**

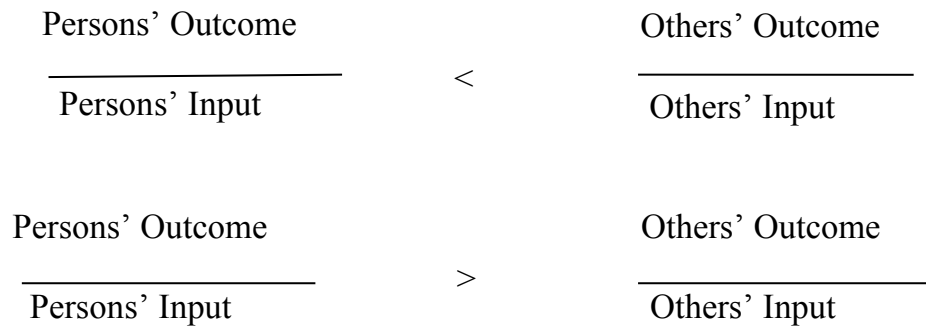
**Equity Theory**

James Stacy Adams (1963) propounded the equity theory. Equity theory describes that the degree of equity or inequity perceived by an employee with reference to his work situation plays a key part in work performance and satisfaction. Equity theory was based on three main hypotheses. First that people develop beliefs about what comprises a fair and equitable return for their contribution to their jobs. Secondly, people tend to compare what they perceive to be the exchange they have with their employers to that which they perceive, coworkers have with their employers. Thirdly, equity theory holds that when people believe that their own treatment is not equitable in comparison to their colleagues, with whom they are comparing themselves, they feel inequity. According this theory Equity is represented schematically as follows:

**Figure: 2 Showing Equity in Employees**

$$\frac{\text{Persons' Outcome}}{\text{Persons' Input}} = \frac{\text{Others' Outcome}}{\text{Others' Input}}$$



**Figure: 3 Showing Inequity in Employees**

**Source: ICFAI Book, Organization Behavior, p. 138**

### **JOB CHARACTERISTICS MODEL**

Hackman & Oldham (1975) introduced the Job Characteristics Model, which is widely used as a framework of study how particular job characteristics affect job outcomes, including job satisfaction. The model states that there are five core job characteristics (skill variety, task identity, task significance, autonomy and feedback) which impact three critical psychological states (experienced meaningfulness, experienced responsibility for outcomes, and knowledge of the actual results), in turn influencing work outcomes (job satisfaction, absenteeism, work motivation, etc.). The five core job characteristics can be combined to form a motivating potential score (MPS) for a job which can be used as an index of how likely a job is to affect an employee's attitude and behavior.

### **RELEVANCE OF JOB SATISFACTION IN CURRENT ORGANIZATIONAL ISSUES**

Job Satisfaction is very important and significant issue nowadays in organizations and higher authorities, policy makers and top executives are paying more attention to this issue that how to make employees of their organization more satisfied because job satisfaction is related with some other important organizational issues which directly or indirectly influences the organization's goals. Here, relationship of Job Satisfaction with some organizational issues had been clarified with the help of some literatures.

### **Job Satisfaction and Organizational Performance**

In their research Carroll, Keflas & Watson (1964) revealed that satisfaction and productivity are crucially related to each other and in each one of them affects the other. They concluded that performance stimulates to more effort because of high supposed expectancy. After evaluating many previous studies literature Smith and Cranny (1968) concluded that there is a positive relationship among job satisfaction and employee performance as well as effort, commitment and intention. In another study conducted by western electric studies (1966) the outcomes of Relay Assembly test room showed that there is a strong relationship between job satisfaction and employee productivity and it was also suggested that if an employee job satisfaction is increased his productivity will also increase. Porter and Lowler (1969) concluded that satisfaction will influence a worker's effort, and that increased satisfaction from performance will possibly helps to increase expectations of performance which will lead to rewards. In the literature there is evidence that Job Satisfaction is related with Job Performance of employees in variety of organizational settings. David, Joseph & William (1970) suggest that the type of reward system under which workers perform strongly influence the satisfaction performance relationship. In his study Cummings (1970) identified three major issues with reference to this relationship. Satisfaction leads performance, performance causes satisfaction and rewards leads to both performance and satisfaction. Kornhanuser & Sharp (1976) have carried out more than thirty studies to identify the relationship between

satisfaction and performance in industrial sector. Out of their all studies, many researches revealed that there was a positive relationship between job satisfaction and employee performance but contrary in their researches Katzell, Barret & Porker (1952) concluded that job satisfaction was neither related with turnover nor with quality of production The effort carries to effective performance, which again leads to satisfaction in essential relationship. Mirvis & Lawer (1977) in his study revealed conclusive findings regarding association between job satisfaction and employee performance. Endeavoring to measure the performance of bank tellers with regard of cash shortages, they opinioned that satisfied tellers were less likely to show shortages and less likely to leave their jobs which shows the less employee turnover rate.

### **Job Satisfaction and Organizational Commitment**

Many studies have acknowledged that job satisfaction is an important predictor and antecedent of organizational commitment and it has an impact on organizational commitment in different way (Porter et al., 1974; Mottaz, 1987; Williams & Anderson, 1991; Vanderberg & Lance, 1992; Young, Worchel & Woehr, 1998; Testa, 2001). There is also evidence on the basis of the conclusions of many researches that job satisfaction leads to commitment among workers (Vedamanickam, 2001; Samaratunge, 2003; Kanter, 2004; McNulty & Ferlie, 2004; George & Jones, 2008; Mohamadkhani & Nasiri, 2012; Kahtani, 2012). Job satisfaction acts as a dominant variable to the relationship between co-workers' relationship and organizational commitment (Lin and Lin, 2011). Ilhami (2012) revealed and concluded that high levels of job satisfaction results in higher commitment. In another study extrinsic, intrinsic and general satisfaction is found to be associated to organizational commitment (Samavi, 2011; Hashmi & Naqvi, 2012). The findings of the study carried out by Azeem & Akhtar (2014) demonstrates a moderate level of job satisfaction and organizational commitment among the Saudi employees working in public sector organizations. Job satisfaction facets and organizational commitment were found to be positively related. As far as the demographic variables are concerned, only tenure was found significantly related to commitment. It was also found that Job satisfaction facets and job tenure were the significant predictors of organizational commitment. In a study conducted by Mohammad & Eleswed (2013) which aim was to examine the relationship between job satisfaction and organizational commitment and to investigate the impact of demographics key variables on job satisfaction and organizational commitment in a private financial institution in the Kingdom of Bahrain was found a positive relationship between job satisfaction and organizational commitment.

### **Job Satisfaction and Employee Turnover**

In current business environment organizations are facing a crucial problem of high employee turnover rate. Turnover is process in which employee leave the organization and have to be replaced. Like absenteeism, turnover is related to job dissatisfaction. Excessive turnover can be a very costly problem, one with a major impact on productivity. But cost is not the only reason turnover is important. Lengthy training times, interrupted schedules, additional overtime, mistakes and not having knowledgeable employees in place are some of the frustrations related with excessive turnover. Turnover is a severe trouble in part because of its relationship to decreased quality of care and extra expense for employers (Larrahee et al., 2003). In their research Lambert et al. (2001) revealed that employee turnover can be predicted using comprehensive measures of job satisfaction and also concluded that high job satisfaction is related to low employee turnover. In his study Silverthorne (2004) found that if an employee is better fitted in organization he will be better satisfied with his job and ultimately it will increase the organizational commitment and also decrease the turnover rate. The research findings of (Lambert et al., 2001) shows that job satisfaction is associated with employee engagement. In their research they found that the employees who are much satisfied with their

job are more engaged in their work in comparison to employees who are not much satisfied with their job. Because of low level of employee engagement, employees are withdrawing with their jobs in the form of voluntary turnover. Literature also shows that scholars i.e. Benko & Weisberg (2007), Becker (2007) also accepted that job satisfaction and employee turnover intention are inversely related. They suggested that for realistic and performance reasons, it is necessary that organizations should identify explicit factors related to employees' job satisfaction, especially in competitive, cut throat and fast paced business environments

### **Job Satisfaction and Organizational Productivity**

Various scholars have shown that job satisfaction is positively related with worker productivity and negatively associated with employee turnover (Egan et al., 2004; Silverthorne, 2004). It was concluded in researches greater job satisfaction is associated with greater productivity, so more satisfied employees ought to be more productive, in comparison to lesser satisfied employees (Silverthorne, 2004). Gupta & Joshi (2008) has argued the impact and the connection between the job contentment and work inspiration for the employees in this research. He found that productivity in the work of an employee is result of satisfaction and productivity can be taken as indicator of satisfaction. Employees have to spend most of their time at workplace and need satisfaction at that place.

### **CONCLUSION**

Job Satisfaction has its significance in organizations and it was always a subject of relevance and attention among scholars, academicians and corporate persons. In overall conclusion it can be revealed that the concept Job Satisfaction is related to an individual's psychological as well as physiological pleasure towards any job performed by him/her. Job Satisfaction is elaborated by various scholars in different ways and many types of measurements and theories have been proposed by intellectuals regarding Job Satisfaction. Finally Job Satisfaction has a significant relationship and impact over many types of important organizational issues i.e. Organizational Performance, Organizational Commitment, Employee Turnover and Organizational Productivity.

### **References**

- Adams, J. S. (1963). Toward an Understanding of Inequity. *Journal of Abnormal and Social Psychology*, 67, 422-36.
- Alderfer, Clayton P. (1969). An Empirical Test of a New Theory of Human Needs. *Organizational Behavior and Human Performance*, 4(2), 142-175.
- Andrew, J. B. (1988). *the Practice of Supervision*, New Delhi, Universal Bookstall.
- Armstrong, M. (2006). *A Handbook of Human Resource Management Practice*, 10th Ed, London: Kogan Page Publishing.
- Azeem, S. M., & Akhtar, N. (2014). Job Satisfaction and Organizational Commitment among Public Sector Employees in Saudi Arabia. *International Journal of Business and Social Science*, 5(7), 127-133.
- Aziri B. (2011). Job Satisfaction: A Literature Review. *Management Research and Practice*, 3(4), 77-86.
- Becker, F. (2007). Organizational Ecology and Knowledge Networks. *California Management Review*, 49(2), 42-61.
- Benko, C. & Weisberg, A. (2007). Implementing a Corporate Career Lattice: The Mass Career Customization Model. *Strategy & Leadership*, 35(5), 29-36.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor.
- Carroll, S., Keflas, R., & Watson, C. (1964). *Job Satisfaction and Productivity*. Irwin: Illinois.
- Cummings, K. (1970). Job satisfaction and Performance. *Journal of Social Psychology*, 141(5), 541-563.

- Davis, K., & Nestrom, J. W. (1985). *Human Behavior at work: Organizational Behavior*, 7th edition, McGraw Hill, New York.
- David, F, Joseph, & William, K. (1970). *Job satisfaction Commitment*. Irwin: Illions.
- Egan, T. M., Yang, B., & Bartlett, K. R. (2004). The effects of organizational learning culture and job satisfaction on motivation to transfer learning and turnover intention. *Human Resource Development Quarterly*, 15(3), 279–301.
- Feldman, D. C., & Arnold, H. J. (1983). *Managing Individual and Group Behavior in Organizations*. New York; McGraw-Hill.
- George, J., & Jones, G. (2008). *Understanding and managing organizational behavior*. (5th ed.). Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Ghafoor, M. M. (2012). Role of Demographic Characteristics on Job satisfaction. *Far East Journal of Psychology and Business*, 6(1), 30-45.
- Gupta, K., Shashi, & Rosy, J. (2008). *Human Resource Management*, Pg. (20.9 to 20.17).
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 159-170.
- Hashmi, M. S. & Naqvi, I. H. (2012). Investigating Organizational Commitment as the Outcome of Job Satisfaction: A Study of Banking Sector of Pakistan. *International Journal of Learning and Development*, 2(4), 22-35.
- Herzberg, F., Mausner, B., & Snyderman, B. S. (1959). *The Motivation to Work*. New York, NY: Wiley & Sons.
- Hoppock, R. (1935). *Job Satisfaction*. New York: Harper Brothers.
- İlhami, Y. (2012). Examining the Relationships among Job Satisfaction, Organizational Commitment, and Turnover Intention: An Empirical Study. *International Journal of Business and Management*, 7(20), 44-58.
- Ironson, G. H., Smith, P. C., Brannick, M. T., Gibson, W. M., & Paul, K. B. (1989). Constitution of a Job in General Scale: A Comparison of global, composite, and specific measures. *Journal of Applied Psychology*, 74, 193-200.
- June H. Larrahee. (2003). Predicting Registered Nurse Job Satisfaction and Intent to Leave. *Journal of Nursing Administration*, 33(5), 271.
- Kahtani, N. S. (2012). A study of relationship between demographical variables, organizational structure and social interaction with organizational commitment among employees of Saudi Arabia. *International Journal of Trade and Commerce*, 1(1), 11-22.
- Kaliski, B. S. (2007). *Encyclopedia of Business and Finance*, Second edition, Thompson Gale, Detroit.
- Kanter, R. M. (2004). The middle manager as innovator. *Harvard Business Review*, 82(7/8), 150-161.
- Katzell, A., Barret, C. & Porker (1952). *Motivation and Labour Turnove*. Irwin Inc. Illions.
- Kornhanuser, F. & Sharp, P. (1976) *Job Satisfaction and Motivation of Employees in Industrial Sector*. *Journal of Social Psychology*, 145, 323-342.
- Kreitner, R. & Kinicki, A. (1995). *Organizational Behavior*, Third Edition, Richard D. Irwin. INC, USA.
- Lawler, E. E. III & Porter, L.W. (1967). The Effect of Performance on Job Satisfaction, *Industrial Relations*, 20-28.
- Lin, S. C., & Lin, J. J. (2011). Impacts of coworkers' relationships on organizational Commitment and intervening effects of job satisfaction. *African Journal of Business Management*, 5(8), 3396-3409.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*, Chicago: Rand McNally.
- Maslow, A. H., (1943). A Theory of Human Motivation. *Psychological Review*, 50(4), 370-396.
- Mirvis, C., & Lawer (1977). Job Satisfaction and Job Performance in Bank Tellers. *Journal of Social Psychology*, 133 (4), 564-587.
- Mohamadkhani, K., & Nasiri, M. L. (2012). Emotional Intelligence and Organizational Commitment between the Hotel Staff in Tehran, Iran. *American Journal of Business and Management*, 1(2), 54-59.

- Mottaz, C. J. (1987). An Analysis of the Relationship between Work Satisfaction and Organizational Commitment. *The Sociological Quarterly*, 28(4), 541-558.
- Mullins, J. L. (2005). *Management and organizational behavior*, Seventh Edition, Pearson Education Limited: Essex.
- Parvin, M. M., & Kabir, M. M. N. (2011). Factors Affecting Employee Job Satisfaction of Pharmaceutical Sector. *Australian Journal of Business and Management Research*, 1(9), 113-123.
- Porter, L. W., Steers, R. M., & Mowday, R. T. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Porter, L. W. & Lawler, E. E. (1974). "The Effect of Performance on Job Satisfaction." In Edwin A. Fleishman (ed) *Studies in Personal and Industrial Psychology*. Third Edition, Illinois.
- Robbins & Stephen, P. (1998). *Organizational Behavior: Concept, controversies and Applications*. Prentice-Hall.
- Samaratunge, R. (2003). Decentralization policies in Sri Lanka: Perceptions and performance. *South Asian Journal of Management*, 10 (2), 30-43.
- Smith, D. & Cranny, F. (1968). Job Satisfaction, Effort and Commitment. *Journal of Business management*, 123 (3), 151-164.
- Santhapparaj, A. S., & Alam, S. S. (2005). Job Satisfaction among academic staff in private universities in Malaysia. *Journal of Social Sciences*, 1(2), 72-76.
- Samavi S. A. (2011). Study of Relationship between Job Satisfaction and Organizational Commitment among High-School Managers. *Journal of Life Sci. Biomed*, 1(1), 13-20.
- Silverthorne, C. (2004). The impact of organizational culture and person-organization fit on organizational commitment and job satisfaction in Taiwan. *Leadership & Organization Development Journal*, 25(7), 592-599.
- Smith, P. C., Kendall, L. M., & Hullin, C. L. (1969). *Measurement of satisfaction in the work and retirement*. Chicago: Rand McNally.
- Spector, P. E. (1997). *Job Satisfaction: Application, assessment, cause, and consequences*. Thousand Oaks, CA: SAGE Publications, Inc.
- Statt, D. (2004). *The Routledge Dictionary of Business Mmanagement*, 3rd Edition, Detroit: Publishing.
- Testa, M. R. (2001). Organizational Commitment, Job Satisfaction and Effort in the Service Environment. *Journal of Psychology*, 135(2), 226-236.
- Thorndike, E. L., & Barnhart, C. L. (1979). *Advanced dictionary*. Glenview, IL: Scott, Foresman and Company.
- Vandenberg, R. J. & Lance, C. E. (1992). "Examining the Causal Order of Job Satisfaction and Organizational Commitment. *Journal of Management*, 18(1), 153-167.
- Vedamanickam, J. (2001). *Study of Workplace Innovativeness in Manufacturing*. Ph.D. Thesis, Sailesh J. Mehta School of Management, Indian Institute of Technology, Bombay.
- Vroom, V.H. (1964). *Work and Motivation*. New York: John Wiley and Sons.
- Warr, P, Cook, J., & Wall. T. (1979). Scales for measurement of some work attitudes and aspects of psychological well being. *Journal of Occupational Psychology*, 52. 129-148.
- Weiss, D. J. Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire (Minnesota Studies in Vocational Rehabilitation, No. 22)*. University of Minnesota, Minneapolis.
- Williams, L. J. & Anderson, S. E. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-role Behaviors. *Journal of Management*, 17(3), 601-617.
- Young, B. S., Worchel, S. & Woehr, D. (1998). Organizational Commitment among Public Service Employees. *Public Personnel Management*, 27(3), 339-348.

## Off-Balance Sheet Exposure – Performance Analysis and Risk Measurement of Indian Banks

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### Abstract

Banking Sector has under gone enormous changes over the decades initially from ownership to government ownership and open to competition from private and foreign banks after the liberalization of the economy in 1991. Under the regulated economic system, banks used to enjoy complete protection from the government and insulated totally from external shocks. The financial sector reforms initiated by the Government brought unforeseen changes in the general functioning of the banks; as a result banks are compelled to extend their business activities which they were distancing over the years. The exposure to off banking activities to like foreign exchange contracts has led the banks to expose to greater risks but with incremental revenues in the form of other incomes. It is necessary banks to manage the risk through the exposure to various off balance sheet activities.

**Key words:** Government ownership; Liberalisation; regulated economy; off-balance sheet activity; Open Competition; Incremental Revenues ; Risk Exposure

### INTRODUCTION

Banking Sector has traditionally remains a protected industry in many emerging nations including India. Banking had been under insulation cover over the decades with the protection and insulation given by the Government in the different functional activities of the banks. It was fully a regulated environment both for interest charges on deposits and lending activities of the banks, directed lending to institutions were the features of the Indian Banking System. Banking Sector had not experienced any competition from within the country and from outside in a regulated regime. In a protected environment there was a very limited pressure on banks and has resulted in lackluster and inefficiency in banks functioning.

After the liberalization of Indian economy in 1991, a number of radical developments have taken place in the banking sector which has a significant impact on the functioning and development of the banking system. Many of the developments are in the context and consequence of financial sector reforms – like monetary and credit policy, prudential guidelines, development of markets like Government Securities Market. With the opening of the economy in general and banking sector in particular , there was an onslaught of competition in the form of entry of foreign banks, new banks under private sector, there is metamorphic change in the functioning of Banks. To get wider acceptance both at national and international levels prudential norms and guidelines have been made to introduce greater transparency in the functioning of the banking system.

### OBJECTIVES OF THE STUDY

- To understand the changing pattern in Off Balance sheet exposure of commercial banks
- To measure the changes in assets pattern of commercial banks
- To measure the changes in other income levels pattern of commercial banks

- To measure the impact of OBS exposure on the return and risk of commercial banks

## METHODOLOGY

Secondary data collected from the RBI Publications about OBS exposure of Commercial banks, the assets pattern and changes in the other income levels. Data analysis is done using panel data regression method.

## LITERATURE REVIEW

Off Balance Sheet activities- impact on commercial bank performance, an emerging market perspective by Bora Aktan, Sok-Geechan, Sasa Zichovic, Pinar Evrim - Mandaci 1examines the effect of OBS activities on performance of the banks listed in Istanbul Stock exchange (ISE). Four measures of performance including banks risk exposure, profitability, leverage and liquidity position found both bank specific risk and foreign exchange rate risk are positively related with OBS activities. The result also indicate that OBS activities, due to its hedging perception, improve bank stock returns but have a negative impact on return on equity. Bank risk exposure, Bank failure and Off Balance Sheet activities: An empirical analysis for US commercial banks<sup>2</sup>, the study investigates the extent to which commercial US banks engage in Off Balance Sheet activities and the possible implication of such engagement on bank risk exposure and bank failure. He differentiated credit substitute, derivative and credit derivative contracts to study the alternative role of bank riskiness. Risk and profitability in Middle East and North Africa Banking System – an examination of the Off Balance Sheet activities by Ahmad Y. Khasawneh and Husam Aldeen Al-Khadash<sup>3</sup>. The study analyses the role of Off Balance Sheet activities on banks profitability and risk in the Middle East and North Africa Banking System. This study covers period from 2006/2007 financial crises. The result indicates that Off Balance Sheet activities are risk reducing as well as profit generates in Middle East and North Africa Banks. The result also indicates the effect of Off Balance Sheet activities on banks profitability is higher in case of banks located in oil producing countries. This paper derives several LaGrange multiplier test for Panel regression Model with Spatial Error Correlation. This idea is to allow for both with Spatial Error Correlation as well as random region effects in the panel data regression and to test for their joint significance on the risk and profitability of commercial banks. 'Evaluating Off Balance Sheet exposures in Banking crises Determination Models' R.Barrel, E P Davis, D Karim ,Laidze ; NIESR and Bounel University<sup>1</sup> studies the impact of Off Balance Sheet exposures on the probability of banking crises in OECD countries since 1980. Variable capturing Off Balance Sheet activity have neglected in most early warning models to date. This is an estimate of Off Balance Sheet exposures of banks by employing the ratio of off- to on Balance Sheet activities in econometric models of crises determination. IMF Working Paper (2000) Research Department Pbreuer<sup>2</sup> opined that the simultaneous unwinding if leveraged positions can trigger financial turbulence. Although Balance Sheet measures of leverage are available, it is useful to construct a measure of leverage that incorporates both on and off balance sheet activities. This paper provides measures of leverage implicit in derivative contracts by decomposing the contracts into cash market equivalent components. This interaction between leverage and risk is discussed, and a modified capital adequacy ratio, is calculated which captures Off Balance Sheet exposure. This paper presents a method of measuring the degree of leverage implicit in selective derivative contracts by decomposing the contract and mapping the replicating portfolio into equity and debt components. The effect of off balance sheet financing on profitability and leverage ratios by Saied Jabbarzadeh Kangerluei<sup>3</sup>, Department of Accounting, Islamic Azad University, Iran, Rahim Mohammad and Sharifi (2012). The effect of off balance sheet financing on firms profitability and leverage ratios before and after off balance sheet financing are compared and also the effect on firms with and without off balance sheet financing are compared

### **Financial Sector Reforms**

The process of financial sector reforms introduced in 1991 has been pursued further to strengthen the banks, to infuse competitiveness, to improve operational efficiency and transparency of the financial sector. The financial reforms touched a number of areas – Monetary and Credit Policy issues; Reserve requirements; interest rates; refinancing facilities; debt restructuring; indirect monetary control via., securities market; matters relating to strengthening and consolidation of banks; capital adequacy norms; prudential norms regarding asset classification; income recognition; provisioning for non-performing assets; capital to risk weighted adjusted system and the establishment of a strong supervisory system. All the measures stated above are expected to bring efficiency in the functioning of banking system to make the system more vibrant in order to confine the banking system to the international standards.

### **Perspectives of Banking Sector**

Through the process of correcting exogenous and structural factors bearing upon the banking sector, the highly regulated character of the financial markets was transformed into one characterized by openness, competition, prudential and supervisory discipline. Commercial Banks have entered into a challenging environment and have been redefining their position in tune with the developments in domestic and international markets. Banking Sector have been introducing new products and services, developing new products and services and new methods of doing business as per the expectations of the customers. There is a lot of pressure on the banks to provide better services to the customers, better returns on the savings of the investors and competitive lending practices. There has been a complete transformation from regulated oriented environment to commercial oriented environment. The viability and sustainability of every bank depend on the level to which each bank is able to raise its standards of efficiency and productivity, strategies to expose new lines of business in order to raise additional revenues, improve income to cost ratio and overall operational effectiveness.

In order to respond and withstand the competitive pressures banks are compelled to get into non-traditional activities to generate additional revenues. These non-traditional banking activities are associated with high levels of risk because of any adverse economic conditions and developments in domestic and international markets. Due to competitive pressures, it has become necessary for banks to get into new lines of business activities and as a result banking operations worldwide have undergone phenomenal expansion in the last two decades. Financial liberalization and technical change have created new and complex products and have increased turnover. Shift to new lines of non-traditional banking activities have also created more risks. The growing globalization of banks and the introduction of modern information technology of international banks have enabled banks to rapidly expand their non-fund and off-balance sheet activities. The focus of the banks is to increase the revenues through these kinds of non-conventional activities. Indeed, there has been significant increase in the revenues of the banks with non-fund based transactions but at the same time there is greater exposure to risk because of these transactions in the event of adverse developments in the national and international markets.

The recent global financial crisis is a testimony for the contribution of Off-balance sheet operations of the banking system and the financial crisis got much aggravated because of foreign banks high exposure to these non-fund based operations. The central banks of the respective countries have imposed high restrictions on the exposure of banks for non-fund based operations, because financial crisis may collapse the entire system if not controlled in a decisive way. The OBS exposure by the scheduled Commercial Banks i.e. Public Sector Banks,



Private Banks and Foreign Banks in a big way adds to the existing income levels in the form of other income in a significant way, but the risk it causes to the soundness of the financial system may be disastrous, if not handled properly. The risk could be in the form of Credit Risk, Liquidity Risk, asset Liability mismatch, Capital Inadequacy, Increase in NPAs etc. and a combination of multiple risks may even lead to systemic risk. Exposure to OBS operations and its default increase the proportions of credit risk and associated increase in NPAs and cause a lot of stress to assets and liabilities management as the short term deposits may have to be diverted for meeting the obligations which were contingent in nature before the default occurred. The higher the credit risk, higher the stressed and higher is the capital adequacy requirements. As the default in credit guarantees occur abruptly due to adverse developments which are unanticipated, it will have the issue of contagion risk effect.

In the event of default by the parties with respect to contingent liability, there will be lot of obligations of cash from the banks which will definitely precipitate financial instability if liquidity problem is not addressed properly. The financial crisis witnessed in 2008 is a clear testimony for this. In such a volatile situation, the importance of monitoring liquidity risk is likely to be greater. The incidents of Northern Rock, Bear Stearns, Lehman Brothers, AIG and Washington Mutual fund are testimony for the liquidity crisis mainly due to exposure in the form Off-Balance sheet activities.

Exposure to Off-Balance Sheet activities is of great concern as its impact on the soundness of the banking system is difficult to assess and measure since there is a lot of uncertainty involved in the OBS activities. In the event of default it will have a severe impact on the entire banking and financial system as witnessed in the severe financial crisis that took place in 2008. During the last ten years there has been a significant increase in the OBs activities of commercial banks more by new private and foreign banks. During the period of high economic growth from 2002 to 2008, there is also a high increase in the OBS exposure as there has been high need for credit in the domestic and international markets to take advantage of favorable business conditions and business cycles.

As the business has become global, the uncertainties have begun to be more due to fluctuations in the exchange rates and high interest rates in the domestic markets. There is a great demand for forward exchange contracts and derivatives trading in international business activities. As economy grows naturally there is growth in business activities both within and outside and this demand more such risk management services. There is great addition to the total income of the banking entities in the form of fees which is considered as 'other income'. Over the years the contribution of income to the total income of the bank entities is quite significant. Banking entities with high risk appetite prepared to assume more of off-balance sheet exposures.

The role of OBS in generating other income is examined by using panel data regression analysis.

This analysis is done for different bank group levels. The data is collected and pooled from the various issues of RBI Report on Trend and Progress of Banking in India.

The log of other income is taken as dependent variable and the independent variables are off-balance sheet assets and the first lag of other incomes. Thus, the model used in the study can be written as:

**Impact of OBS on other income**  
 Sample Period: 2000 to 2011 across five different bank groups  
 No. of pooled observations – 50  
 Dependent Variable ‘Other Income’

Explanatory	Coefficients	T-value
Intercept	-1.188	-1.750*
Balance sheet Assets	0.365	-3.715***
Off-Balance Sheet Exposures	0.085	2.189**
First Lag of Other Income	0.480	4.172****
R-Squared: 0.89		
Adjusted R-Squared: 0.88		
DW Statistic: 1.44		

Results indicated that one per cent increase in off-balance sheet exposures increase ‘other income’ of the banking sector by 0.08 per cent. Due to this significant influence on the other income banks have a tendency to expose for off-balance sheet assets in the interest of having more to the revenues of the business in the form of other income. The Off balance sheet assets of the banks in the form of Foreign Exchange Contracts, Guarantees and Acceptances, Interest Rate Swaps and other derivatives are as given. Off Balance Sheet Assets of State Bank Groups from Rs. 97,452 crores in 1999-2000 to Rs. 8,63,415 crores (886 per cent); Nationalised Banks from Rs.1,36,643 crores to Rs.13,26,248 crores(970 per cent) :whole Public Sector Banks from Rs.2,74,095 crores to Rs. Rs.21,89,664 crores(799 per cent): New Private sector Banks from Rs.46,726 crores to Rs.22,08,583 crores(4,727 per cent): Old Private Sector Banks from Rs. 20,115 crores to Rs.1,39,136 crores (691 per cent): foreign Banks from Rs.2,82,252 crores to Rs.93,01,006 crores(3,296 per cent); and All scheduled Commercial Banks from rs.5,84,288 crores to Rs.1,38,38,389 crores(2,368 per cent).

### CONCLUSION

The exposure to Off-Balance sheet activities has gone such phenomenal levels where the size of the total off balance sheet exposures of the Indian banking sector was larger than the total balance sheet assets of the banking sector. The risk associated with this exposure is very high and any default will definitely affect the entire banking sector especially those of the new private banks and foreign banks and lead to systemic risk.

### References

- Asset Liability Management. (2014). Retrieved from [www.iimb.ernet.in/~vaidya/Asset-liability.pdf](http://www.iimb.ernet.in/~vaidya/Asset-liability.pdf)
- Asset Liability Management. (2014). Retrieved from [www.allbankingsolutions.com/Banking-Tutor/ALM.shtml](http://www.allbankingsolutions.com/Banking-Tutor/ALM.shtml)
- Axis Bank. (2014). Retrieved from [www.axisbank.com](http://www.axisbank.com)
- Bank of Baroda. (2014). Retrieved from [www.bankofbaroda.co.in](http://www.bankofbaroda.co.in)
- Brenda wells, K. E. (2009). Asset-Liability Management Problems in the Life Insurance Industry: Lessons from the Past. *Journal of Insurance Regulation*.
- Charumathi, D. B. (2008). Asset Liability Management with special Reference to Interest Rate risk Management in ICICI Bank. WCE London, U.K.
- Dash, M. (2013). A study of the impact of Asset-Liability Management on the profitability of Banks in India, *Journal of Management Research*.
- Dr.N.Kavitha. (2012).An assessment - Asset and Liability Management of Scheduled Commercial Banks in India, *IJMT*, Volume II Issue 4.

- Enzo Scannella, D. B. (2013). Interest Rate Risk in Banking: a Theoretical and Empirical Investigation through a Systemic Approach (Asset & Liability Management). *Business System Review*, Volume II - Issue 1.
- HDFC. (2014). Retrieved from [www.hdfcbank.com](http://www.hdfcbank.com)
- Icici bank. (2014). Retrieved from [www.icicibank.com](http://www.icicibank.com)
- Investopedia. (2014). Retrieved from [www.investopedia.com/terms/a/asset-liabilitymanagement](http://www.investopedia.com/terms/a/asset-liabilitymanagement).
- Mihir Dash, K. V. (2012). An analysis of Asset-Liability Management, *Journal of Management Research* .
- Mohammad Omar Faruk (Corresponding Author), R. A. (2014). Asset Liability Management of a Commercial Bank- A Study on Prime Bank. *International Journal of Information, Business and Management* , Vol. 6, No.1, .
- Mohapatra, S. C. (2009). An Empirical Study of Asset Liability Approach of Indian Banks. Indiana University of Pennsylvania.
- Money Control. (2014). Retrieved from [www.moneycontrol.com](http://www.moneycontrol.com)
- Pathak, M. D. (2009). A linear programming model for assessing Asset-Liability management in Banks *Journal of Management Research*, Volume 2.
- Pathak, M. D. (2009). Canonical Correlation analysis of Asset-Liability management in Banks. *Journal of Management Research*.
- Punjab National Bank. (2014). Retrieved from [www.pnbindia.in](http://www.pnbindia.in)
- Reserve Bank of India. (2014). Retrieved from [www.rbi.org.in](http://www.rbi.org.in)
- Robert Ferstla, A. (2010). Asset-liability management under time-varying investment opportunities. *Journal of Finance*.
- Singh, P. (. (2013). Asset-Liability management in Banks - Adynamic approach, *AIMA Journal of Management Research*.
- Spyridon D Vrontos, I. D. (2009). Asset-Liability Management for Pension Funds in a Time-Varying Volatility Environment. *Journal of Management Research*.
- State Bank of India. (2014). Retrieved from [www.sbi.co.in](http://www.sbi.co.in)
- Vij, M. (2001). Asset Liability Management in Banks and Financial Institution- A case Study on IDBI. *Journal of Management Research*, Volume 1, Number 2.
- Xi Yang, J. G. (2011). Asset liability management modelling with risk control by stochastic dominance. *Journal of Asset Management*, Vol. 11, 2/3, 73-93.

# The Influence of Psychological Factors in Purchase Decision among College Students: Empirical Evidence from Electronic Product Market in Jakarta, Indonesia

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## Abstract

Psychological factors are very important because it is a central activity that affect the consumer in making the decision to choose a product. Psychological factors thought to affect purchasing decisions is motivation, perception, learning, belief, and attitude. This study aims to analyze the influence of psychological factors of motivation, perception, learning, beliefs, and attitudes in purchase decision for electronic product among the students college. The data used are primary data that was measured using a questionnaire statement. Total questionner predetermined 200 respondents. The results of these studies show that psicological factor consist of motivation, perception, and learning influence consumers in the form of beliefs, belief affects the attitude of a consumer in purchase decision among the college students.

**Keywords:** Motivation, Perception, Learning, Belief, Attitude, Purchase Decision

## RESEARCH BACKGROUND

The increasing in technology and industry had implications for human life, especially in today's business world. Indonesia's market is currently flooded with various types of goods and services both domestically and abroad which consists of a wide range of brand products.

Consumers are free to choose and purchase various products and/or all brands they wanted. Consumers use a variety of criteria in making a purchase, such as buying a product according to the needs, tastes and purchasing power. It is one of the many consumer behavior.

Consumer behavior bring the foundation, insight and knowledge about what the needs , the reasons of make purchases, where to buy, who has the role in the purchase and the factors that influence consumers in the purchase decision.

Based on the research background, know that purchase decisions made by consumers involved psychological factors such as motivation, perception, learning, beliefs and attitudes. Relay on this, the questions of this research are:

1. Does the motivation, perception and learning will influence consumer believe in their purchasing decisions?
2. Does consumer believe has influence on his attitude in their purchase decision?
3. Does consumer attitude has influence on his purchase decision?

The aim of this research is to examine those psychological factors, such as consumer motivation, consumer perception, consumer learning, consumer believe, and consumer attitude on consumer purchase decision among student college

## LITERATURE REVIEWS

### The Concept of Consumer Behavior

Understanding consumer behavior according to Mowen and Minor (2002: 28) is a field of study that investigates the exchange process through which individuals and groups obtain, consume, and mendisposisi goods, services, ideas, and experiences.

While understanding consumer behavior according to Engel, Roger D Blackwell, and Paul W. Miniard (1995: 2) are measures taken by a person in the purchase and use of goods and services including thought processes and social processes that precede and follow the action.

Schiffman and Kanuk (2004) defines consumer behavior is a process through which someone in search, purchase, use, evaluate, and act after consumption of a product, service or idea that is expected to meet his needs. Thus, it can be said that consumer behavior is the study of how the decision-maker (decision units), whether individuals, groups, or organizations make decisions to buy or make a purchase of a product or service and consume it.

Theory of reasoned action (TRA) developed by Martin Fishbein and Ajzen Icek (1975), derived from previous research that began as a theoretical attitude, which led to the study of attitudes and behavior. This theory was born largely out of frustration with the traditional attitude-behavior research, many who found a weak correlation between the size of the attitudes and behavior performance will. Key applications of the theory of reasoned action predictive behavioral intention, which includes prediction of attitude and behavior prediction. Subsequent separation of behavioral intentions of behavior allows for an explanation of the limiting factors to influence the attitude (Ajzen, 1975).

Fishbein and Ajzen say that attitudes and norms are not weighted equally in predicting behavior. Indeed, depending on the individual and the situation, these factors may be very different effects on behavioral intentions,. Thus the weight associated with each of the factors in the formula of the theoretical prediction For example, you might be the type of person who cares little what others think. If this is the case, subjective norms will carry little weight in predicting the behavior of your decisions (Miller, 2005: 127).

**Table 1 Theory of Reasoned Action**

ANTECEDENT	PROCESS	ACTION	
Belief toward an outcome	Evaluation of the outcome	Attitude	Behavior
Attitude toward an outcome			
Beliefs of what others think	Subjective norm		
What experts think			
Motivation to comply with others			

**Source: Ajzen, (1980)**

This theory has even been revised and expanded by Ajzen into the theory of planned behavior. This development involves adding one main predictor, with the addition of the model was created to explain the times when people have the intention of carrying out the behavior, but the behavior is actually thwarted because they lack confidence or control over behavior (Miller, 2005: 127). Revised from Ajzen's conceptual model, control over the behavior shown in the following table:

**Tabel 2 Theory of Planned Behavior**

ANTECEDENTS	PROCESS	ACTION	
Behavioral Beliefs	Attitude Toward the Behavior	Intention	Behavior
Normative Beliefs	Subjective Norm		
Control Beliefs	Perceived Behavioral Control		
	Actual Behavioral Control		

**Source: Miller, (2005)**

Theory of planned behavior proposed by Icek Ajzen in 1975 through his article. This theory was developed from the theory of reasoned action, proposed by Martin Fishbein along with Icek Ajzen in 1975 based on different theories such attitude learning theory, theory of expectation-value, consistency theory, and the theory of attribution. According to the theory of reasoned action, if the evaluated behavioral suggested as positive (attitude), and if they think the other person they want them to perform the behavior (subjective norm), this resulted in goodwill is higher (motivation) and they are more likely to do so. A high correlation of the attitudes and behavior of subjective norm against interest, and then to behavior has been confirmed in many studies.

The development of the theory of consumer behavior here is more focused on the works of John Howard which has a considerable contribution in the history of consumer research. The early literature on consumer behavior written by Howard and Sheth (1969) entitled *The Theory of Buyer Behavior*, and has become a masterpiece. They use the paradigm: cognitive, affective, konative. The paradigm was applied as information retrieval, predisposition, purchase, which was first used by Howard in 1963. Then Howard and Sheth (1969) developed the application of the paradigm to the concepts of consumer behavior.

John Howard (1963) in Schiffman and Kanuk (2004) has formulated a model of consumer behavior as a chapter in the book *marketing management*. The model uses a flow chart that inspiration comes from economists who introduced a model of human behavior with a logical flow charts and computer-oriented, ie Hebert Simon. Then Howard adapting the diagram arrows and boxes to the research that explains the behavior of customers in.

**Conceptual Definition of Variables**

***Motivation***

The passion to direct a person to seek the satisfaction of needs. Based on Maslow's theory, a person is controlled by a necessity at a time. Human needs organized according to a hierarchy, from the most urgent to least urgent (physiological needs, safety, social, esteem, self-actualization).

When the most urgent needs had been satisfied, the requirement ceases to be a motivator, and that person would then try to satisfy the needs of the next most important (Kotler, Bowen, Makens, 2003:214).

***Perception***

Perception is the process by which a person chooses, organize, and interpret information to form a meaningful picture of something. People can form a wide variety of different perceptions of the same stimuli (Kotler, Bowen, Makens, and 2003: 215).

Perception is the process used by the individual to select, organize and interpret information input in order to create an image of the world that has meaning (Kotler: 2007: 228). In marketing, perception is more important than reality, because of the perception that will memepengaruhi actual behavior of consumers. Perception is the process by which a person chooses, organize and interpret information to form a meaningful picture of the world know. According Kusumayanto and Wahyu S (2009: 53) the perception is closely related to processing and filtering information.

The tendency of people to interpret information in a way that will support what they believe in. With the information the consumer will understand a meaning. Something meaningful will produce an interpretation of a particular product or service in order to meet needs through purchasing decisions. Samuel and Novia (2007) concluded that the perception is very significant in a consumer's decision process.

### ***Learning***

Learning is a process, which is always evolving and changing as a result of the latest information received (may be obtained from reading, discussion, observation, thinking) or from actual experience, both the latest information received as well as personal experiences serve as a feedback for the individual and provide basic for the future behavior in the same situation (Schiffman and Kanuk, 2004: 207).

