



On The Merits Of The Ethnographic Method In Economic Research: A Zambian Illustration

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ABSTRACT

In view of the growing recognition of the limitations of quantitative methods of economic research, there is a noticeable revival of the application of qualitative methods. This paper discusses one such qualitative method, the ethnographic method, which is growing in popularity. An illustration is provided in the Zambian context, using ethnographic techniques to understand the present Zambian mobile money ecosystem from the perspectives of the different players, namely, senders and recipients of mobile money, mobile money service providers and individual mobile money agents.

Keywords: Qualitative method, quantitative method, ethnographic method, mobile money

INTRODUCTION

The debate regarding the relative merits and demerits of the use of qualitative and quantitative methods of analysis and research has long been a characteristic feature of economics. Indeed, until the beginnings of the twentieth century, qualitative methods seem to have largely ruled the roost. There were only sporadic excursions into methods that would be considered today as distinctly quantitative. A prominent example would be the work of Cournot (1838) wherein the author formulated a mathematical model of duopoly, a model that is taught to economics students even today.

Practically, all the early writers starting with Adam Smith wrote in a manner whereby quantitative analysis was more implicit than explicit. Adam Smith, David Ricardo, Karl Marx and others resorted to the use of what may be regarded as 'verbal algebra'. As an illustration, we can cite the paper by Pasinetti (1960) which presented an explicitly rigorous mathematical formulation of the Ricardian system contained in Ricardo (1817).

It was Alfred Marshall (1907) who averred that "qualitative analysis has done the greater part of its work in economics" and that "the higher and more difficult task" of quantitative analysis "must wait upon the slow growth of thorough realistic statistics". (See Mitchell, 1925).

Mitchell (op. cit.) himself wrote: "We do not speak of qualitative *versus* quantitative analysis. We do not even seek to prove that one type should predominate over the other. Instead of dogmatizing about methods at large, we are experimenting with methods in detail. In the measure of our proficiencies, we all practise both qualitative and quantitative analysis, shifting our emphasis according to the tasks we have in hand". (p1).

Notwithstanding what Mitchell wrote more than nine decades ago, the tide subsequently seems to have shifted predominantly in favour of the use of quantitative methods in economics. In this regard, Basole and Ramnarain (2016) write: “Even though from Adam Smith’s division of labour to Coase’s transactions costs to Piore’s flexible specialization, economists have often relied on personal observations of a qualitative nature to create new and influential theoretical concepts, a researcher using qualitative data is very much an outsider in the profession” (p 135-136). (To see the specific contributions of Smith, Coase and Piore mentioned in this quote, one can refer to their works cited in the References).

There are possibly two reasons for this methodological predominance.

One, economics is potentially the most quantitative of all the social sciences. If one reflects carefully, one will realize that there are only three main generic variables in their many specific forms in economics, namely, prices, quantities and values (the product of prices and quantities). And all these variables can be quantified and measured. This cannot be said of another social science discipline such as, for example, sociology which is less amenable to the use of quantitative methods as they involve variables that cannot yield systematically treatable data.

To appreciate this, let us look at a typical simple hypothesis drawn from economics and from sociology respectively. In economics, one may test a hypothesis that a country’s investment demand is determined by the interest rate. Here, the definitions of both the dependent variable (investment demand, which is a quantity) and the independent variable (interest rate which is a price) can be operationalized and both are quantifiable and measurable. In sociology, a typical hypothesis would be that the way a person is treated in the workplace (dependent variable) is determined by the way the person dresses as if he/she is a successful professional (independent variable). (See eNotes, n.d.). Here, not only is the task of providing operational definitions of the variables a complicated one, the variables cannot be quantified and measured with the same ease as the economic variables.

The above is not to say that all variables in economics are of a directly quantifiable nature. There are important variables that are at best categorical (those for which a suitable category can be found but no actual measurement exists) or truncated (those that can be observed only in certain ranges). However, modern econometrics has developed a clutch of techniques to handle such qualitative variables (depending on the nature of categorization and truncation of the dependent variables) such as: probit and logit, ordered probit and logit, multinomial logit, Hickman’s procedure, tobit, Poisson regression and hazard models. (See Maddala, 1986 for a discussion of these techniques).

The *second* reason for the predominance of quantitative methods in present-day economic analysis and research is that policy making especially in developing countries is highly insistent on empirical evidence. “Show me the data” is the accepted dictum. This has led to a rapid increase in the rise of data production through large-scale, scientifically-designed surveys (Marshall’s time seems to have arrived), the concomitant rise in the application of quantitative techniques, notably econometrics, in applied economic research, and the constant development of more advanced and sophisticated techniques to overcome observed methodological deficiencies in the prevailing tools.

While the above developments have indisputably served to raise the scientific status of economics, there also seems to be a growing trepidation that, as in the case of Shakespeare’s Macbeth, quantitative economic research today is being spurred by “vaulting ambition that o’erleaps itself and falls on th’other”.