Something that is learned through encouragement, stimulation, guidance, feedback, and reinforcement of mutual influence on purchase decisions (Kotler, 2007: 172). The process of learning the knowledge obtained from the consumer and the consumer's personal experience, where consumers have been consuming such products. Learning illustrate changes in individual behavior arising from experience (Kotler, 2007: 215). Learning has a significant influence on the purchase decision, reinforced by Kusumayanto and Wahyu S (2009) with significant results of the influence of learning on purchasing decisions.

### ***Belief***

Belief is a descriptive thought that someone believe in something. Belief can be based on indigenous knowledge, opinions, and faith (Kotler, Armstrong, 2006: 144).

Belief is a descriptive one's thinking about a pattern which is organized through the knowledge which is then held by an individual as a truth in his life. Kotler (2007: 218) argues that belief is a descriptive thought someone about something. The conviction can be based on knowledge, motivation, perception and learning. Kusumayanto and Wahyu S (2009: 55), a more powerful influence of belief in the consumer decision making process.

### ***Attitude***

Attitude is the evaluation, the feeling of like or dislike, and relatively consistent tendency of a person to an object or idea (Kotler, Armstrong, 2006: 145). Attitude encourages a person to behave consistently, and to change the attitudes that may require major adjustments to the other attitude, evaluation, feelings and one's tendency toward an object or idea. Attitude can be defined as a person's readiness to perform an action or activity. Attitude can also be defined as a form of evaluation or reaction of one's feelings toward an object positive attitude and negative attitude that feeling supports or does not support.

Kusumayanto and Wahyu S (2009: 54) says that the attitude greatly affects the beliefs determine one's attitude, there are significant results in their research, proving that attitudes

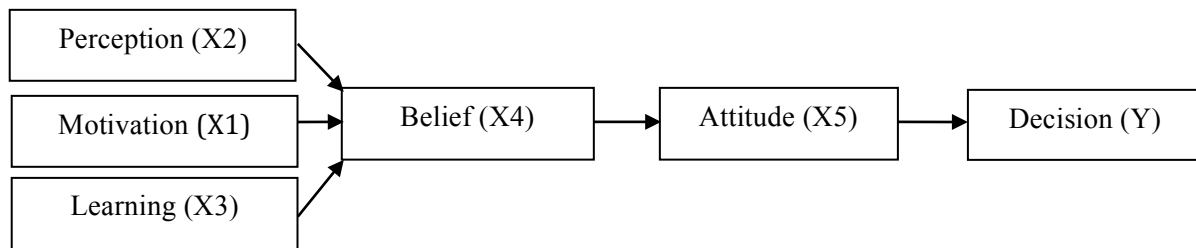
influence on purchasing decisions. These factors describe the relationship with a product purchase decisions by consumers.

### **Purchase Decision**

Purchasing decision process in order to formulate a variety of alternative actions settled on one particular alternative to make a purchase (Engel et.all, 1994).

The consumer purchase decision is influenced by motivation, perception, learning, beliefs and attitudes have proven with significant results, so it can be said that the four variables have impact on purchasing decisions. Kusumayanto and Wahyu S (2009: 55) suggests the same thing that all four of these factors have a significant influence on it. Based on this conceptual framework, motivation, perception, learning and bring consumers the confidence in the product, where such beliefs will determine the attitude of the consumer, and the consumer will take the final decision to buy the product.

Research variables consisted of motivation, perception, learning, beliefs and attitudes will be the main reference as an independent variable in the framework of this study and will be formed among other things:



**Figure 1 Research Paradigm**

According to the research paradigm, the hypothesis of this research can be structured as follows:

1. Motivation, perception and learning will influence consumer believe in their purchase decision.
2. Consumer believe has influence on his attitude in their purchase decision.
3. Consumer attitude has influence on their purchase decision.

## **RESEARCH METHOD**

### **Population and Sample**

#### **Population**

Population is the generalization region consisting of, object or subject that has certain qualities and characteristics defined by the researchers to learn and then be deduced (Sugiyono, 2009: 115). The population in this study were all students' college in Jakarta area.

#### **Sample**

Samples are part of the population. The sample consisted of a number of selected members of the population. In other words, some, but not all, elements will form the sample population (Sekaran, 2006).

Sampling is the process of selecting a sufficient element of the population, sampling technique used in this research was simple random sampling. This is because all individuals in the



population are given equal opportunity to participate become members of the sample (Sekaran, 2006).

According to Roscoe (1975) in Sekaran (2006) there are some guidelines for determining the amount of sample. A representative number of samples used in the study are in accordance with SEM analysis techniques in Hair, et al (1995) is about 100-200 respondents.

### **Data Analysis**

#### **Test of Validity**

Testing to show how well the instrument is made to measure a particular concept to be measured (Sekaran, 2006: 39). Construct Validity is to show how well the results obtained from the use compatible with the size of the underlying theory test design (Sekaran, 2006: 44).

There are several ways in which forms of validity can be met is through the analysis of CFA (Confirmatory Factor Analysis), which is to find a relationship a number of variables that are independent from one another so that it can be made of one or several sets of fewer variables than the number of variables early (Maholtra, 2005).

#### **Test of Reliability**

Test of Reliability is a tool to measure a questionnaire which is an indicator of the variables or constructs. Reliability necessary to obtain the data in accordance with the purpose of measurement. A questionnaire said to be reliable if someone answers on the statement is consistent or stable over time. To achieve this, the test of reliability measured by Cronbach's Alpha 0 to 1.

#### **Analysis of the data**

The analysis technique used in this research is the analysis of Structural Equation Modelling, using a statistical software package AMOS. SEM is a merger between the two statistical concepts, namely the concept of factor analysis were entered in the measurement model and the concept of regression through the structural model.

Measurement model to explain the relationship between the variables with the indicators and structural models to explain the relationship between variables. Excess SEM applications in research management is the ability to confirm the dimensions of a concept or factor (which is very commonly used in management) as well as its ability to measure the effect of the relationship - the relationship theoretically (Ferdinand, 2002: 7).

## **RESULTS AND DISCUSSION**

### **Result**

#### **Subject Characteristic**

From Table 3 below shows that males dominated by 149 persons or 74.5%, while the female are fewer in number by 51 people or 25.5% of the total. It seems that there are differences in the proportion of subjects by gender.

**Table 3 Subjects Characteristic by Gender**

Gender	Number of Subjects	(%)
Male	149	74.5
Female	51	25.5
Total	200	100

**Source: Questionnaire processed, 2015**

Based on Table 4 below it can be seen that for most subjects age between 20-24 years as many as 192 people or 96%, followed by subjects aged between 13-19 years as many as 7 people or 3.5% and the age of the subjects between 25-29 years as many as 1 or 0.5%. Thus the proportion showed striking age distribution in the range of 20s or younger relative. This is because the college students are relatively young age more than someone who is younger and older aged person.

**Tabel 4 Subjects Characteristic by Age**

o Ages	o Number of subjects	o (%)
o 13 – 19	o 7	o 3.5
o 20 – 24	o 192	o 96
o 25 – 29	o 1	o 0.5
o Total	o 200	o 100

**Source: Questionnair processed, 2015**

Table 5 below shows that the student of faculty of economics dominated the survey as many as 108 people or 54%, followed by the faculty of computer science and IT as much as 70 or 35%, the faculty of psychology as much as 5 people or 2.5%, the faculty of civil engineering as many as 5 people or 2.5%, faculty of industrial engineering as much as 4 or 2%, the faculty of letter as much as 3 or 1.5% and the other for 5 people or 2.5%. This descriptive shows the Faculty of Economics and Computer Science and IT is more dominant than the other faculties, due to the activity and the need at the Faculty of Economics and the Faculty of Computer Science and IT more than other faculties.

**Tabel 5 Number of subjects by Faculty**

Faculty of	Number of respondents	(%)
Economics	108	54
Computer Science and IT	70	35
Psychology	5	2.5
Civil Engineering	5	2.5
Industrial Engineering	4	2
Letter	3	1.5
Lainnya	5	2.5
Total	200	100

**Source: Questionnair processed, 2015**

## **Descriptive Analysis**

### **Motivation**

Motivation is an urgent need to direct a person to seek the satisfaction. An explanation of the motivation in the buying decision is 38% of respondents strongly agreed, 41% of respondents agreed, 17.9% answered quite agree, 3.1% of respondents disagreed. This shows that in making purchase decision, strengthen by their motivation.

### **Perception**

Perception is the process by which a person chooses, organize, and interpret information to form a meaningful picture of the phenomenon. People can form a wide variety of different perceptions of the same stimuli. Explanation of perception is 27.9% of respondents strongly agreed, 49.4% of respondents agreed, 21.6% answered quite agree, 1.1% of respondents disagreed. This shows that the consumer purchasing decisions boosted by his perception.

### **Learning**

Learning is a process, which is always evolving and changing as a result of new information received or from actual experience, both the latest information received as well as personal experiences serve as a feedback for the individual and provide the basis for future behavior in the same situation. An explanation of the study was 22.2% of respondents strongly agreed, 46.4% of respondents agreed, 26.3% answered quite agree, 4.8% of respondents disagreed and 0.3% answered strongly disagree. This shows that the consumer purchase decisions are formed by learning does.

### **Belief**

Belief is a descriptive thought that a person believe in something. Confidence can be based on indigenous knowledge, opinions, and faith. Explanation of belief is 35.2% of respondents strongly agreed, 22.9% of respondents agreed, 31.6% answered quite agree, 10% of respondents disagreed and 0.3% answered strongly disagree. This shows that consumer belief will strengthen purchasing decisions does.

### **Attitude**

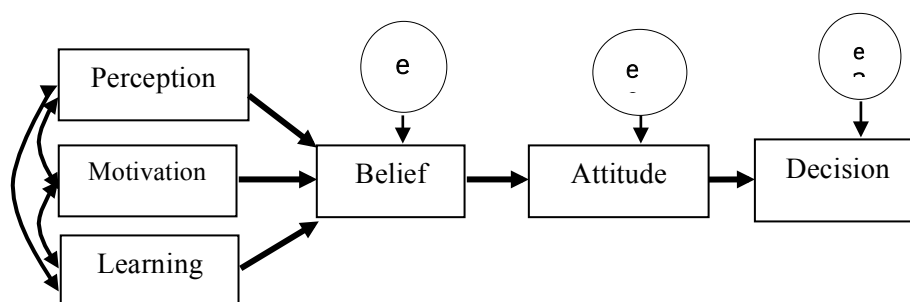
Attitude is the evaluation, the feeling of like or dislike, and relatively consistent tendency of a person to an object or idea. An explanation of the attitude in purchasing decisions is 29.6% of respondents strongly agreed, 39.8% of respondents agreed, 25.7% answered quite agree, 4.8% of respondents disagreed and 0.1% answered strongly disagree. This shows that a person's attitude will strengthen their purchasing decisions.

### **Purchase Decision**

Purchasing decision is a process in order to formulate a variety of alternative actions settled on one particular alternative to make the purchase. An explanation of the buying decision is the 33.3% of respondents strongly agreed, 45.1% of respondents agreed, 19.4% answered quite agree, and 2.2% of respondents disagreed. This shows that purchase decision-making is conducted by problem recognition, information search, evaluation of alternatives, and the purchase decision, and post-purchase behavior.

### **Path Analysis**

In statistics, a mediation model is one way to identify and explain the mechanisms underlying the observed association between independent variables and the dependent variable through the inclusion of a third explanatory variables, known as a mediator variable. Of a direct relationship hypothesis (Direct Effects) between the independent variables and the dependent variable, the model of mediation explained that the independent variable that causes the mediator variable, which then creates a dependent variable. Variable mediator serves to clarify the nature of the relationship between independent and dependent variables. The path analysis model is show in figure 2.



**Figure 2 Path Analysis Model**  
**Source: Data processed, 2015**

Figure 2 shows that the independent variables (motivation, perception, and learning) related to the dependent variable (the decision) through the variable mediator (beliefs and attitudes), indirectly (Indirect Effects) three variables (motivation, perception, and learning) take effect through the mediator in the dependent variable (purchase decision).

**Direct Effect**

In Figure 2 above, there are three variables (motivation, perception, and learning) that directly influence (Direct Effects) on belief, followed by beliefs directly affect the attitude, and the attitudes that directly affect on the decision variables.

**Table 6 Direct Effects**

	Learning	Motivation	Perception	Belief	Attitude
Belief	.538	.602	.572	.000	.000
Attitude	.000	.000	.000	.641	.000
Decision	.000	.000	.000	.000	.717

**Source: Data processed, 2015**

Table 6 shows that there is a direct relationship between learning and belief of 0.538, followed by a direct connection between motivation with belief for 0.602, while the direct relationship between perception and belief amounted to 0.572, then a direct relationship between beliefs with attitude for 0.641, and direct relationship between attitude with decision of 0.717.

**Indirect Effect**

Indirect effects are used to measure how much the relationship of a variable with another variable indirectly. Table 7 below show the value indicate the indirect effect.

**Table 7 Indirect Effects**

	Learning	Motivation	Perception	Belief	Attitude
Belief	.000	.000	.000	.000	.000
Attitude	.345	.386	.367	.000	.000
Decision	.247	.277	.263	.460	.000

**Source: Data processed, 2015**

In Table 7 shows that there is a relationship indirectly between learning and attitude of 0.345 and the relation indirectly with the decision of 0.247, the relationship is not direct between motivation with attitude variables for 0.386 and relation indirectly with the decision of 0.277, indirect relationship between perception and attitudes of 0.367, indirect relationship between perception with the decision of 0.263, and indirectly relationship between belief with the decision is equal to 0.460.

**Hypothesis Testing**

Based on the results of hypothesis testing: motivation, perception, and learning have effect on beliefs (hypothesis number 1); belief has an effect on attitude (hypothesis number 2); and attitude has an effect on purchase decision (hypothesis number 3) by comparing the value of the probability (P) is said to be significant if the critical ratio (CR) > 1.96 (Ferdinand, 2002). Here are the results of all hypothesis is shown in the following table:

**Table 8 Result of Hypothesis Testing using Path Analysis**

			Estimate	S.E.	C.R.	Description	Hypothesis
Belief	<---	Motivation	.602	.088	6.875	Significan	Accepted
Belief	<---	Perception	.572	.067	8.593	Significan	Accepted
Belief	<---	Learning	.538	.085	6.305	Significan	Accepted
Attitude	<---	Belief	.641	.026	24.954	Significan	Accepted
Decision	<---	Attitude	.717	.034	21.321	Significan	Accepted

**Source: Data processed, 2015**

### DISCUSSION

Based on descriptive analysis and hypothesis testing said that first hypothesis testing shows that the motivation, perception, learning have effect on consumer belief directly. The second hypothesis testing showed that belief has significant effect on consumer attitude in making purchase decisions. The third hypothesis showed that attitude has significant effect on consumer purchase decision. These result found that psychological factors have an important role in consumer decision process.

The results are consistent with previous research that has been done by Kusumayanto and Wahyu S (2009), Marhaini (2008), Bobi A D (2011) and Sari and Wahyuni (2008).

The result also inline with the Theory of Reasoned Action (Fishbein and Ajzen, 1975) and the Theory of Planned Behavior (Fishbein and Ajzen, 1975) , while it is support the Theory of Buyer Behavior by Howard and Seth (1969).

### CONCLUSION

Based on the results of research and discussion, the conclusion that the psychological factors which consist of motivation, perception, and learning influence a consumer in the form of belief himself and belief to the product will influence their attitude in making a purchase decision for electronic product among Students College in Jakarta, Indonesia.

In a subsequent study, especially for those interested to wrestle back the analysis of psychological factors in order to further develop or modify the model of this research for better results. In addition it is suggested for further research in order to add a number of research samples, and expand the object under study in order to produce a better study.

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### List of References

- Angel, J.F., Blackwell, R.D., Miniard, P.W., 1995, Consumer Behavior, International Edition, Eight Edition, the Dryden Press Harcourt Brace College Publisher.
- Bobi A D, 2011, "Pengaruh Faktor Psikologis Dalam Keputusan Pembelian Laptop Di Kalangan Mahasiswa" Program S1, Universitas Gunadarma, Jakarta (Tidak Dipublikasikan)
- Engel, J.F., Roger, D.B., & Paul, W.M., 1994. Perilaku Konsumen Jilid 1, Edisi Keenam, Terjemahan, Binarupa Aksara, Jakarta.
- Ferdinand, A., 2002, Structural Equation Model Modeling dalam Penelitian Manajemen, Jilid 2, Badan Penerbit UNDIP, Semarang.

Fishbein, M., & Ajzen, I., 1975, *Belief, Attitude, Intention, dan Behavior: An Introduction to Theory and Research*, Addison-Wesley Publishing Company, Massachusetts.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C., 1995, *Multivariate Data Analysis*, Fourth Ed. New Jersey: Prentice Hall.

Howard, J.A., and Sheth J.N., 1969, *The Theory of Buyer Behavior*, Edisi cetak ulang, John Wiley and Sons, New York.

Kotler, P., & Keller, K.L., 2007, *Manajemen Pemasaran*, Edisi 12, Alih bahasa; Benyamin Molan, PT. Indeks, Jakarta

Kotler, P., 2002, *Manajemen Pemasaran Edisi Milenium*, Jilid satu, PT. Prehalindo, Jakarta.

Kotler, P., Bowen, J., Makens, J., 2003. *Marketing for Hospitality & Tourism*. 3th edition. Prentice Hall. New Jersey.

Kotler, P., dan Armstrong, G., 2006, *Prinsip-prinsip Pemasaran*, Jilid 1, Erlangga, Jakarta.

Kusumayanto, D.D., dan DWI, D., Wahyu, S., 2009, "Pengaruh Faktor Psikologis terhadap Keputusan Konsumen dalam Membeli Notebook ACER", *Jurnal Manajemen Pemasaran*, Vol 6(1), hal.45-57.

Malhotra, N.K., 2005, *Riset Pemasaran*, PT INDEKS Kelompok Gramedia, Jakarta.

Marhaini, 2008, "Analisis perilaku kosumen dalam pembelian komputer merek Acer. (Studi kasus: mahasiswa falkutas ekonomi Universitas Sumatera utara)", *Jurnal Manajemen Bisnis*, Vol 1(3), Hal 89-96.

Miller, A.G., 2005, *the social psychology of good and evil*, Guilford Press, New York.

Mowen, J.C., & Minor, M., 2002, *Perilaku Konsumen*, alih bahasa Lina Salim, Erlangga, Jakarta.

Schiffman, L.G., and Kanuk, L.L., 2004. *Consumer Behavior*, 8th Ed, New Jersey: Prentice-Hall.

Sekaran, U., 2006. *Metodologi Penelitian untuk Bisnis*. Edisi Keempat: Salemba Empat, Jakarta.

Semuel, H., Veronica, A.K., dan Novia.,H., 2007, "Perilaku dan Keputusan Pembelian konsumen Restoran Melalui Stimulus 50% Discount di Surabaya", *Jurnal Manajemen Pemasaran*, Vol 2 (2), hal. 73-80.

Sugiyono. 2009. *Metode Penelitian Bisnis*. Cetakan Ketujuh. ALFABETA, Bandung

## Effects of Work Life Balance on Staff Performance in the Telecommunication Sector in Kenya

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### Abstract

Work-life balance practices have positive impact on employee performance in an organisation in as much as work life imbalance has also been proved to have side effects of wellbeing of employees. This study looked at the effect of work life balance on staff performance in the telecommunication sector in Kenya. It used role theory and spill over theory to support the research. Descriptive research design was adopted in order to provide a framework to examine current conditions, trends and status of events regarding work life balance. The target population of the study was 390 senior staff working at Safaricom, Airtel, Telkom Kenya's Orange and Essar Kenya's Yu Headquarters in Nairobi. The study focused on the three levels of management who are directly dealing with the day to day management of the companies. Stratified random sampling technique was used since population of interest is not homogeneous and could be subdivided into groups or strata to obtain a representative sample. Structured questionnaires were used as method of data collection. Data analysis was done using both qualitative and quantitative methods. From the findings, it was evident that work life balance factors such as long working hours, overtime, lack of vacation, family responsibilities and family work conflict all negatively affects staff performance at work. The study recommended among others that companies in the telecommunication sector in Kenya need to review overtime working policy; introduce rotational work; adopt use of delegation and support employees through counseling and resources to meet family expectations and responsibilities. Finally, this study suggests that future studies explore other work life balance factors that could affect staff performance.

**Key words:** work related factors, Family life, work life balance, staff performance, telecommunication sector in Kenya

Institution: The Management University of Africa

### INTRODUCTION AND RESEARCH OBJECTIVES

In today's society, workplace pressures continue to mount globally. Work target demands, family pressure and the pressure to balance the two have taken a toll on most employees' health and well-being (Parus, 2010). Employers, faced with skyrocketing healthcare costs, global competition and economic uncertainty, are concerned about attracting and retaining high-quality employees and delivering superior organizational performance. As a result, some companies such as Apple in United States, Nokia in China and British Bureau of Statistics in

London among others have responded to this business challenge by taking care of their employees work life issues. These employers then create workplaces that do more than just improve productivity – they do not build a strong, vibrant organizational culture that supports the company itself but a psychologically healthy workplace (Greenhaus & Beutell, 2010).

In Kenya, the telecommunication industry is highly competitive. It is characterized by aggressive pricing and marketing strategies as well as rapid deployment of new technologies. Cuilenburg and Slaa (2010) indicates that mobile telecommunications operators compete for customers principally on the basis of services offered, pricing, marketing skills, quality, reliability and coverage area. As market saturation approaches, the focus of competition will likely shift from customer acquisition and customer retention to staff attraction and retention.

### **Statement of the Problem**

Work-life balance is defined as an employee's perception that multiple domains of personal time, family care, and work are maintained and integrated with a minimum of role conflict (Greenhaus & Beutell, 2010). According to Dex & Smith (2012), Work life balance (acronym WLB) is the separation between work life and personal life of an employee in the organization. It is the boundary that one creates between the professional life, career advancement, personal life or any other segment that makes up the life of an individual. Apart from the career life, these segments include family, personal growth, fitness and health, community relations and friendship. Finding the balance between career and personal life has always been a challenge for working people.

William (2010) explains that a psychologically healthy workplace fosters employee health and well-being as well as enhancing organizational performance, thereby benefiting both employees and the employer. This is realized in form of increased job satisfaction, higher morale, better physical and mental health, enhanced motivation, and improved ability to manage stress (Raphael, 2011). Ohkubo (2012) adds that well managed work life balance programs could benefit the organization in form of improved quality, improved productivity, reduced absenteeism, reduced turnover, fewer accidents and injuries, employees retention, quality improvement and improved customer service and satisfaction.

A successful work life balance management must recognize and take into account the different elements of work life balance and develop appropriate policies (Danny, 2014). Developing a culturally well balanced work life routine allows employees to become more productive and innovative. As Capone (2010) observes, work life balancing organizations are better equipped to tackle the challenges derived from the multicultural and global marketplace. These organizations therefore gains competitive advantage over organizations that are not sensitive and diversified on issues relating to work life balance for their employees (Barney, 2011). This study looked at the effect of work life balance on staff performance in the telecommunication sector in Kenya.

### **Study Objectives**

The study focused on the following:

- a. Determining the effect of work related factors on staff performance in telecommunication sector in Kenya
- b. Investigating the effect of family life and responsibilities on staff performance in telecommunication sector in Kenya



## **THEORETICAL BACKGROUND AND INFORMING LITERATURE REVIEW**

Peil (2003) explains that theoretical framework guide research in determining what things to measure, and what statistical relationships to look for. Theoretical framework is obviously critical in deductive, theory-testing sorts of studies (Mugenda and Mugenda, 2003). This study used moral hazard theory, information asymmetry theory and adverse selection theory to support the study.

### **Role Theory**

Work Life Balance for any person is having the “right” combination of participation in paid work (defined by hours and working conditions) and other aspects of live. This combination will change as people move through life and have changing responsibilities and commitments in their work and personal lives (Greenhaus & Beutell, 2010). With these definitions, it can be construed that any imbalance that is formed either creates more pressure or psychological involvement or satisfaction towards ones role as compared to other roles.

The origin of the research work life balance can be seen from the seminal work of rapport and rapport (1969). The research opines that both work and family needs time and energy. Work is an important source of income, financial stability and status. As work and family has no direct relationship with each other so conflicts is inevitable to arise (Parus, 2010).

Khan wolf, Quinn, snoek and Rosenthal, 1964) from their seminal studies associated work life balance with role theory, that is, conflicting expectations associated with different roles which the male and female has to play in their day to day life. Kanter (1977) was able to continue the research of khan (1964) proving that work and family are not independent of each other but rather have an interlink which consequently brings in conflicts between the two. With the pioneering work of Pleck (1977) there was a general consensus that work and family affect each other either positively or negatively. However, there are various extraneous variables like time, task, attitudes, stress emotions, and behaviours which also influence work life imbalance.

Conclusions from several scholars indicated that interference between work and family and the conflict arising out of it are conceptually and empirically distinct from each other (Wiley, 1987); and the field is dominated more by role theory which was derived from seminal studies of khan, Wolfe (1964). According to Cohen & Wills (1985) however, role theory and its conflicting expectations from the two domains have detrimental effects on the well-being of male and females. This further led to the stressors – strain mode (Cohen & Wills (1985), with work family conflicts as stressors.

### **Spill over Theory**

Another influential theory after Pleck (1977) was the theory of spill over (Piotrkowski, 1979), based on asymmetric permeable boundaries between the work and family life domains. The spill over theory basically talked about two types of factors: job related factors and work related factors. There was a relationship established between the two domains of job related factors and work related factors like the influence of spill over theory over job context more for women than for men, whereas the converse would be true for job related factors. Further the spill over theory also invited various research scholars to identify few more factors that influence the work family dependency like compensation, benefits, and bonuses (Champoux, 1978).

Greenhaus & Beutell (2010) further segregated a few more factors like time, task, attitudes, stress emotions, and behavioural spill over work and family. They tried to maintain either positive or negative relation between the two domains. Brutell (1988) found out that interface

between work and family is asymmetric and work tends to influence more on family than family on work. A distinction was made between work family interface (family interfering work) and (work interfering family) greenhouse (ibid)

### **Empirical Review**

Time spent on activities within one role generally cannot be devoted to activities within another role. Consequently, an employee whose work role interferes with their family role cannot satisfy both roles in the same time period (William, 2010). Those employees spending larger amount of time at work will have less time for family roles, consequently creating conflict. Likewise, it might be expected that the more time an employee work, the more likely he may find family issues such as care for children, older relatives, or the responsibilities interfere with work.

Time-based conflict occurs when role pressures stemming from the two different domains compete for the individual's time requiring employees to work late with little notice. This might make it difficult for employees to meet family obligations, like picking up a child at day care. The number of hours worked each week has a significant effect on reports of work-family conflict, particularly for women (Ohkubo, 2012). But the relationship between hours worked and perception of work-family conflict also reflects women's subject positions within the dominant discourse.

However, problems of coping with work and domestic responsibilities remain especially acute for employees with caring responsibilities and especially women. Some studies have found parental demands to mean less time and energy to devote to the organization and time-based work-family conflict and its consequences are believed to be most salient for women (Capone, 2012). Full-time female employees are still found to have greater concerns about childcare and housework (Schwartz & Scott, 2000) and the greatest desire for flexible scheduling (Barney, 2011). Work-family conflict for women is also likely to be more acute given the tendency towards segregation of women into low skill and low paid jobs.

Employers have little enthusiasm for calls for greater codification of employee policies which restrict working time, putting emphasis on liberal doctrines of employee choice (to work long hours) and market freedom (Parus, 2010). But the Government also encouraged employers to offer greater flexibility to employees. In consequence, time flexible prescriptions (flexi-time and part-time working) have been offered by employers as the most common prescriptive approach to provide balance between work and life for their employees (Greenhaus & Beutell, 2010; Raphael, 2011).

This has made prominence on the critical questions that has emerged concerning the effects of different working time arrangements on the so-called 'work-life balance' of workers (Migai, 2010). Okore (2011) recent review report and research evidence covering the effects of working time arrangements on work-life integration; reconciliation or 'balance' across paid economic activity and personal life and range of well-being and work-life balance outcomes indicates that contemporary parents working time is generally more constrained than that of yesterday due to increase of responsibilities for children and other family members.

In another study by Maruti (2008) on over 800 people working more than 48 hours a week, about a third admitted to being addicted to their work. They also reported higher levels of work dissatisfaction with other aspects of their life than those working long hours but who did not admit to addiction to work. It appears that those who work long hours may fall in to

various types and there is need to distinguish those with high levels of work involvement from those who feel an internally-driven compulsion to work without high work involvement and those who are compelled by external circumstances to work for long hours (Rusek, 2006).

Work schedule flexibility has been found to be negatively associated with work life balance / work family conflict. The industries today are demanding work environment wherein employees are supposed to work for long hours. Higher the flexibility, lower is the work family conflict (Migai, 2010). In other words, higher the work schedule flexibility, higher is the work life balance. Working hours have consistently been linked to difficulties in balancing work and family life resulting in more number of hours and less work schedule flexibility thus leading to work family conflict (Rusek, 2006).

High workloads leading to long hours of work on a regular basis can make getting a satisfactory work-life balance more difficult. This can have a number of causes, including: insufficient staff, high turnover of staff, delays in filling vacancies, poorly designed shifts or rosters, inadequate training, poorly distributed work, poorly designed jobs and not addressing the poor performance of some team members (Rembe, 2014). This typically leads to high stress levels and burnout (Juma, 2010).

Other serious repercussions of workload also relates to depression, alcohol and drug abuse, marital and financial problems, compulsive eating disorders, and employee burnout (Maruti, 2008). According to Juma (2010), work-life balance has always been a concern of those interested in the quality of working life and its relation to broader quality of life.

While many studies have focused on work-life balance to improve organizational management of employee's wellbeing, Chandler and McEvoy (2010) explains that the pressures of work have been intensifying in recent decades. "Factors such as the advances in information technology and information load, the need for speed of response, the importance attached to quality of customer service and its implications for constant availability and the pace of change with its resultant upheavals and adjustments all demand our time and can be sources of workload and work pressure" (Khatri, 2009).

Leave typically comes up as an issue when organization examines work-life balance. The issues that emerge include when leave can be taken, difficulties in scheduling leave, whether there is sufficient cover available while people are on leave, how much notice is given that leave has been granted, leave that is withdrawn, how competing demands for leave are dealt with, how much leave is available, and is it possible for people to negotiate or buy additional leave, people not knowing or understanding arrangements related to taking leave or time-in-lieu and real or perceived unfairness about leave provisions (Cook and Heiser, 2011).

According Barney (2011), some of the things that people are looking for in their work-life balance, such as time for travel or sport, are optional. Caring responsibilities generally are not. For this reason, many organizations should pay particular attention to making it possible for people to balance work and caring responsibilities. As Fabian and Gunther (2009) explain, common issues in employees vacation in relation to work life balance that organizations should provide include managing parental leave; supporting people with partners, parents or children with significant illnesses or disabilities, caring for children before and after school and in school holidays.

Maternity leave is a leave of absence for an expectant or new mother for the birth and care of the baby (Danny, 2014). This is a very important factor in creating a work-life balance for

families. Most companies do not offer any paid time off, for this important time in one's life. Many mothers are forced to return to work only weeks after having given birth to their children; missing out on important bonding time with their child (Khatri, 2009).

According to William (2010), at this age, newborn babies and their mother are forming an important bond and the child is learning to trust and count on their parents. Yet, they are often sent to daycare and are now being cared for by a non-family member. Chandler and McEvoy (2010) explain that men know that work alone may not provide their lives with meaning. Young men can lose their meaning of life, therefore they should be provided with a balance between paid work and personal attachments without being victimized at work.

More men are realizing that work is not their only primary source of fulfillment from life. Lado and Wilson (2014) study shows that more men are looking for alternatives to their 40-hour workweek in order to spend more time with their family. "Though working less means a smaller paycheck and higher stress levels, men are looking for flexibility just as much as women" (Barney, 2011). However, with an ever-changing society, flexibility is becoming much more apparent. "It seems that some traditional stereotypes are starting to lessen just a bit in terms of who's responsible for care of the children" (Juma, 2010). Traditionalism is becoming less frequent due to what's actually practical for each individual family.

According to Migai (2010), men often face unequal opportunity to family life as they are often expected to be the financial supporter of the family unit, The masculine ideal of a worker unencumbered by caregiving obligations is built into workplace structures and patterns of reward" (Khatri, 2009). Rembe (2014) explains that employees require leave because mental health is a balancing act that may be affected by four factors: the influence of unfavourable genes, by wounding trauma, by private pressures and most recently by the stress of working. Many people expose themselves unsolicited to the so-called job stress, because the "hard worker" enjoys a very high social recognition. These aspects can be the cause of an imbalance in the areas of life. But there are also other reasons which can lead to such an imbalance.

Migai (2010) explains that a range of strategies can address vocational issues in organization. This includes developing clear and transparent principles for approving leave; streamlining the processes for applying for leave; prompting employees to apply for leave early, reminding them to think about family, religious or cultural commitments that they may need leave for; working with employees to identify the times when work demands require that leave will be granted only in emergencies; developing protocols for negotiating or buying additional leave; developing a trained pool of casuals or relievers to provide cover while people are on leave and improving systems and documentation so that people can provide adequate cover while people are on leave.

Work-family conflict is defined as a form of role conflict characterized by the incongruence between responsibilities of the home and workplace which are mutually incompatible (Greenhaus & Beutell, 2010). According to Dex & Smith (2012), work-family conflict is defined as a form of inter role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role.

Parus (2010) explains that a form of work-family conflict involves role-produced strain, where strain in one role affects one's performance in another role. Potential sources of strain-based conflict include the emotional demands of the workplace (Greenhaus & Beutell, 2010).

Individuals facing relatively high levels of strain at work are more likely to feel conflict when family responsibilities interfere with work role, thus, it is expected that there will be a positive correlation between strain and work-family conflict.

William (2010) described three major forms of work-family conflict: time-based, strain-based, and behaviour based. This author also maintain that work-family conflict increases when the work and family roles are salient or central to the individual's self-concept and when powerful negative sanctions for compliance with role demands are inevitable. For example a male employee who has become a new father may want to focus his time and energy upon this new father role (salient family role), while his manager stresses work deadlines (salient work role) and threatens termination if the project fails (strong negative sanction). The result would be the employee suffering intensified work-family conflict. Greenhaus and Beutell (2010) suggested examining role pressures from both work and family domains, maintaining this was a fundamentally under researched area where we need a better understanding of the interactive effects of work and family role pressures.

The assumption, that involvement in one role (i.e. job) necessarily precludes attention of another (i.e. family). Such interference between role commitments leads to work-life conflict (Parus, 2010). In other words individuals perceive that they have more flexibility in terms of engaging in family commitments and responsibilities than they do for work commitments (Raphael, 2011).

There are basically two interfaces to work life conflict: Work to family interference (WIF) and family to work interference (FWI). Ohkubo (2012) states that working time of an individual are dictated by the person's employment contract or the organization commitments whereas family time is purely discretion of the individuals. The clash of time in these two aspects creates an imbalance in two directions i.e. work family interference (WFI) tends to dominate the family work interference (FWI).

As Capone (2010) observes, work home interference generally operates in two directions. First, work demands more time and energy hindering activities at the family end. For example attending an early morning meeting or marketing tours arranged by the organization leads individual to compromise on home related activities. Researchers call this as work interference with home. Second, responsibilities at home interfere with performance at work. For example worrying about sick dependents, spouse or partners responsibility many a times diverts an individual's attention towards work related responsibilities leading to family interfering work (Raphael, 2011).

## **RESEARCH METHODOLOGY**

Research design involves planning, organizing, collection and analysis of data to provide information sought (Cooper and Schindler, 2003). The author states that each research method provides specific data. This study used descriptive research design. Descriptive design as the name suggests, attempts to describe the situation as it is and obtains complete and accurate description of a situation. It provides in-depth response that facilitates better understanding of the phenomenon under study so as to scoop the best results.

### **Target Population**

Target population in statistics is the specific population about which information is desired. According to Ngechu (2008), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The target population of this study was the 195 senior staff working at Safaricom, Airtel, Telkom Kenya's Orange and

Essar Kenya's Yu Headquarters in Nairobi. The study focused more on the three levels of management that is top, middle and lower level management staff who are directly dealing with the day to day management of the companies.

### **Sample and Sampling Techniques**

According to Kothari (2004) sampling is the process by which a relatively small number of individuals, objects or events are selected and analyzed in order to find out something about the entire population from which it was selected. A sample is a small portion of a targeted population using some systematic form. This research study used stratified random sampling technique because it enables the generalization of a larger population from the sample size.

The data collected from primary source was processed with an aid of the Statistical Package for Social Sciences (SPSS) software for effective quantitative analysis. Descriptive statistics such as use of frequency table was applied. The measure for the independent variable was determined by use of Likert scale, which ranks how strongly each independent variable affected the dependent variables.

### **SUMMARY OF THE FINDINGS**

According to the findings, this study received 94% response from the participants. This showed that the study received above average response and this contributed to the success of the study. The study incorporated views from both gender with a response of 58% for women and 42% men. All the targeted age brackets responded to the study with majority of respondents being between 26-33 years of age. This showed that data gathered reflected views from different age groups. The study also received participation from respondents with different highest levels of education with the least being certificate and highest being post graduate qualifications. This indicates that the input given to the study was rational and objective.

Based on the findings, the study established that long working hours, overtime, working over the weekend, work burden, lack of work schedule, extending office work at home, foregoing annual leave, lack of vacation, lack of flexible working time, family expectations, family responsibilities and family work conflict negatively affects staff performance in the organization. This indicates that there were several work life balance factors that affects staff performance in the telecommunication sector in Kenya.

It was also reported that management ability to help its workforce through better remuneration, good working relationship, and support of employee personal achievement were some of the better ways and strategies to improve staff performance at the workplace. Further management approaches such as staff motivation, recognition, stress management, division of labour and clear job description as well as career development were also cited as some of the better strategies to improve staff performance at the workplace.

### **CONCLUSION**

Based on the findings, it was evident that work life balance factors such as long working hours, overtime, working over the weekend, work burden, lack of work schedule, extending office work at home, foregoing annual leave, lack of vacation, lack of flexible working time, family expectations, family responsibilities and family work conflict negatively affects staff performance at work.

## RECOMMENDATIONS

Based on the findings, this study recommends the following to improve staff performance in the companies under the telecommunication sector in Kenya; that the companies in the telecommunication sector in Kenya need to review overtime and how long its employees' works to enable them have time to rest and plan for their duties properly; introduce shifts to eliminate fatigue and boredom in relation to working over the weekend; adopt the use of delegation and clear division of labour to eliminate employees work burden; use work schedule to help employees manage their time and energy; develop work life policies ; ensure that all its employees go on annual leave when time comes; introduce vacation for its employees to refresh and rebound to break monotony and improve performance at work; develop flexible working time to enable employees plan and enjoy their duties; support employees through counseling and resources to meet family expectations and responsibilities; support employees to work better through better remuneration, cultivate good working relationship, support achievement of personal goals; and, explore management tools such as staff motivation, recognition, stress management, division of labour, clear job description and career development as part of strategies to improve staff performance at work.

## References

- Barney, D. M., (2011), Work life balance on employee performance: Human Resource Management Journal, volume 34, 1111-1117.
- Brutell, E., (1988), the impact of shiftwork on work-home interference, job attitudes and health, Ergonomics, 47, 987-1002.
- Capone, S.S. (2010), Impact of employee rest on productivity: Academy of Management Journal, Vol. 12, No. 3, 454-470.
- Champoux, J.E. (1978), it's about time: A study of hours worked and work spillover among law firm lawyers. Journal of Vocational Behaviour, 50, 227-248.
- Chandler, E., Cacioppo, J. T. & McEvoy, R. L. (2010), Emotional contagion [Elektronische versie]: Current directions in psychological science: a journal of the American Psychological Society, 2 (3), 96-99.
- Cohen, A.B., & Wills, E. (1985), Workaholism and relationship quality: A spillover-crossover perspective. Journal of Occupational Health Psychology, 14, 23-33.
- Cook, A.B., & Heiser, E. (2011), Crossover of stress and strain in the family and in the workplace: Research in occupational stress and well-being (Vol. 2), JAI Press/Elsevier Science.
- Cooper and Schindler (2003), Social Science Research Methods, 5th Edition, London: Pearson Publishers: Sri Lanka: New Age International Publisher.
- Danny, .D. (2014), Organizational commitments and staff productivity: International Journal of Management, 53(4), 299-308.
- Dex, F.T., & Smith, N.K. (2012), a meta-analysis of work-family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. Journal of Occupational Health Psychology, 16, 151-169.
- Fabian, A.B., & Gunther, M. (2009), how job demands influence partners' experience of exhaustion: Integrating work-family conflict and crossover theory. Journal of Applied Psychology, 93, 901-911.
- Greenhaus, J.H., & Beutell, N.J. (2010), Sources of conflict between work and family roles. Academy of Management Review, 10, 76-88.
- Jason, A.B., (2006), Does home life interfere with or facilitate performance? European Journal of Work and Organizational Psychology, 19, 128-149.
- Juma, R.C., (2010). Changes in job and marital experience (and change in psychological distress: A longitudinal study of dual-earner couples. Journal of Personality and Social Psychology, 69, 839-850.

- Kanter, A.B., (1977), extending the demands-control model: A daily diary study of job characteristics, work-family conflict and work-family facilitation. *Journal of Occupational and Organizational Psychology, 78*, 155-169.
- Khatri, R. W., (2009). Emotional contagion: Gender and occupational differences. *Psychology of Women Quarterly, 19*, 355-371.
- Kothari, .C. R. (2004), *Research Methodology: Methods and Techniques*, 2nd Edition, Sri Lanka: New Age International Publisher.
- Lado, A.B., & Wilson, E. (2014), *The Spillover-Crossover model*: In J. Grzywacs & E. Demerouti (Eds.), *Work-life balance* Psychology Press.
- Maruti, M. (2008), Crossover of stress and strain in the family and in the workplace: In P.L. Perrewé & D.C. Ganster (Eds.), *Research in occupational stress and well-being (Vol. 2)*, JAI Press/Elsevier Science.
- McGinity, .N. (2014), Employee overtime: curse or a blessing? *Journal of Business Management, Vol 22, No 2*, pp.1-25.
- Migai, P., (2010), Mechanisms linking work and family: Specifying the relationships between work and family constructs. *Academy of Management Review, 25*: 178-199.
- Mugenda .O.M. & Mugenda, A.G. (2009), *Research Methods: Quantitative and Qualitative Approaches*, Published by ACTS, Nairobi, Kenya.
- Ohkubo, .N. (2012), Employee engagement and productivity: Tenets for Developments, *OMEGA 31*(2): 63-73.
- Okore, S. (2011), multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review, 42*, 921-936.
- Parus, M., (2010), Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology, 92*, 57-80.
- Peil .O.M. (2003), *Research Methods: Quantitative Qualitative Approaches*, 2nd Edition, and Published by ACTS: Nairobi.
- Piotrkowski, J.G., (1979), reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology, 5*, 111-126.
- Pleck, A.B., (1977), *The Spillover-Crossover model*: (Eds.), *Work-life balance*, Psychology Press.
- Raphael, K. (2011), a meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behaviour, 67*, 169-198.
- Rembe, E., (2014), Spillover and crossover of exhaustion and life satisfaction among dual-earner parents: *Journal of Vocational Behaviour, 67*, 266-289.
- Rusek, A.B., (2006), the contagion of stress across multiple roles. *Journal of Marriage and the Family, 51*, 175-183.
- Schwartz, J. H., & Scott, G. N. (2000), when work and family are allies: A theory of work-family enrichment. *Academy of Management Review, 31*(1), 72-92.
- Wiley, S.A.E., (1987), Antecedents and consequences of work-home interference among medical residents. *Social Science & Medicine, 48*, 1135-1148.
- William, D. S. (2010), Personality and role variables as predictors of three forms of work-family conflict: *Journal of Vocational Behaviour, 55*, 236-253.
- Wolfe, A.B., (1964), towards a dual-process model of work-home interference. *Work & Occupations, 31*, 345-366.



# Relationship between Human Capacity Building and Performance of Micro and Small Enterprises (Mses) In Kisumu City

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## Abstract

This paper focused on the relationship between human capacity building and performance of micro and small enterprises (mSES) in Kisumu city. Despite the central role of mSES in employment, industrial transformation and poverty reduction, the competitiveness and growth prospects of Mses Fall below the levels required to meet challenges of increasing and changing basis for competition. Effective management of a company's human resources is key to business survival in today's world. Human capacity building can be particularly important for small firms. The need for human capacity building for SMEs in Kenya is of great significance if we are to increase the performance and growth of SMEs and at the same time reduce inefficiency, low productivity and the rate of failures of small firm. A descriptive research design was used to carry out the study. A sample of 320 mses was selected for study using quota and convenience sampling technique. Convenience sampling technique is used to simplify data collection procedures and to avoid the complications of simple random method since the researcher just picks on those who happen to be available and are willing, until the desired size is attained. Both qualitative and quantitative research designs which were descriptive in nature were used; as Gall and Borg noted, "Descriptive studies by nature emphasis interpretation." The target population of 320 mses was drawn from the 7012 businesses that are licensed by the Municipal Council of Kisumu. The study revealed that appropriate business training was considered a very important contributing factor to growth and Lack of business management training facilities was perceived as a major barrier to growth. One of the reasons for this could be the fact that majority of respondents had not been formally trained in the skills needed to operate an enterprise professionally. The study recommended that if training is to be offered to MSEs, it should encourage as little time away from the workplace as possible and that it should be very flexible and inexpensive.

**Key words:** micro and small enterprises, entrepreneurship, Human capacity building, Kisumu city

Institution: The Management University of Africa

## INTRODUCTION AND RESEARCH OBJECTIVES

The importance and contributions made by micro and small enterprises (MSEs) in world economies has attracted widespread attention from researchers from the time small business research gained significant momentum in the early 1970's (Rutherford and Weller, 2002). Work undertaken by Birch (1979) and Storey (1994), which gathered together the evidence from a wide range of studies, has provided policy makers and commentators with evidence of the contributions that small firms make, the difficulties they experience and various attempts and reasoning for government intervention in the sector.

According to Beaver (2002), MSEs have an important role to play in a country's economy, and globally they contribute eighty per cent to a country's economic growth. For instance, "of the 3.7 million businesses in the UK, 99.2 per cent are defined as small businesses, employing fifty seven per cent of the workforce" (Denby, 2001). For many countries in Africa, MSEs and the informal sector represent over 90% of business and account for 60% of employment (International Institute for Environment and Development (IIED), 2005). For African countries to achieve long-term, sustainable growth, it is critical that they encourage and enable small and medium-sized entrepreneurs to launch and expand businesses, and enter the formal economy, thus helping MSEs to serve as an engine of growth.

In Kenya, "Micro-enterprises" are those with 9 or fewer workers, "small enterprises" have from 10 to 49 workers, and "medium enterprises" have from 51 to 99 workers (Kithae et al, 2013). Censuses indicate that micro-enterprises comprise the lion's share of enterprises in Kenya while there are a few small enterprises (Parker and Torres, 1994). According to Kithae et al (2012), medium enterprises are almost non-existent, a concept referred to as the missing middle concept. As well, micro-enterprises are indigenous while the medium-scale and larger manufacturing enterprises are dominated by Asian (Indian) capital.

### Statement of the Problem

Effective management of a company's human resources is key to business survival in today's world. Human capacity building can be particularly important for small firms (Marlow and Patton, 1993) since they tend to be so dependent on human capital. The need for human capacity building for MSEs in Kenya is of great significance if we are to increase the performance and growth of MSE's and at the same time reduce inefficiency, low productivity (Mathis and Jackson, 1991) and the rate of failures of small firms (McEvoy, 1984).

In Kenya MSEs employ about 7.5 million people, or 80 percent of the country's total employment outside the small-scale agriculture. Enterprises in the MSE sector are therefore crucial and important players in national development (Kibas, 2004; King, 1991). The challenges they face which affect their growth and profitability and diminish their ability to contribute effectively to sustainable development need to be determined and addressed (ILO, 2003; Keats and Bracker, 1988). Unless this is done, success will continue to elude them and their growth will continue falling, leading to loss of employment (Kibas, 2004).

MSEs have been recognized as the engine of economic growth and have been put in the development agenda and strategy of many developing African countries. Recognizing the great contributions of MSEs to economic diversification, employment creation, income generation, and poverty alleviation; the government of Kenya has been putting much effort and resources to promote the development of entrepreneurship and MSEs. However, most business support policies and programmes focus on financial assistance for start-up firms and very little has been done to develop entrepreneurial and managerial capability of citizens who start business

with little or no management skills. It is not only access to finance or the availability of capital that leads to competitiveness: it is how MSEs manage their scarce resources (financial, human and material), market complexities and changes, as well as opportunities and threats in the environment (Temtime, 2002). As argenti (1976) has argued, the most commonly cited cause of business failure is "poor management". As every business operation or activity is directly or indirectly related to management, it is essential to identify and assess the critical managerial factors affecting the performance of MSEs.

With these studies in mind there was need to determine how human capacity building will enhance the performance of MSEs in Kisumu city with a view of identifying the strategies that will mitigate them and improve the growth of the MSEs in the city. MSEs will thus effectively play their role as alternative employment for majority of Kenyans and help reduce unemployment. This study thus focused on the human capacity building for MSEs in Kisumu with an attempt to bridge the existing gap from other studies by seeking answers to the following research questions: (i) What are the current capacity building approaches used by SMEs in Kisumu?; and (ii) How does these human capacity building affect the performance of MSEs in Kisumu?

### **Objectives of the Study**

The overall objective of the study was to evaluate the impact of human capacity building on performance of Micro and Small Enterprises (MSEs).

The study was guided by the following specific objectives:

- I. To establish the current human capacity building approaches used by MSEs in Kisumu city.
- II. To establish the impact of human capacity building on the performance of MSEs in Kisumu city

### **Significant of the Study**

To donor agencies the findings will be of great assistance to donors as they will be able to engage suitable human capacity development agencies (BDS) to help mses improve their marketing capabilities, become innovative to improve quality of their products to survive.

To the government. The findings will give direction on prioritizing the expenditure of the donors and policy makers in consideration to areas where the strategies should be focused so as to effectively promote MSE development

To beneficiaries Information from this study will be useful to both potential and practicing entrepreneurs to realize their weaknesses/shortcomings and rectify them to maximize beneficial effects for their businesses.

### **Assumptions of the Study**

The study assumed that human capacity building programs have not brought much impact on the performance of the micro and small enterprises and that something need be done to improve its successes. It was further assumed that the respondents to the interview would provide sincere and honest information and views.

### **Definition of Terms**

This section deals with operational definitions whose role is to indicate the specific manner in which a term or concept is to be applied. Their use may be different in another perspective. This study used the following concepts.

Micro and small enterprises (MSEs) A micro or small enterprise is an undertaking, which employs between 1 and 20 employees, with capital investment of not more than kshs 30 million. Operational and administrative management lies in the hands of one to three persons who usually make major decisions.

## **THEORETICAL BACKGROUND AND INFORMING LITERATURE REVIEW**

### **Introduction**

This chapter reviews literature relevant to the research problem. It is based on several research papers and contributions of various authors, National Development plans, Government sessional papers and other policy documents in the development of entrepreneurs and the micro and small business enterprises. The review gives special consideration to the extent to which human capacity building has succeeded in achieving its goals of enterprise growth.

### **Human Capacity Building for SMEs**

Human capacity building is the “process of equipping individuals with the understanding, skills, and access to information, knowledge, and training that enables them to perform effectively” (UNDP 1992) in a society. Berg (1993) elaborates on this definition to highlight three main activities: (i) Organization strengthening: the process of institutional development; (ii) Procedural improvements: general functional changes or system reforms; and (iii) Skill enhancement, general education, on the job training (OJT), and professional deepening in crosscutting skills. The success of MSEs in today’s turbulent markets depends largely on their ability to engage in environmental scanning activities in order to understand the behavior of and trends in their environment (Temtime, 2001).

The processing of gathering and analysis of interoperating environmental data requires managerial competence and expertise. A previous study (Temtime, 2002) showed that most MSEs do not engage in actual strategic planning as they put too much emphasis on operational bits and pieces. Some prepare business plans just for external validation by banks and creditors rather than coordinating organizational activities. It is not uncommon that owner-managers often spend too much time fire-fighting rather than leading the firm. As the environment of MSEs is dynamic rather than static, turbulent rather than stable, and requires managerial agility and capability, MSEs should be assisted to think and act strategically. Al-Madhoun and Analoui (2003) studied 106 managers in Palestine and found an important relationship between managerial skills and small business development. Enhancing capacity of MSEs has a very great potential to spur economic growth.

### **Performance and Human Capacity Building for MSEs**

The relationship between HRM activities and performance, in some senses, is problematic. It has been argued that the relationship between HRM and firm performance remains fuzzy and results depend on the population samples and the measures used (Sels et al., 2006). Notwithstanding this, there seems a general consensus that best practice HRM activities can enhance business profitability, life span, sales volumes and infrastructural improvement especially where the more sophisticated forms of HRM have been introduced (Way,2002; Hayton, 2003).However, we would also argue that it is important to look at variations within the MSE sector. Each of these variables may differ in their effects on firms of different sizes within the MSE category. As Kieser and Ebers (2006) observe, the size of an organization is a critical influence on its internal structure. Motivating, communicating, provision of training and the development of skills present very different problems for the micro firm of two or three employees as compared with the medium sized firm with perhaps 200 employees.

Analyses of the links between management training and firm performance in smaller firms have certain methodological weaknesses and the influence of training falls when more “controls” are introduced or when other non-training managerial practices are included. These are shown to have a stronger link to performance than training; no link between training and productivity trends is apparent and, even if a positive correlation were to exist, the methodology is unable to disentangle whether small firms that train perform better or whether small firms that perform better can afford to train. The implication is that prior performance may generate the resources to undertake training, but that it is difficult to assert that training expenditure enhances future performance (Cosh et al., 1998). Further data and analysis are needed to confirm empirically the link between management training and enhanced performance of MSEs.

### **MSE's in Kenya**

In Kenya, MSEs are defined as businesses in both formal and informal sectors, classified into farm and non-farm categories employing 1-50 workers (Republic of Kenya, 2005). The sector is considered as one of the major contributors to the economy by providing income and employment to a significant proportion of the population (Moyi et al, 2006). Since Independence, the Government has recognized the potential of the MSE sector in employment creation and poverty reduction in its numerous policy documents. The Sessional Paper No. 1 of 1986 on Economic Management for renewed growth was the first to give explicit recognition of the sector's role in economic growth and development. Its recommendations led to the publication of Sessional Paper No. 2 of 1992, Small Enterprises and Jua Kali Development in Kenya that identified the small-scale and Jua Kali enterprise sector for support to assist it to “graduate into the formal sector” and to become a major player in the creation of new jobs and economic growth. This was followed by Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction.

The Government of Kenya spelt out its policies towards the small and “Jua Kali” enterprises in two sessional papers and three development plans. In these documents, the government stressed the critical role of small enterprises in the national economy and outlined the policy interventions needed to enhance their growth. The first Sessional paper, Sessional Paper No.1 of 1986 on Economic Management for Renewed Growth, singled out the small enterprise sector and rural economy as future generators of employment (Republic of Kenya, 1992). Three years later, in 1989, the Government prepared a paper, “A Strategy for Small Enterprise Development in Kenya: Toward the Year 2000,” in which it documented the major impediments to small enterprise development and enunciated policies for improving the performance of the sector. Critical barriers identified were: difficulty in raising capital; limited managerial skills; regulatory constraints; low marketing skills; limited extension services; and difficulty in getting access to technology.

### **MSEs in Kisumu City**

The performance and growth of MSEs in Kisumu city is rather low as compared to other MSEs in other towns in Kenya like Kericho and Eldoret (Abuodha and King, 1992). The average lifespan of an MSEs in Kisumu city is six months (GOK, 1999, 2000); the averages of Kericho and Eldoret towns are 16 and 14 months respectively (GOK, 2000), in comparison, this is very low and hence needs to be investigated. The average profits per annum for MSEs in Kisumu have remained at about 2 percent since 2005 (GOK, 2008; Otunga, Opata and Nafukho-Muhia, 2001) while the averages of the profits of MSEs in Kericho and Eldoret grew at 32 percent and 38 percent respectively over the same period (GOK, 2008). The sales volumes of MSEs in Kisumu town grew at 6 percent (GOK, 2008) while the growth rates in the sales volumes of MSEs in Kericho and Eldoret were 24 percent and 28 percent over the same period (GOK,

2008). The growth rates of MSEs in Kisumu is lower than the national figures of 61 percent and also lower than the rates of its neighboring towns such as Kericho and Eldoret (Kibas, 2004). These are evidence of low growth and development. There is therefore need to understand the correlation of the different human capacity building approaches used by MSEs in Kisumu city with a view of identify the impact it has in improving the performance and growth of the MSEs in the city. Otherwise, the MSEs may not effectively play their role as alternative employment for majority of Kenyans. This will lead to unemployment and retard the overall development of the country.

### **Impact of Human Capacity Building on the Performance of Mses**

According to Bacon et al. (1996), Human capacity building enhances an employee's productivity and reduces their probability of quitting (as increased wages and other benefits accrue from increased productivity), thus the ease of access to business skills by MSE owners/managers. Booth and Snower (1996) argued that on-the-job training works for most small firms: employees learn in the context in which their skills are used and maintained. However, maintaining competitiveness relies not only on on-the-job or job-specific training, but also on a greater degree of formal training. The advantage of formal training is the gain of accredited experience and knowledge from sources out with their own organization. Surveyed MSEs have called on training providers to offer bite-size training, tailoring courses to the needs of small businesses (Godfrey, 1997). Training providers will need to be more flexible if they wish MSEs to take formal training more seriously. Identifying and clarifying these barriers to skills development in MSEs in more detail is essential if their full productive potential is to be realized.

Existing work rarely considers the factors that determine the level and provision of training. Hannon (1999) in a summary of the literature on training and management development processes in small businesses, refers to management within MSEs as situationally specific, and dependent on a variety of factors such as leadership roles, product or market conditions, business ownership and management structures. While much research in MSE training has focused on claiming a relationship between training and firm performance, far less attention has been directed to understanding the association within the context of the organization, its operating infrastructure and target market. Studies do not explain why some firms are more likely than others to invest in training. Some of the studies establish that organizational characteristics influence the training performance relationship, but they fail to elucidate the contextual factors that influence the decision on training approach. The research studies that claim a mediating effect from sets of variables have not presented statistical interpretations of the significance of these moderating effects.

Whether the problem is in either supply or demand, the Labour Market Survey (2001) showed a clear relationship between business failure and a lack of planning or training by MSEs. Moreover, given that knowledge resources and their renewal are considered to be essential to the growth of firms (Penrose, 1959), it is clearly important to understand the links between training and performance. There are a multitude of other external and internal variables that put weight into the training-performance relationship (Storey, 2004). In this paper we investigate the training-performance link by exploring theoretical gaps in the MSE training-performance literature. Matlay and Hyland (1997) and Storey (2004) noted that the contribution of different approaches to training may be particularly relevant given the diversity in the sector, and the fact that smaller firms are considered to prefer informal rather than formal training approaches.

The general assumption is that those businesses that pay more attention to training and development will be more successful in the long run. This premise underpins a significant investment in MSE training through European Social Funds (Devins and Johnson, 2003) and by national governments in many OECD countries (Storey, 2004). Although this claim is widely established, evidence to show that training and management development enhances MSE performance is equivocal (Storey and Westhead, 1994; Storey, 2004). A large body of the MSE training literature has attempted to address this issue by empirically testing the relationship between training investments – both in terms of resources and time – and firm performance through individual and firm level data. Several recent reviews, however, have shown that the empirical evidence for training influence on firm performance is generally inconsistent and inconclusive (see, for example, Storey, 1994; Morgan et al., 2002; Heraty and Morley, 2003; Storey, 2004).

Studies have shown training to be important in enhancing competitive advantage, facilitating firm growth, and improving profitability (Bartel, 1994; Knoke and Kalleberg, 1994). In addition, training is seen as a useful means of coping with changes fostered by technological innovation, market competition, organizational structuring, and demographic shifts (Knoke and Kalleberg, 1994).

## RESEARCH METHODOLOGY

### Research Design

The study used both qualitative and quantitative research designs which were descriptive in nature; as Gall and Borg (1989) noted, “Descriptive studies by nature emphasis interpretation”.

### Population

The target population was drawn from the 7012 businesses that are licensed by the Municipal Council of Kisumu of which 80 percent are MSE's (Kisumu Municipal Office, Sept, 2010). They are distributed in different clusters: which include the Lake Market cluster, the Stage Market, KNA stalls Oile Market Cluster, the Oginga Odinga Road cluster, the Kibuye Market cluster, the Kondele cluster among others (Kisumu Municipal Office, 2010). These MSEs are involved in a variety of business ventures as listed in the Municipality Business Activity Description sheet and include: General traders, wholesalers, retailers, transporters, saloons, fruit vending, computer bureaus, restaurants and many others.

### Sampling Design

The sample consisted of 320 respondents selected from owners and staff of MSEs in Kisumu municipality. The sample size was determined based on the recommendations of Kathuri and Palls (1993), who recommends a sample size of at least 150 for major strata. The study used quota and convenience sampling techniques to select the sample. Convenience sampling technique was used to select the MSEs and the two staff from each MSE. Oso and Onen (2008) define convenience sampling as a technique where a sample is selected from the subjects who happen to be available, on first-come-first-served basis, until the desired number is achieved. Amin (2005) points out that convenience sampling technique is used to simplify data collection procedures and to avoid the complications of simple random method since the researcher just picks on those who happen to be available and are willing, until the desired size is attained. This means that the researcher did not have to trace respondents from their abodes since anybody available can be selected to complete the questionnaires.

### Data Collection

Primary data was collected from the proprietors/managers of the MSEs with the aid of semi-structured questionnaires. The researcher administered the questionnaires by drop-and-pick

method after explaining the purpose of the study and agreeing the time frame for the completion of the questionnaires.

### **Data Analysis and Presentation**

The Statistical Package for Social Sciences (SPSS) was used as an aid in the analysis. The researcher preferred SPSS because of its ability to cover a wide range of the most common statistical and graphical data analysis.

## **FINDINGS AND DISCUSSIONS**

### **Introduction**

This study sought to evaluate the impact of human capacity building on performance of Small and Medium Enterprises in Kisumu city. A combination of both quantitative and qualitative techniques was used in data collection.

The data pertaining to the profile of respondents was analyzed by employing content analysis while descriptive statistics were used in analysis of data pertaining to the second objective of the study. Computation of frequencies and percentages, standard deviations and mean scores were used in data presentation. The information is presented and discussed as per the research objectives of the study.

### **Response Rate**

Out of the 320 questionnaires that were distributed to the respondents, 307 of them, representing 95.94% of the questionnaires were returned completed. The high response rate could be attributed to the personal efforts of the researcher, who made a follow up of every questionnaire sent out.

### **Major Findings**

The findings of this study revealed that there are times when formal training is appropriate for MSEs. Dependent on size, product, market and organizational structures; formal training is both required and/or encouraged by MSE management. It is possible that training is undertaken in these firms as a tactical solution to a problem (Cassell et al., 2002; Hendry et al., 1991) and the demand for training is explicitly related to improving the way the business is operated (Patton and Marlow, 2002). Nevertheless, formal training may still be appropriate to address specific skills or development needs. This will require an understanding of the unique problems that the MSE managers face. Therefore, it is not only the type of training that will be important. Training support for MSEs requires targeted interventions that address specific problems that MSE managers need to resolve, and will require an in-depth understanding of the organization's context and conditions (Perren et al., 1999; Cassell et al., 2002; Patton and Marlow, 2002). Consequently, "when thinking about MSEs, addressing the pertinent human resources issues that emerge from current business priorities should be a key theme" (Cassell et al., 2002), particularly since different styles of learning may be appropriate in different situations and dependent on organizational conditions. While it is increasingly acknowledged that flexible support systems are needed to meet the diverse needs of the small business sector (Small Business Skill Assessment, 2004), the nature of this diversity is not well understood. This study provides information that will allow a more targeted approach to the support of both formal and informal training in the MSE sector, and will therefore be an important contribution to policy development.

This study is a start and provides an important contribution towards an understanding of the complexities involved in developing and sustaining effective small business support that is



more demand-led rather than supply driven. This is important not least because of the vast amount of money spent by Government on small business support, and the lack of convincing evidence that traditional formal approaches to development advocated by business support agencies provide performance improvements. The empirical analysis and the tentative conceptual framework, provide an important contribution towards a demand-led policy framework in the area of development and training support for MSEs.

### **CONCLUSIONS**

Sessional Paper No.2 of 1992 on Small Enterprise and "Jua Kali" Development in Kenya, published in 1992 outlined the contributions of the small enterprise sector to the national economy, the key ones being the following: employment creation; enhancing the participation of indigenous Kenyans in the economy; promotion of local savings and investments; promoting the development of entrepreneurship and managerial skills among local Kenyans; and engendering the acquisition of skills among workers. Policies for improving the performance of the sector included measures geared towards the promotion of research, inter-firm linkages, technical training and technology extension. Most respondents in this survey named appropriate business training as very important contributing factors to growth. Lack of business management training facilities was also perceived as a major barrier to growth. One of the reasons for this could be the fact that the majority of respondents had not been formally trained in the skills needed to operate an enterprise professionally. This calls for a need for the design and delivery of specific business and technical training programmes by national and regional institutions responsible for fostering the growth of micro and small enterprises.

### **Recommendations of the Study**

Based on findings of the study, it is expected that the stakeholders, who include the Government, the MSE owners and the agencies offering various support mechanisms to the MSEs will gain a better understanding of the impact of human capacity building on performance of Micro and Small Enterprises. The following measures are recommended in order to enhance capacity building of MSEs in Kenya:

This study identifies that the research, management, and policy development of training in the MSE sector needs to be more open and flexible in order to address the idiosyncratic nature of MSE requirements.

HRM practices in small firms vary greatly and using static models to define the management training and advice needs of small firms is not tenable.

Research, management and policy instruments of training support will need to interact with, and be responsive to, the subtle distinctions of context that will moderate what is more appropriate, and more likely to be welcomed, in the small business sector.

Factors such as difficulties in accessing training, difficulties in Mses Finding time for their employees to do enough training, rapid changes causing significant adjustments to training needs; cost of training prohibits some firms from engaging in training; and they can rarely afford to invest in formal off-site group training sessions. It is recommended that if training is to be offered to Mses It should encourage as little time away from the workplace; it should be flexible and inexpensive.

## References

- Abuodha, C. and King, K (1992). *The Building of an Industrial Society, Change and Development in Kenya's Informal Sector (1972 – 1991)*. IDS Discussion Paper NO. 292, Nairobi: University of Nairobi, Institute of Development Studies.
- Al-Madhoun, M. and Analoui, F. (2003). *Managerial skills and SMEs' development in Palestine*, Career Development International, Vol. 8 No. 7, pp. 367-79.
- Amin, M. (2005). *Social science research: Conception, methodology and analysis*. Kampala: Makerere University Printers.
- Argenti, J. (1976). *Corporate Collapse: The Causes and Symptoms*, McGraw-Hill, London.
- Bacon, N., Ackers, P., Storey, J., and D. Coates (1996). *It's a Small World: Managing Human Resources in Small Businesses*, *International Journal of Human Resource Management*, 7, 82-100.
- Beaver, G. (2002). *Small Business, Entrepreneurship and Enterprise Development*, Pearson Education Limited, Harlow, 2002, 28 - 86.
- Berg, E. (1993). *Rethinking Technical Cooperation: Reforms for Capacity Building in Africa*. Washington, D.C.: UNDP/DAI
- Betcherman, G., N. Leckie and K. McMullen (1997). "Developing Skills in the Canadian Workplace", CPRN Study No. WO2, Renouf Publishing, Ottawa.
- Birch, D. (1979). *The Job Generation Process*, US Department of Commerce, MIT Program on Neighbourhood and Regional Change, Cambridge, MA.
- Booth, A.L. and Snower, D.J. (1996). *Acquiring Skills: Market Failures, Their Symptoms and Policy Responses*, Centre for Economic Policy Research, London.
- Burns, P. (2001), *Entrepreneurship and Small Business*, Palgrave, Basingstoke.
- Cassell, C., Nadin, S., Gray, M. and Clegg, C. (2002). "Exploring human resource management practices in small and medium sized enterprises", *Personnel Review*, Vol. 31 Nos 5/6, pp. 671-92.
- Cosh, A., J. Duncan and A. Hughes (1998). "Investment in Training and Small Firm Growth and Survival: An Empirical Analysis for the UK 1987-95", Department for Education and Employment, Research Report RR36.
- Cushion, N. (1995). "Measuring the success of small management business training", paper presented at 18th ISBA National Conference, University of Paisley, Paisley.
- Cushion, N. (1996). "Evaluation of management development in the small business sector", paper presented at ISBA National Small Firms Policy and Research Conference, UCE Business School, Birmingham.
- Cushion, Nigel (1995), "How to Succeed in Small Business Training", City of Norwich College and Nat West Bank.
- Devins, D. and Johnson, S. (2003). "Training and development activities in SMEs", *International Small Business Journal*, Vol. 21 No. 2, pp. 213-28.
- Flanagan D.S. and S.P. Deshpande (1996). *Top management's perceptions of changes in HRM practices after union elections in small firms*, *Journal of Small Business Management*, 34(4), 23-34.
- Gibb, A. and Scott, M. (1985). "Strategic awareness, personal commitment and the process of planning in the small business", *Journal of Management Studies*, Vol. 22 No. 6, pp. 597-632.
- GOK. (1985) *Kisumu District Development Plan 1994- 1996*. Nairobi Ministry of Planning and National Development, Government printers.
- GOK. (1986). *Sessional paper No. 1 of 1986: Economic Management for renewed Growth*. Nairobi Government Printers.
- GOK. (1995), *National Micro and Small Enterprises in Kenya*, collaboration of CBS / ICEG/K-REP, Nairobi.
- GOK. (1999), 'National Poverty Eradication Plan, 1999 – 2015' Sessional paper No. 3, Government Printers, Nairobi.

- GOK. (2000), Economic Survey, Government Printers, Nairobi.
- Hallier, J. and Butts, S. (1999). "Employers' discovery of training: self-development, employability and the rhetoric of partnership", *Employee Relations*, Vol. 21 No. 1, pp. 80-95.
- Hendry, C., Jones, A., Arthur, M. and Pettigrew, A.M. (1991). "Human resource development in small to medium-sized enterprises", *Research Paper No. 88*, Department of Employment, Sheffield.
- Heraty, N. and Morley, M.J. (2003). "Management development in Ireland: the new organizational wealth?", *Journal of Management Development*, Vol. 22 No. 1, pp. 60-82.
- Hill, R. and Stewart, J. (2000). "Human resource development and small organizations", *Journal of European Industrial Training*, Vol. 24 No. 2, pp. 105-17.
- Hitt, M.A., Ireland, R.D. and Hoskisson, R.E. (1996). *Strategic Management: Competitiveness and Globalization*, West Publishing Company, Minneapolis, MN.
- Huang, T. (2001). "The relation of training practices and organizational performance in small and medium sized enterprises", *Education and Training*, Vol. 43 Nos 8/9, pp. 437-44.
- Huselid, M.A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial management, *Academy of Management Journal* 38(3), 635-672.
- ILO (2003) Working out poverty 91st Session. Report of the Director General: ILO
- International Institute for Environment and Development (IIED) (2005). "Small and Medium-Sized Enterprises (SMEs) and Corporate Social Responsibility: A Discussion Paper", June 2005.
- Jennings, P.L. and Banfield, P. (1993). "Improving competence in small firms", paper presented at the 16th National Small Firms Policy and Research Conference, The Nottingham Trent University, Nottingham.
- Johnston, K. and Loader, K. (2003), "Encouraging SME participation in training: identifying practical approaches", *Journal of European Industrial Training*, Vol. 27, pp. 273-80.
- Jones, O. (2003). "Competitive advantage in SMEs: towards a conceptual framework", in Jones, O. and Tilley, F. (Eds), *Competitive Advantage in SMEs*, Wiley, Chichester, pp. 15-33.
- Jones, O. and Macpherson, A. (2006). "Inter-organizational learning and strategic renewal in SMEs: extending the 4i Network", *Long Range Planning*, Vol. 39 No. 2, pp. 155-75.
- Kathuri, N. K., and Palls, D.A. (1993). *Introduction to educational research*. Egerton Education Book Series. EMC.
- Kessio, J.K (1981), a study of the problems facing small businesses and the effect of management training on the performance of the proprietors: a case study of the Nandi District: Unpublished MBA Research Project, University of Nairobi.
- Kibas, P. (2004). Who are Entrepreneurs?" *Journal of Management* (October, 2004), Nairobi: Kenya Institute of Management (PP. 18 – 25).
- Kieser, A. and Ebers, M. (2006), *Organisations theorien*, 6th ed., Kohlhammer. Kiss, K. and Poo' r, J. (2006), "Management and HR characteristics of SMEs in Hungarian regions in the framework of the life-cycle model", *Munkau" gyi Szemle*, Vol. 50 No. 9, pp. 14-19.
- Kitching, J. and Blackburn, R. (2002), *the Nature of Training and Motivation to Train in Small Firms*, Small Business Research Centre, Kingston University, London.
- Kithae P., Awuor, E. Letting N. & Gesimba P. (2013): Impact of TVET Institutions as Drivers of Innovative Skills for Sustainable Development in Kenya, *Kenya Journal of Technical and Vocational Education and Training (KJ-TVET)* Vol. 2, Nairobi. Kenya
- Kithae P., Gakure, R & Munyao I. (2012): The place of Micro and Small Enterprises in Achievement of Kenya's vision 2030; *journal of US-China public Administration*, ISSN 1548-6591 Vol,9 No. 12 pg 1432-1440
- Knoke, D., and A. L. Kalleberg (1994). Job training in U.S. organizations, *American Sociological Review*, 59(4), 537-546.
- Labour Market Survey (2001). *Small and Medium Enterprise (SME) Statistics for the UK*, HMSO, London.

- Marlow, S., and D. Patton (1993). Managing the employment relationship in the small firm: Possibilities for human resource management, *International Small Business Journal*, 11(4), 57-64.
- Marshall, J., Alderman, N., Wong, C. and Thwaites, A. (1993). "The impact of government assisted management training and development on small and medium-sized enterprises in Britain", *Environment and Planning*, Vol. 11, pp. 331-48.
- Mathis, R.L. and I. H. Jackson (1991). *Personnel/Human Resource Management*, West Publishing Company, St. Paul, Minn.
- Matlay, H. (1997), "The paradox of training in the small business sector of the British economy", *Journal of Vocational Education and Training*, Vol. 49, pp. 573-89.
- Matlay, H. (1999). "Vocational education, training and organizational change: a small business perspective", *Strategic Change*, Vol. 8 No. 5, pp. 277-89.
- Morgan, A., Mayes, S. and Smith, E. (2002). "The age of business, its potential to learn and the need for support", report for the Small Business Service, Trends Business Research, and Newcastle upon Tyne.
- Moyi, E., Otieno, G., Mumo, I. and Ronge, E. (2006), *Developing a Marketing Model for MSEs in Kenya*, KIPRA, Nairobi, Kenya.
- Mugenda A and Mugenda M (2003), *Research Methods: Quantitative and Qualitative Approaches*, ACTS Publishers, Nairobi.
- OECD (2000a), "High-Growth SMEs: Phase II Synthesis Report", DSTI/IND/PME (2000)3.
- OECD (2000) Organization for Economic Co-operation and Development (OECD) (2000). "OECD study highlights role of small and medium enterprises in job creation", available at: [www1.oecd.org/media/publish/pb00-11a.htm](http://www1.oecd.org/media/publish/pb00-11a.htm) (accessed 8 August 2004).
- Oso, W. Y., and Onen, D. (2008). *A general guide to writing research proposal and report. A handbook for beginning researchers* (2nd Ed.). Kampala; Uganda: Makerere University Printery.
- Otunga R, Opata G and Nafukho – Muhia F (2001), "Women Entrepreneurs in Eldoret Town: Their Socio – Economic Background and Business Performance,"
- Patton, D. and Marlow, S. (2002). "The determinants of management training within smaller firms in the UK. What role does strategy play?" *Journal of Small Business and Enterprise Development*, Vol. 9 No. 3, pp. 260-70.
- Patton, D., Marlow, S. and Hannon, P. (2000). "The relationship between training and small firm performance: research frameworks and lost questions", *International Small Business Journal*, Vol. 19 No. 1, pp. 11-27.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*, Oxford University Press, Oxford.
- Perry, J.L. (1993). Strategic human resource management, *Review of Public Personnel Administration*, 13(4), 50-71.
- Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*, Harvard Business School Press, Boston.
- Prahalad, C.K. (1983). Developing strategic capability: An agenda for top management, *Human Resource Management*, 22(3), 237-254.
- Republic of Kenya (1992). "Sessional Paper No. 2 on Small Enterprises and Jua Kali Development in Kenya." Nairobi: Government Printer, 1992, 85-90.
- Republic of Kenya (2005), 'Sessional Paper No. 2 of 2005: Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction' Government Printer, Nairobi.
- Rutherford and Weller (2002). *Small Business Research and Policy: Linking up Small Business Policy Practice with the evidence base*, Proceedings of the 32nd EISB Conference, CERAM, Sophia Antipolis, and France.
- Small Business Skill Assessment (2004). *Sharing Successful Business Practice. Research Report*, Small Firms Enterprise Development Initiative, Sheffield.
- Storey, D. J. (1994), *Understanding the Small Firm Sector*, Routledge, London.

Storey, D.J. (2004), "Exploring the link among small firms, between management training and firm performance: a comparison between the UK and other OECD countries", *International Journal of Human Resource Management*, Vol. 15 No. 1, pp. 112-30.

Storey, D.J. and Westhead, P. (1997). "Management training in small firms – a case of market failure?", *Human Resource Management Journal*, Vol. 7 No. 2, pp. 61-71.

Storey, J. and Westhead, P. (1996), "Management training and small firm performance: why is the link so weak", *International Small Business Journal*, Vol. 14 No. 4, pp. 13-24.

Temtime, Z.T. (2001). The environmental scanning behavior of small and medium enterprises in developing economies: evidence from Botswana, *Pakistan Journal of Applied Sciences*, Vol. 1 No. 2, pp. 263-9.

Temtime, Z.T. (2002). The planning behavior of SMEs in developing economies: a

# The Eurozone's Future: Nominal, Real and Structural Convergence

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## Abstract

The future of the Eurozone will be determined by the convergence processes. The recent policy steps restored the nominal convergence as the sine qua non of the effectiveness of the common currency monetary policy. The same steps, however, deepened the real divergence. Structural convergence is then proposed as the answer to this conundrum. The term "structural" is then interpreted as the description of the set of preferences, political, economic, social and legal institutions and the associated policies and decisions. Structural convergence then describes the narrowing of the differences between the national political, economic, social and legal institutions, which is expected to bring about the similar if not identical economic results as the response to the Europe wide economic policies. However, the subject is far from simple and it would be naïve to expect the quick results. History and traditions determine political, economic and structural characteristics of the Eurozone's member countries. To overcome history is difficult, but not impossible.

**Key terms:** Nominal convergence, Real convergence, Structural Convergence

## INTRODUCTION

The aim of this paper is to analyze the long term dynamics of the Eurozone with the emphasis on the convergence processes (or the lack of thereof). It is today generally recognized that the growing real divergencies (especially the diverging competitiveness) between the Eurozone members are at the root of the recent crisis and the current growth restoration difficulties. The discussion in this paper looks historically at the dynamics (i.e. the convergence vs. divergence) of both nominal – i.e. the Maastricht criteria, and real variables. Moreover, the recently emerging concept of a "structural convergence" is critically evaluated.

The nominal convergence is the key to the functioning of a monetary union. It determines the effectiveness of monetary policy, especially in the organization like EMU (Eurozone), where the monetary centralization operates in the environment of decentralized fiscal structures, limited fiscal transfers between the participating entities (independent states) and a very limited labor mobility. In such an environment, the diverging trends between the participating entities (states) are unlikely to be compensated for by induced factor movements and/or structural changes (not to mention fiscal transfers etc.), as happens in the similar dynamics within the centralized political entities (individual states).

The real convergence is crucial for the political and social stability, which in turn determines the degree of commitment to the preservation of the common endeavor – i.e. the EU itself.

Finally, the structural convergence determines both the effectiveness of common policies and ultimately the form of the EU commonality itself.

The meaning of the term convergence, the issues associated with its interpretations and applications here are discussed in part II. Measurement issues are elucidated in Part III. Parts IV and V then discuss the dynamics of nominal and real convergencies respectively in detail. Part VI concentrates on a rather controversial subject of a “structural convergence”. Finally, Part VII concludes.

### **THE MEANING OF CONVERGENCE**

The majority of economic literature recognizes the two measurable concepts of the convergence (or the lack of thereof).  $\sigma$ -convergence (sigma convergence) refers to the process through which the variables of interest move (or not) toward a common value (level). An example is the process of the market clearing price determination in a competitive environment. The development economics then constructed the concept of the  $\beta$ -convergence (beta convergence), which endeavors to measure the (changing) distance of a variable like a GDP per capita or a labor productivity from the pre-defined world champion (often the USA).

In addition, the concept of a “structural” convergence is sometimes used. However, here the authors use two different interpretations. Historically, the term “structural convergence” was used to analyze the changes in the composition of economic activities (initially just agriculture, industry and services, later a more detailed nomenclature) over time in the process of economic development. (For more discussion, see Hoehenberger and Schmiedeberg, [6].) Later the term was used to analyze the institutional, political and social dynamism in both geographical and time horizons. (Buti and Turrini, [3], Fatas, [4], Bertoincini et al. [1].)

The subjects of the current discussion are the processes of nominal, real and structural convergencies (or divergencies, as the case might be) among the different countries of the European common currency area, commonly referred to as Eurozone.

The analysis concentrates on the 12 “original” Eurozone countries. These are Germany, Austria, Netherlands, Belgium, Luxembourg, Finland, France, Italy, Spain, Portugal, Greece and Ireland. The remaining today’s Eurozone members (Slovenia, Slovakia, Malta, Greek Cyprus, Estonia, Latvia, Lithuania) were left out of the analysis because of the short period of the membership – hence the short available time series usable for comparison purposes.

The nominal convergencies (or divergencies) are akin to the above mentioned  $\sigma$ -convergence. The subject of interest is whether a predetermined set of variables (basic Maastricht criteria here) tends to move closer together or further apart over time. The importance of the nominal convergence is therefore the same as the importance of Maastricht criteria – to create the environment conducive for the effective discharge of the ECB policy mandate across the whole Eurozone.