Several writers in recent years have expressed their reservations on the possible “overuse” of quantitative methods and on their over-glorification. David Friedman (2009) concluded his paper stating: “Some kinds of problems may yield to sophisticated statistical technique, others will not. The goal of empirical research is – or should be – to increase our understanding of the phenomena, rather than displaying our mastery of technique”. (p 11).

Gavin Falk (1995) issued the following note of caution in the use of econometrics: “Expectations and uncertainties play key roles in the translation of economic theory into real world economics. These uncertainties mean that econometrics cannot supply us with a perfectly accurate model of the workings of the economy. If econometrics is used with these limitations kept in mind, it can be extremely useful in increasing our depth of knowledge and understanding of the economy. If, however, we attempt to use econometrics in the same manner as the ‘natural sciences’ use controlled experiments, without respecting its inherent limitations of methodology and data collection, we are negating its value and running the risk of making totally inaccurate and useless predictions”.

In Medium (2017), an author states: “I am not saying there are no cases where econometric methods work but what I am claiming is that a myopic obsession with these methods could be doing more harm than good. Delving further into the descriptive and the qualitative context can often tell us more about what is going on in the world – the techniques can at best serve as a robustness check, but no more. Giving up the pretension that these advanced methods always make economics more rigorous could make papers more accessible to other disciplines and to the public, while freeing up researchers to ask more interesting questions even if they don’t permit the use of the latest techniques”.

The disenchantment expressed in the above types of observations regarding the limits and possible misuse of the quantitative tools leading to misleading conclusions has aggravated the distrust of those who employ these techniques. One of the possible misuses is with regard to model specification. Feelders (2000) elaborates on this as follows: “The search for adequate specification based on preliminary results is called data mining in the econometrics community. ... In principle, there is nothing wrong with this approach, its combination however with classic testing procedures that do not take into account the amount of search performed has given data mining a pejorative connotation. Spanos uses the vivid analogy of shooting at a blank wall and then drawing a bull’s eye around the bullet hole: the probability of the shot being in the bull’s eye is equal to one. The proper way according to the classical view is to specify the model (i.e. drawing the target) before looking at the data (seeing where the bullet hole is)”. (p 6).

Such expressions of distrust and disenchantment about quantitative methods seems to be leading to a reclamation of the qualitative methods and a growing recognition of their role and value in economic research in recent times. For instance, a paper by Jemna (2016) surveys the growing use of qualitative methods in economics that aims to provide economists with a useful roadmap through major sets of qualitative methods and how they are used. Jemna argues that “although qualitative methods are often portrayed as less accurate, less powerful or less credible than quantitative methods, in fact, the two sets of methods have their own strengths. How much can be learnt from one type of method or the other depends on specific issues that arise in the topic of interest.” (op. cit. p 154).

The following table brings out the differences between qualitative and quantitative methods.

Table 1: Differences in qualitative and quantitative research

Concepts	Qualitative	Quantitative
Origins	Search for meaning; interactive approach	Search for truth in an objective, controlled manner
Beliefs	Complex beings who attribute unique meanings to situations	Bio psychosocial beings with measurable components
Truth	Subjective with multiple realities	Objective reality
Basis of knowing	Meaning, discovery	Cause and effect relationship
Focus	Complex and broad	Concise and narrow
Level	Holistic	Reductionist
Reasoning	Dialectic, inductive	Logistical, deductive
Setting	Occurs in uncontrolled, naturalistic (social or human) conditions	Investigator seeks experimental control of the setting
Purpose	Develop theory by exploring meaning and describing relationships	Tests hypotheses, theories by control and observation
Sample	People in the sample are referred to as participants or informants	People in the group are termed the sample, and are referred to as subjects, cases or respondents
Researcher position	An active and interactive participant, immersed in the setting	Uses measuring instruments or tools, (e.g. questionnaire)
Data elements	Written form (words)	Numerical form (numbers)
Analyses	Interpretive analysis usually undertaken manually	Statistical analysis using software (SPSS, STATA, Eviews, etc.)
Outcomes	Are often thematic or conceptual, but not quantifiable and are expressed in words	Must be measurable and are reported in numerical terms
Application	Exploration of unique experiences of individuals or groups	Findings able to be generalized to similar groups

Source: Slightly modified version of the table in Dean Whitehead: Nursing and Midwifery Research, 5th Edition, Elsevier, 2016

In this paper we discuss one of the major types of qualitative methods, namely, the ethnographic method. We then provide an illustration of the ethnographic method using a Zambian research theme.

ETHNOGRAPHIC METHODS AND ECONOMIC RESEARCH

Ethnography has made valuable contributions as a complement to quantitative research techniques in economic thematic areas. Ethnographic practice involves combining multiple research methods in order to best answer a research question or questions. The main aim of including ethnographic approaches in economic studies that are normally quantitative in nature is that the objectives of ethnography add extra quality to data collected and analysed in case studies. In particular, ethnography has the ability to amplify an economist's research experience in doing anthropological fieldwork research. Anthropological research can have a profound influence on the social, economic, and political spheres in which many economists operate. Designing social and economic policies is normally done by economists who can utilise anthropological methods like ethnography to amplify their understanding of social and economic problems.