Real convergencies are then evaluated by comparing the dynamics of the real GDP per capita, productivity and unemployment for the same countries. Real convergencies resemble the  $\beta$ -convergencies in a sense that they can be interpreted as a (changing) distance from the “best” performing economies. The importance of the real convergence – and especially its mirror image – the real divergence, is more in the social and political arena rather than pure economics. Nevertheless, it is of the key importance. The processes of real convergencies (and more importantly the real divergencies if this is the reality) determine the degree of political support for the European integration in the individual EU countries – the key not only to the EU success, but increasingly to its survival as well.

The question of a structural convergence is then discussed from the standpoints of both the EU and individual countries. The basic question is where should the structural reforms (presumably the precondition for a structural convergence) originate? On the national level, EU level or some combination of both? How is the presumed need for a structural convergence (Buti and Turinni, [3]) related to the *acquis communautaire* and the existing European treaties?

### **MEASURING OF CONVERGENCE (OR DIVERGENCE)**

12 different variables were used, covering a broad spectrum of economic phenomena and activities. (Four for the nominal convergence, eight for the real convergence). Observations are annual, covering the period from 1999 to 2015. Data for the study were obtained from the Ameco, Eurostat and the ECB.

Each data point for each variable consists of 12 observations (one for each of 12 countries). Hence the mean and standard deviation can be calculated for all variables at every data point. The measure of the relative dispersion (the coefficient of variation) could then be constructed for the each variable at the each data point. ( $C_{vit} = \sigma_{it}/\mu_{it}$ , where  $c_{vit}$  is the coefficient of variation for the variable  $i$  at the period  $t$ ,  $\sigma_{it}$  is the standard deviation of the variable  $i$  at the period  $t$  and  $\mu_{it}$  is the mean for the variable  $i$  at the period  $t$ .) However, given the fact that some of the analyzed variables generate negative means for some dates, the standard deviation instead of the coefficient of variation is used below as the measure of dispersion. This choice, albeit inevitable, leads to different scales regarding the measure of dispersion for different variables. Hence the dynamics of different variables cannot be presented in a single graph (see below).

For the each variable the time series defined by the standard deviations over the period of inquiry (1999 to 2015) then describes the dynamics of the dispersion of this variable over time. Indeed, if this dispersion increases, the underlying national economies diverge and vice versa.

### **NOMINAL CONVERGENCE**

The processes of the nominal convergence (or the lack thereof) are analyzed by looking at the dynamics of the four variables forming the backbone of the Maastrich treaty. These are the inflation, budget balances (as the share of GDP), public debt as the share of GDP and interest rates. In the absence of a reliable approach which would facilitate the discussion of a synchronization of business cycles (and hence the symmetry of economic shocks), these variables form the space designed to make it possible for ECB to fulfill its mandate of a low inflation (less than 2% annually across the Eurozone) and stability.

Analyzed countries consist of Germany, Austria, Finland, Netherlands, Luxembourg, Belgium, France, Greece, Italy, Spain, Portugal and Ireland. (See the previous part for reasons for this choice.). Data for the analyzed variables were obtained from the EU's Ameco database in the annual frequency. Standard deviations were calculated for the each date and the each variable,

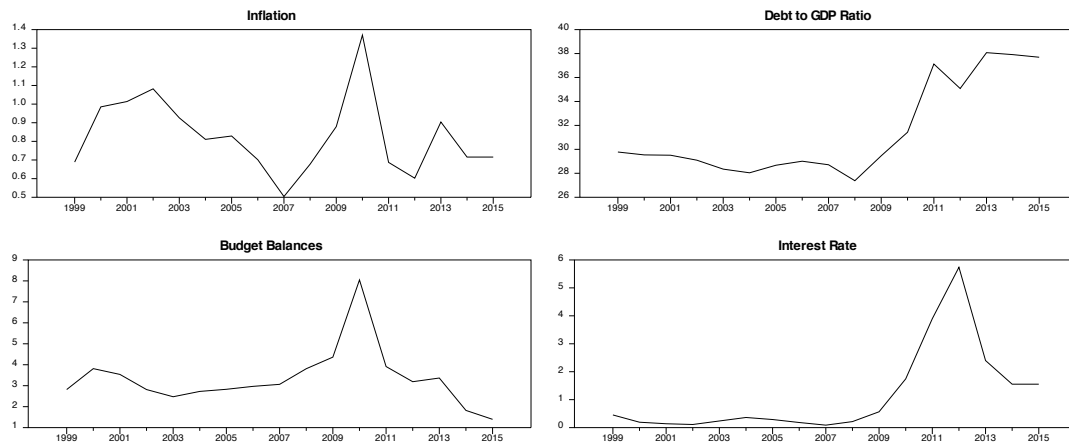
All analyzed variables are defined over the overall period of the Eurozone's existence – i.e. the 1999 to 2015.



The results for the “nominal” variables are provided in Figure 1.

**FIGURE 1**

*Nominal Convergence Variables*



It shows clearly that three out of four analyzed variables of interest converged from the Eurozone inception in 1999 to the onset of the economic crisis. Only budget balances (deficits) started to diverge in 2003 – coincidental with the problems related to the compliance with the original Stability and Growth Pact. (Most of writers date the beginning of the economic and financial crisis to the fall of 2009, when the then Greek Prime Minister Andrea Papandreou revealed the Greek budget difficulties. However, there were crisis indications before. One just should remember the Airbus uneasiness in the spring-summer 2007 or the BNP Paribas temporary close in the summer of 2007). With the onset of crisis the analyzed nominal variables started to diverge. The resulting threat to the common currency prompted the EU and Eurozone’s policy reaction (re-establishment of more binding fiscal rules, intensification of co-operation and supervision and, indeed, the change in the ECB’s approach and operating procedures (OMT). These steps stabilized the situation by 2013, which is indicated by the restoration of the nominal convergence visible in Figure 1 – albeit still less compared to the pre-crisis period. Only variable which continues to diverge is the public debt to GDP ratio – but this can be attributed to the divergencies in the dynamics of GDP. Albeit slowly, the discipline in public finances – reflected by the visible restoration of convergence in budget balances – appears to be restored.

One may conclude that the answers of the European Union and Eurozone authorities, together with the ECB, to the shock of the economic and financial crisis appear to restore the nominal cohesion of the economies sharing the common currency.

### **THE REAL CONVERGENCE**

For many observers, the success of the Euro stabilization (due to the restoration of the nominal convergence) appears to be rather hollow given the persistence of the high unemployment in some EU countries and a rather sluggish overall economic performance post crisis. On the other side, the economic success of Germany (and perhaps few others) cannot be denied. To sort out these questions, we look at the dynamics of the key real variables.

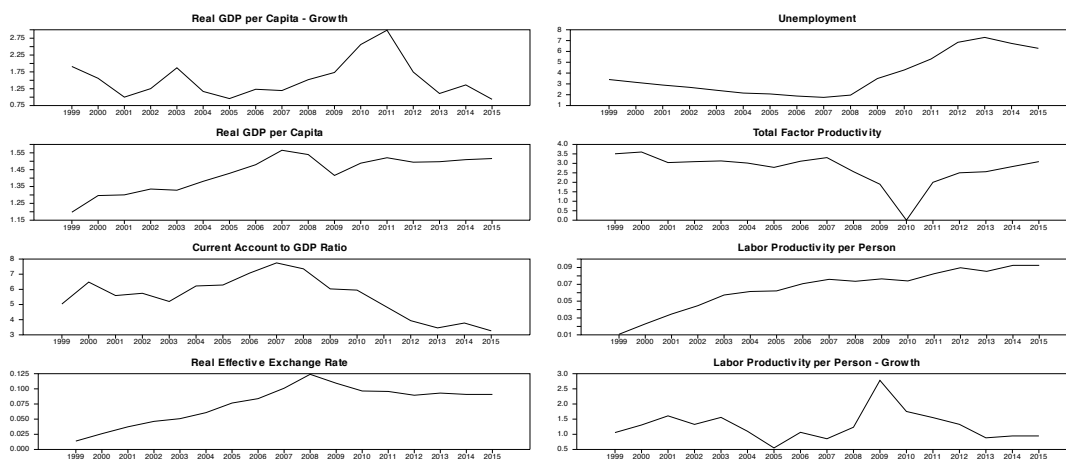
The real variables of interest are the real GDP per capita and its growth, unemployment, the real effective exchange rate and the current account to GDP ratios (the latter two measuring the dynamics of competitiveness), the total factor productivity and the labor productivity per person and its change.

The variables, their construction, sources and the periods covered correspond to the nominal variables discussed in the previous part.

The results are then in Figure 2.

**FIGURE 2**

*Real Convergence Variables*



Simple inspection of the graphs above indicate the growing divergence in the GDP per capita over the whole period of the Eurozone's existence and the unemployment from the onset of the crisis. Rate of growth of the GDP per capita converges – but given the divergent starting point, the latter convergence only increases the overall divergence.

Competitiveness variables (real effective exchange rates and the current accounts to GDP ratios) diverged from the introduction of the common currency. This trend, however, appears to change with the onset of the crisis. Given the fact that the slight improvement in competitiveness indicators coincides with the significant rise of unemployment, the significance and the sustainability of better competitiveness indicators remains a subject of considerable doubts.

This conclusion is only reinforced by looking at the dynamics of productivity. The labor productivity per person displays slowly increasing divergence. The growth of the labor productivity per person converges – but given the initial base this only reinforces the overall divergent tendencies. The total factor productivity showed a slight convergence before the crisis. However, this trend was radically reversed in both crisis and post crisis periods.

It can be concluded that in contrast to the nominal convergence, a divergence is clearly observable among the real variables. Economically it may not be important as long as the nominal convergencies facilitate the ECB policies. However, politically the real divergence constitutes a growing problem.

The issue is indeed the sustainability of the nominal convergence, especially as it relates to fiscal variables – i.e. the budget balances and debt. And is the newly regained competitiveness sustainable given the large and persistent unemployment? Unless addressed, these issues may constitute a significant, and perhaps the ultimate, threat to the Eurozone's cohesion and perhaps even to its existence.

## STRUCTURAL CONVERGENCE

The problems and dangers discussed above are not ignored by European authorities. Their answer appears to be twofold. On the one side steps are taken to increase the European integration by expanding the common economic institutions. The major steps here are the Banking Union (in the process of implementation) and the Capital Markets Union (in the beginning). On the other side is the idea of a structural convergence understood as a process of creating the similar (if not the same) legal and institutional environment in all areas of economic activity in all states sharing the common currency, provided that the autonomy of individual states and hence the existing principles underlying the European treaties are preserved. (Buti and Turrini, [3].)

The political commitment to furthering the processes of a structural convergence as a part of a deepening of European integration processes was announced in Juncker at el. [7].

The empirical studies of the processes of the convergence or divergence of European states preferences, institutions and policies were undertaken (among others) by Fatas [4], Bongart and Torres [2], and Hefeker [5]. The results of these studies are mixed. Biggest problems, indeed, are the metrix and the quantification of the structural “variables”.

Any discussion of the issue is conditioned on the definition of the subject. What is the “structural convergence” or for that matter the “structural divergence”? In this analysis we accept the interpretation of the term “structural” as describing the set of preferences, political, economic, social and legal institutions and the associated policies and decision making processes. (I.e. we exclude the interpretation of “structural” as referring to the composition of economic activities and industries.)

Given this interpretation (which we believe corresponds to the meaning of “structural” in above mentioned Buti and Torrini [3] and Juncker at el. [7]) two types of “structural convergence” actions are possible within the boundaries of the EU and the Eurozone.

One, which could be called the “absolute” structural convergence is the transfer of institutional arrangements, policy formulations and decision-making procedures to the EU (or the Eurozone) levels. Participating member states experience the 100% loss of autonomy in such cases. The history of the European integration can be interpreted as this type of the structural convergence. It includes wide variety of actions, from the “European Treaties” (the Lisbon Treaty of 2009 is the last in the long line of those), binding decisions of the European summits (some may require ratifications by the participating countries) to the EU commission directives and judgements of the European Court of Justice.

Institutional, policy and decision making structures apply uniformly across the participating countries. It can be argued that this process of absolute structural convergence in Europe was rather successful in general terms, even if the lack of a real convergence might suggest otherwise. (It is far beyond the subject of this paper to provide a detailed discussion of the history of European integration. Moreover, the real economic convergence often fails even in the unified national states – Italy is the best known example – where the structural convergence is absolute by definition.)

In the context of the EU and the Eurozone the latest examples of absolute structural convergence are the ongoing projects of the Banking Union and the Capital Markets Union. High hopes are associated with these projects as far as the real convergence is concerned – but results are still in the future.

Second type of a structural convergence addresses the situation when the institutional or policy arrangements in different countries are getting closer together (becoming the "more similar"). But the jurisdiction remains on the national level, with no (or a very limited) common EU action.

The discussions (and sometimes actions) in this area are related mostly to labor markets, business creations and operations environments, and legal structures and procedures. Taxation, health care and education are also involved. The basic idea is the identification and the subsequent emulation of the "best practice" – with the hope that this will contribute to the real convergence and the EU and the Eurozone's political and social stability.

However, several issues should be raised in this context. To start, one may ask about the determination of the "best practice". From the available literature, it appears to be a kind of arrangement which is instrumental in achieving the predetermined goal – be it the growth of the GDP per capita, productivity, competitiveness or the level of employment. But if it is so why not to adopt such an identified "best practice" as a kind of the EU standard – something which would fall under the above discussed category of the "absolute" structural convergence. The lack of the needed political consensus may be the most likely reason – but then why should such steps be taken by individual countries independently?

Second, one may raise the question of the suitability of particular institutional or policy arrangements across the board – a precondition for the convergence. After all there are the reasons – historical, cultural, demographic, perhaps even differences in the climate – why EU and the Eurozone member countries differ and insist on the preservation of significant political and institutional autonomies. Absent this the unified European superstate would be created a long time ago.

And third, there is the question of costs – or more precisely the North – South transfers. It was pointed out that the most successful structural reforms in any European economy – the German Hartz IV package of labor markets and welfare reforms – was only made possible by Germany violating the original Stability and Growth pact in 2003 and 2004. One would assume that similar reforms introduced in the states of the South (the approach often advocated) would be costly and would require the EU's – i.e. the North – financial support. And in the current circumstances this is far from certain.

Hence: structural reforms – i.e. the structural convergence – are indeed useful and if designed thoughtfully they may be the key for overcoming the real divergence. However, the subject is far from simple and it would be naïve to expect the quick results.

## CONCLUSION

Whereas the recent EU measures largely restored the nominal convergence, the real convergence still remains at best problematic. In addition, the challenges of the structural convergence remain significant. As recent developments demonstrated, unless addressed, the divergence trends may constitute a significant, and perhaps the ultimate, threat to the Eurozone cohesion and perhaps to its existence.

## References

1. Bertoincini, Yves, Enderlein, Henrik, Fernandes, Sofia, Haas, Joerg, Rubio, Eulalia (2015). Improving EMU. Policy Paper 137, Jacques Delors Institute, Berlin, Germany. June 15th.
2. Bongardt, Annette, Torres, Francisco (2013). Forging Sustainable Growth: The Issue of Convergence of Preferences and Institutions in EMU. *Intereconomics*, #2, pp. 72-77.

3. Buti, Marco, Turrini, Alessandro ((2015). Three waves of convergence. Can Eurozone Countries start growing together again? VOX CEPR's Policy Portal, April 17th.
4. Fatas, Antonio (2015). The Agenda for Structural Reform in Europe. Presented at the Conference Growth and Reform in Europe in the wake of Economic Crisis, Bank of Portugal, Lisbon, Portugal, and May 9th.
5. Hefeker, Carsten (2013). The limits of Economic Policy Convergence in Europe. *Intereconomics*, #2, pp. 83-87.
6. Hoehenberger, Nicole, Schmiedeberg, Claudia (2008). Structural Convergence of European Countries. Discussion Paper No. 75, Center for European Governance and Economic Development Research, Georg-August-Universitaet Goettingen, Germany, July
7. Juncker, Jean-Claude, Tusk, Donald, Dijsselbloem, Jeroen, Draghi, Mario (2015). Preparing for Next Steps on Better Economic Governance in the Euro Area. Informal European Council, Brussels, Belgium, February 12th.

# Impression Management and Organizational Performance in the Fast Food and Restaurant Sector in Nigeria

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## Abstract

**This study examined impression management practices in work organization and their link with organizational performance in the fast food sector. Impression management construct was examined with its adapted dimensions and it was also the case with organizational performance. The structured survey instrument was used to generate data from the sampled managers. The analysis of data shows a positive but moderate link between impression management and performance of firms measured by market size and profitability. It was also found that up to 34.5% of variability in performance is predicted by impression management practices and information balancing and imaging are two components of impression management with highest weights = 0.442 and = 0.318 respectively on the performance of firms in the sector. It was concluded that impression management practices are considered strategic actions that influence performance of organization in terms of market share and profitability therefore it is recommended that operators in the sector should ensure information balancing and positioning as a means of ensuring continued customer patronage through impression created.**

**Keywords:** Impression, Management, Information balancing, Information sifting, Imaging, Information mopping.

## INTRODUCTION

Much of reassuring scholarly efforts have been shown in relation to performance of organizations (Link & Wang, 2006; Kukar-Kinney, Walter & Mackenzie, 2007, Kukar-Kinney, Ridgway & Monroe, 2012).. The robust nature of the attention on performance can be explained when viewed against the back drop of both employees and organizational owners who invest their energies and other resources of high value with a view to expecting premium returns as benefits. Achieving the performance goal of organizations according to Banjo (2008) require valued actions and activities which are strategically directed and coordinated. These actions and activities are also contextualized considering the varying characteristics of the different environment in which business operates. Batz and Ellison (2012) had argued that while views on performance are properly canvassed, contributors are required to channel much of the effort at performance stimulating strategies and processes. It is believed that this will help to channel resources appropriately and achieve the desired goals and ensure sustainability. In line with this thinking, there is huge evidence in literature Gilley et al, (2009); Demison (2007); Omar et al (2008); Jaros (2010) that has considered employee competencies, technology and finance as key to the performance goal. Although this perspective does not necessarily relegate other thoughts, attention is needed in terms of strategic organization

driven behaviours that are considered deliberate macro actions for optimal performance. The need for such macro driven actions is heightened due to increased level of competitiveness which has also arisen from prompt desire to expand and grow the economy. As earlier noted, deploying strategies for achieving goals is key and one of such strategic attempt according to Bwalya and Kay (2010) is that firms ensures favourable impression among their employees, competitors, customers and other publics with a view to creating a positive psycho-emotive attitude that garners commitment from employees, improve patronage from customers and affective cooperation from stakeholders. This simply means that managing impression by organizations could be termed as value adding and focused at maximizing organizational potentials for achieving performance goals. This study attempts at examining the empirical link between impression management and performance of organizations in the fast food and restaurant sub sector of the Nigerian economy. The sector undoubtedly is evolving fast with accompanying market challenges. The market size though expansive can only be acquired through strategic actions that are targeted at goals. The construct has been operationalized based on extant literature (Kramberg, 2008; Philemon, 2005; Schwartz, 2005; Johnson, 2010; Jero, 2010) in order to show the relationship between impression management and performance using contextualized measures.

### **JUSTIFICATION**

There are concerted efforts at the micro and macro levels of society aimed at improving the effectiveness and efficiency of organizations. On the side of government, economic policies are redesigned to fast track development in the various sub-sectors, of which, the fast food sector is one. As noted elsewhere, the attainment of these goals can only be realized through a holistic attention that captures all the components which includes behavior of workplace actors. In other words a deliberate examination and analysis of behaviour will create for better understanding of how they are likely to influence goals. This research outcome expectedly will provide industry operators with requisite knowledge on behavioural dynamics that are likely to stimulate desired outcomes. We are also aware of the emerging nature of the fast food and restaurant sector in which this study is carried out. The marketing challenges that relates to acquiring and sustaining market share as a performance measure are outstanding therefore need to be understood for strategic advantage.

### **OBJECTIVES**

This study is generally aimed at explaining the link between impression management and its components and performance of organization. Specifically, the study examined the extent to which information sifting, imaging, information balancing, and information mopping dimensions of impression management relates with performance in the fast food service sector.

### **LITERATURE REVIEW**

#### **The Concept of Impression Management**

The theory of impression management either at micro or macro levels of work has been vastly discussed (Misah, 2000; Robo, 2000; Carthy, 2007; Barclary, 2011; Gabon, 2011). An interesting aspect of the discourse so far is the variegated conceptualization that often times place limitation on its acceptance on the one hand describing it as dysfunctionally manipulative at the expense of one of the parties and on the hand viewed as functional since it is goal directed. In other words, it meander's the initiators towards achieving some intended goals. Balda & Kellyn (2008) position on impression management however gave a concise understanding as they descriptively capture the character of the concept in capsule. Impression management according to the author, is a strategic maneuver, for a competitively tensed environment; the initiator has one intention; I must be appreciated and patronized'. The

realization of work place objectives requires creating impressions that are deemed to be favourable and attractive. Philemon (2005) is of the view that it is a behaviour channeling practice with a view to channeling interest in a manner favourable to impressionist Hoyer, and Jay (2009) have considered impression in the light of Yamarino and Danserau (2008) strategy description. Importantly, they argue that it is a strategy that has the marketing function in focus when chosen at the macro level of the firm to attract and sustain desired market share. In operationalizing strategy conceptualization, they held strongly to actions that create and emphasize the product within the mental domain of customers for favourable patronage. While this view holds; impression management at the level of managers, is deployed by managers as conciliatory measure for managing the inherent diversity of interest of employees and other stakeholders alike. Infact, Watts and Zimmerman (2000) observed that in accounting reporting, managers apply impression management skills to attract owner's interest and conceal dwindling performance symptom. It helps to evade negative impressions that, will affect the concrete or psychological fit of the owners. Kumar & Shar (2004) in his discourse on organizational politics noted that managers place positive information in prominent location and will repeatedly do so to reinforce what the positive information attempts to achieve. The study outcome highlights the existing position of Brenan. Impression management has remained a managerial strategy to ensure optimal productivity while at same time ensure commitment to goals. Schwartz (2005) however argued that impression management practice as a dimension of organizational performance is quite misleading on the long-run in some instances. This he believes is the case in an environment that is highly unpredictable for managers and information is easily assessed to defray the asymmetries which were earlier noted.

Essentially, Lin & Wang (2006) viewed impression management as a multi-dimensional construct and further argue that the multi-dimension varies across context which showcases its presence in social psychology and organizational behaviour discourse and stretched into strategy domain. The dimensions according to Lin & Wang (2006) which were also amplified and validated in Kim & Seock (2009) include information sifting, information balancing and information mopping. Johnson (2010) also discussed impression management as imaging and viewed it as a concrete expression of the construct. This study has considered these multi-dimensions presented and constitute the conceptual premise for it.

### **Information Sifting and Organisational Performance**

Information sifting according to Prackard (2009) presents impression management as an attempt to check and critique available information by managers and make available to target to intended audience or stakeholders that which can be favourably assimilated. It provides the right amount of information that is satisfying to customers, employees and directors (owners) of the organization. Robo (2000) viewed it as classified approach to information management that helps organizations and institutions to make available positive information that are likely to attract interest and patronage. Conversely, Beranaye (2010) argue that information sifting practices that creates positive impression has been used in accounting practices thereby showcasing unethical attitude that is misleading. He further noted that its long run outcome undermine the short term positive outcomes. This suggests caution in its applicability as an aspect of impression management that is likely to assist in garnering desired goals. Therefore it is hypothesized thus:

**Ho1:** Information sifting does not significantly relate with organizational performance.



### **Imaging and Organisational Performance**

Impression management as conceptualized is an attempt at setting favourable images within the mental domain of the targeted persons which is expected to generate in turn a behaviour that meets the expectation of managers or other impressionist as the case may be (Jansson-Boyd, 2010). In Johnson (2010) view, it is imaging that is at the core of the impressionist thinking. Attracting customer in competitive markets in his thinking require images that are capable of enlisting and sustaining customer attraction to the organization. Imaging set the ground for strategic advantage through its capacity to examine customer groups and functions for attraction and necessarily create reassuring and reliable impression about the organization. The argument here presents imaging as a component of impression management that has the capacity to channel intending customers or other external stakeholders to show interest and sustain commitment to a brand. Again Anyanwu (2005) had reiterated that contemporary marketing practice of emerging market participants are likely anchored on imaging which according to him is the ultimate objective of the physical evidence that is best represented by the level of concern for aesthetics in offices and operational facilities. Image impression is thus created with a defined objective of attracting patronage. Lawson (2010) is of the view that often times, imaging is an ironical representation that is targeted at misrepresentation of the real content or the product features. In otherwords, imaging can be contextually misleading thereby resulting to longterm non-realization of marketing objectives and overall goals. This position likely creates a conceptual redirection on the gains of imaging as an aspect of impression management therefore we hypothesized thus:

**Ho2:** Imaging does not significantly relate with organizational performance

### **Information Balancing and Organisational Performance**

Sandin (2011), Jao (2011), Bartz and Ellison (2012) have all noted that firms within a volatile competitive environment are often enmeshed in information acquisition and management challenge. In order to gain competitive advantage, the thrust of their impression management strategy is in their capacity to undertake information balancing. In their view, information balancing will require that they are consistent in providing their target customers and stakeholders the necessary information that prompts quality and rational patronage decisions. It is a strategic recipe that promptly make available desired information as information is unevenly reeled out by competitors especially where there are turbulent and rivalry marketing practices and unethical marketing behaviour among rivalry firms. Information balancing according to Gheli (2010) ensures that the asymmetries in information resulting from the many attempts at strategic and competitive advantage of firms through rivalry practices are reoriented through balancing with a view to attracting markets. All the same while information balancing is believed to be concretely reassuring and formative in approach, Barclay (2011) argues that information balancing can be seen to be conceptually speculative rather than definite as an impression management component. They believe balancing may be seemingly impracticable as competitors strategically improve on the volume of information they require to get their targets interested in their firms. But this is however contestable as the concept of rationalization points to the ability of such targets to rationalize and assimilate the aspects of information that best serve their interest and perhaps patronage. The ambidexterity that is associated with impression management practices is emphasized in this conceptualization therefore its implication on achieving desired organizational goals in terms of performance is necessarily determined and we hypothesize thus:

**Ho3:** Information balancing does not significantly relate with organizational performance

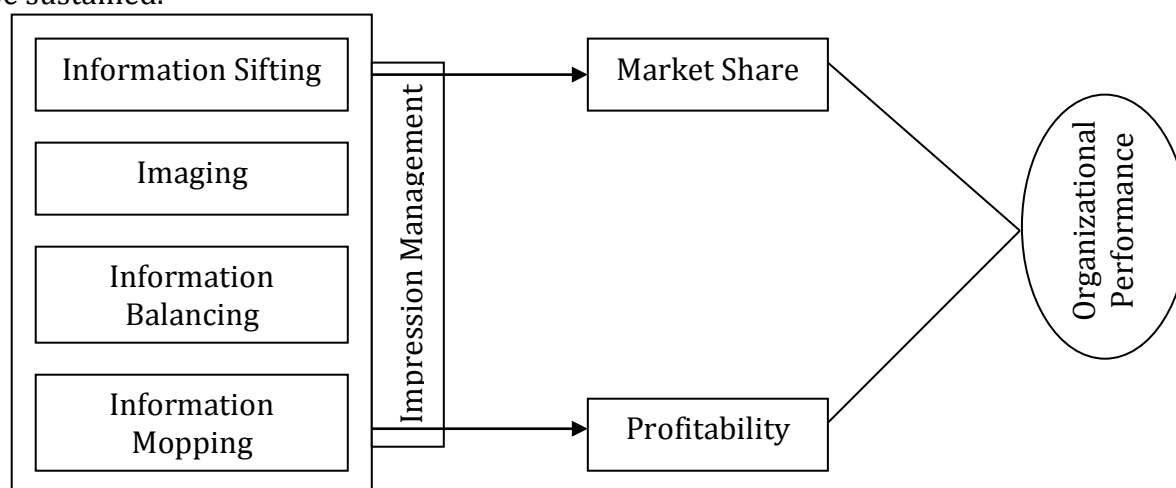
## Information Mopping and Organizational Performance

The literature on information mopping so far typifies lucidly the concreteness of the concept of impression management in challenging desired outcome through the initiators overt actions. Eagede (2007); Demuson (2007); Maria et al (2010) holds strongly that information mopping by impression managing organization does not necessarily defray the volume of information that guides ready market decisions, rather it provides targeted information for prompt market decision while at same time helping to protect the cooperate integrity and image that is needed for continued patronage. For instance, Jero (2010) argued that when firm mop-up opposing information about a product, there is likelihood of getting perspective customers attracted to the product. Ganere (2009) observed that information mopping portent the tendency of misleading decision information makers while at same time encouraging acceptance as those that accept full short of other vital elements of the information needed for quality decision. Baranaye & Agoma (2011) argued that information mopping practice objectively conducted by managers to surreptitiously create a market that also require consistency in information balancing. Information at this point according to the authors is scarcely provided to the targeted audience and this makes it increasingly difficult to be swaged from the product. Impression management as suggested here is conceptually entangled with the objective of providing a short-term lee-way for market positioning of firm and may likely require attendant strategies for sustainability. Infact Billoway (2010) had a contrary position in relation to its capacity to acquire and sustain markets. His thinking is prelimited on the landlocked information flow behaviour that characterized a particular industry and communication infrastructure that determines velocity of information flow. Importantly this views as expressed reminisce a dysfunctional perspective in relation to the impression management construct that deliberately and perceptibly sharpen and channel behaviour toward improved markets and profitability therefore it is hypothesized thus:

**H04:** Information Mopping does not relate significantly with organizational performance.

### Proposed Model

Fig 1 represents the hypothesized model linking impression management component of organizational politics and organizational performance. The proposed model re-examined extant research and theory through a renewed thinking on organizational politics hitherto seen as dysfunctional behavior that has shown consistent negative association with work place outcomes (Misah, 2000; Balson et al, 2007; Cathy, 2007; Jenson & Lemila, 2010). Performance here has been viewed as a set of outcomes desired by the firm which when attained also need to be sustained.



**Conceptual model of the. Relationship between Impression Management and Organisational Performance**

## METHODOLOGY

The research adopted a positivist philosophical approach. In view of this it has applied a quantitative method of dealing with the variables examined in the study which constitutes the basis for theory building. The questionnaire has been strongly recommended as a survey instrument that generates data for analysis (Yin, 1994, Creswell, 2006). Using a survey instrument titled Impression Management Perspectives and Organisational Performance (IMPORP), data were obtained from 28 managers within the sector. The survey instrument was electronically mailed having identified the sampled managers. They were allowed two weeks to respond and perhaps ask questions to seek clarifications where necessary (Basil, 2008).

## DATA COLLECTION

The data collection exercise for this study was seemingly problematic as operators in the sector were initially not cooperative since some of them believed that the issues raised in the study may likely affect their customer mobilization rate. However, with consistent visit and reassurance on ethical conduct and appeal we got them to participate interestingly in the study. The attempts of data generation for the mentioned reason lasted for 2 months. When we eventually got their consent to participate, they were given 2 weeks to respond to our mailed instrument.

## MEASUREMENT

Gabon et al (2011) has criticized and expanded on the theoretical and conceptual basis of Pracad (2009) work on impression management. If the authors work provides the multi-dimension on the construct and had used a 32 item scale in the measuring impression management. Their measurement however validates the 26 item scale of Prackard (2009) which was earlier used on the construct.

In other to ensure appropriate measurement, we have adapted the comprehensive Gabon et al (2011) 32 item scale. All of these were previewed on 5 points Likert's scale of Strongly Agree  $\pm$  5 to Strongly Disagree = 1.

## RESULTS

**Table 1: Pearson Correlation Matrix for Impression Management and Organisational Performance**

	1	2	3	4	5	6	7
Information Sifting	1.00	.25**	.46**	.23**	.36**	.64**	.23**
Imaging	.25*	1.00	.33**	.48**	.28**	.35*	.41**
Information Balancing	.46**	.33*	1.00	.26**	.51**	.30**	.62**
Information Mopping	.23**	.48**	.26**	1.00	.21**	.20**	.28**
Market Share	.36**	.28**	.51*	.21**	1.00	.37**	.21**
Profitability	.64**	.35*	.30**	.20**	.37**	1.00	.62*

**\*\* Correlation is significant @ 0.01 level (2-tailed)**

**\* Correlation is significant @ 0.05 level (2-tailed)**

The Pearson Correlation outcome on the dimension of impression management and organizational performance examined are positive and significant except in the case of information mopping and profitability which is negation but also significant at  $< 0.01$ . This gives support to the stated hypotheses Hoi, Ho2, and Ho3. In the case of H04, the relationship between the dimension and the performance measure of profitability was inverse but significant.

Ys =

Where

Ys = Organizational Performance

= Constant (coefficient of intercept)

X1 = Information Sifting

X2 = Imaging

X3 = Information Balancing

X4 = Information Mopping

- - - = Regression Coefficient

**Table 2(a): Coefficient from Regression Analysis of the Studied Variables Model Summary**

Model	R	R <sup>2</sup>	AdjR <sup>2</sup>	Std Error Est	F. Charge	Sig
1	.588	.345	.334	.7562	46.254	.000

**Table 2(b) Coefficients (a)**

Model		Unstandardized Coefficient		Standardized Coefficient		Sig	V/F
		Beta	Std Error	Beta	T		
1	(Constant)	1.489	509		2.942	.004	
	Ins	.401	.081	.008	-.090	.926	1.637
	InB	.208	.106	.363	4.790	.000	3.266
	Im	-.008	.094	.266	2.454	.015	2.313
	InM	.007	.085	.016	.080	.00	1.833

**Dependent Variable: Organizational Performance**

In order to predict the goodness of fit of the regression model, the multiple correlation coefficient (R) Coefficient of determination (R<sup>2</sup>) and F-ratio were examined. First the F value of 46.254 (P=0.00) is significant which mean that the results of the regression did not occur by chance which also implies goodness of fit in predicting the variance of organizational performance in relation to the examined components of impression management. The R value of .588 shows a strong positive relationship between impression management and organizational performance. Further, the R<sup>2</sup> value of 0.345 suggests that 34.5% of the variation in performance is explained by impression management. In the regression, the beta coefficients explained the relative importance of the four components of impression management in contributing to the variance of performance. Amongst the four components, information balancing with  $\beta = 0.363$ ,  $t = 4.790$  has the heaviest weight on the criterion variable (performance) and thus is followed by imaging with  $\beta = 0.266$ ;  $t = 2.454$ .

## DISCUSSION

The discourse on impression management has been re-oriented towards finding out its functionality in work organizations with a view to establishing its strategic capacity to enhancing overall performance of organizations. The results of the study have given support to the hitherto conceptual disposition of Kramerberg (2008) that impression management is a deliberate and well coordinated manager's attempt aimed at gaining strategic advantage in the market place. It is found from the study outcome that information sifting holds strong potentials of channeling customer attention to products and in turn ensure increase in market share. Houper (2009) argues that the ultimate goal of managing impression is to attract favourable outcome for the impressionist and it accounts for the tendency to balance information that creates a favourable disposition as expected or targeted. This was the case in

the study through the balancing and imaging practices. The architectural configuration of the physical infrastructure of the fast food operators are characteristically laced with much aesthetics focus which attracts customers. The concrete image of the operators is first captured by customers. Adiele (2000) has emphasized the empirical implications of physical evidence and its relationship with marketing performance. Marinyo & Gbanisola (2000) have also found a relationship between impression management and managerial functionality measured by capacity to optimize productivity from within. This study findings does not show an empirical shift. However, the findings robbed off the common thinking in the works of Habib et al (2004), Dezie and Olalekan (2009) that impression management as a component of work place politics can only be practically functional when aimed at stimulating and sustaining behavioural outcomes that meets desired goals. Vincent (2011) contrastingly argued that the positive outcome of their study notwithstanding, the macro level gains associated with impression management and performance are essentially short-term and cannot be sustained, while this position requires an empirical assertion, our study result has empirically discountenanced the garb of dysfunctionality that has hitherto come with impression management.

### **CONCLUSION/POLICY IMPLICATIONS**

Firms in the highly competitive environment according to Villan (2006) strategically create perceptible impression about wide range of their business activities. The object of such action is to strategically position the firms to gain competitive advantage. In this study, we empirically examined impression management and organizational performance through their dimensions and measures drawn from extant literature on the constructs from the data generated and analysed hypothesis, impression management undoubtedly attracts favourable outcomes in terms of the marketing function and profitability. Essentially, it is noted that whenever impressions are managed by the studied firms in terms of information dynamics and imaging, their targets customers are attracted to have favourable disposition to create impressions hence the patronage level attained. Instructively, impression management reflects a behavioural composition that is aimed at channeling organizational effort at improving level of performance. The findings of the study hold strong implications for operators in the sector. Impression management as a strategic action itself targeted at attracting favourable commitment from targets requires that it should be managed in line with information management practices since information dynamics is the thrust for its practice. The volume of information let out to targeted persons should sufficiently defray the individual belief as earlier composed cognitively.

### **Suggested for Further Studies**

The study findings are ordinarily not exhaustive and absolute as they are contextualized. Therefore, further works are needed on impression management in the banking sector and other financial institution considering the unique nature of their services which are rendered under stringent apex bank control and legislations. It is also necessary to examine the moderating effect of some socio-cultural factors of the environment on the influence of impression management on performance.

### **References**

- Anyanwu, A.A. (2005). Evaluating Impression Management and the Competing Firm, *Journal of Marketing*, 12(11), 308-323.
- Balson, P.; Killby, O.L Pattison, A. and Librand, M.M. (2007), Identification, Transfer and Storage of Knowledge: Retaining Information is Key, *Journal of Knowledge Science*, 16(7). 1051-1067.
- Banjo, O.A. (2008). Managing Customer Loyalty: What Information is Dispensed and Shared? *Journal of Marketing*. 17(8), 281-291.
- Baranaye, O.M. (2010). Creating Knowledge: Does it come with Care, *Managing Knowledge*, 16(4), 511-532.

- Baranaye, O.M. and Agoma, K. (2011). The Complexities of New Technologies and Information Management in ICT Based Organizations, *Information Management Journal*, 11(4), 132-147.
- Barclay, M. (2011). Information balancing: Societal Revaluation and Reorientation, *Information Review*, 6(2), 48-56.
- Bartz, D. and Ellison, N. (2012). Conceptualizing and Managing Impression with Guided Information Seeking Approaches in the Tourist Industry, *Hospitality Review*, 16, 273-283.
- Billoway, J.C. (2010). *The Science of Information Acquisition*, West Richland: Hulp Publishers.
- Bwalya, N. and Kay, E. (2010). The Dynamic Imperatives of Impression Management, *Behavioural Management*, 7(4), 52-61.
- Cathy, P.N. (2007). The Efficiency of Information Management: An Impressionist Approach, *Journal of Management*, 9(3), 63-82.
- Demison, E.B. (2007). *Balancing and Information Consciousness Manogrove*: Erad Inc.
- Eagede, D.W. (2007). Categorizing Information Discourse: Operations and Administrative Contexts, *Journal of Information Management*, 27 (8), 15-37.
- Gabon, N.C. (2011). Changing the Impression: The Customers Feel and Attitudes, *Journal of Behavioural Psychology*, 4(2), 23-38.
- Ganere, A.G. (2009). *Impressions in Bargaining: A Contextualized Approach*, Lagos: Dubin Press.
- Ghali, K. (2010). Managing Knowledge and Information: A Recharacterization and Practices, *Journal of Information Management*, 7(3), 458-472.
- Hooper, Y. (2007). Organizational Communication and Market Competitiveness, *Journal of Marketing*, 5, 195-203.
- Hover, S. & Jay, L.P. (2009). Loyalty, is it a function of store Image or Brand, *Marketing Management*, 39(7), 1237-1244.
- James, E. (2010). Information: Meaning and Value for Competitiveness, *Journal of Competitiveness*, 7(11), 15-23.
- Janson, K. and Lanuila, P. (2010). Which Task First: Managing Information or Knowledge, *Management Journal*, 8(8), 73-86.
- Jansson-Boyd, C.V. (2010). *Consumer Psychology*, Berkshire, McGraw-Hill Book Co.
- Jero, M. (2010). Managing Organization Information: Securing the Sources, *Journal of Information Management*, 6(2), 41-49.
- Joa, K.L. (2011). Information technology and Organizational Reformation: A Taxonomy of the Classical Knowledge Refinement Process, *Innovation Management*, 12(12), 718-736.
- Johnson, F. (2010). The Sustainability of Impression Orientation in Emerging Markets, *Journal of Entrepreneurship*, 16(5), 118-131.
- Johnson, S.B. (2010) *Handbook on Managing Impression for Patronage*, Lagos: Ohioye Press.
- Kim, M.K. and Seock, Y.K. (2009). Impact of Health and Environmental Consciousness on Young Female Consumers' Attitude Towards and Purchase of Natural Beauty products, *International Journal of Consumer Studies*, 33(6), 627-638.
- Kramberg, V. (2008). Practical Approaches to managing Knowledge among Virtual Firms, *Journal of Knowledge Management*, 21(3), 618-633.
- Kukar-Kinney, M., Ridgway, N.M. & Monroe, K.B. (2012). The Role of Price in the Behaviour and Purchase Decision of Compulsive Buyers. *Journal of Retailing*, 88(1), 63-71.
- Kukar-Kinney, M., Walters, R.G. & Mackenzie, S.B. (2007). Consumer Responses to Characteristics of Price Matching Guarantees: The Moderating Role of Price Consciousness. *Journal of Retailing*, 83(2), 211-221.
- Kumar, V. and Shah, D. (2004). Building and Sustaining Profitable Customer Loyalty for the 21st Century, *Journal of Retailing*, 80 (4), 317-330.

- Lawson, S. (2010). Marketing: Can the competitiveness be sustained in Emerging Markets, *Marketing Review*, 17(3), 337-358.
- Lin, H.H. & Wang, Y.S. (2006). An Examination of the Determination of Customer Loyalty in Mobile Commerce Contexts. *Information and Management*, 43(2), 71-282.
- Misah, J. (2000). Acquiring and Securing Information in Public Corporations: A Realist Perspective, *Information Science*, 7(8), 191-204.
- Omar, N.S.; Woody, V.O. and Robert, A.R. (2008). Beyond the Three-Component Model of Organizational Commitment, *Journal of Applied Psychology*, 93(1), 70-83.
- Philemon, A. (2005). Sourcing for Shared Meaning: Cultural Impression at Work Among Miners, *Industrial Archives*, 8(11), 62-76.
- Robo, A.V. (2000). Impression Management Cycle: What You Must Know, *Journal of Innovative Practice and Management*, 8(5), 83-103.
- Sandis, P.P. (2011). The Unresolved Issues of Source, Verification and Information Quality in the Film Industry, *Journal of Hospitality Management*, 19(4), 60-78.
- Schwartz, P.W. (2005). Toward Improving Customer Loyalty and Marketing Performance: A Meta Analysis Approach, *Marketing Journal*, 10(3), 9-23.
- Watts, R.L. & Zimmerman, J.L. (1986). *Positive Accounting Theory*, New Jersey: Prentice Hall Inc.
- Yamarinno, F.J. and Danserau, F. (2008). Multi-Level Nature and Multi-Level Approaches to Leadership, *Leadership Quarterly*, 19, 125-141.
- Yin, E. (1994). *Case Study Research: Design & Methods*, Thousand Oaks CA: Sage Pub.

# **User Satisfaction on Mobile Apps: An Analytical Study on Omani Business Environment**

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## **Abstract**

**Currently numerous mobile apps are available to promote the business activities to the consumers. These mobile apps are developed to reach the customers easily through advanced provisions and technology. This study was conducted to measure the user's satisfaction on those mobile apps in Omani business environment. Irrespective of business activities, mobile apps shall be developed and used in daily business activities. The study revealed that the respondents were highly satisfied with the mobile apps as they provide sufficient timely information about various business activities to the customers. The organizations should motivate the customers to use the mobile apps by removing the business boundaries.**

## **INTRODUCTION**

Mobile apps have become integral part of the business activities in day – to – day business processes. The organizations develop mobile apps with respect to their business activities and promote their business by reaching the customers. The technological development have made the business activities to think in different perspectives to promote their business activities to the customers. The business people have made to develop various promotional activities to maintain the customer's relationship. The customer's expectations on the business activities and their involvement plays a vital role in achieving business motives.

The organizations use different mediums to reach the customers. One such latest approach is mobile apps. The mobile companies provide opportunities to download and install various mobile apps. The mobile phones with more options and apps are highly preferred by the customers. As the customers prefer to use the easy technology to complete their tasks or know about business processes, the organizations have made to utilize the technology to provide such necessary apps.

Sultanate of Oman is a developing nation with such business activities and processes. The mobile apps are used widely in various business activities. Though various studies were conducted with respect to mobile apps in business processes and impacts, a very few literature could be found with respect to Omani business environment. This study was conducted to identify the user's satisfaction on using mobile apps in business activities.

## **LITERATURE REVIEW**

Various studies were conducted by Tsang et al (2004), Leppaniemi&Karjaluo (2005), Drossos et al (2007), Park et al (2008), Mir (2011) with respect to mobile applications and mobile advertisements.



Mort & Drennan (2007) said that the new mobile digital communication technologies increased the opportunities for capitalizing the relationship with customers through enhanced mobile information services. They argued that the customer's involvement in using mobile services depend on personal attributes, innovativeness and self-efficacy.

As Rajan (2009) said, the ultimate objective of business intelligence is to provide quality and timely information which position the company in the market and changes the customer behaviour. Customer's preferences and supply chain operations need to be improved through enhanced communication.

Al-Lonzi and Iss (2011) identified that the trust on the M-Commerce services have significant impacts on the acceptance by the people. Their study also identified that the security and privacy are the significant factors in adaptation of mobile business. Their study recommends that the specialized culture and customized services such as considering religious beliefs and adaptation of Arabic languages will increase the acceptance.

Usman and Mohammed (2012) studied the impact of mobile advertisement and communication. They suggested that the mobile communication and advertisements interact with the customers individually. Apart from that, the relationship between the customers and the organizations shall be improved through such mobile advertisements. Thus the mobile apps have become a medium in marketing mix.

Kosner (2013) said that the profusion of personal mobile devices have changed the customers' expectations. According to him, the most successful apps are the product of continuous exploration and improvement. He said that the apps give opportunities to present the products and solutions to the customers.

Though various studies were conducted with respect to mobile communication, advertisements and applications, a very few literature could be found in Middle East, in particular, Sultanate of Oman. Thus, we have studied the user's satisfaction of users on mobile applications in Omani business environment.

### **RESEARCH METHODOLOGY**

To identify the user's satisfactions on mobile apps in their business processes, a questionnaire was prepared and distributed to respondents. The questionnaire was prepared in bilingual (both English and Arabic) to reach the targeted users. The respondents were clearly intimated about the study and given ample of time to fill the questionnaire correctly. Quota sampling was used to select the users. The questionnaire was distributed to 175 users. 150 responses were collected back. Due to improper fillings and other reasons, 10 responses were not considered for the study. The Cronbach's Alpha reliability analysis showed that reliabilities as: demography (0.985, 5 items), nature (0.957, 3 items) and responses (0.905, 15 items).

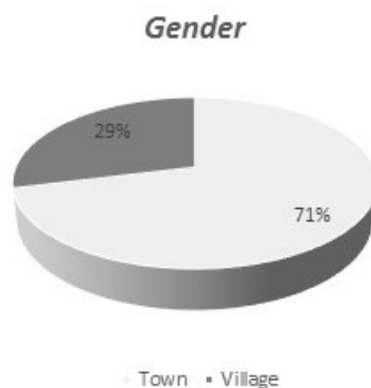
### **DEMOGRAPHIC ANALYSIS**

The respondents were analysed for their demographic profile in 5 different factors. Table 1 shows the age group of the respondents.

**Table 1: Age Group of the Respondents**

Age Group	No of Respondents
Below 20	20
21 – 30	56
31 – 40	42
41 – 50	16
Above 50	4
Total	140

**Fig 1 shows the “Gender” of the respondents**



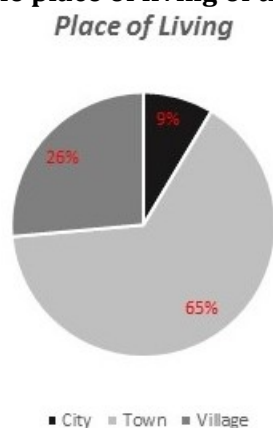
**Fig 1: Gender Analysis of the Respondents**

Table 2 shows the highest qualification of the respondents. The qualification of the respondents was studied to understand their knowledge in using mobile apps.

**Table 2: Qualification of the Respondents**

Qualification	No of Respondent
High School	5
Foundation Level	13
Diploma	22
Bachelor	83
Master	11
Ph.D	3
No Education	1
Others	2

**Fig 2 shows the place of living of the respondents**



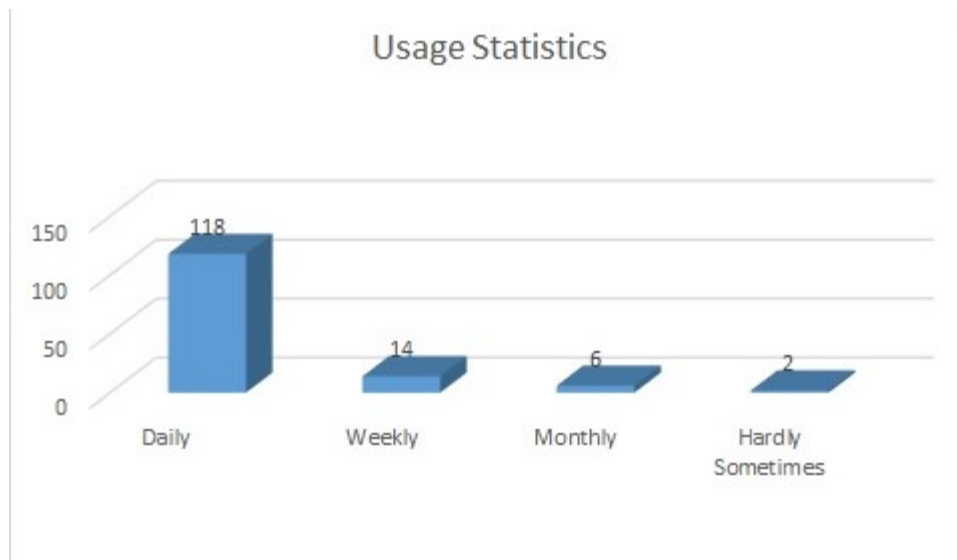
**Fig 2: Place of Living**

The respondents were analysed for occupation and in which department they are working. This was studied to understand the original use of the mobile apps in their day – to – day work and business processes. Also, the respondents were also asked to mention what type of mobile communications they use. Table 3 shows the respondents’ details.

**Table 3: Respondents Nature**

Nature of Use of Mobile Communication	Receiver (Consumer) (70); Sender (Business Users) (40); Both (30)
Occupation	Student only (19); Government Sector (45); Private Sector (69); Own Business (5)
Department	Admin (18); Management (5); Education (25); Technology (21); Marketing (10); Sales (7); Service (6); Production (5); Technical (13); Non Technical (8); Owner (5); Others (19)

As the study needs to know the usage statistics, the respondents were asked to provide information on their regular usage of mobile apps. Fig 3 shows the usage statistics of the mobile apps in respondents’ regular uses.



**Fig 3: Usage Statistics**

**TYPE OF DEVICE**

The respondents were asked to select the type of mobile they use. This analysis was conducted to know the types of apps the customers shall use in their mobile communication. Table 4 shows the type of devices the respondents were holding and using.

**Table 4: Types of Devices**

<i>Type of Device</i>	<i>Number of Respondents</i>
Smartphone	90
Tablets	42
Other	8

**Purpose of Use**

The customers were asked to choose the purposes for which they use these mobile apps. They have been told to opt various suggested options. 88 respondents said that they use mobile apps

for leaning purposes. 115 respondents had selected “Chatting with Friends” option. 40 respondents were using mobile apps to “Check Emails”. 36 respondents said that they were using mobile apps to “Read Newspaper”. 72 respondents selected “General Information Seeking” option. 25 respondents said that they were using for “Video Calling”. 69 respondents said that they are using mobile apps for sending “SMS”. 22 respondents found to use mobile apps for “Location Mapping”. 53 respondents said that they were using mobile apps for “Playing Games”. 66 respondents were using “Social Networking” mobile apps. 36 respondents were using “Media Players”. 47 respondents opted “Teaching Purposes” option. 35 respondents were using mobile apps for “Business Purposes”. 22 respondents selected “Consumer Apps”. 13 respondents were using mobile apps for “Ticket Booking”. 25 respondents found to use mobile apps for “Online Shopping”. 13 respondents selected “Utility Payment” and 14 respondents found to use mobile apps for “Bank Transactions”.

### Reason for Using Mobile Apps

71 respondents said that they prefer mobile apps because of the cost effectiveness. 65 respondents said that they use mobile apps due to its utility purposes. 48 respondents were found to use because of the innovativeness. 29 respondents said that they use mobile apps for sensation. 47 respondents said that they prefer the mobile apps due to self-efficacy. 55 respondents said that they are using mobile apps due to involvement.

### Satisfaction Level on Mobile Communication Services

The major purpose of this study is to identify the customer’s satisfaction on these mobile communication services in their daily business activities. The respondents were asked to provide their opinion using 5 Point Likert scale with 5 for Strongly Agree and 1 for Strongly Disagree. The respondents were asked to provide their opinion for 15 closed end statements related to mobile communication services facilities. Table 5 shows the mean values and the standard deviation of the responses with respect to each statement.

**Table 5: Descriptive Analysis on Responses**

Statement	Mean	SD
Provide sufficient timely information about the business activities to the customers	4.02	0.95
Direct marketing tool to reach the business activities to the customers	3.89	0.96
Shall be modified according to the customers personal profile and interest	3.71	0.99
Motivate the customers towards the business activities	3.75	1.03
Improve the brand image of the business	3.73	0.94
Will increase the reputation of the business	3.85	0.88
Help to achieve maximum returns / profits	3.81	0.94
Remove business boundaries	3.66	1.00
Facilitate interaction with remote customers	3.94	0.96
Help the customers about their utility payments, recurring income	3.94	1.04
It motivates the customers to bring new customers	3.72	1.05
Customer relationship shall be maintained.	3.89	1.09
Service oriented business intelligence shall be developed	3.84	0.98
It increases the company's position in the market.	3.75	0.98
The mobile communication services changes the intention and behavior of the customers.	3.83	1.07

## FINDINGS

From the above analysis, it is evident that 50% of the respondents were consumers. They receive various advertisements and other promotional messages through the mobile apps. 29% of the respondents were found to use mobile apps to send their company's promotional advertisement to the consumers. Even though they are the senders, they receive various business advertisements through the apps they use. Remaining 21% of the respondents were both receivers and senders.

27% of the receivers were students. This shows that they receive various SMS, information and promotional advertisements from the college they study. 17% of the both senders and receivers were doing own business. Nearly 63% of the senders were working in government sector. 57% of the private sector respondents were consumers.

All the students fall into "Others" in department classifications. All respondents opted "Education" were from "Private Sector". The 50% of the marketing respondents were from "Government Sector". The respondents with "No Education" and "Others" found to be from private sector non-technical department. Also 2 respondents found to use mobile apps "Hardly Sometimes" and one was using "Monthly". 5 student respondents have found to use mobile apps "Monthly". All these 8 respondents found to use "Other" type of mobiles.

The customer's satisfaction analysis shows that the respondents were highly satisfied with the mobile apps as they provide sufficient timely information about various business activities to the customers. The primary objective of the business advertisements and promotional materials are to reach the customer on time. Reaching out the customers support the business activities to reach the organizational goals and objectives.

The respondents feel that the mobile apps facilitate interaction with the customers and also help the customers to make their utility payments. All the business respondents have strongly agreed on these two points. As the business motives revolve around the customer relation, most of the respondents agreed that the mobile apps help as a direct marketing tool to reach the customer with the business activities. Apart from that the customer relationship shall be maintained. The CRM is the important factor for business successes. Hence these two factors have third position.

The respondents have given the least ranks to the factors such as motivating the customers to bring new customers, shall be modified according to customers interest and removes business boundaries. Though these factors were given least ranks, none of them have scored less than 3.5 average (More than 70% out of 5 point Likert scale). The standard deviations showed that the responses were not much deviated from the mean values.

To identify the customers overall satisfaction, the respondents were asked to provide their overall satisfaction the mobile apps they use. 20% of the respondents highly satisfied with the current mobile apps. 60% of the respondents were satisfied with the services provided by the mobile apps. 8.5% of the respondents were not interested to provide any information in this regard. 7.2% and 4.3% of the respondents either dissatisfied or highly dissatisfied with the current mobile apps. The study showed that the respondents with "Other" mobile phones were mostly either dissatisfied or highly dissatisfied with the mobile apps. 86% of the tab users were satisfied with the mobile apps. 25% of the smartphone users were found to be highly satisfied with the mobile apps in their daily activities.

## CONCLUSION

To identify the relationship between the factors selected and the overall satisfaction, multiple regression analysis was conducted which showed that all the selected variables have impacts on the customer satisfaction with  $R^2 = 0.996$ ,  $p < 0.001$ . The regression analysis showed that the company's position in the market and developing service oriented business intelligence have close relationship with the customer's satisfaction. The business people should think to increase these satisfaction among the customers.

The above study shows that the mobile apps became important tool in day – to – day business activities. Irrespective of the business processes, the organizations have made to promote their activities through various modes and reach the customers. The mobile apps are the best communication medium to reach the customers easily. Currently most of the apps are available to reach the customers. As Sultanate of Oman has different economic set up, some apps such as taxi bookings, transport booking, online shopping etc are not much introduced and the respondents were not much required those apps.

The organizations and business processes should be developed in such a way that the business boundaries shall be eliminated through these mobile apps. The customers should be motivated to use the mobile apps effectively. The programmers should develop mobile apps even for non-smartphones which will benefit the companies to reach out all the customers.

## FUTURE SCOPE

The study has been conducted by considering the some essential factors. The study may also be further intensively studied with reference to various risks involved in using mobile apps. The study may also be conducted separately for receivers and senders perspectives.

## ACKNOWLEDGEMENT

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## References

1. Rajan, J. (2005). Business Intelligence: Concepts, Components, Techniques and Benefits. *Journal of Theoretical and Applied Information Technology*. 9(1): 060 – 070.
2. Usman. U.M.Z & Mohammed. Z.B. (2012). The Impact of Mobile Advertisement and Communication on Customer Relationship management. *International Conference on Economics, Business and Marketing Management*. IPEDR. Vol 29.
3. Al-Lonzi. B. &Iss. B. (2011). Factors Influencing Customer Acceptance of M – Commerce Services in Jordan. *Journal of Communication and Computer*. 9. 1424 – 1436.
4. Kosner. A.W. (2013). Does Your Business Need A Mobile App? *Forbes*. <http://www.forbes.com/sites/anthonykosner/2013/08/11/does-your-business-need-a-mobile-app/print/>
5. Mort. G.S. &Drennan. J. (2007). Mobile Communications: A Study of Factors Influencing Consumer Use of m-Services. *Journal of Advertising Research*. 47(3).
6. Tsang. M.M., Ho. S.C., & Liang. T.P. (2004). Consumer Attitudes toward Mobile Advertising: An Empirical Study. *International Journal of Electronic Commerce*. 8(3).
7. Park. T., Shenoy. R., &Salvendy. G. (2008). Effective Advertising on Mobile Phones: A Literature Review and Presentation of results from 53 Case Studies. *Behaviour & Information Technology*. 27(5): 355 – 373.

8. Drossos. D., Giaglis. G.M., Lekakos. G., Kokkinaki. F &Stavraki. M.G. (2007). Determinants of Effective SMS Advertising: An Experimental Study. *Journal of Interactive Advertising*. 7(2).
9. Mir. I. (2011). Consumer Attitudes towards M-Advertisement Acceptance: A Cross Sectional Study. *Journal of Internet Banking and Commerce*. 16(1).
10. Leppaniemi. M. &Karjaluoto. H. (2005). Factors Influencing Consumer Willingness to Accept Mobile Advertising: A Conceptual Mode. *International Journal of Mobile Communication*.3 (3).

# An Assessment of the Passengers' Satisfaction from Service Quality of Onboard Employees of Saudi Airlines – An Empirical Study

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## Abstract

**Purpose:** The main objective of the study was to find out the effectiveness of the Saudia crewmembers in delivering services to the passengers. **Methodology:** This is quantitative study based on primary data collected from the passengers of Saudi Airlines. A close-ended structured questionnaire had been distributed randomly. The questionnaire was developed in English and translated into Arabic for high response among the passengers who ever travelled by Saudi Airlines. The researcher used Convenience sampling technique to identify the respondents who came from across the country for counseling classes at college of business and writing their final exams. The study sample size was 400 respondents. **Findings:** The results show that the passengers of the Saudi airlines were only somewhat satisfied not satisfied or highly satisfied. The satisfaction for business class passengers were much less in comparison to economy class passengers, the AlFursan loyalty program members were also comparatively less satisfied than the members, and old passengers satisfaction level was less than the new passengers. **Managerial Implications:** The onboard employees' service quality need to be enhanced in general and specially in the business class to improve the passengers' satisfaction to retain them with Saudi Airlines.

**Keywords:** Saudi Airlines, Saudi Arabia, Onboard employees, Passengers satisfaction, Service quality

## INTRODUCTION

Services are intangible and cannot be inventoried and transported (Karmarkar, 1996) thus produced and consumed at the same time in the presence of the consumer which complicates the marketing of services (Chase 1978), as production and consumption is a spontaneous activity. Services are delivered through an employee of the company, the contact employee represents the entire company, their behavior, knowledge, expertise, skills is perceived by the consumer to be the behavior, knowledge, expertise, and skills of the company. As such the entire company consolidates into an employee. This critical involvement of the employee in service industry enhances the role of service contact employee. The role of contact employee representing the company during the service transaction gets even more critical due to the fact that each consumer's need, want, and demand may differ. The fact that on International airlines passengers are from diverse cultural background speaking different languages, different food, various financial and educational background, therefore more diverse in their need, want and demand. Satisfying such a diverse group of consumers enhances the challenge for the service contact employee, which may be even more in airlines onboard services. Pine (1993) highlighted the fact and said the employees' role gets more challenging due to the fact



that each customer's need and expectation may differ therefore demanding customization in delivery of services to various customers.

Employees' behaviour is defined as various sequences of actions carried out by employees within the organization (Hanna et al., 2004). King (2004) states that negative employees' behaviour has ruined many businesses and cost employers millions of dollars every day. It also has consequence of driving away customers, damaging employees' morality and increasing their turnover assets. Juwaheer (2004) regarded employees as having a greater impact than other factors on customer satisfaction.

In service companies such as the airlines industry the employees are the face of the company, they deliver services to the customers and therefore their behaviour is immensely critical. According to Gwinner et al., 1998) employee's behaviour is important in a service company as they connect the organization with its customers and they represent a critical factor in developing effective working relationships with customers.

A study in UK revealed that 68% of the customers leave because of poor employee attitude, 41% of the employees are loyal because of a good employee attitude and 70% of customer brand perception is determined by experience with people. UK retailer revealed that 1% increase in employee commitment is equal to 9% increase in monthly sales. The behaviour of an employee may help a customer forget lacking in company's physical environment, and at the same time may also ruin the positive impression of the company's great physical infrastructure by his negative behaviour. Thus, the success of a service company strongly depends on the employees of the company. In this research the researcher investigated the satisfaction of the Saudi Airlines passengers with the onboard employees' behaviour.

## REVIEW OF LITERATURE

There are so many studies that show customer's loyalty as a useful tool to further enhance profitability, and this loyalty is generated from satisfaction of customer (Cronin and Taylor, 1992) making Customer satisfaction an important concept in the service literature (Douglas and Fredenall, 2004). It is this reason that all the firm's mission statement mention commitment to enhancing customer satisfaction (Babakus et al., 2004). Customer assess the elements of service and decide whether or not what they received is quality service (Harvey, 1998; Brady and Robertson, 2001).

Earlier studies showed customer satisfaction with the establishment is determined by their satisfaction with the contact employee delivering the service (Crosby & Stephens, 1987; Singh, 1991). Customer's satisfaction with employees affect their satisfaction with the establishment, thus for the customer contact employee is the company, which may draw positive behaviours from them towards the company (Singh 1991). Therefore, employee behaviour is the key element of customer satisfaction.

Employees are the most important resource for any organization, they represent the company to the customers (Paulin et al., 2004) because the customers are present at the time of service production (Chase 1978), delivery and consumption. Employees' behaviour defined as the sequence of actions carried out by employees with the organization (Hanna et al., 2004) significantly influence the customer satisfaction irrespective of their gender, nationality, purpose of visit, number of visits, and length of stay (Hanan et al., 2008). In service companies it is the employee who establishes the relationship between the customer and the company (Bitner, 1995). The study of Brown et al., (1996) concluded that positive employee behaviour

increased customer service satisfaction. The customer contact employee, responsible for the service delivery are critical resource.

The behaviour of the employee includes their responsiveness, smile, personal warmth, personalization, and attitude, problem solving skills, knowledge, language, and cooperation. According to Tahir and Abubakr, (2007) Responsiveness is rated as the most critical dimension of service quality. Jones and Dent (1994) found that a smiling face has a beneficial effect on customer satisfaction. Maybe the smiling face and responsiveness of the employee can help the customers forget any lacking in the infrastructure of the company and even may help forget any incidental bad experience of the customers. Lemmink and Mattson (1998) demonstrated that the degree of personal warmth displayed by service employee toward customers was related significantly and positively to service quality perceptions and customer satisfaction. Kong and Jogaratnam (2007) confirmed that employee personalization and courtesy were significant predictors of customer satisfaction. Customers are very sensitive to employees' working environment in service organizations (Brown and Michell, 1993). It was found that correct match between staff skills and customers' expectations resulted in better service quality towards customers (Gallow and Ho, 1996). Service recovery and problem solving are recognized as important parts of services quality (Hart et al., 1990; Dabholkar et al., 1996; Swanson and Kelly, 2001). Thus, the problem solving skills of the employees are important.

Many literature established that the customer satisfaction is strongly influenced by the interaction between customers and employees (Boshoff & Tait, 1996), therefore, examining employee behavior gets critical. Employee behavior, though, is strongly influenced by the operating organizational culture (Chow et al., 2002; Ferris et al., 1998; Pratt & Beaulieu, 1992; Schein, 1996), "a system of shared values and beliefs that produces norms of behavior and establishes an organizational way of life" (Koberg & Chusmir, 1987). Where the existing literature relates organizational culture and customer satisfaction, those links are either theoretical or indirect (Gowing & Lindholm, 2002; Gupta et al., 2005). Boshoff and Mels (1995) argue that contact employees are uniquely aware of the special challenges posed by customer interaction and that their perceptions of service delivery should receive more attention. Indeed, contact employees' perceptions of service delivery have been used effectively in previous researches (Iverson, et al., 1996; Schneider et al., 1980; Ulrich et al., 1991). However in this study the researcher focusses only of the satisfaction of Saudi Airlines passengers from service quality of its onboard employees keeping the factors such as organizational culture constant. The rest of the paper has been organized in the following order, hypothesis, methodology, empirical results, discussions, conclusions, and implications.

**HYPOTHESIS:** Based on the foregoing literature the researcher in this study proposed the following hypothesis to test from the empirical results.

- H1:** Saudi Airlines passengers were satisfied with the onboard employee's Behaviour
- H2:** Saudi Airlines passengers were satisfied with the onboard employees' Cooperation
- H3:** Saudi Airlines passengers were satisfied with the onboard employees' Knowledge
- H4:** Saudi Airlines passengers were satisfied with the onboard employees' Attitude
- H5:** Saudi Airlines passengers were satisfied with the onboard employees' Language
- H6:** Saudi Airlines passengers were satisfied with the onboard employees' Availability
- H7:** Saudi Airlines passengers were satisfied with the onboard employees' Assistance to families with children
- H8:** Saudi Airlines passengers were satisfied with the onboard employees' Problem solving skills

## METHODOLOGY

**Survey Instrument:** This research is a quantitative study based on primary data collected from passengers of Saudi airlines. The researcher collected data through a structured close-ended questionnaire, originally developed in English and translated into Arabic for the convenience of the respondents, high response rate, and reliability of data as the respondents were predominantly Arabic speakers. Eight variables were identified from literature to represent the various aspects of employee behaviours expected from customers given in table 1. Level of passenger's satisfaction was measured on five point Likert scale. The rating used were 5 to 1 on which, 5 equal to Highly Satisfied, 4 equal to Satisfied, 3 equal to Somewhat Satisfied, 2 equal to Dissatisfied, and 1 equal to Highly Dissatisfied.

**Sampling Technique:** Convenience sampling methodology identified the respondents to administer the questionnaire. The sample consisted of group of individuals pursuing bachelor degree in various specializations in business from College of Business Rabigh, King Abdulaziz University. The respondents came to the campus for counseling classes before the exam and then for the exam. They came from different parts of the country to write the final exam, thus representing almost the entire country of Saudi Arabia. All the respondents were employees in various companies in the country including government and private. The respondents were in all age groups. The researcher administered questionnaires on confirmation that the respondent had travelled by Saudi Airlines. The sample size was 400 respondents.

**Analysis of Data:** Percentage, frequencies, mean and standard deviation were the statistical tools for analysis. For the testing of hypotheses ANOVA and t-test, tested the variance and significance of the results. Cronbach Alpha measured the reliability of data.

## EMPIRICAL RESULTS

To get detailed appropriate results the data had been analyzed across the following parameters namely; reliability test, mean value, frequency, and percentage for the entire respondents, ANOVA analysis across the nationalities – Saudis Vs Non Saudis; experience of travelling by other airlines; Destination of travelling – Domestic, International, and both; years of experience of travelling by Saudi airlines 1 to 5, 6 to 10, and more than 10 years; Class of travel – Business class, economy class and both; membership of Loyalty program – Members of AlFursan and Non-members of AlFursan.

### Reliability of Data

To assess the internal consistency and reliability of the data Cronbach's Alpha was used. Results in Table 1 showed that the collected data was highly consistent and reliable with the value of .924. Pallant (2004) said that reliability scores more than 0.70 are acceptable but in this case, the result in table 1 is very high at 0.924 indicating the high consistency and reliability of data.

**Table No. 1: Reliability Test of Data**

<b>Employees – On Board</b>	<b>.932</b>
Behaviour	
Cooperation	
Knowledge	
Attitude	
Language	
Availability/responsiveness	
Assistance to families with children	
Problem solving skills	

### Passengers' Satisfaction from Service Quality of Onboard Employees

The satisfaction of customers with the onboard employees (crewmember) services of Saudi Airlines is presented in the following two tables namely; table 2, and table 3. Eight variables were analyzed to measure the services of the crewmembers and satisfaction of the customers in this category. The variables were “the behaviour of the crew members, their cooperation, their knowledge, their attitude, their language, their availability in case of need (Responsiveness), their assistance to family with children, and their problem solving skills whenever needed. The results show that for all the eight variables the mean value is above three which indicates the somewhat satisfaction of the customers from the services of crewmembers on board. Table 3 show that more than 60% of the customers were satisfied with the following variables namely; behaviour 69.3%, cooperation 66.0%, knowledge 62.5%, attitude 65.8%, language 61.8%. For the other three variables the percentage is less than 60% such availability of the crew members 49.3%, Assistance to family with children, 57.0%, and problem solving skills only 48.8% were satisfied.

**Table 2: Passengers' satisfaction from service quality of on onboard employees**

Services	N	Mean	SD	HD	DS	SS	S	HS
Behaviour	400	3.86	1.162	27	22	74	135	142
Cooperation	400	3.81	1.129	23	25	88	135	129
Knowledge	400	3.68	1.161	27	35	88	141	109
Attitude	400	3.72	1.200	35	23	79	144	119
Language	400	3.70	1.208	32	28	93	122	125
Availability/responsiveness	400	3.38	1.214	40	46	117	116	81
Assistance to family with children	400	3.56	1.231	36	38	98	121	107
Problem solving skills	400	3.33	1.276	54	38	113	114	81

SD = Standard deviation/ HD = Highly Dissatisfied/ DS=Dissatisfied/ SS=Somewhat satisfied/ S= Satisfied/ HS= Highly satisfied

**Table 3: Passengers' satisfaction from service quality of on onboard employees**

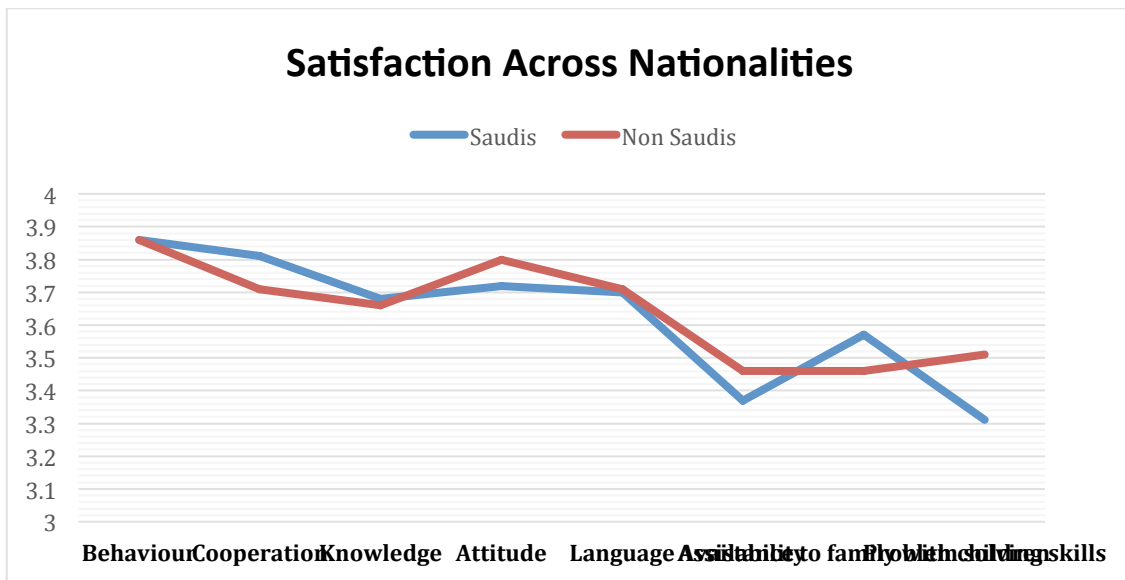
Services	Percentage
Behaviour	69.3
Cooperation	66.0
Knowledge	62.5
Attitude	65.8
Language	61.8
Availability/responsiveness	49.3
Assistance to family with children	57.0
Problem solving skills	48.8

### Passengers' Satisfaction from service quality of onboard employees across the nationality – Saudis Vs Non Saudis

The results in table 4 and figure 1, indicate that there is no much difference in satisfaction of passengers across the nationalities namely Saudis and Non Saudis passengers. For all the eight variables the satisfaction is not much different. However, the mean value in both the categories for all the eight variables under investigation are above 3 indicating somewhat satisfaction of the passengers. The results are not statistically significant.

**Table 4: ANOVA - Passenger satisfaction from service quality of onboard employees across nationalities**

Services	Saudi			Non Saudi			F	df	Sig.
	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev			
Behaviour	365	3.86	1.189	35	3.86	.845	.000	1	.998
Cooperation	365	3.81	1.150	35	3.71	.893	.247	1	.619
Knowledge	365	3.68	1.181	35	3.66	.938	.009	1	.924
Attitude	365	3.72	1.225	35	3.80	.901	.160	1	.690
Language	365	3.70	1.237	35	3.71	.860	.005	1	.942
Availability/responsiveness	365	3.37	1.237	35	3.46	.950	.154	1	.694
Assistance to family with children	365	3.57	1.251	35	3.46	1.010	.281	1	.597
Problem solving skills	365	3.31	1.300	35	3.51	.981	.844	1	.359



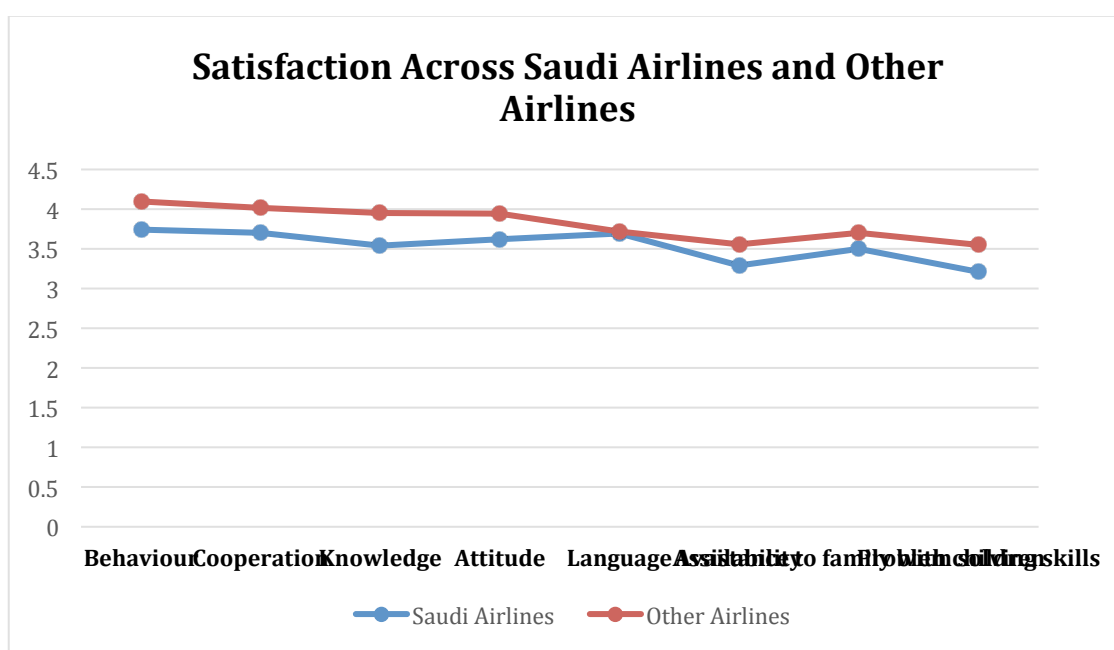
**Figure 1**

**Passengers’ Satisfaction from service quality of onboard employees across the experience of travelling Airlines – Saudi Airlines Vs Other Airlines**

The results in table 5 and figure 2, show that there is difference in satisfaction of passengers who have the experience of travelling by other airlines as well. There were 130 respondents travelled by other airlines. The satisfaction of the passengers travelled by other airlines was high for all the variables indicated by high mean value in comparison to those who travelled only by Saudi Airlines. Though the mean value for all the variables in Saudi Airlines category are above 3 indicating somewhat satisfaction of the passengers it is low when compared to the service quality experience of passengers travelled by other airlines. The mean value for two variables namely behaviour was 4.10 and for Cooperation was 4.02 indicating satisfaction of the passengers. The result for these variables were statistically significant. Satisfaction of other airlines passengers from ‘Knowledge and Attitude’ of the onboard employees were also much high and statistically significant. Except for language were the passengers’ satisfaction was almost same (mean 3.69 and mean 3.72), the satisfaction was high for the other airlines in comparison to Saudi airlines

**Table 5: ANOVA - Passenger satisfaction from service quality of onboard employees across the experience of travelling airlines – Saudi airlines Vs. other airlines**

Services	Travelled by other Airlines 'Yes'			Travelled by other Airlines 'No'			F	df	Sig.
	N	$\bar{X}$	Std. Deviation	N	$\bar{X}$	Std. Deviation			
Behaviour	270	3.74	1.163	130	4.10	1.126	8.544	1	.004
Cooperation	270	3.70	1.138	130	4.02	1.085	6.782	1	.010
Knowledge	270	3.54	1.162	130	3.95	1.116	10.764	1	.001
Attitude	270	3.62	1.201	130	3.94	1.173	6.325	1	.012
Language	270	3.69	1.185	130	3.72	1.259	.031	1	.860
Availability/responsiveness	270	3.29	1.198	130	3.56	1.233	4.341	1	.038
Assistance to family with children	270	3.50	1.206	130	3.70	1.274	2.412	1	.121
Problem solving skills	270	3.21	1.216	130	3.55	1.370	6.276	1	.013



**Figure 2**

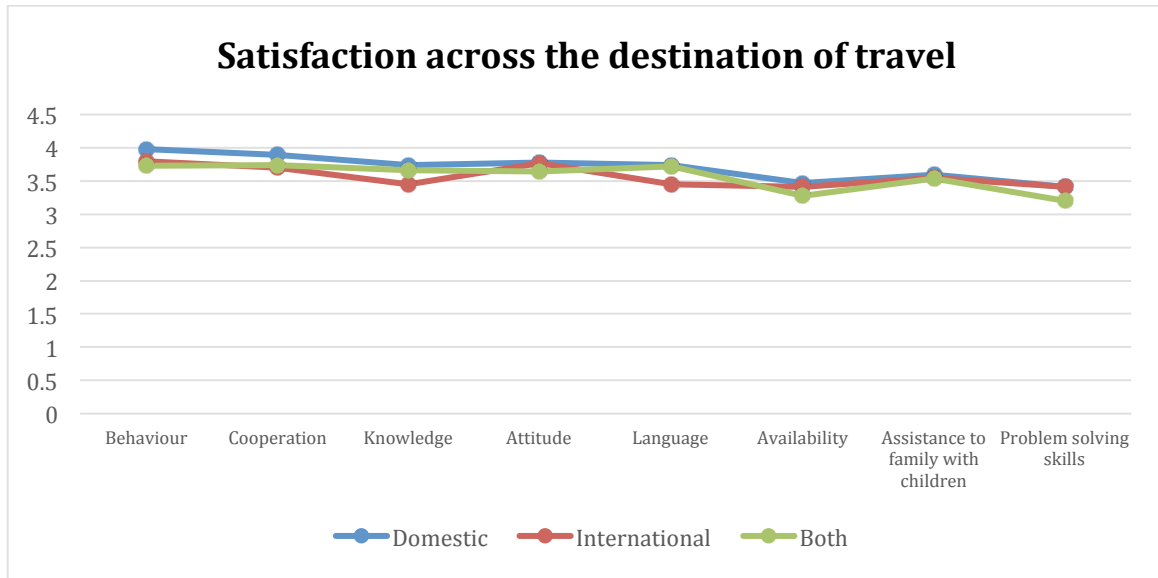
**Passengers' Satisfaction from service quality of onboard employees across the destination of travel – Domestic, International, and Both**

The results in table 6 and figure 3, strongly indicate that there is no much difference in satisfaction of passengers across the destination of travel namely; domestic, international, and both. The passengers in all the three categories have almost same level of satisfaction. The mean value is not much different for all the three categories across the eight variables indicated by overlapping points in figure3. However the results were not statistically significant for all the eight variables across the three categories.

**Table 6: ANOVA - Passenger satisfaction from service quality of onboard employees across the destination of travel – Domestic, International, and Both**

Services	Domestic			International			Both			F	df	Sig.
	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev			
Behaviour	189	3.98	1.137	44	3.80	.904	167	3.73	1.239	2.194	2	.113
Cooperation	189	3.89	1.117	44	3.70	.930	167	3.74	1.188	1.003	2	.368

Knowledge	189	3.74	1.172	44	3.45	1.022	167	3.66	1.181	1.113	2	.329
Attitude	189	3.78	1.199	44	3.77	.985	167	3.64	1.253	.666	2	.514
Language	189	3.74	1.225	44	3.45	1.088	167	3.72	1.217	1.036	2	.356
Availability/responsiveness	189	3.47	1.187	44	3.41	.996	167	3.28	1.293	1.102	2	.333
Assistance to family with children	189	3.59	1.237	44	3.55	.875	167	3.54	1.307	.073	2	.930
Problem solving skills	189	3.41	1.312	44	3.41	1.064	167	3.20	1.283	1.300	2	.274



**Passengers’ Satisfaction from service quality of onboard employees across the years of travel – 1 to 5 years, 6 to 10 years, and more than 10 years**

The results in table 7 and figure 4, indicated an interesting pattern. The grey line in figure 4 represents the satisfaction of those passengers who had been travelling by Saudi Airlines for more than 10 years. This grey line represented by mean value is lower than the other two categories of newer passengers of the Saudi Airlines who had the experience of less than 10 years travelling by Saudi airlines. For language all the three categories of travelers have the same level of satisfaction. This indicates that the old passengers of Saudi airlines are less satisfied compared to newer passengers. The other two categories of passengers are almost the same on satisfaction except for availability, assistance to family with children, and problem solving skills were the new passengers were more satisfied indicated by the comparatively higher mean value.

**Table 7: ANOVA - Passenger satisfaction from service quality of onboard employees across the years of travel**

Services	1 to 5 years			6 to 10 years			More than 10 years			F	df	Sig.
	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Deviation			
Behaviour	165	3.93	1.143	105	3.95	1.172	130	3.68	1.168	2.152	2	.118
Cooperation	165	3.96	1.041	105	3.85	1.158	130	3.57	1.181	4.619	2	.010
Knowledge	165	3.75	1.139	105	3.78	1.143	130	3.49	1.189	2.423	2	.090
Attitude	165	3.79	1.161	105	3.80	1.212	130	3.57	1.232	1.577	2	.208
Language	165	3.72	1.229	105	3.68	1.205	130	3.70	1.192	.033	2	.967
Availability/responsiveness	165	3.60	1.120	105	3.25	1.277	130	3.21	1.243	4.728	2	.009
Assistance to family	165	3.68	1.200	105	3.50	1.279	130	3.46	1.227	1.291	2	.276

with children

Problem solving skills	165	3.48	1.233	105	3.32	1.290	130	3.13	1.302	2.727	2	.067
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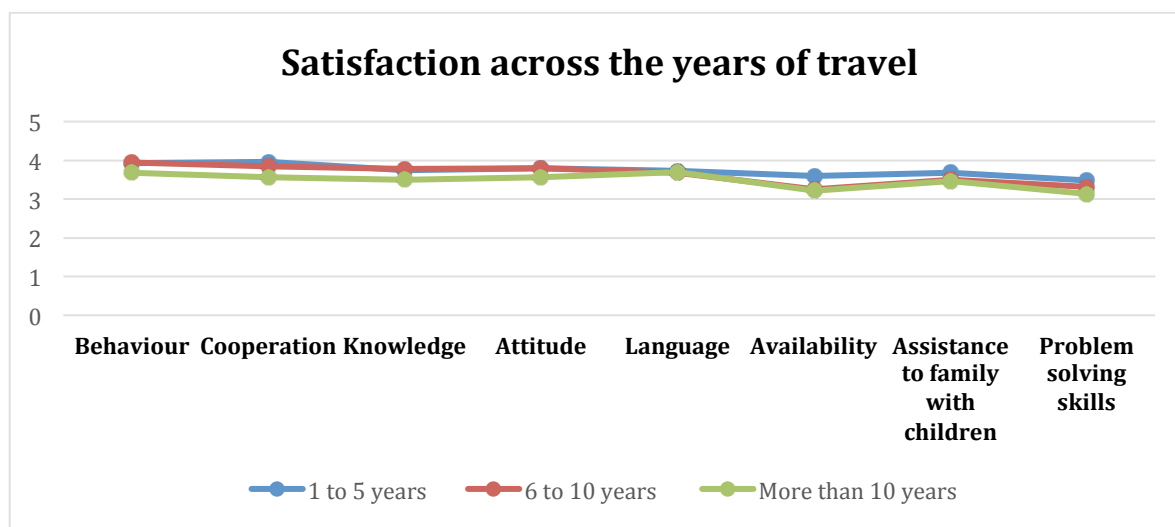


Figure 4

### Passengers' Satisfaction from service quality of onboard employees across the class of travel – Business, economy, and both

Results in table 8 and figure 5, show that business class passengers were comparatively less satisfied than economy class passengers. The business class passengers were more satisfied than the economy class passengers only for the problem solving skills of the onboard employees. For other variables they were obviously and clearly less satisfied. However the difference were not statistically significant.

Table 8: ANOVA - Passenger satisfaction from service quality of onboard employees across the class of travel

Services	Business Class			Economy			Both			F	df	Sig.
	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev			
Behaviour	39	3.54	1.354	229	3.90	1.150	132	3.89	1.116	1.636	2	.196
Cooperation	39	3.64	1.267	229	3.81	1.137	132	3.84	1.076	.481	2	.618
Knowledge	39	3.49	1.275	229	3.64	1.141	132	3.79	1.159	1.229	2	.294
Attitude	39	3.38	1.426	229	3.76	1.158	132	3.76	1.192	1.720	2	.180
Language	39	3.49	1.295	229	3.71	1.194	132	3.74	1.208	.697	2	.499
Availability/responsiveness	39	3.36	1.246	229	3.39	1.229	132	3.37	1.188	.015	2	.985
Assistance to family with children	39	3.51	1.189	229	3.57	1.239	132	3.57	1.237	.035	2	.966
Problem solving skills	39	3.59	1.208	229	3.30	1.278	132	3.29	1.293	.934	2	.394



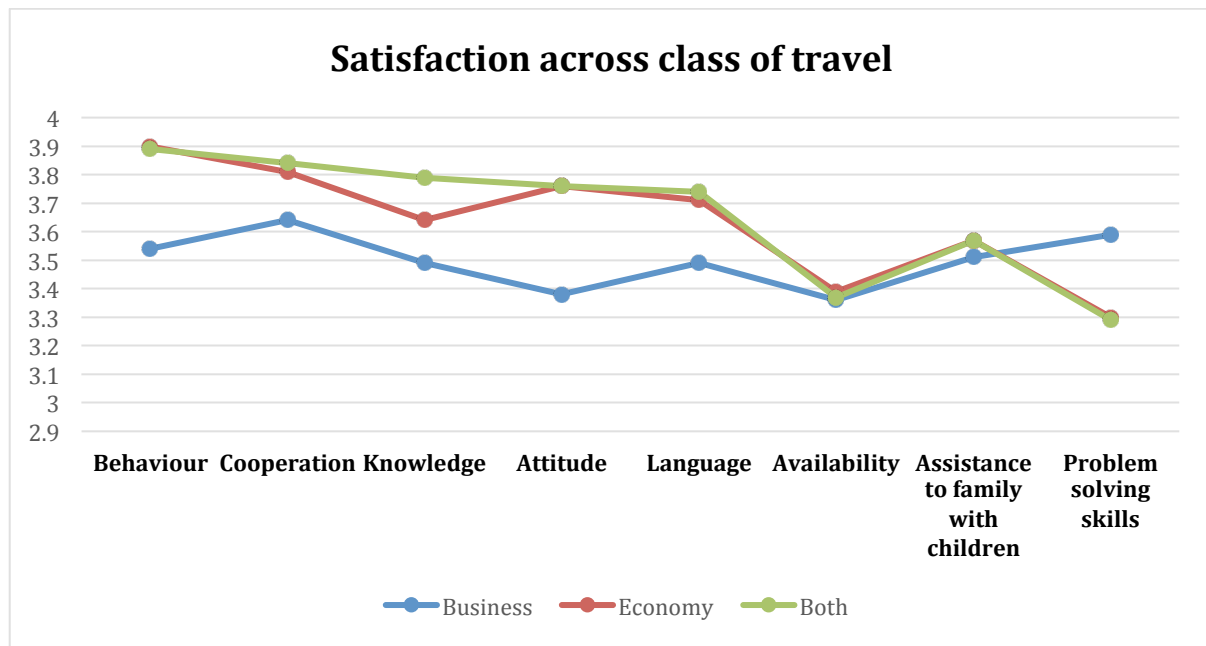


Figure 5

**Passengers’ Satisfaction from service quality of onboard employees across the members of AlFursan and non-members of AlFursan**

AlFursan is the loyalty program of the Saudi airlines, which offers various facilities to the members. The results in table 9 and figure 6, present the satisfaction across the members and non-members of AlFursan loyalty program of Saudi airlines. In both the categories of respondents the mean value for all the eight variables were more than 3 and less than 4 indicating somewhat satisfaction of all the passengers irrespective of members. The difference in satisfaction of AlFursan members and Non-members is not much however there was difference in satisfaction for attitude, language, availability, assistance to families, non AlFursan members were more satisfied than AlFursan members. The results were statistically significant for attitude, language, and availability.

**Table 9: ANOVA - Customer satisfaction on onboard services (Crew members) of Saudi Airlines - AlFursan Membership**

Services	AlFursan Member			Not AlFursan Member			F	df	Sig.
	N	$\bar{X}$	Std. Dev	N	$\bar{X}$	Std. Dev			
Behaviour	169	3.80	1.197	231	3.90	1.137	.603	1	.438
Cooperation	169	3.76	1.141	231	3.84	1.122	.398	1	.528
Knowledge	169	3.62	1.190	231	3.71	1.140	.626	1	.429
Attitude	169	3.57	1.238	231	3.83	1.162	4.526	1	.034
Language	169	3.58	1.266	231	3.79	1.158	2.909	1	.089
Availability/responsiveness	169	3.20	1.207	231	3.52	1.205	6.874	1	.009
Assistance to family with children	169	3.47	1.244	231	3.63	1.219	1.748	1	.187
Problem solving skills	169	3.26	1.329	231	3.37	1.237	.751	1	.387

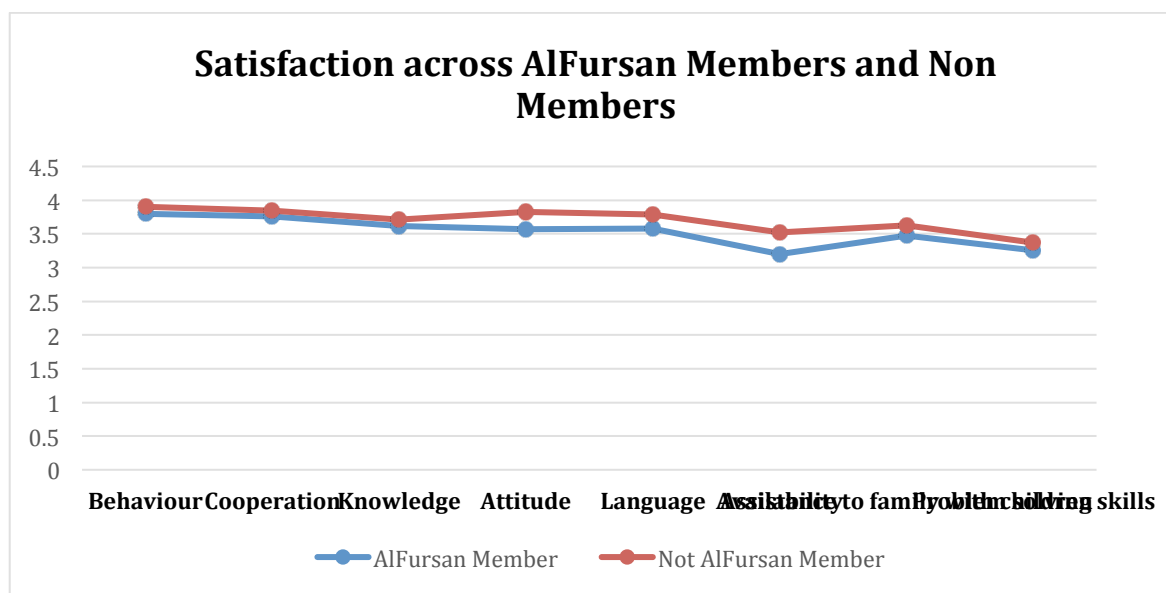


Figure 6

## DISCUSSION

The main objective of the study was to assess the satisfaction of passengers from service quality of onboard employees of Saudi airlines. Eight hypothesis were proposed for test with the primary results drawn from the respondents through questionnaires. T test results in table 10 show the results. In general for all the eight variables the mean value are more than 3 ranging between 3.33 for problem solving skills to 3.86 for behaviour of employees. Thus the eight hypothesis namely H1; H2; H3; H4; H5; H6; H7 and H8 were partially accepted. As suggested by the earlier studies loyalty of customers (passengers) is generated from their satisfaction (Cronin and Taylor, 1992) the current state of somewhat satisfaction of passengers need to be improved to retain them from moving to competitors. According to (Harvey 1998; Brady and Robertson, 2001), customers assess the elements of service and decide whether or not what they received was quality service. Thus, the above assessment of the passengers about the service quality of onboard employees is not very encouraging. The critical role of contact employees in service organization has been well established, according to Crosby and Stephens, 1987; Singh 1991, customer satisfaction is determined by their satisfaction with the contact employee. Paulin et al., 2004 said that employees are the most important resources of an organization as they represent the company to the customers. To clarify it further the passengers in this case see the entire company in the serving employee.

The results in the earlier sections showed that passengers with experience of travel by airlines said that comparatively the service quality of onboard employees of Saudi airlines is less than other airlines as they were more satisfied with the service quality of employees of other airlines. Given the importance of the employees it is critical for issue to be taken care of by the Saudi airlines management to enhance the service quality perception on the one hand and on the other side should improve the comparative service quality.

The satisfaction of the passengers using services of Saudi airlines for more than 10 years are less satisfied as compared to the newer passengers. It is again important that service perceptions of these passengers should improve because they are oldest and customers of the company. As Bitner, 1995 found that it is the employee in the service company who is responsible for establishing relationship between the company and customers. After ten years of service if the passengers are only somewhat satisfied it indicates that employee's failure in providing service quality and their failure to build relation between the company and the

passengers. These passengers may not be the loyal passengers, it is only that they don't have other options to travel and may switch to other airlines on availability.

The results in table 7 showed that the business class passengers were comparatively less satisfied than economy class passengers from the onboard employees. The low satisfaction of the business class passengers can be attributed to number of factors such their own characteristics and high expectations, and also to the performance of employees in business class. The business class passengers are expected to be more educated in managerial positions with high income. The behaviour of the employees include their responsiveness, smile, personal warmth, personalization, and attitude, problem solving skills, knowledge, language, and cooperation. Tahir and Abubakr (2007) rated responsiveness as the most critical dimension of service quality but the results in table 7 show the lowest mean value in business class is for availability and responsiveness. Service recovery and problem solving are recognized as important parts of services quality (Hart et al., 1990; Dabholkar et al., 1996; Swanson and Kelly, 2001) the problem solving skills of the employees in business class were high.

**Table 10: One sample t test - Passengers satisfaction from service quality of onboard employees of Saudi Airlines**

Services	N	$\bar{X}$	Std. Dev	t	df	Sig. (2-tailed)
Behaviour	400	3.86	1.162	14.757	399	.000
Cooperation	400	3.81	1.129	14.257	399	.000
Knowledge	400	3.68	1.161	11.629	399	.000
Attitude	400	3.72	1.200	12.045	399	.000
Language	400	3.70	1.208	11.592	399	.000
Availability/responsiveness	400	3.38	1.214	6.259	399	.000
Assistance to family with children	400	3.56	1.231	9.140	399	.000
Problem solving skills	400	3.33	1.276	5.094	399	.000

### CONCLUSION

From the results and discussions in the foregoing sections it is obvious that the passengers are only somewhat satisfied with the service quality of onboard employees of Saudi airlines indicated by the mean value results ranging between 3 and less and 4. Table 3 showed that only 49.3% of the passengers were satisfied from the 'availability of the crew members', 57.0% passengers were satisfied from the 'Assistance to family with children', and 48.8% were satisfied with 'problem solving skills'. There was no difference in the passengers across the nationalities however the passengers using Saudi airlines for more than 10 years were less satisfied as compared to newer passenger group. Also the business class passengers were less satisfied compared to the economy class passengers. Very interestingly the AlFursan members were less satisfied for few variables in comparison to non-AlFursan members.

### MANAGERIAL IMPLICATIONS

The findings of the study strongly suggest measures needed in improving the customer experience from the onboard employees. First overall level of service quality needs to enhanced, to improve the passengers' satisfaction. Secondly, the business class service needs special attention as their satisfaction was much lower than the economy class passenger. Thirdly the loyalty program membership 'AlFursan' services need to be improved as it does not seem to have much impact on the passengers.

## ACKNOWLEDGEMENT

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## References

- Bitner, M.J., (1995). Building service relationships: It's all about promises, *Journal of the Academy of Marketing Science*, 23, 246-251.
- Brown K.A., and Mitchell T.R. (1993). Organizational obstacles: links with financial performance, customer satisfaction, and job satisfaction in a service environment, *Hum Relat*, 46 (3): 725 – 727.
- Brown, S., Cowles, D. and Tuten, D. (1996). Service Recovery: Its value as a retail strategy, *International Journal of Service Industry Management*, 7 (5), 32 – 46.
- Chase, Richard B. (1978). Where Does the Customer Fit in a Service Operation? *Harvard Business Review*, 56(6), 137-43.
- Cronin JJ, Taylor S.A., (1992). Measuring service quality: a reexamination and extension, *Journal Marketing* 56(3), 55-68.
- Crosby, L.A., & Stephens, N. (1987). Effects of Relationship marketing on satisfaction, retention and prices in the life insurance industry, *Journal of Marketing Research*, 24, 404-411.
- Dabholkar PA, Thorpe DI, and Rentz JO (1996). A measure of service quality for retail stores: scale development and validation, *J. Acad Mark Sci*, 24(1): 3-16.
- Gallow L, and Ho S. (1996). The model of service quality for training, *Training for Quality*, 4(1): 20-26.
- Gwinner, K., Gremler, D. and Bitner, M. (1998). Relational benefits in services industries: The customers' perspective, *Journal of the Academy of Marketing science* 26(2), 101-114.
- Hanna, V., Backhouse, C. and Burns, N. (2004). Linking employee behaviour to external customer satisfaction using quality function deployment, *Journal of Engineering Manufacturing*, 218, 1167-1177.
- Hart CWL, Heskette JL, and Sasser WE, Jr (1990). The profitable art of service recovery. *Harvard Business Review*, 68(4): 148-156.
- Jones, P. and Dent, M. (1994). Improving service: managing response time in hospitality operations, *International Journal of Operations and Production Management*, 14(5), 52-59.
- Juwaheer, T.D. (2004) Exploring International Tourists Perceptions of Hotel Operations by using a modified SERVQUAL approach – A case study of Mauritius, *Managing Service Quality*, 59(2), 71-82.
- Karmarkar, Uday S. (1996). Integrative Research in Marketing and Operations Management, *Journal of Marketing Research*, 18, 125-33.
- Kattara H.S., Weheba D. and El-Said O. A. (2008). The impact of employee behaviour on customers' service quality perceptions and overall satisfaction, *Tourism and Hospitality Research*, 8 (4), 309-23.
- King, C. (2004). *Do It Yourself business plan work-book*, John Wiley and Sons, New York.
- Kong, M. and Jogaratnam, G. (2007). The influence of culture on perceptions of service employee behaviour, *Managing Service Quality*, 17(3) 275-297.
- Lemmink, J., and Mattsson, J. (1998). Warmth during non-productive retail encounters: The hidden side of productivity, *International Journal of Research in Marketing*, 15(5), 505-517.
- Paulin, M., Ferguson, R.J., & Payaud, M. (2000). Business effectiveness and professional service personnel relational or transactional managers? *European Journal of Marketing*, 34, 453-471.
- Pine, B. Joseph (1993). *Mass Customization: The New Frontier in Business Competition*, Boston: Harvard Business School.
- Singh, J., (1991). Understanding the structure of consumers' satisfaction evaluations of service delivery, *Journal of the academy of Marketing Science*, 19(3), 223-244.

Swanson S.R. and Kelly S.W. (2001). Service recovery attributions and word of mouth intentions, *European Journal of Marketing*, 35(1/2): 195-211.

Tahir IM and Abubakr NM (2007). Business students' beliefs in learning mathematics, *Journal Kemanusiaan, Universiti Teknologi Malaysia*.

## **Demand Forecasting In the Maritime Industry, a Case of Maerskline Ghana**

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### **Abstract**

**Demand forecasting is of critical essence to the maritime industry, especially in Ghana. On this note the study sought to achieve among other things by identifying the type(s) of model(s) used by Maritime industry in forecasting their operational demands as well as develop an appropriate forecasting model(s) for this industry using Maersk line as a case. We realized that Maersk line preferred to be responsive and as such incur more cost by underutilizing their capacity. Maersk line Ghana should not use only one model to forecast for both exports and import data. We therefore recommend from our study that the organization should use exponential smoothing model of forecasting to forecast their export data only.**

**Keywords:** Demand forecasting, maritime, moving average, exponential smoothing

### **INTRODUCTION**

Worldwide movement of goods is a critical element in the global freight transportation system that includes ocean and coastal routes, inland waterways, railways, roads, and air freight. However, international maritime transportation is more commonly a complement to other modes of transportation. This is particularly true for intercontinental containerized cargoes and for liquid and dry bulk cargoes, such as oil and grain. Here, international shipping connects roads, railways, and inland waterways through ocean and coastal routes (Corbett and Winebrake, 2008).

The maritime industry plays a very significant role in the socio-economic development of any country. Landlocked countries greatly depend on countries with ports and harbor facilities to either import or export their goods. This means that Ghana stand the chance to rake in additional revenue by serving landlocked countries like Burkina Faso, Niger, Mali and the likes if the country and an agencies like Maersk line Ghana are able to put up with good maritime facilities as well as providing efficient and effective maritime services.

Shipping has been an important human activity throughout history, particularly where prosperity depended primarily on international and interregional trade. In fact, transportation

has been called one of the four cornerstones of globalization, along with communications, international standardization, and trade liberalization (Kumar and Hoffmann, 2002)

The maritime industry includes all enterprises involved in the business of designing, constructing, acquiring, operating, supplying, repairing and maintaining vessels or component parts thereof. It also includes managing and/or operating shipping lines, custom brokerages services, shipyards, shipping and freight forwarding services and similar enterprises. This means that the industry is very wide and can have the capacity to generate a lot of direct and indirect jobs. But the question is that, can Ghana take advantage of the opportunities that abound in the maritime industry?

One of the major reasons why Ghana has failed to take advantage of its ports and harbors in Tema and Takoradi to serve the needs of neighboring landlocked countries is the failure in planning the immediate service provision capacity and assessing the investments required to scale up in order to meet future demands. Good forecasting underpins many of these decisions. In the light of these discussions, there is the need for the service sector, precisely the maritime industry to focus on demand forecasting in order to meet demand. This study concentrated mainly on demand forecasting for the maritime industry.

Demand forecasting is the area of predictive analytics dedicated to understanding consumer demand for goods or services. Many decisional processes, such as capacity planning, inventory management, product development, production and supply chain planning, require forecasting. In recent times, demand has tended to become more variable and uncertain in many services. Managing such uncertain demand has posed significant problems for some industrial sectors including maritime industry.

Demand forecasting is of critical essence to the maritime industry, especially in Ghana, due to the recent discovery and production of crude oil in commercial quantities. Shipping companies will have to forecast accurately in order to make appropriate capacity available to transport the oil. The growth of every industry and survival depends on how well it can forecast demand and make the required capacity available in order to fully satisfy demand. Every economy's growth depends on the development of the industry, and Ghana is no exception.

The maritime industry is not merely a service rendering sector but also an economic management entity whose efficiency is central to effective national development and thus the difficulties encountered in the implementation of demand forecasting and capacity planning, how little or no importance has been placed on the concept, and little studies conducted in this area caused us to research into demand forecasting in the maritime industry using Maersk Ghana Limited as the area of study to assess demand forecasting on their activities and suggest possible ways of improving the adverse effects in the industry.

Essentially, businesses have been concerned about the disruptions that increase travel times between ports and ultimately affect the deliveries in one or more time windows. It is argued that rather than attempt to eliminate delay in maritime industry, policy makers should formulate public policy initiatives that minimize the levels of delays and its undesirable outcomes. The premises for such a policy direction are that to find an optimal schedule for a pool of ships that deliver a product from a set of loading ports to a set of discharging ports such that constraints related to inventory storage at loading ports and contractual obligations at discharging ports are satisfied.

Thus, the central motivation of this research is to contribute to transportation research by advancing knowledge on the underlying causal mechanisms that link forecasting to the shipping activities, the contingency factors that amplifies optimal routing plan that minimizes the total cost of transportation, while satisfying inventory constraints and contractual delivery constraints.

The study then contends that flexible solutions can withstand unplanned disruptions. Therefore we consider disruptions that increase travel times between ports and ultimately affect the deliveries in one or more time windows. On this note the study sought to achieve among other things by identifying the type(s) of model(s) used by Maritime industry in forecasting their operational demands as well as develop an appropriate forecasting model(s) for these industry using Maersk line as a case study. Again, investigating the impact of the maritime industry model(s) of forecasting on their operational activities and then determine the essential link between demand forecasting and capacity planning of Maersk.

## LITERATURE REVIEW

### Supply Chain and Planning

Supply chain planning to a large degree, starts with forecasting. Supply chain planning involves functions such as demand forecasting and planning, distribution inventory planning, and plant capacity planning and scheduling. Supply Chain in the maritime industry is diverse in nature, ranging from high value, made to order items, to low value commodities items (Phelan & McGarraghy, 2006) and this complicates demand forecasting. As such, it not only depends on a variety of macroeconomic factors that are not trivial to predict (oil prices, industrial growth, etc.), but is also heavily dependent on political developments, which are even more difficult to predict (Magirou et al, 1992).

### The Maritime Industry

Maritime transport comprises of the maritime shipping and the ports dimensions, which are the most globalized industry, having assets present in every market. The global market is dominated by a few maritime shipping companies in close relationship with global terminal operators, (Rodrique 2010). The shipping companies are the front-runners of globalization (DNV 2004).

Sletmo (1989) identified four stages in the evolution of shipping, also known as 'waves' of evolution. This has expanded markets for raw materials and final products and has facilitated the industrializations of many countries around the world (Progoulaki, 2005).

### Maritime Industry and its Importance

The maritime industry transports commercial goods more cost effectively than trucks and rails while providing the most environmentally sound mode of transportation. Marine transportation is widely recognized as the most environmentally friendly compared to other modes of freight transportation. In terms of fuel efficiency, for example, water borne barge transportation is 39% more fuel efficient than rail and 370% more efficient than trucks. The same holds true in terms of emissions. Based on ton miles traveled per ton of greenhouse gases (GHG) released, water transportation is similarly 39% less damaging to the atmosphere than rail and 370% less damaging than trucks. The maritime industry is also continually seeking ways to further reduce its environmental impact. Industry initiatives to help protect our marine and ocean environments include the introduction of low-sulfur fuels, shutting down main engines in part to reduce emissions, and working with government officials to establish best navigation routes to minimize environmental impact (Krumwiede & Sheu, 2002). This



sometimes needs specialized containers, such as the high-pressure containers for natural gas (Tseng et al, 2005). A significant contribution from the industry could be seen from Information Handling Services (IHS) (2009), a recognized global leader in economic and financial analysis and forecasting, completed an evaluation of the economic contribution of one of the aspect of the maritime industry-using 2007 as a base year. Key findings includes annual economic contribution of US \$183.3 billion, creation of 4.2 million jobs, US \$27.2 billion in the form of compensation to those employees, direct capital expenditure of US \$29.4 billion.

### **Meaning of Demand Forecasting**

Forecasting generally refers to knowing or measuring the status or nature of an event or variable before it occurs. Knowing the status of the effect is possible only when we know the status of its respective cause or causes, reason being that the effect will occur only when its cause or causes occur (Chendroyaperumal, 2009). Abdul and Chong, (2009) also asserted that demand forecasting includes the prediction, projection or estimation of expected demand of a product or service over a specified future time. Armstrong (2001) as well observed that forecasting is estimating in unknown situation. Prediction is a more general term and connotes estimating for anytime period before, during or after the current one. He concluded that forecasting is commonly used when discussing time series. Simply put, demand forecasting is the process of predicting the timing and amount of future requirements for goods and/or services. Recent definition of Nurrahman, (2012) posited that demand forecasting is the demand for products that are expected to be realized for a certain period in the future. Korpela and Tuominen,(1996) observed that forecasting the demand for products in the immediate future and over longer time periods is one of the most crucial issues in organizations.

### **Importance of Demand Forecasting**

Rowe and Wright (2001) stated that there are two uses of forecasts. One is to help managers plan the system, and the other is to help them plan the use of the system. Huang and Lee (2011) comment that uncertainty is a fact of life and, therefore, a good forecast of future demand is necessary if proper planning for future level of production is to be made. In other words, most manufacturers "make to stock" rather than "make to order" – they plan ahead and then deploy inventories of finished goods into field locations. An order cycle could take weeks or months to go back through part suppliers and sub-assemblers, through manufacture of the product, and through to the eventual shipment of the order to the customer (Caplice, 2003). Further, to raise demand of its product or its market share, a firm can pursue other strategies such as properly adjusting its price policy or model of its product (Chan, 2000). Therefore, forecast of demand greatly helps in business decisions by reducing uncertainty under which firms operate (Wheelwright, 1989).

### **Types of Demand Forecasting Techniques**

According to Jacobs and Chase,(2008)there are basically two main approaches to forecasting that is the explanatory method and the extrapolation method -with mainly two categories of forecasting, that is, quantitative and qualitative methods. Qualitative methods are based on judgments, opinions, intuition, emotions, or personal experiences and are subjective in nature (Whonder, 2009). With the Quantitative methods they are based on mathematical (quantitative) models, and are objective in nature (Armstrong, 2001).

### **Exponential Smoothing**

The most widely used extrapolation method with the possible exception is exponential smoothing. It is sensible in that it weights recent data more heavily and, as a type of moving average, it smoothens out fluctuations. Therefore, this method finds widespread use in the business world, particularly when frequent and automatic forecasts of many items are

required (Anderson et al 2012). Gardner (2006) reviewed the “state of the art” on exponential smoothing. According to Duell (2001), larger alpha values emphasize recent levels of demand and result in forecasts more responsive to changes in the underlying average. Smaller alpha values treat past demand more uniformly and result in more stable forecasts. Forecast errors tend to be better than the simple and weighted forecast methods (Duell, 2001). The general exponential equation formula is given by:

$$F_{t+1} = \alpha Y_t + (1 - \alpha)F_t$$

Where  $F_{t+1}$  = forecast of the time series for period  $t + 1$

$Y_t$  = actual value of the time series in period  $t$

$F_t$  = forecast of the time series for period  $t$

$\alpha$  = smoothing constant ( $0 \leq \alpha \leq 1$ )

### **Moving Averages Models**

The moving averages method uses the average of the most recent data values in the time series as the forecast for the next period. The term moving is used because every time a new observation becomes available for the time series, it replaces the oldest observation in the equation and a new average is computed. This is the reason for the term moving averages. (Anderson et al 2012). The main criticism of the moving averages method is that it puts equal weight on each value in a typical moving average. Forecast errors tend to be larger than other methods (Duell 2001).

Formula is given as,

$$\text{Moving average} = \frac{\sum(\text{most recent } n \text{ data values})}{n}$$

### **Weighted Moving Averages**

Weighted moving averages involve selecting a different weight for each data value and then computing a weighted average of the most recent values as the forecast. In most cases, the most recent observation receives the most weight, and the weight decreases for older data values. (Anderson et al 2012). Forecast errors tend to be smaller than the Simple forecast, but still larger than other methods (Duell, 2001). The general formula for estimating the weighted moving average is given by:

$$F_{t+1} = \frac{\sum(\text{weight in period } i) (\text{Actual value in period } i)}{\sum(\text{Weights})}$$

### **Measures of Forecast Accuracy**

The measures of forecast accuracy simply measure how well the forecasting method is able to forecast historical values of the time series. All forecasts contain errors. Forecasting errors are caused by not accurately predicting trends in demand and randomly occurring errors from unpredictable factors. To ensure that the correct method is utilized you need to measure the forecast error. The method that gives the least error is the best method (Gardner, 2006). Some of the techniques used are Mean absolute deviation/error (MAE/D), mean squared error (MSE) and mean absolute percentage error (MAPE) (Anderson et al, 2005).

### **The Role of Information Technology Systems in Demand Forecasting**

Information systems play a very important role in the demand forecasting process. According to McMahan et al (1999), IT provides support for demand forecasting and communication activities. Most forecasting programs are fast and efficient data processors. They asserted that most operate seamlessly, taking good advantages of menus and dialogue boxes, and fully

supporting both spreadsheets and balance sheets and databases. Many offer automatic forecast-method selection, which is especially useful when forecasting a large batch of time series (Tashman & Hoover, 2001). Information technology is ideal for automating these tasks and establishing a level of sophistication that would be available with manual means (McMahon et al., 1999). Examples, ranging from simple statistical methods to advanced causal methods include: Spreadsheets, General statistical packages, Specialist forecasting packages Enterprise resource planning (ERP) packages, Advanced Planning and scheduling (APS) Packaging, QM for windows software and others (Turban, et al., 2007).

### **Why Forecasts are Inaccurate**

According to Gilliland (2011) forecasts never seem to be as accurate as we would like them to be or need them to be. As a result, we are tempted to throw money at the problem in hopes of making it go away. There are at least four kinds of reasons why our forecasts are not as accurate as we would like them to be. Unsuitable software – software that doesn't have the necessary capabilities, has mathematical errors, or uses inappropriate methods. It is also possible that the software is perfectly sound but due to untrained or inexperienced forecasters, it is misused.

The second reason is when untrained, unskilled, or inexperienced forecasters exhibit behaviors that affect forecast accuracy. One example is over-adjustment, or as W. Edwards Deming put it, "fiddling" with the process. This happens when a forecaster constantly adjusts the forecast based on new information. Research suggests that much of this fiddling makes no improvement in forecast accuracy and is simply wasted effort.

Forecasting should be a dispassionate and scientific exercise seeking a "best guess" at what is really going to happen in the future. The third reason for forecasting inaccuracy is process contamination by the biases, personal agendas, and ill-intentions of forecasting participants. Instead of presenting an unbiased best guess at what is going to happen, the forecast comes to represent what management wants to see happen – no matter what the marketplace is saying.

Finally, bad forecasting can occur because the desired level of accuracy is unachievable for the behavior being forecast. Consider calling heads or tails in the tossing of a fair coin. It doesn't matter that we may want to achieve 60, 70 or 90 percent accuracy. The reality is that over a large number of tosses, we will only be right half of the time and nothing can change that. The nature of the behavior determines how well we can forecast it – and this applies to demand for products and services just as it does to tossing coins.

## **METHODOLOGY**

Data collected were both quantitative and qualitative. The main data collection tools were Interview and the use of documentations. Primary data was obtained by conducting an interview with the case study institution- Maersk line Ghana. Secondary sources of data for this study were through documentations. According to Yin (2003), documents could be letters, memoranda, agendas, study reports, or any items that could add to the data base. In this study, secondary data relevant to the forecasting were taken from the Maersk line Ghana Limited. Data taken were past data kept by the Maersk line Ghana Limited. The data that were used for this study is the monthly shipping order unit.

## **DATA ANALYSIS AND DISCUSSION**

### **Types of Forecasting Models Used**

According to the management of Maersk line there are many techniques that the company employed to forecast their operations in order to carry out its functions effectively. In choosing

the type of forecasting model, is always done by the top management that is operations and the marketing managers. According to management both the qualitative and quantitative approaches could be used in forecasting their shipping demand. However, the quantitative approach is usually adopted in forecasting. Some of the forecasting models used by Maersk are simple average and moving averages. It was also reviewed that new forecasting models were adopted to replace ineffective ones. They were previously using only the qualitative approach but realized they were always experiencing excess capacity and adopted the quantitative approach to forecast their demand. Some of the factors that lead to the review of their forecast models were the changes in market dynamics, fit- to- purpose, and source of data quality. In choosing a particular method of forecasting, Maersk involves the capacity and demand of third parties such as customers and other logistics firms that transport their freights as well as considering some factors like availability of historical data, the availability of computer software and the time needed to gather and analyze data and to prepare the forecast before selecting a forecasting technique.

### Developing an Appropriate Forecasting Method for Maersk Line.

In order to develop an appropriate forecasting method for the Maersk line Ghana, time series data for the demand of their services over a period of 22 months, spanning from January 2010 to October 2011 were collected. The data were categorized into exporting and importing services. The division is necessary due to the fact that different factors affect the demand for citizens' exporting and importing services. The data obtained is presented in Figure 4.1. The first consideration to be made in developing a forecasting model is to identify the pattern exhibited by the time series data. The pattern exhibited by a time series data may be one of horizontal, trend, seasonal, cyclical or a combination of some of the patterns. In order to identify the trend of a time series data is important to construct a time series plot. Hope and Mühlemann (1997) asserted that for a forecast to be made, the pattern must be identified at a regular interval. In our study, the interval was in months. The trend of the data, which normally presents a random fluctuation, is then assessed and the inevitable deviation throughout the trend inspected, defined, evaluated and taken into account once future forecasting is done.

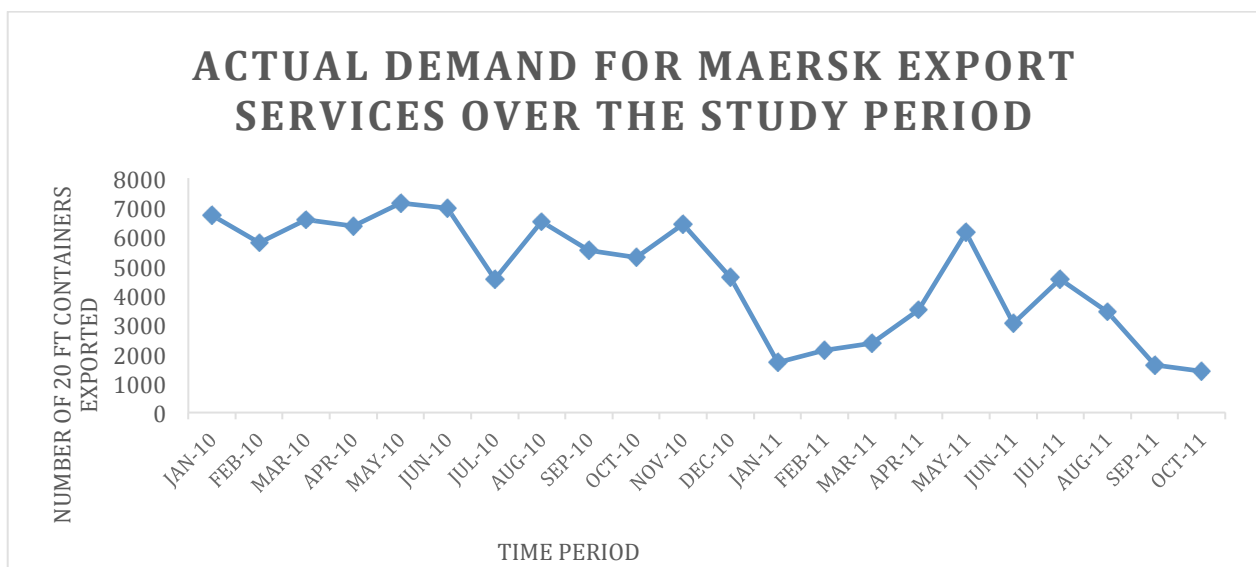
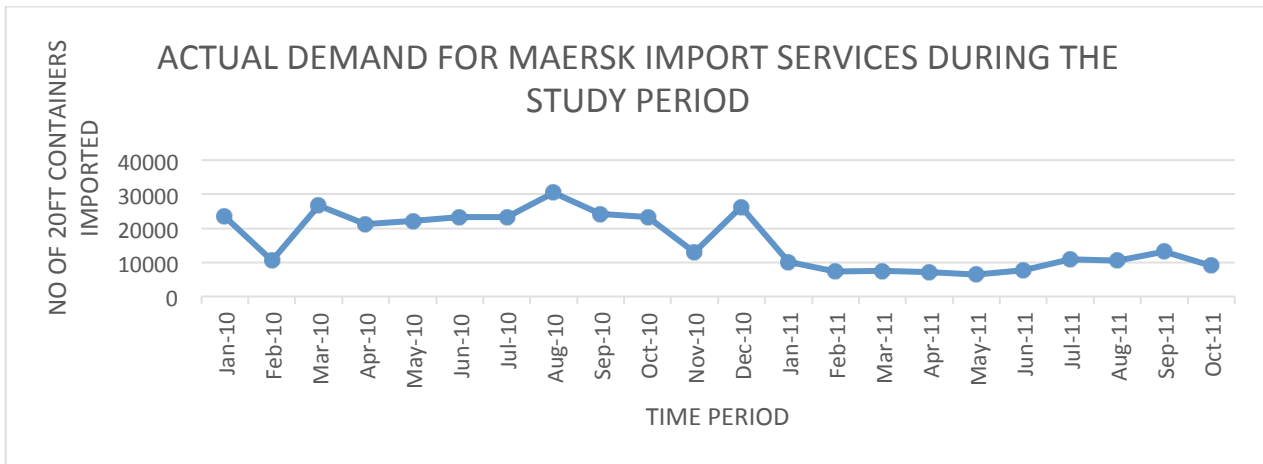


Figure 4.1: Time series plot of the demand for Maersk Line's export services over the study period.

The time series plot indicates more of a horizontal trend. As stated by Anderson et al (2012). A horizontal pattern exists when the data fluctuate around a constant mean. From the diagram,

between the periods of Jan 2010 to December 2010, the demand of exports is relatively stable. There seems to be a decrease in the stability from the period of January 2011 onwards. However, the stability is restored from April 2011 through to August 2011. In general, the demand is relatively stable with occasional random variations. The existence of seasonality is not explicitly observed in the figure 4.1. However, there seems to be a general decrease in demand from January 2011 onwards.



**Figure 4.2: Time series plot of the demand for Maersk Ltd.'s export services over the study period.**

The plot for the demand for imports services is not significantly different from the export. The demand for import services is obviously far higher than the demand for import services. The pattern is horizontal, and the same general decreasing trend from January 2011 is presents.

As already noted, the model of forecasting to be used depends on the pattern exhibited by the time series plot. Since the time series plots above indicate a horizontal pattern for both the import and exports data, Anderson et al, (2012) recommend three forecasting methods that are appropriate for data of this kind. These are the moving average method, weighted moving average method and the exponential smoothing method. In order to determine which the best forecasting method is, all of the three will be applied on the data values.

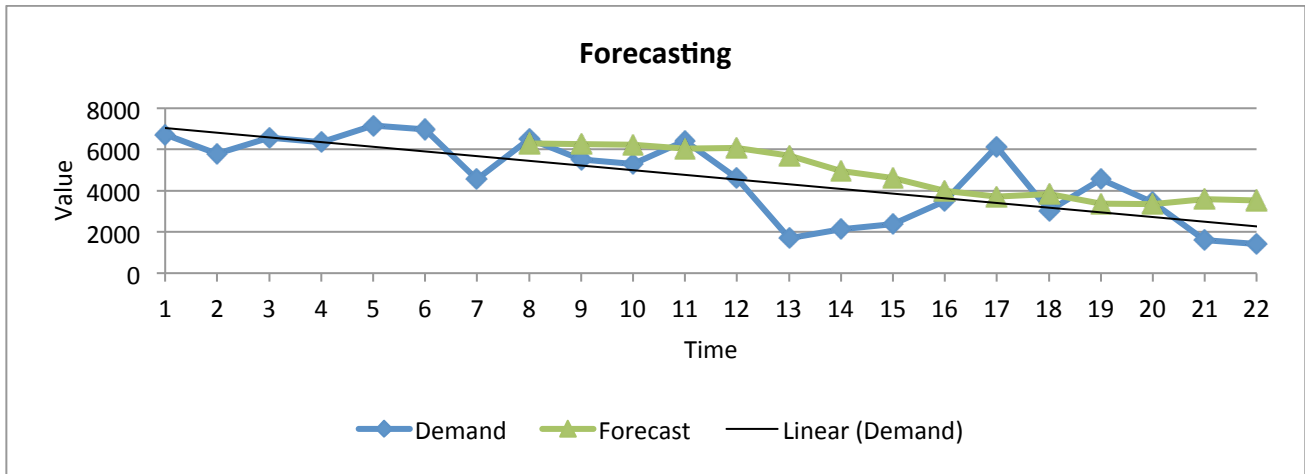
### The Moving Average Technique

From our interview with the managers, this is the technique currently employed by the company in forecasting for the demand of their services. This forecasting method simply averages the data values recorded over a selected time period to compute the forecast for the next period. Currently the practice in the firm is to average the actual demand for the past 6 months and use it as the forecast for the 7th month. This is known as a 6 period moving average.

In general, the Moving Average is given by

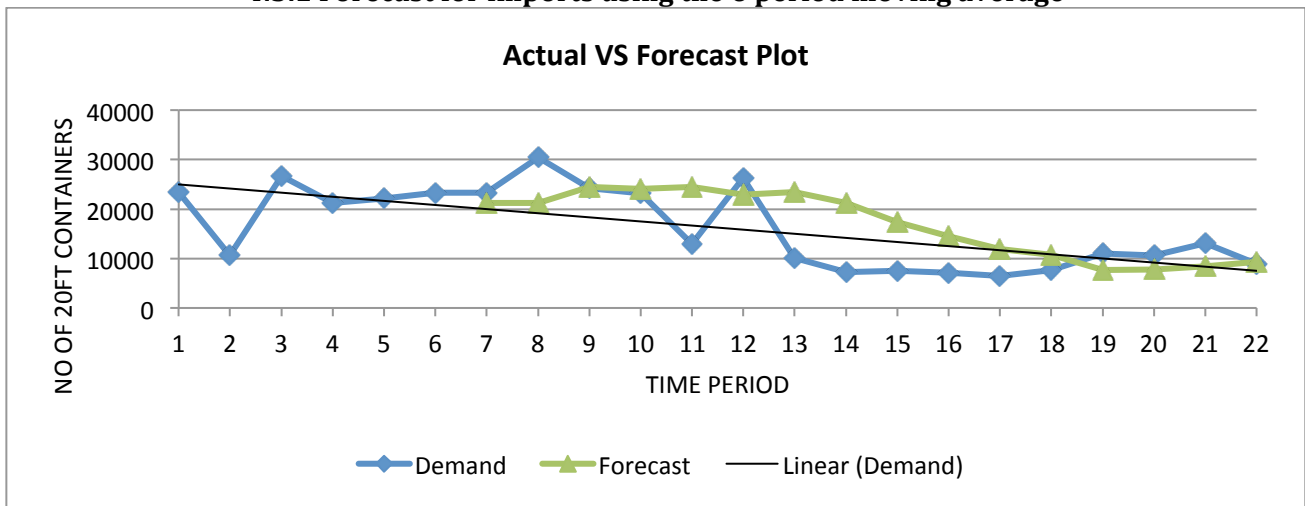
$$\text{Moving average} = \frac{\sum(\text{most recent } n \text{ data values})}{n}$$

In order to present the current situation of forecasting in the Company, the 6-period moving average was employed to compute for the next period's forecast. The output for this forecasting method using excel QM is presented in Table 4.1 in Appendix.



**Figure 4.3 a graphical representation of Actual vs. Forecast Values for Maersk Line’s export using the 6 period Moving Average.**

**4.3.1 Forecast for imports using the 6 period moving average**



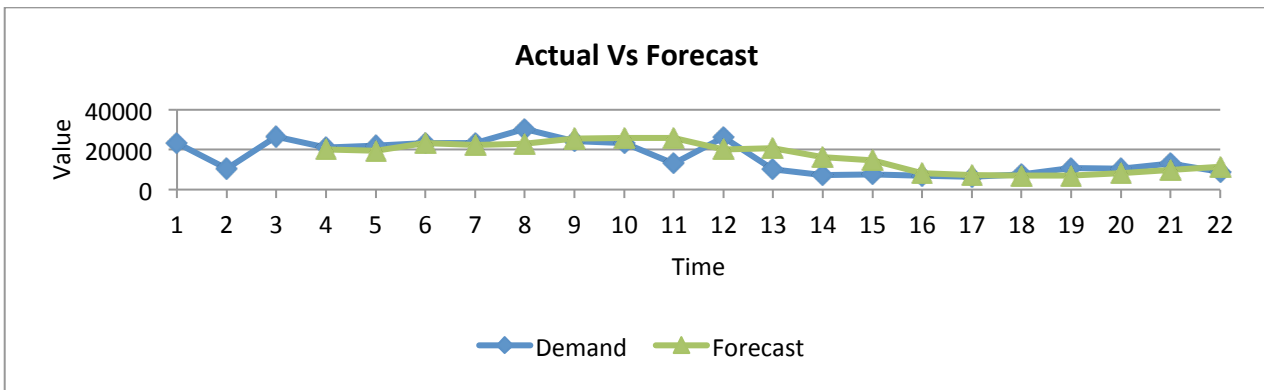
**Figure 4.4: Figure 4.3 a graphical representation of Actual vs. Forecast Values for Maersk Line’s import using the 6-period Moving Average.**

**Summary of Results from Using the 6-Period Moving Average**

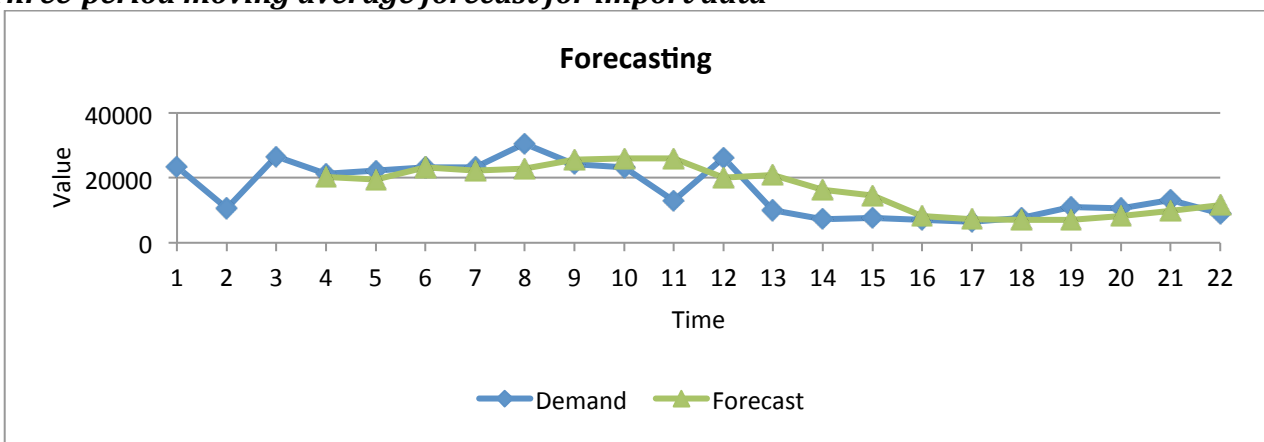
Figure 4.3 and 4.4 indicates that the 6 period moving average is trying to smooth the variations in the demand for both imports and exports. For both categories, the model does a good job from the beginning of the time period and the end of the time periods where the forecast errors are relatively smaller. However, the forecast errors in the middle are relatively higher due to the increasing and rapid demand variations in the center. Also, the trend line for demand indicates a general decrease in demand over time. The means squared error (MSE) and the Mean Absolute Percentage Errors are also presented in the table. Particularly, the MAPE figures are relatively high since error percentages above 50% often make a forecasting model undesirable.

Most often when the demand values exhibit irregular patterns, using short period forecasting gives a more accurate forecasting values. In such instances a 3-period moving average should be used instead of the 6-period moving average currently in use. Duell, (2001) emphasized that using longer periods in forecasting using moving averages would decrease the susceptibility of demand and this was very evident using a six-month moving average. When a smaller period was chosen, forecasted demand was nearer to actual than in a six-month moving average. To

demonstrate this, the three-period moving average was used and the results are reported in the Table 4.3 in appendix



**Three-period moving average forecast for import data**



From the resulting tables and the graphical representation for both import and export data, the three period moving average fits the forecast values to the actual better than the 6-period moving average estimation. A comparison of all models used in the study will be presented later in the chapter.

**Using the Weighted Moving Average Forecasting Method**

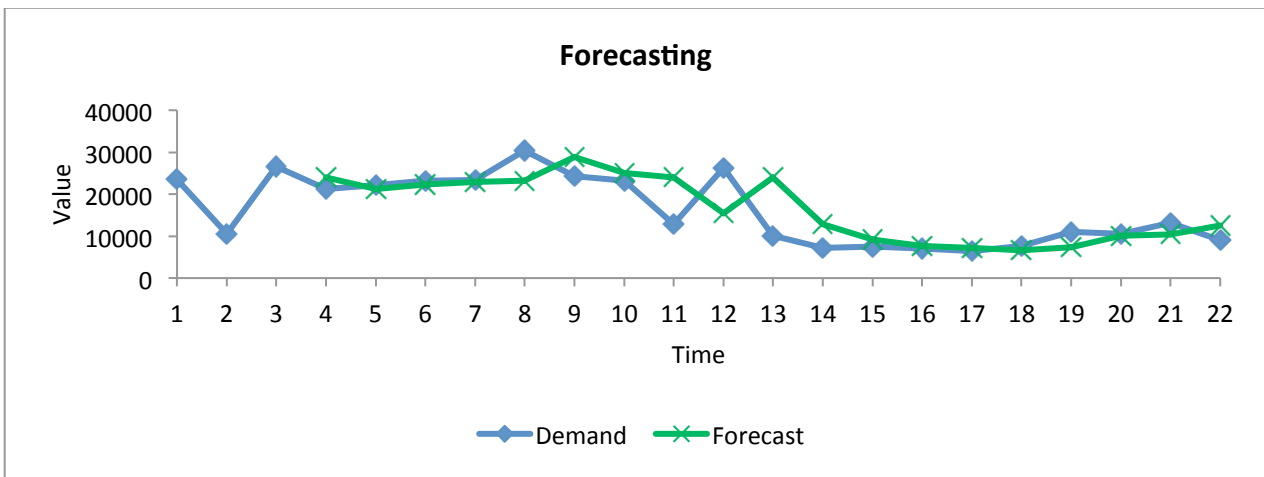
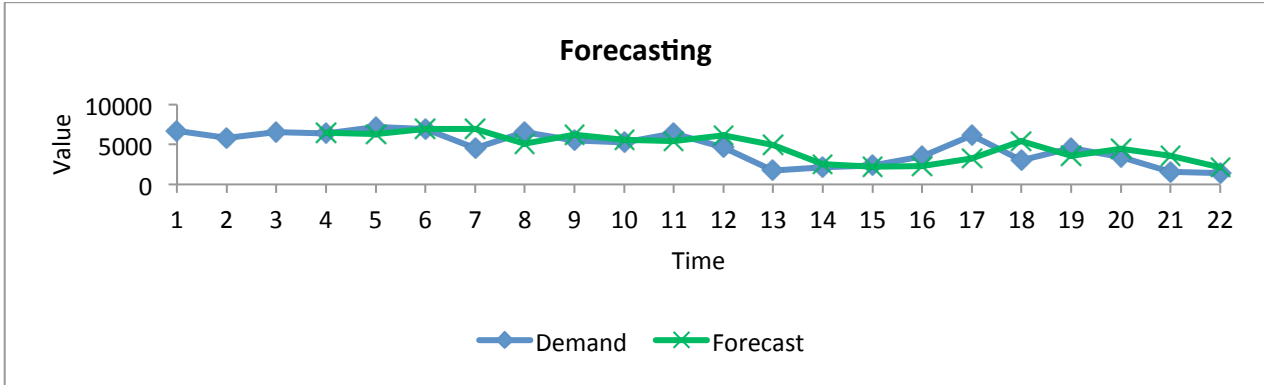
The moving average method above assumes that all the past data has equal power in predicting the forecast value for the next period. In real world however, is often safer to assume that the immediate past data values is more powerful in predicting the future value than the distant past. Especially for the type of demand like Maersk which exhibits random fluctuations at some point, using the weighted moving average will often give better forecasting values. In this method, weights are going to be assigned to the past periods such that more weight will be given to the immediate past month and the least weight to the most distant month.

As already stated above, data values that exhibit rapid random patterns are not good candidates for long range time series methods. Due to this reason the weighted moving average is going to be computed on a three period basis. The assigning of weights are somewhat arbitrary, however the highest weight must be for the immediate past month and the lowest weight must be for the distant month. For this analysis the researchers have chosen a weight of 10, 2 and 1 respectively for the data values in order of recent values. This has been done to help smoothen the rapid fluctuations that occur at certain stages in the time series by giving a huge weight to the most recent value.

The general formula for estimating the weighted moving average is given by:

$$F_{t+1} = \frac{\sum(\text{weight in period } i) (\text{Actual value in period } i)}{\sum(\text{Weights})}$$

The Table 4.5 (see appendix) presents the output for both the export and the import data after using the three period moving average with the weights stated above and the figures of it are shows below.



### Summary of Output from the Use of the 3 Period Weighted Average

From the graphical representation of actual vs. forecast values, the 3 period weighted moving average seems to fit forecast values closer to the actual values than the previously used simple moving average. This is very visible in the centre of the data where there was large variation between the actual and forecast values in the first model used. A discussion on model choice will be presented later. Percentage errors associated with using weighted moving average are smaller than that of moving averages (Duell, 2001). This was made evident when the MAPE of the weighted moving average was calculated. There was a decrease in the MAPE values using weighted moving averages than simple average.

### Using the Exponential Smoothing Method

The final method to be used for this time series is the exponential smoothing method. This forecast methods require the least time series data as compared to all the others used so far. As such it is better suited for data like this one which exhibits rapid random variations at this point. As already shown by the results from the weighted moving average, a focus on the most recent data values provide better forecast results for this data.

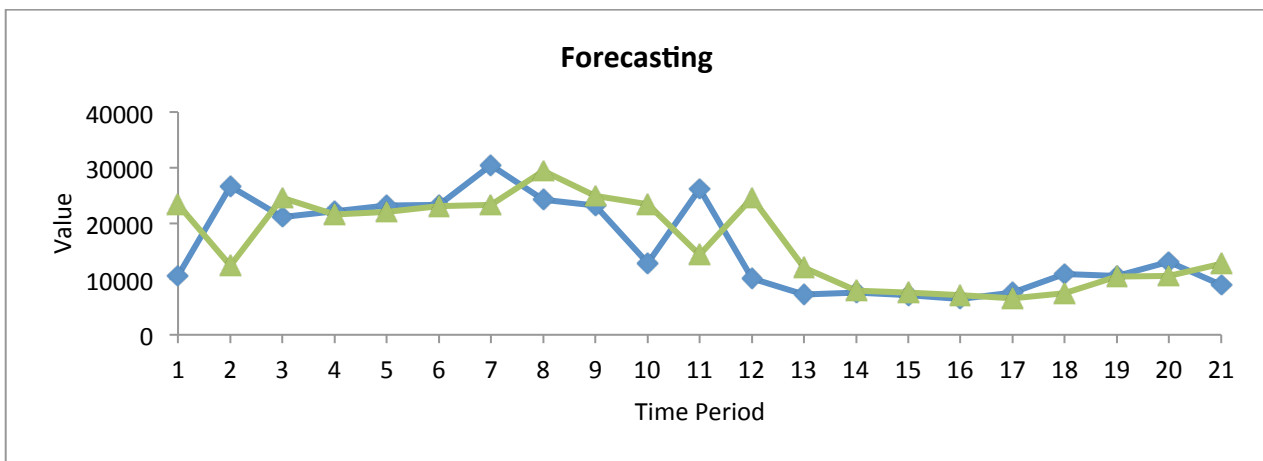
The general exponential equation formula is given by:

$$F_{t+1} = \alpha Y_t + (1 - \alpha)F_t$$



Where  $F_{t+1}$  = forecast of the time series for period  $t + 1$   
 $Y_t$  = actual value of the time series in period  $t$   
 $F_t$  = forecast of the time series for period  $t$   
 $\alpha$  = smoothing constant ( $0 \leq \alpha \leq 1$ )

The selection of the smoothing constant is somewhat arbitrary, just like the weight selection in the moving average. However, we have use the QM for windows software to select a smoothing constant that will give the lowest MSE and MAPE values. The constant is 0.80. Therefore the table below provides forecast values for export data using an alpha ( $\alpha$ ) value of 0.80 as the smoothing constant. According to Duell (2001), larger alpha values emphasize recent levels of demand and result in forecasts being more accurate and as such a larger alpha was chosen with the assistance of QM software.



**Comparing the Forecasting Models**

The basis comparing the forecasting model is on the basis of the level of variation of the forecast values from the actual data values. Therefore, the MSE and MAPE values will be used as the basis for selecting the best forecasting. Due to the fact that the MSE and MAPE provide a figure of the error associated with the forecasting techniques, the best forecasting method will always be the one that provides the lowest values of MSE and MAPE. Jacobs and chase (2008); Duell (2001); Gardner (2006) have reviewed that exponential smoothing is the best method in calculating forecast with time series data. This research also supported their report because when the other techniques were used, the method that revealed the least MAPE was the exponential smoothing method. The comparison will be made in terms of the data categories i.e. for export and import data.

**Model Comparison for the Export Data**

The table below provides the different models used and their associated MSE and MAPE values.

MODEL	Mean Squared Error (MSE)	Mean Percentage Error (MAPE)	Absolute Error
6 Period Simple Moving Average	3341971.069	59.59%	
3 Period Simple Moving Average	2669060.895	46.34%	
3 Period Weighted Moving Average	2378745.3	39.63%	
Exponential Smoothing	<b>2131647</b>	<b>35.06%</b>	

From the data in the table above, it is evident that all the methods presented in the study provide a better forecast accuracy than the one currently in use by Maersk Line (the 6 period moving- average). This is because the errors associated in the presented models are lower than

using the 6-period moving average. However, the Exponential smoothing method with a smoothing constant of 0.80 is recommended to the firm for future forecasting purposes since it is the model that provides the lowest values for MSE and MAPE.

The results from the data confirms the research conducted by Gardner & McKenzie (1985), Gardner (2006); Jacob and Chase (2008) and Duell (2001) that exponential smoothing would give the least MAPE when the right smoothing constant is used. The exponential smoothing method recorded a MAPE of 35.06% whereas the method used by Maersk recoded a MAPE of 59.59%. Duell (2001) stated that moving averages always produced a forecast with the highest percentage error which was evident in our analysis.

### **Model Comparison for Import Data**

The table below provides the different models used and their associated MSE and MAPE values.

MODEL	Mean Squared Error (MSE)	Mean Absolute Percentage Error (MAPE)
6 Month Simple Moving Average	52353852.01	57.87%
3 Month Simple Moving Average	30110716.12	34.91%
3 Month Weighted Moving Average	<b>30895464.7</b>	<b>29.82%</b>
Exponential Smoothing	44802330	32.87%

Similar to the result found in the forecasting for exports, the error associated with their current method is far higher than with the models presented in this study. The 3 period weighted moving average with weights 10,2 and 1 is recommended as the best forecasting method since it can reduce the percentage forecast error from the original 57.87% to as low as 29.82%. Therefore for the purpose of forecasting demand for imports, the firms should use the 3 period weighted moving average with the weights listed above. The pattern or trend that is exhibited would determine the type of forecasting method to be used. The results for imports also reviewed that the simple average had the highest MAPE.

### **Impact of the Models Used in their Operations**

According to MAERSK there are two basic models used in forecasting their operational demand, the models are: Simple Average and Moving Average. Maersk line in their quest to reduce clerical works adopted the above methods to enable them achieve the said objective.

Maersk made it clear to us that the above techniques were easy and the most simple to operate with. These were adopted to ensure that every employee even those with no technical skill in forecasting can read and interpret the outcome which will go a long way to positively influence effectiveness and efficiency of the logistics activities. Also these techniques were beneficial to MAERSK line since materials are received in uniform lot quantities. It was discovered that the operations of Maersk line Ghana are linked to the Global E-Business of the mother company, AP Moller Maersk Group. The operations manager of Maersk line, reaffirmed it by saying:

“The Operational activities of Maersk line are such that wrong forecasting affects our operations drastically”. In making critical organizational decisions, the company strongly relies on the forecasted demand in order to make vital decisions. In situations where the forecasted demand doesn’t much with the actual, the company is not able to deliver the goods to the customer and this put a huge challenge on the firm. Maersk line has one of their shipping services known as ‘Your promise. Delivered’ and as such when customers consignments are not delivered on time, it poses a great challenge on management and employees. Stevenson (2007) affirms that the type of forecasting model employed by a firm affects the decisions of

the firm. Moving averages and exponential smoothing are essentially short-range techniques, since they produce forecasts for the next period. Trend equations can be used to project over much longer time periods.

### **Essential Link between Demand Forecasting and Capacity Planning.**

Capacity planning is the process of determining the production capacity needed by an organization to meet changing demands for its products/services. However, demand is specifically the actual quantity customers ordered. For a company to satisfy their customers, they should specifically analyze their actual demand with respect to their capacity. Again, management believe that:

*'the need for capacity planning is to close the gap or the discrepancy between the capacity of an organization and the demands of its customers which is an essential link between demand and capacity planning that needs to be managed'.*

This research revealed that there were some instances where that the actual demand of Maersk line from their customers exceeded the capacity they can offered. During capacity planning, management relies heavily on forecasted values of previous years to avoid a halt in the service processes and remain highly responsive which is one of their core values. Therefore inaccurate demand forecasting has a direct effect on capacity planning which is disastrous to operational success, responsiveness and efficiency.

In such a situation, management employs additional resources to cater for the excess demand. Some of the management decisions are to load consumer goods in a forty-foot container instead of the usual twenty-foot container, channel some of their excess demand to third parties like- DHL to transport on their behalf, hire part time workers. However the operations manager affirmed that excess capacity rarely occurs. Also the firm employs additional labor on part time basis to meet unexpected increase in demand. The operations manager said that in a situation where demand is lower than the available capacity, the idle capacity is not used to satisfy other firms' needs.

Demand forecasts are essential inputs for many business decisions they help managers decide how much supply or capacity will be needed to match expected demand, both within the organization and in the supply chain.

### **SUMMARY OF FINDINGS**

From the information gathered, it was found out that there are periods that forecasted demand exceeds capacity of the firm.

Another important discovery was that, forecasts were critical for planning container positioning, for example, for exports when entering a major commodity season. The input for forecast comes from both loading and receiving ports.

The main objectives of firms are to be responsive or efficient or both. We realized that Maersk line preferred to be responsive and as such incur more cost by underutilizing their capacity. Maersk line Ghana does not utilize their idle capacity even though they affirm that they experience excess capacity. They assert that they want to be responsive to their customers.

It was realized that the six month moving average used by Maersk had the highest mean absolute percentage error.

It was also found out that they did not keep records of the amount of sales lost when demand outstrips their capacity. They also had no records of the average cost incurred due to excess capacity. Their reason was that they were not in charge of the cost incurred since the mother company handles all the financial affairs globally.

In reviewing their forecasting models, the firm involved third parties to review their models. Also the demand values exhibited irregular patterns both in export and import figures as illustrated in fig. 4.1 and 4.2.

### **RECOMMENDATIONS**

Based on our findings, we suggest the following recommendations:

- I. Maersk line Ghana should not use only one model to forecast for both exports and import data. We therefore recommend from our study that the organization should use exponential smoothing model of forecasting to forecast their export data only. The preferred Alpha or constant to be used in the smoothing method should be 0.8. This alpha would give the firm the least percentage error. The preferred forecasting model for import should be a three-month weighted moving average. This would help the firm reduce the percentage errors in their forecasting instead of their six-month moving average. This is due to the fact that their pattern for their demand is irregular and therefore a shorter period for forecasting would be appropriate.
- II. The staff of Maersk line Ghana should be taken through training in IT systems and software regarding forecasting in order to increase their knowledge in forecasting and help them make accurate forecasts. Since the firm emphatically stated that they make critical operational decisions and capacity planning with their forecast values, it would be prudent that they develop software and trained personnel to deal with their forecasting. This would help increase the effectiveness of their forecast results and aid in effective capacity planning. Some of these methods are outlined in the literature review in chapter two.
- III. Also, we suggest that, the staff of Maersk Line Ghana should endeavor to calculate and keep records of the value of sales lost when demand outstrips capacity and the amount of cost incurred when there is excess capacity. This would help the company determine the losses they make at the branch level due to inaccurate forecasts and would enable them employ better forecast methods to increase their efficiency.
- IV. Maersk line should utilize their idle capacity by transporting full truck load containers. They can sell their unutilized space to other shipping firms to avoid cost. The main objectives of firms are to be responsive or efficient or both. It was realized that Maersk line preferred to be responsive and as such incur more cost by underutilizing their capacity. Costs involved in idle capacity increased transportation cost, minimal profits, etc. to avoid these cost Maersk line should utilize their idle capacity fully.
- V. Monitor the forecast. A forecast has to be monitored to determine whether it is performing in a satisfactory manner. If it is not, reexamine the method, assumptions, and validity of data, modify as needed and prepare a revised forecast.

### **CONCLUSION**

From the findings above, it came to notice that demand forecasting place a very critical role in the success of many organizations in almost every industry with the maritime industry inclusive. Therefore the refusal or inability to accurately forecast demand would make the organization involved unable to meet customer demand effectively and would therefore be left behind in the industry within which they operate. Also the use or application of a wrong forecasting model would cause an inaccurate forecast demand which will eventually affect the

capacity of the firm. This research assessed and identified critical issues in demand forecasting, recommended certain models and practices that can be used to maximize the benefits gained from forecasting demand effectively. The research study also identified the link between demand forecasting and capacity planning.

### Further Research Study

It is therefore recommended that, further research should be conducted over a period of time in the maritime industries to improve upon the use and knowledge of demand forecasting methods in those industries especially in the service providing sectors. Study should also be done using more maritime industries to enhance the precision of the analysis and make it possible for stronger conclusions to be drawn from the research study.

### References

- Corbett, J. J., and J. J. Winebrake (2007), Sustainable Movement of Goods: Energy and Environmental Implications of Trucks, Trains, Ships, and Planes, Environmental Management, November.
- The Impacts of Globalisation on International Maritime Transport Activity (2008). Global Forum on Transport and Environment in a Globalising World 10-12 November 2008, Guadalajara, Mexico
- Juma, K. (The Impact of Inventory Management and Performance of Private Organizations in Uganda. A Case Study of Coca-Cola Mbarara Plant in Mbarara Municipality
- Chendroyaperumal, C. (2009). DEMAND FORECASTING TECHNIQUES: AN EVALUATION. National Institute of Management Studies. Retrieved March 30, 2015, from [www.researchgate.net](http://www.researchgate.net).
- Det Norske Veritas (DNV) (2004). Corporate Social Responsibility and the Shipping Industry, Project Report, No 2004-1535, Revision No1
- Duell, T. (2001). Forecasting Demand in a Changing Economy, A Formulations Pro, Inc. White Paper, pages 4-8.
- Gardner Jr., E. S. (2006). Exponential smoothing: The state of the art Part II. International Journal of Forecasting, 22, 637-666.
- Gardner Jr., E.S. & McKenzie, E. (1985) Forecasting trends in time series, Management Science, 31, 1237-1246.
- Hope, C. A. and Muhlemann, A. P., (1997) Service Operations Management: Strategy, Design and Delivery, Prentice Hall, Hemel Hempstead, 352pp.
- Huang Y. and Lee, Y. (2011). Accurately Forecasting Model for the Stochastic Volatility Data in Tourism Demand, Scientific Research, an Academic Publisher, Vol.2 No.5, November 2011
- Jacobs, R.F. and Chase, B. R., (2008). Operations and supply management: the core, Book, McGraw-Hill/Irwin series operations and decision sciences
- Kumar, S., and J. Hoffmann (2002), Chapter 3 Globalization: the Maritime Nexus, in Handbook of Maritime Economics and Business, pp. 35-62, Informa, Lloyds List Press, London
- Korpela, J. and M. Tuominen, 1996. "Inventory Forecasting With a Multiple Criteria Decision Tool." International Journal of Production Economics, 45: 159-168.
- Krumwiede, D.W. & Sheu, C.\* (2002). A model of reverse logistics entry by third-party providers, Omega, 30(5), 325-333.
- Magirou V., Psaraftis, H. and Christodoulakis, N., (1992), Quantitative Methods in Shipping: A Survey of Current Use and Future Trends, Report No. E115, Center for Economic Research, Athens University of Economics and Business.
- Nurrahman, A., (2012). Definition of Demand Forecasting, Article BlogNotions
- Phelan, M. and McGarraghy, S., (2006) Clustering & Demand Forecasting in Telecommunications Supply Chains 3rd CEMS Research Seminar 2006 SUPPLY CHAIN MANAGEMENT: THE CHALLENGE OF OUTSOURCING & OFFSHORING SUPPLY CHAIN ACTIVITIES Riezlern, Austria, , 25-JAN-06 - 29-JAN-06

Progoulaki M., 2005, "Strategic Management of Multicultural Shipping Crews: choice of research methodology", 12th Panhellenic Undergraduate Intensive Seminar- Conference for Doctoral Students (Anogia Summer Schools): Methodological Issues of Research in Social Sciences, Rethymno, Crete, Greece, November 18-21.

Rodrigue, J.P. (2010). Maritime Transportation: Drivers for the Shipping and Port Industries, Forum Papers, International Transport Forum 2010 Transport and Innovation Unleashing the Potential

Sletmo, G. K. (1989) Shipping's Fourth Wave: Ship Management and Vernon's trade cycles, *Maritime Policy and Management* 16 (4), pp. 293-303

Tseng, Y., W.L. Yue and M.A.P. Taylor, 2005. The role of transportation in logistics chain, 5: 1657-1672.

Turban, et al., (2007). *Decision Support Systems and Intelligent Systems*, 7th edition, pp 816-828 Prentice-Hall of India

Yin, R.K., 2003. "Case Study Research: Design and Methods: (Applied Social Research Methods, Volume 5)" SAGE Publications, Inc; Third Edition edition Newbury Park, Calif.: Sage. ISBN-13: 978-0761925538

## Approaches for Bridging Research and Industry

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### Abstract

**The collaboration between research and industry facilitating knowledge transfer is underdeveloped particularly referring small and medium sized enterprises (SMEs). Some reasons for this situation are lack of interest from research and education institutions to support companies, poor capabilities of SMEs to recognise the importance of innovation for their businesses and competitiveness and to engage in knowledge transfer activities, existing of practical approaches that support research about not the transfer of research results to SMEs. In these paper two approaches applied by the authors in two European projects are presented contributing to bridge research institutions and SMEs: creating practical applications of academic knowledge for entrepreneurs which are focused on the success of their business and motivate people to work together and working partnerships between industry, research and education helping SMEs to use new technologies.**

**Keywords:** SME, Knowledge transfer, Entrepreneurs, PBL, Cloud Computing

### INTRODUCTION

In many countries the collaboration between research (knowledge producers) and industry (knowledge users) facilitating knowledge transfer is underdeveloped particularly referring small and medium sized enterprises (SMEs). Small and medium sized companies (SMEs) are the heart of Europe's economy, assuring economic growth and employment in Europe. Some of them have not survived the financial crisis; others have had to innovate in order to be competitive (European Commission, 2015). There are 21 million SMEs in Europe, supplying about 85% of jobs. It is important to support knowledge transfer within SMEs because the missing of right knowledge has a negative impact on the innovation and competitiveness of SMEs and finally on the sustainable growth of the corresponding countries (Ayyagari et al., 2007). Many interactions between research institutions and companies involve large firms, being considered more durable and regular than with SMEs. Other reasons for this situation i.e. lack of interest from research and education institutions to support companies, poor capabilities of SMEs to recognise the importance of innovation for their businesses and competitiveness and to engage in knowledge transfer activities, existing of practical approaches that support research about not the transfer of research results to SMEs (Tiwari et al., 2008).

There is often also a difference in approach between SMEs and large corporations. High tech companies look for new technologies to develop new products and services and employ researchers (i.e. auto industry). SMEs have much smaller capacity to pay and use research.

When asked what type of research is required, most SMEs have difficulty in answering.

It is therefore important to encourage SMEs to absorb new and external knowledge for faster innovation. The importance of knowledge transfer is recognised by EU28 members and is reflected in their national programmes developed under the Lisbon strategy. Efforts to support public research institutions to improve this situation have been done within the Committee for Scientific and Technical Research (CREST).

In this paper approaches applied by the authors in two European projects are presented contributing to bridge research institutions and SMEs. The first contribution to this fact can be realised i.e. by creating practical applications of academic knowledge for entrepreneurs which are focused on the success of their business and motivate people to work together (part 2). Another contribution is by using working partnerships between industry, research and education helping them to use new technologies (part 3).

### **PROBLEM-BASED LEARNING APPROACH**

Problem Based Learning (PBL) (Barrows, 1986) is a constructivist approach to learning that has been widely used and advocated in higher education but it is not used in companies. PBL is a learner centered approach in which a teacher/trainer facilitates a group activity by guiding the learners in a process of inquiry. PBL could provide a number of benefits to SMEs like immediate return on investment, low cost, on the job training, thus the learning is highly contextualised and situated, practical and related to the SME's needs and sustains the organisation's competitive advantages (Hamburg, 2015). It encourages innovation, both individual and cooperative work and thinking, a greater understanding of a topic due to active learning, engaging in the material. PBL increases motivation to learn thus developing a learning culture, developing skills in critical thinking, leadership, communication, problem solving. Problem Based Learning (PBL) (Gaffar et al., 2011) is an educational approach which uses real problems to motivate staff and students for learning. The use of PBL could lead to the achievement of the following objectives

1. Better acquisition and retrieval of knowledge related to the context (problem to be solved) and to integrate many disciplines
2. Motivation of the students, and providing them with responsibility of learning
3. Development of the ability of self-learning
4. Adapting the learning to the needs of the students
5. Development of the ability to work in team

Two main characteristics of the PBL which contribute to the achievement of the objectives are interactive work in a team and the facilitator (tutor/instructor). Working in groups, students identify what they already know, what they need to know, and how and where to access new information that may lead to the solving of the problem. The role of the facilitator is to motivate the group by supporting, guiding, and monitoring the learning process. Steps which will consider in our projects by teaching PBL and corresponding questions are (PBL step by step, 2012):

1. Clarifying the task
2. Defining the problem
3. Brainstorming
4. Rating of Brainstorming outcomes
5. Formulating learning objectives to cover knowledge deficits
6. Self-study of the group participants.
7. Rating of possible solutions and working out a final solution
8. Reflection and feedback of all participants



To date, no research has been conducted into the adoption of PBL in SMEs. The Archimedes project (www.archimedes2014.eu) is an Erasmus project with partners from research, education and industry aimed at investigating the use of PBL in SMEs. Archimedes is examining how to leverage off informal learning approaches using PBL to provide SMEs with a learning approach that produces a significant impact, particularly for small businesses. Survey Monkey questionnaires, Focus Group Discussions, Case Studies have been used in this context.

PBL is supported in Archimedes by an ICT platform (www.archimedes-tiki.eu), developed by the use of TikiWiki, an open source Content Management System (CMS). The platform helps companies to solve real problems by using the steps 1-8 described below. It has also a learning role for SME staff or students wishing to be entrepreneurs. The PBL platform contains training units for facilitator/trainer and also for the learners of the group.

The figure 1 and 2 show some screen shoots of the platform.

**Enter a problem**

Problem name \*

Short description

Created by

Importance Number of votes: 0, Average: 0

Tags Put tags separated by spaces. For tags with more than one word, use no spaces and put words together or enclose them with double quotes.

*Fields marked with an \* are mandatory.*

**Pending problems**

Problem name	Short description	Created by	Importance	Tags	Action
Cash flow problem	Some months, there is a shortfall in our income versus expenditure. We find it difficult to get an overdraft from the bank to facilitate us during these months due to lending restrictions	emmaobrien	★★★★★ (1) 🗳️ X	marketing	Close item
Printer sales	Too less printers sold in the last year	admin	★★★★ (1) 🗳️ X	marketing financial	Close item
Distance Learning	The frustrations resulting from problems with communication between student and academic institution.	Winter	★★★★ (1) 🗳️	ict communication	Close item
money		Helena Caiado	★★★★ (0) 🗳️		Close item
Motivation	Lately one of the key employees is not satisfied and always comments on the tasks we are giving to her. Although she has the biggest salary in the company, she always considers herself overloaded. How should we communicate with her so that we can rise the motivation level?	bestcons	★★★★ (0) 🗳️	communication	Close item

**Closed problems**

Problem name	Short description	Created by	Tags	Action
No records found				

**Figure 1: Entering a new problem**

The screenshot shows a web interface for entering a new problem. At the top, there are navigation buttons: 'Edit this page', 'History', 'Discuss', and 'Attach File (Hide)'. Below these is an 'Upload file' section with a search button 'Durchsuchen...', a status 'Keine Datei ausgewählt.', a 'Comment' input field, and an 'Attach' button. The main heading is 'New marketing strategy'. Below the heading is a large text area for 'Enter description here' with an 'Edit' button. To the right is a 'Calendar' for January 2016, showing dates from 27 to 30. Below the calendar is an 'Add event' button. Further down is an 'Upcoming Events' section with the text 'No records to display' and another 'Add Event' button. A 'Table of Contents' section is located below the description area, listing various steps and sub-steps with links.

**Step1 - Clarifying difficult terms**

**Clarify a new term**

Problem name \*

Term to clarify \*

Description

Created by \* testuser

*Fields marked with an \* are mandatory.*

**Figure 2: Supporting steps**

**PARTNERSHIPS RESEARCH INDUSTRY TO USE NEW TECHNOLOGIES**

Recent studies emphasise the potential cloud computing (NIST, 2015) prides on in terms of boosting SMEs’ growth and encouraging entrepreneurial practices at all levels (<https://ec.europa.eu/digital-agenda/en/european-cloud-initiative>). Still, market trends indicate European SMEs are not making the best of the cost-effective solutions cloud computing has to offer (Hamburg, 2015). Universities themselves can greatly benefit from cloud computing, as its storage capacity and economic viability ensure more efficient research management techniques in all fields.

By using Cloud services SMEs can avail of opportunities that allow them to compete in an innovative ICT environment, and give a level playing field required to succeed in business (Layo, 2013). In the discussion with SMEs, the following advantages of Cloud Computing emerged (Hamburg et al, 2013):

- Up-to-date low-cost software solutions
- Unlimited data storage
- Access to data from anywhere and anytime means portability and flexibility; giving more time and effort to be placed on business strategies and solutions
- High levels of security protocol that ensures business and data protection

- Improved business performance
- Simplified data management

As with any technology, there are also a number of limitations or issues with Cloud Computing. One of the main issues is the reliability and security of data and the accessibility of this on a 24/7 basis, particularly when the Cloud service provider has an outage. Many companies will have problems about the lack of control over their ICT systems and the impact of a Cloud Service Provider on these (Hamburg, 2012).

These issues may inhibit an SME's decision to migrate to a Cloud Computing environment. In addition, there are other factors which may influence the decision:

- The lack of understanding of the infrastructure, cost, and appropriateness to the needs and scenarios of different companies from different business environments.
- The ICT skill levels of users, managers, and entrepreneurs.
- The readiness of SMEs to adopt Cloud Computing from a business perspective.
- Less time.

Cloud computing is thus an optimal solution for the innovation-driven alliance between universities and companies. The IN-CLOUD project intends to operate pursuing the objectives of the European Cloud Computing Strategy (<https://ec.europa.eu/digital-agenda/en/european-cloud-initiative>) with the general objective of - fostering a partnership between 2 research institutions, 4 Universities, and 3 SMEs associations from 5 European countries, in order to qualify new professionals able to boost the competitiveness and growth of European Companies and Universities, thanks to the advantages offered by the cloud computing technology. This objective is reached by raising awareness among European Companies during workshops and discussions with SME staff, using results of questionnaires sent to SMEs (by Survey Monkey) about possibilities to cooperate with SMEs and about cloud computing forms suitable for them. The sent questionnaire contains questions about general company information, software usage and cloud computing. It was created with the help of Survey Monkey, an online survey development cloud-based company. It provides free, customizable surveys, as well as a suite of paid back-end programs that include data analysis, sample selection, bias elimination and data representation tools. Each partner searched for studies, publications, reports and projects about cloud computing.

The questions sent in all partner countries are the following:

- What is your job role?
- How does your business/organization use IT on a daily basis?
- Do you use cloud computing services in your business/organization?
- Why don't you use cloud computing services in your business/organization?
- Which cloud computing services do you use within your business/organization?
- What benefits does the cloud offer to your business/organization?
- Which cloud services do you aspire in the future to use in your business/organization?
- Please rank your primary concerns regarding the adoption of cloud computing into your business/organization
- Which of these skills and competences, required for successful implementation of cloud computing, does your business/organization have?

The project IN-CLOUD researches also the economic impacts of cloud computing on different types of SMEs. The first conclusion is that it depends on region and sector; the IT sector mainly will have the most advantages. This impact in Europe will depend on how service providers,

governments and managers understand it. European cloud services providers need to offer competitive prices and guarantee safe and reliable technology.

Governments need to ensure an appropriate legal environment, procurement practices and energy prices. It will also depend on the willingness of managers to adopt the new practices necessary to exploit the technical and economic advantages of cloud computing.

Cloud computing requires also new skills i.e. which are the bases for the development of didactic units within IN-CLOUD i.e.:

- Business and financial skills
- Technical skills
- Project management skills
- Contract and vendor negotiation
- Security and compliance
- Data integration and analysis skills
- Mobile app development and management

The project IN-CLOUD will create VET qualifications for professionals inside European Companies and training SME staff to achieve the required skills by using developed didactic units. This training helps ME them to introduce and manage cloud computing technologies and services inside their organisations in order to achieve their business goals.

## **RESULTS**

The first version of the Archimedes platform has been tested with students wishing to be entrepreneurs and staff from SMEs. The results are positive. Both students and SME staff consider PBL as a suitable form for learning and solving real problems. At two academic cooperation partners PBL has been introduced in the courses for entrepreneurs. The improvements, proposed by the users, are taken into consideration for further project developments (Hamburg et al., 2014).

The IN-CLOUD project started in September 2015. At the moment the 700 results of answers from researchers, educators, SME staff from all partner countries are analysed in order to determine the next steps in the project i.e. the development of didactic units for qualification of SME staff.

## **CONCLUSIONS**

The work in tandem of research/education and industry, particularly SMEs, to transfer knowledge to society and particularly to entrepreneurs (having a key role to innovation) are a motor for economic growth. The research interests of academics and industry are often quite different but there are possibilities to do research that can interest and help industry. First, it is important to understand industry needs and cooperate with it. There is also necessary to identify research gaps and ask industry if they are interested in these topics.

Some future strategies in this context could be to cooperate with industry bodies to identify research gaps, to explain the research process, results and how long it takes, to produce them in a form that can be used by industry.

Some research questions which for future work of the authors are i.e. which are the criteria for a smooth relationship between research/education and industry, how could be inherent differences between work and objectives of companies and researchers to form a higher strategic partnership? Is another kind of practitioners needed to translate knowledge?

## ACKNOWLEDGMENTS

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### References

- Ayyagari M., Beck T., Demirguc-Kunt, A. (2007): Small and medium enterprises across the globe. *Small Bus Econ*, 29: pp. 415-434.
- Barrows, H.S. (1986): A taxonomy of problem-based learning methods. *Medical Education* 20: pp. 481-486.
- European Commission (2015): Annual Report on European SMEs 2013/2014: A Partial and Fragile Recovery, p. 10. [http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/files/supporting-documents/2014/annual-report-smes-2014\\_en.pdf](http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/files/supporting-documents/2014/annual-report-smes-2014_en.pdf). 2014. Accessed on December 28, 2015.
- Gaffar, A.M., Abdalla, M.E. (2011): *The Seven Steps of PBL Implementation: Tutor's Manual*
- Hamburg I. (2012): Learning as a service – a cloud-based approach for SMEs. *The Fourth International Conference on Advanced Service Computing, Service computation 2012*. July 22-27, 2012, Nice, France, pp. 53-57.
- Hamburg I., Marian M. (2012): Supporting knowledge transfer and mentoring in companies by e-learning and cloud computing. *ICWL 2012 International Workshops, KMEL, SciLearn, and CCSTED, Sinaia, Romania, September 2-4, 2012; revised selected papers*. Heidelberg: Springer: pp. 231-240.
- Hamburg, I. (2015): Improving e-Learning in SMEs through cloud computing and scenarios. In: Gradinarova, B. (ed.): *E-learning – instructional design, organizational strategy and management*. Rijeka: InTech: pp. 481-498.
- Hamburg, I., and O'Brien, E. (2014): Using strategic learning for achieving growth in SMEs. *Journal of information technology and application in education* 3(2): pp. 77-83.
- Hamburg, I. (2012): Guidelines for increasing the adoption of cloud computing within SMEs. *Cloud Computing 2012: The Third International Conference on Cloud Computing, GRIDs, and Virtualization, 2012(b)*. pp. 7-10.
- Hamburg, I. (2015): Learning approaches for entrepreneurship education. In: *Advances in social sciences research journal* 3, no. 1, pp. 228-237.
- Layo, I. (2013): Cloud computing advantages for SMEs. <http://cloudtimes.org/2013/09/18/cloud-computing-advantages-for-smes/>. Accessed on December 28, 2015.
- National Institute of Standards and Technology, NIST (2011): *The NIST Definition of Cloud Computing*. <http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>. Accessed on December 28, 2015.
- Tiwari R., Buse S. (2007): Barriers to Innovation in SMEs: Can the Internationalization of R&D Mitigate Their Effects. <http://iri.jrc.ec.europa.eu/documents/10180/12569/Barriers%20to%20innovation%20in%20SMEs%20-%20Can%20the%20internationalization%20of%20R%26D%20mitigate%20their%20effects?Version=1.0&t=1369908833719>. pp. 3-9. Accessed on December 28, 2015.

## Exploring Corporate Strategic Management and Global Expansion on the Case study of Samsung Electronics

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### Abstract

Basically, to offset any potential future concerns the organizations must be embedded with sustainable strategies which could restore the organization's reputation as well as competitive advantage. In the 21st century however, many organizations have grown hot with the ideology and so working hard to formulate strategies which could potentially keep them stay in the business and achieve their intended goals and objectives. Perhaps even more significantly, to achieve their strategic move, many of these organizations have opted to go global. This piece of research however, intends to investigate on the concept of "Assembling the Global Enterprise" whereby the report will be produced based on the "Samsung Electronics" where the adaptation of context, theories, models and tools containing within the strategic management become and appears to be the central part of the theme.

### INTRODUCTION

Basically, Samsung Electronics is one of the major electronics multinational organizations in the world. The firm headquarter has been located in Suwon South Korea. It has been originated as Samsung Group subsidiary in 1969 and become global largest information Technology Company in terms of financial performance since 2009. Most importantly, Samsung Electronics has assembly plant network in 88 countries and indeed employs more than 370,000 people around the world. However, Samsung Electronics has been major manufacturer of electronics devices such as hard drive, semiconductor, and flash memory and become big suppliers of electronics company client such as Sony, HTC, Apple and Nokia. However, most recently, the firm has been diversified in consumer electronics and become biggest mobiles and smart phones producer around the globe which is fuelled by the popularity of Samsung Galaxy. The firm also popular vendor of product such as tablet computers such as android powers Samsung galaxy as well as Samsung galaxy note.

Indeed, in 1969 -1987 sine the firm has been established, its early products based on the electronics appliances such as television, calculators, refrigerators, air conditions and washing machines. In 1970 however, Samsung Group launch another subsidiary known as Samsung-NEC which is jointly working with Japan's NEC Corporation to produce and manufacture audiovisual and home appliance devices. In 1974 however, the firm has potentially expanded into semi-conductors products by acquiring Korea semi-conductors and also acquired Korea Telecommunication base on electronic switching producers.

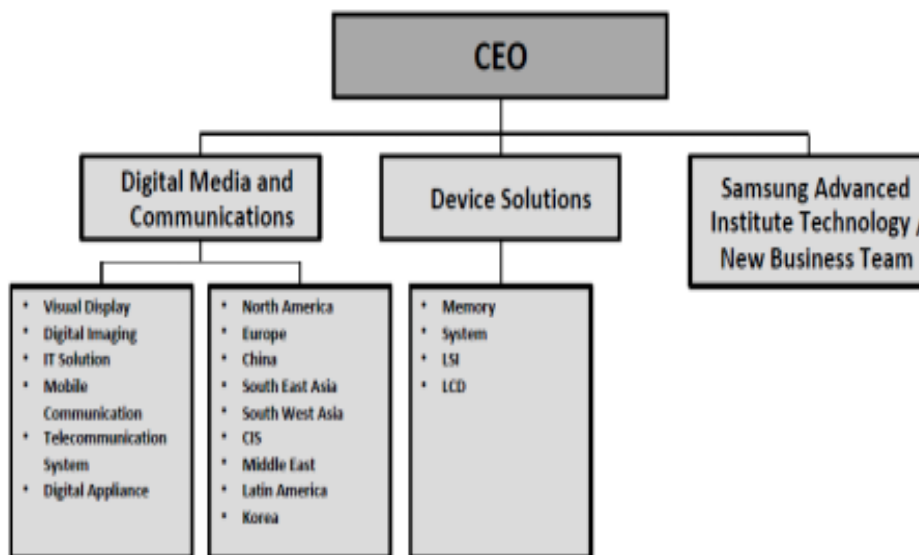
Moreover, in 1988-1995, the firm launched its first mobile phone in 1988. However, the performance was poor as 60% of the mobile market share was controlled by Motorola while Samsung controlled only 10%. The major reason for under performance was poor quality which led to inferior product and during the mid 1990s become the biggest headlines for the

firm to exit the business until the firm acquired 40% stake in AST research- the US computer personnel maker for \$378 millions in February 1995. However, in 1995-2008 there was a need of great strategic change due to poor performance and the need to become leading technology producing company. To achieve this however, the firm used vertical integration strategy and by 2000s the firm was able to produce several equipments. Indeed, brand awareness and image was developed when Samsung sponsored sports events such as Olympic event held in Nagano, Japan 1998. However, after concentrating on technology rather than the products, Samsung made remarkable breakthrough in technology particularly in the field of memory chip which is very common in electric market today including first 64Mb DRAM in 1992, 256 DRAM in 1994, 1 Gb DRAM in 1996, and in 2005 Samsung developed world first 8 Gb NAND memory and supplied to Apple and become the main supplier of Apple components such as A7 processor which currently available in Apple I Phone 5s.

On the other hand, from 2008 to present Samsung performance has been outstanding where in 2005 it surpassed its Japanese rival Sony for the first time in the history and become the world twentieths largest and popular brand as evaluated by Interbrand. In 2007 the firm became the largest mobile phone producer and overtake Motorola for the first time. In 2009 however, performance was revenues of \$117.4 billion and overtaken Hawlett-Packard and became the world largest technology firm measured by sales. Nonetheless, the firm has been succeeded to operate fifth generation technology also the exynos processor installed in S4 used around the world. Generally, due to market expansion in China and India the firm has achieved the record earnings of third quarter of 2013 of about \$9.4 as operating profits this was boosted by memory chip selling.

### Samsung Electronics Structure

Figure 1: Samsung Electronics Organisation



Source: Samsung Electronics Sustainability Report 2011, pp 7

Sources: adopted from [www.google.com](http://www.google.com) ( 2015)

### STRATEGIC DIRECTION

Basically, strategic direction is an important management tool to many managers in the world. It highlights the most important phenomena upon which the organization is undertaking Jonhson & Scholes (2002). Indeed, it defines the strategic intent of the organization and also the way how the initiation of change can be managed in order to happen. On the other hand, strategic direction also includes learning from other global competitors, managing information

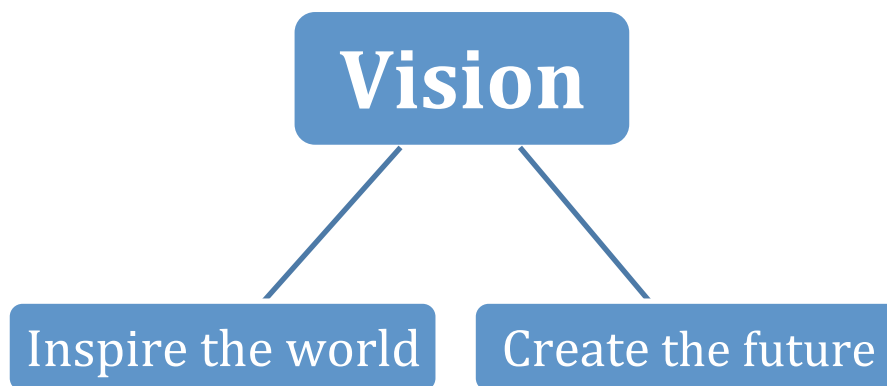
technology as well as protecting technological lead. Moreover, strategic direction also helps individual firm to procuring, organizing, utilizing competitive information as well as the recruiting, motivating by keeping people needed in the business and using manufacturing as a strategic weapon. Arguably, Samsung electronics has been extraordinarily caring in terms of its strategic direction recently and that has been the key to its success. The firm recruit a very competent people to work and drive the firm to achieve its intended objectives. However, the firm has to do more in terms of employee's retention as this will help the firm to compete effectively in the market.

### MISSION, VISION & CORE VALUES

#### Mission Statement

*"To inspire the world with innovative technologies, products, design that enrich people's lives and contribute to a socially responsible, sustain future"*

Arguably, the company seems to revolves within it mission statement in terms of its innovating thinking currently known as the best innovative organization in the world. Indeed, it managed to provide variety of products to enrich its customer and fulfill their expectation and needs. However, the firm has to do more in terms of social responsibility as well as the future sustainability to the customers and society at large.



#### Goals and Objectives 1.4

Indeed, the company has managed to categorize its objectives as describe below:  
Qualitative goals;

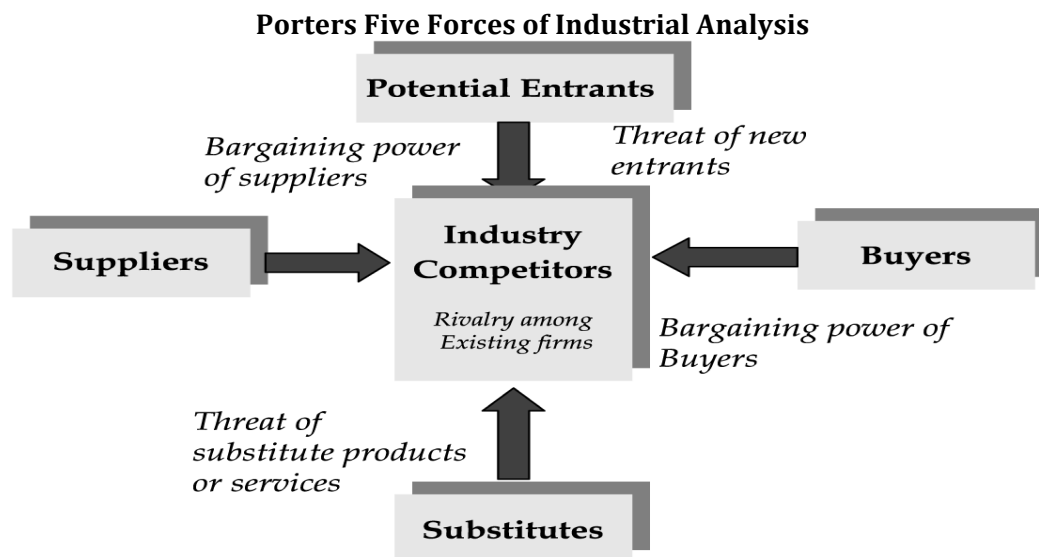
- USD 400 Billion in sales year 2020.
- Predominantly no. 1 in global IT industry & Global top 5.
- Quantitative goals;
- To be innovative company
- Creative leader in building new market
- Global enterprise that attracts world's best talents

More significantly, to achieve these potential objectives however, the firm must have sufficient resources that will enable it to perform better in the global arena and gain competitive advantages. The resources capability however, must be taken into account based on human capital that play significant role in the business process such as marketing, finance, operation and indeed in management. If these matter have been achieved however, the firm will be able to achieve it intended goals and objectives.



## NATURE OF COMPETITION

According to Michael Porters (1980s), industrial analysis can be done based on the following framework.



Sources: adopted from [www.google.com](http://www.google.com) (2016)

**Industry competitor:** is high due to existence of players of such as Apple, Nokia and Motorola which use several attack options on Samsung Electronics.

**Potential entrants:** is bit lower due to the level of resources and capability required to enter in the industry.

**Bargaining power of suppliers:** is lower due to the horizontal and vertical integration strategy employed by the firm upon which most of the required outputs are available within the company and reduce the level of dependence on other supplies.

**Bargaining power of buyers:** the is high as the customer may well be able to switch from one brand to another, so they pose great threat, and therefore the firm should use its resources to retain the customer based on Customer Relation Management.

**Threats of substitute products and services:** is high as customer may substitute their products to sort out their problem either by switching to other company products to deal with existing requirements.

Basically, many experts such as marketing analysts, managing directors, management consultants, financial directors, company director as well as chief executive and their advisors agrees that there are four important types of competition that one should put into account when analysing a particular industry, Porters (2004). Pure Competition however has been characterized by many players in which everyone is free to sell their services and product, therefore the market is free for everyone to enter and perform a business. Imperfect competition however, there are a number of players but differs in terms of their quality, durability as well as the usage of their product and services. These variations therefore, help a certain firm to achieve the market share and eventually competitive advantage. Oligopoly however, is another types of competition where there are few players who control the market normally is due to barrier to entry they create including patent rights as well as the lack of threshold capability of other players. Monopoly type of competition is the last type of competition where there is no competition at all and the whole market is controlled by one firm.

Arguably, Samsung Electronics is currently operating within oligopoly nature of competition where it seem as there are some few players which control the market and indeed the firm have created potential barriers for other players to inter in the market particularly in smart phones where many of them fail to compete due to poor resources in terms of people, finance and technology. However, some may argue that the firm is operating under imperfect completion and it only achieved its competitive advantages due to differentiation in quality, usage, durability and sophisticated technology used in their products which helps to overtake other players such as Nokia, Apple and Motorola and HTC. Therefore, the quick these competitors strengthen their threshold resources the sooner will overtake the Samsung Electronics. Therefore, Samsung Electronics has to do more to make sure that the firm competitive advantages are not ruined by other competitors by taking the following steps:

- ❖ Causal ambiguity, this approach requires that the firm design its organization in the way that other competitors do not know which area the organization has its strength.
- ❖ Complexity, basically under this approach the firm may design it value chain in a very complex way in which the competitors may remain clueless on the strength of the firm and ultimately fail to compete or imitate what the firm is doing and eventually do not know what is the secret behind it success.
- ❖ Cultural embedded, under this technique the manner upon which the culture has been embedded within the organization confuse the competitors. This is starting from where the products are manufactured or assembled, supplied, and reached to the customers has to be unique which then become extremely difficult for others to imitate.

### COMPETITIVE POSITIONING

Potentially, the company may well position itself according to the strengths and weakness it has in the particular industry, Johnson & Scholes (2002).

#### Samsung Electronics SWOT Analysis

<p><b>Strength</b>                  High market shares and sales                  Strong financial performance                  Stability of sources of finance                  Creativity, innovation and technology                  Strong marketing skills.                  Excellent coordination, monitoring and evaluation.</p>	<p><b>Weaknesses</b>                  Patent right breaching                  Brand image is weak compared to apple.                  Less consideration on new products.</p>
<p><b>Opportunities</b>                  Political encouragement and will                  Excellent community response                  Product development                  Market development                  Supports from the donor and advocacy.</p>	<p><b>Threats</b>                  Strong competition                  Existence of detrimental external policies                  Economic slow down                  Availability of substitute products                  Political instability such as war.</p>

**Sources: (Author, 2016)**

Michael Porter (1980s) from Harvard Business School however, developed with the model which may well help the organization to position itself in the market it operates. He developed model which is known as Generic Strategic which consists three important positioning options such as Differentiation, Cost leadership and Focus. Therefore, the company may potentially opt to differentiate itself in terms of products or services and being unique at that particular market. Therefore, that uniqueness will help the organization to gain competitive advantage.

Also, the firm may adapt cost leadership by exploiting the organization resources and manufacture quality products using very low cost and selling it in the very reasonable cost. Indeed, the firm may also position itself based on focus positioning strategy by focusing on certain market segment which it thinks that it may well compete effectively sometimes known as Niche Market. On the other hand, some experts developed a Hybrid strategy which basically look at the combination of the above strategies depends on the organization resources and objectives



More significantly, Samsung Electronics tends arguably to adapt hybrid positioning strategy based on differentiation and cost leadership. This happens when the firm launch new mobile phone for a particular market in order that the customer should also buy the product in affordable price, this was Samsung Galaxy S and Y which many lower income customers may afford. Indeed, the firm also differentiated itself based on technology through which the firm develop its own software and use it to its mobile phones and also supply them to other companies such as A7 processor supplied to Apple. The question whether this strategy is good enough for the company remains crucial especially due to dynamic nature of the world and indeed in technology which basically keep changing so faster. Therefore, the firm must review this strategy periodically to avoid any potential future pitfall of the firm particularly in terms of low cost as to some customers low price is not criteria to purchase their products. Then, it is very crucial to manage it to avoid being branded as cheap company, and create image which many customers think there is low quality. Moreover, the firm, if it wishes to pursue its low cost strategy must adapt economy of scale, and also concentrate on lean manufacturing to avoid being stuck at the middle.

### Drivers for Change

Basically, any organization must put much emphasis to study and predict the possible changes that may potentially impact the organization in one side or another (Johnson & Sholes, 2006). In this respect therefore, in this uncertainty world many business executives and analysts worrying on which change might occur and cause considerable damage to the firm. However, based on some research, there are some important changes that have been identified which could provide detrimental impact to the firm (Johnson 2002). The change based on the consumers preferences, as many consumers buying behaviour will be determined and dictated by the how it can serve and fit for a purpose rather than the price. Therefore, Samsung electronics must learn and predict the unarticulated market demand and quickly translate the customer preferences into product or services delivery. Moreover, the energy cost is going up therefore Samsung should invest in energy efficiency to position itself in its operational structure. As not enough, tax policy may well impact the organization therefore the firm should capitalize its process in terms of finance. Moreover, innovation also remain the crucial change that may potentially impact therefore Samsung may need to be more creative to innovate

technology which could suit the organization product and better position itself in the future. Nonetheless, the vertical integration also remain the most important change as many organization tend to vertically integrate their operations this helps to reduce dependency on the suppliers this strategy already adopted by Samsung which provide synergy to the customer. Indeed, the industry shift also create competitive shift, where now Samsung Electronics should think of new techniques to compete with new competitors and not traditional ones by reassessing its core competences and use scenario planning to identify new competitors. On top of that, increasing of information due to sophisticated information technology has been big change which may impact the firm as the Chief Executive may be confused and make poor decision. So then, the firm should collect, cultivate and exploit asymmetries in high quality information and indeed build strong and robust information filter rely on the unbiased judgement and enough experience. Likewise, the market reward for long term strategic focus for investors rather than buyback to boost share price, therefore firm must put concentration in longer terms corporate strategy. Nevertheless, the economic down turn may potentially affect the firm, based on its suppliers, partners and customers; therefore the firm should assess the environment. Lastly, the war for the talent employees, basically, study suggests that 25% of the higher potential talent address their interest of leaving their company. Therefore, the company should develop a high potential employees planning and encourage the potential competent worker to win the future talent battle.

### Strategic Option for Growth

More remarkably, strategic growth remains as a very crucial issue in the business and organizations spends more time and money to develop strategies that would help the firm to grow ( Kotler 1999) . The most common model used to cultivate strategies is Unsoff Matrix Model. In relation to Samsung Electronics this model can be analyzed as following.



Sources: adopted from [www.google.com](http://www.google.com) (Google, 2015)

Market Penetration, basically the firm aimed to achieve growth through existing products with the existing market segments and indeed seeks to increase its market share. Samsung Electronics however, the firm managed to increase market share by launching several products in the existing market. Classic examples in the introduction of Samsung Galaxy S3 and S4 which potentially help the firm to increase the market share.

Market Development, indeed under this approach the company tends to use its existing product to develop new market and ultimately increase market share. Samsung Electronics

however, managed to develop its market using its existing product when it launches several products by targeting Chinese and Indians market. Therefore, the introductions of Samsung Galaxy S and Y in those markets helped the firm to increase its market share and sales volume.

Product Development, the firm is basically, develop new product and target to its existing market so as it may increase its market share. In relation to Samsung however, the firm was able to develop Samsung Galaxy Note 1, 2 and 3 to its customers. These products however, helped the firm to gain high market share and gain competitive advantage. However, this strategy need close reassessment to avoid repetition of the product and damage the customer expectation.

Diversification, nonetheless, the firm may grow itself by through diversifying in new products with new market. However, Samsung was able to diversify based on related diversification as well as he unrelated ones such as pharmaceutical industry. Arguably, diversification may also need to be considered strategically as too much conglomeration may lead to ineffective and inefficiency and may lose focus of the firm.

### Boston Consulting Group Matrix (BCG Matrix)



Sources: adopted from [www.google.com](http://www.google.com) (2013)

Basically, the board of directors will potentially not approve any funds to be used in the business if there is no sufficient information on which product will provide a high return to firm and help in both market share and market growth. Therefore, the GCG Model will help the firm to identify which product give high return and how it can invest on that and using which strategy. In Samsung Electronics however, there are several products upon which the firm should be extremely careful to identify and focus on them. Arguably, the firm currently has several product lines which basically need not much attention. Therefore, the firm should not only diversify but look at the need and return related to that diversification, by building market share strategy of holding (Star Products) by investing on the high return products, using holding strategy by executing on the strategy, harvesting (Cash Cow) strategy by reducing the investment on that products such as promotion, advertisement, and also the divest strategy (Dogs) require to just abandon or eliminate the products which potentially have no interest with the business. Samsung electronics is arguably trying its best to focus but the writer believes that it is not good enough, then the firm has to do more in terms of focusing on which products gives best return based on the market share and growth.

### Organization for Success

Indeed, there are several reasons upon which contributed many organizations to go internationally. These can be illustrated as following here below:

#### REASONS FOR GOING GLOBAL

- Increasing Market share by increasing sales
- Cost reduction based on labour and technology
- Maximizing profits and assets by acquisition
- Seeking and increasing, knowledge, technology and innovation
- Long term and short term security of the business.
- Market saturation due to its smallest size at home
- The nature of competition at home market such as hyper competition

Sources (Author 2015)

### Criteria Selected for Global Expansion

More importantly, according to Richard Lynch (2006) there are potential global strategies through which the company should bear in mind before going abroad. Indeed, the most crucial issue here is the resources and capabilities consideration before global expansion. These include:

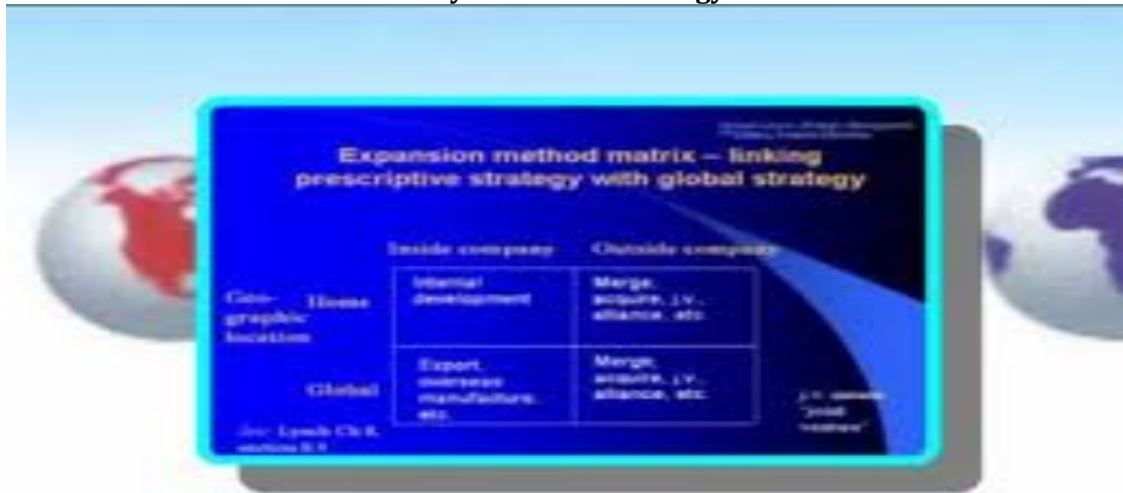
#### The Company Resources and Capabilities

<p>Built in the company's resources and capabilities in its home market.</p>	<ul style="list-style-type: none"> <li>• <b>Differentiated products</b> such as L'OREAL patented cosmetics products.</li> <li>• <b>Low cost products</b> such as Chinese manufacturing low labour cost with low currency advantage.</li> <li>• <b>Dominant market share</b> such as Microsoft Company.</li> <li>• <b>High performance products</b> such as Japanese bullet trains.</li> <li>• <b>High quality and reliability</b> such as that of Mercedes and Honda car products.</li> <li>• <b>Superior service level</b> such as that produced by GUCCI and DHL.</li> <li>• <b>Network and support services</b> such as that produced by Apple.</li> <li>• <b>Core competences</b> such as that produced by Canon in its optical lenses.</li> <li>• <b>Branding</b> such as that of NESTEL in its ice cream products.</li> <li>• <b>The reputation of the company</b> such as that of Nike in its sportswear.</li> <li>• <b>Knowledge</b> such as that of produced by NORVATIS pharmaceutical company.</li> <li>• <b>Leadership and Human Resources expertise</b> such as that produced by McDonald.</li> </ul>
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Sources (author 2016)

Arguably, Samsung Electronics has been able to full fill its resources and capabilities particularly based on the technology which recently help the firm to be branded as the most successful technological industry in the globe. However, more efforts must be made in its process to remain consistent in it performance in the market. On the other hand, the company used several methods to in its global expansion by using the exporting, acquisition as well as joint venture. Also proper assessment required when using these entry methods to avoid unnecessary troubles to reduce the risk that could be incurred in this turbulent globe.

**Richard Lynch Global Strategy Model**



Sources: adopted from www.google.com (2016)

On the hand, it is worth noting for the organization which seeks to expand its market globally by considering the Michael Porter Diamond Model of that particular country in which the organization is operating. However, arguably Samsung Electronics was able to consider these factors by locating it activities in the country which fit in Porter Diamond model such as USA and China. However, the firm should also consider it expansion in the other countries which recently made stunning performance such as the BRICs nations.

**Michael Porters Diamond Model**



Source: adopted from www.google.com ( 2016)

**Evaluation of the Criteria**

More remarkably, Johnson & Scholes (2006) admitted that, the firm required evaluating its strategies based on the time scale by looking it in terms of Suitability, Acceptability and Feasibility (SAF)

**Criteria for Strategy Evaluation**

<b>Suitability</b>	<ul style="list-style-type: none"> <li>• Rational of overall strategy</li> <li>• High economy of a scale</li> </ul>
<b>Acceptability</b>	<ul style="list-style-type: none"> <li>• Positive response from the stakeholders such as shareholders, customer, employees, supplier, etc.</li> </ul>
<b>Feasibility</b>	<ul style="list-style-type: none"> <li>• Human capital capability to supports</li> <li>• Financial capability to support the strategy</li> <li>• Marketing capability to support the strategy.</li> <li>• Strong information system management.</li> </ul>

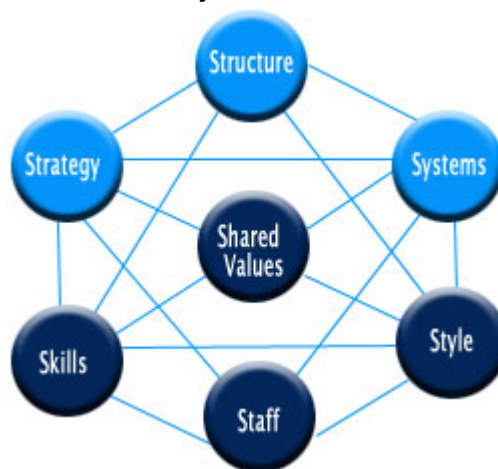
**Sources (author, 2016)**

Arguably, Samsung electronics strategy seems to be potentially working at the moment. For example based on suitability the current strategy seems to suit with the organization based on the economy of scale and help the firm to gain competitive advantage against other competitors. Moreover, the current strategy seems acceptable by the stakeholders such as the customers and the supplies and shareholders. On the hand, the strategy sounds feasible due to the current performance of the organization produced due to availability of required resources such as human capital, marketing, finance and technology. However, the firm has to do more assessment to not only maintain consistency but also to improve its resources and capability so as to reduce the risk and attain its competitive advantages Johnson & Scholes (2002).

**Implementation and Control**

Basically, during the implementation of the company strategy management guru developed model that can help to achieve the organization goals and objectives. The model was defined designed to into two groups Hard S's the first three and Soft S's last four.

**McKinsey 7S Framework**

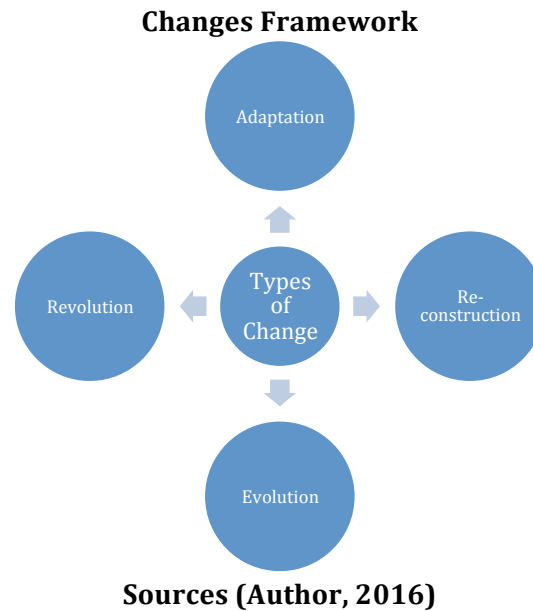


**Source: adopted from www.google.com (2016)**



### Resources Implications and Change required 4.1

Indeed, there implementing a certain strategy resources are required these include human resources, finance, strong marketing skills as well as innovation, creativity and technology. Therefore, Samsung Electronics must have sufficient resources to implements the strategy in global business. Indeed, Balogun & Hailey (1999) admitted that, there are some changes that may occur based on the need which will be discussed below:



**Adaptation:** basically, this type of change involves the incremental or slow changes upon which there is no need for the corporate cultures change to be undertaken by the organization. Samsung Electronics can adapt due to the current requirements.

**Reconstruction:** basically, this type of change involves potential rapid strategic change but there is no need for corporate cultures change. In relation to Samsung the firm the change can be applied based on products development of focus on the best return products.

**Evolution:** this type of change involves the incremental change but do not involve the corporate culture changes. This type of change may be applied but it is not necessary for this particular time.

**Revolution:** Indeed, this change involves not only the rapid strategic changes but also the corporate cultures change.

### CONTROL PERFORMANCE MEASURES

More significantly, Samsung electronics employed different control measures in different parts of the organization such as that of corporate, functional and operational level (Johnson & Scholes 2006). However, to organize for success the firm may employ organization configurations based process, structure and relations (Lynch 2006). Indeed, to enable more success for the firm, more control required in terms of information, people, finance and technology. These may likely be possible by adapting strategy such as “Turnaround Strategy” which could help the firm to change the failure strategy without affecting the organization culture and it also ensure that the benefit of new strategy is well understood and accepted by all stakeholders especially employees, shareholders and customers.

### RECOMMENDATIONS

Basically, the firm at the moment seems to have better position in the global business. However, there are a lot of measures need to be taken into consideration;

- ❖ Relying on the products development whereby not every consumer would like to see new products which serves similar needs and wants, therefore differentiation is the most important issue to be considered.
- ❖ Not all customers purchase product based on the low price but based on the quality and value of the product and sometimes cheap products brings poor image to the firm.
- ❖ Conglomeration based on horizontal and vertical integration may sometimes lead to less efficiency and effectiveness of the firm especially if it is not well managed.
- ❖ Based on the product portfolio the firm must concentrate on the products that bring high return to the organization and eliminate those which provide less or nothing to the financial health of the organization.

## References and Bibliographies

- Bawdin G et al (2006), *Event Management*, (2nd edn), Elsevier, London United Kingdom, pp 95,117
- Johnson J & Scholes K (2002), *Exploring Corporate Strategies (Case & Text)*, 6th edn, Prentice Hall, London, United Kingdom, p 12.
- Johnson G et al (2008) *Exploring Corporate Strategy*, (8th edn), Prentice Hall, London, United Kingdom, pp 49, 215.
- Kay J (2005), *Foundation of Corporate Strategy (The Most Important Contribution to Business Thinking In Decade)*, Oxford University Press, London United Kingdom, PP 211, 101,
- Lynch R (2006), *Corporate Strategy*, (4th edn), Prentice Hall & Pearson Education, London, United Kingdom, pp, 2, 76, 445.
- Sookun M, (2011), *Environmental Analysis*, London School of Commerce, London, United Kingdom.
- Mintberg H et al (2009), *Strategy Safari*, (2nd edn), Prentice Hall, London, United Kingdom, 86.
- Niale B & Pike R (2005), *Corporate Finance & Investment (Decisions & Strategies)*, 5th edn, Prentice Hall, London, United Kingdom, pp 123, 178, 174.
- Pottabathni G, (2009), *Wall-Mart Strategy, Case Study*. Available on: <http://www.articlebase.com/strategic-planning/article> (accessed on 2nd Dec 2013).
- Bronzite M, (2000), *System Development (Strategic Frame Work)*, Springer Ltd, London, United Kingdom.
- <http://www.bized.com> (accessed on 10th Dec. 2015).
- <http://www.google.com> retrieved on January, 2016.
- Internet Center For Management And Business Administration, (2009-2010), *Porters Competitive Strategy, Blog*, Available From <http://www.QuickMBA.com> accessed on 2nd Dec.2013.
- Meek et al (2002) *Strategic Marketing Management (Planning & Control)*, Elsevier Science Limited, Italy.
- Mursay I, (2006), *the Franchising Handbook*, Kogan Page Limited, London, United Kingdom.
- Wall-Mart (2009), *Retail Colleague Handbook*, London, United Kingdom.
- Robson W, (1997), *Strategic Management Information System*, 2nd edn, Prentice Hall, London, United Kingdom,
- Robert D et al, (2006), *Strategic Information Management*, 3rd edn, Elsevier Butterwoth Hainemann, London, United Kingdom.
- Lynch R, (2012) *Strategic Management*, 6th edn, Pearson education, London, United Kingdom.
- [Http://www.samsung.com](http://www.samsung.com), retrieved on, 9th Dec, 2013.
- Porters M, (2004) *Competitive Strategy, Techniques for Analysing Industry and Competitors*, New York, United State of America.
- Balogun J & Hailey H (1999), *Exploring Strategic Change*, Prentice Hall, London, United Kingdom.

Kotler P, (1999), *Kotler in Marketing (How to create, Win and Dominant Market)*, Free Press, United States.

Stickland, T. P. & G., 2012. *Crafting and Executing Strategy (Concepts and Cases)*. New York: McGraw-Hill.

Keller, P. K. & K. L., 2009. *Marketing Management*. 13 ed. London: Peason. United Kingdom

Lynch, R., 2003. *Corporate Strategy*. 3rd ed. Essex: Prentice Hall. United Kingdom

Robert Bugelman, C. C. S. W. 2004. *Strategic Management of Technology and Innovation*. 4th Ed. New York: McGraw Hill.

Johnson & Scholes, 2012. *Exploring Corporate Strategy*. 9th ed. London: Peason Education Limited.