Ethnography also avails researchers the experience in objectively recording data during fieldwork. Further, ethnography allows researchers to gain experience in interacting with and

collecting data from key informants. This is an important aspect to consider especially in research studies that are recent and whose past data may not be available. Ethnography also allows researchers to apply fieldwork techniques such as focus group discussions and portraits that are barely just discussed in class settings and researchable readings.

Accordingly, in understanding ethnography as a method, researchers understand that ethnography takes the duration of being in the field as its main qualification. A long interaction with the field enhances one's knowledge and comprehension of social and cultural practices. The practice of ethnography consists of several methods: observation, participation, interviewing, conversation, 'being', keeping a logbook and diary, interacting and the famous "thick description". The combination of the ethnographic method with qualitative surveys, visual methods and semi-structured interviews brings a level of in-depth knowledge to a study (Bruijn, Butter and Fall, 2017).

ETHNOGRAPHY AND ZAMBIAN MOBILE MONEY STUDIES

In Zambia, the importance of ethnography has been illustrated through its application to investigations of mobile money. In trying to understand the growing popularity of mobile financial services in Zambia, ethnography has provided the means to an in-depth background relevant for a critical inquiry. Mobile money has been growing and has been seen to affect the financial economy, norms and values of the Zambian society. Thus, extending inquiry into everyday practices and experiences of people that use it or indeed mediate between users and service providers has been key to many researchers (Kabala-Litana and Pesa, 2016, Bruijn, Butter and Fall, 2017).

Ethnographic methods have been employed to understand the drivers behind the popularity of mobile money transactions in Zambia, especially in the last two years. During these particular years, data has been collected by means of observation, interviewing, listening, and immersion with the least amount of distortion and bias. For instance, in studying mobile money on the Zambian scene, Kabala-Litana and Pesa (2016) attempted to inquire whether mobile money agents and tellers have been able to acquire skills which differentiate them from, for example, scratch card sellers. Through participant observation, it was further revealed to the researchers that mobile money agents and tellers can act as mediators between large telecom companies and customers.

A number of economic transactions are closely related to societal norms and values that are often framed in a historical process of change. In the case of African societies, including the Zambian society, a wide variety of economic and social transactions have been studied using ethnographic methods. It has been discovered that most social and economic transactions relating to mobile money can be understood in a context of migrant and trader communities. This implies understanding mobile money in the context of mobile people and market mobilities. Mobile money and other digital financial services which are an abstract of the concrete way of transferring money is better explained through ethnography, rather than employing the usual quantitative techniques that economists use to evaluate relationships.

In view of the above, ethnography allows economic researchers to understand how studies on mobile money and other digital financial services relate to social and cultural encounters in mobile communities. Furthermore, understanding the present-day attitudes and perceptions surrounding digital financial services requires in-depth analyses of the history of money transactions. This type of in-depth analyses can only be extracted through ethnographic techniques including portraits of key informants, among others. Studying the mobility of

money requires an understanding of social change and motives that surround the acceptance of digital financial services in general (Bruijn, Butter and Fall, 2017).

Bruijn, Butter and Fall (ibid) compared variations and connections between the four country cases of Senegal, Cameroon, DRC and Zambia. Their study aimed to ascertain more nuanced tendencies and stories vis-à-vis digital financial services and financial inclusion. They studied the mobile money ecosystem in each of the four countries. They have a consensus that when studying cases of money, linkages as well as associated chains, there is need to grasp aspects like perceptions of money and how this money enters socio-economic networks. Further, researchers need to well explain how money then moves through these networks. Hence, analysing relationships between individuals, technologies of communication, social interactions and discourses within digital and physical environments is a key consideration.

The Zambian study of mobile money, like the other three cases, employed an evaluation of money as a form of economic communication. This was a key observation because communication occurs between points that usually make up a network. Within the context of this Zambian study, ethnographic techniques were applied to deeply understand the Zambian mobile money ecosystem through social actors or agents. In this case, ethnography in economic and social studies offered rich insights especially when understanding communication that happens among people, forming a series of linkages within a chain (op. cit).

The Zambian illustration of ethnographic approaches using Bruijn, Butter and Fall (2017) helps economic researchers to understand the various chains that exist in terms of monetary transfers. This allows for sketching the mobile money ecosystem, i.e. the context in which monetary “communication” processes occur. To make sense of these linkages and understand the transformations and changes as a consequence of the introduction of mobile money, ethnographic methodology is more appealing because it allows for an understanding of processes and dynamics through the eyes of the many economic players. The economic players include users or people that send or receive money, pay bills using mobile money, as well as some non-users of mobile money who participate in economic transactions.

The ethnographic methodology used in the four-country comparative study of Bruijn *et al* (2017) included the mapping of relevant historical, economic and socio-political contexts. This helped to explain the differences and similarities between the country cases. The researchers focused especially on the context of mobility - the mobility of money itself, but also the mobility of those transferring money (migration and commerce). The approach in this study was based on an adaption and continuation of the social network perspective, which focused on the nodes (linkages) and ties (chain) within a network. This also implied understanding the exchange of information among people as well as the social ties that link them. In the entire mobile money comparative project, the mobile money ecosystem forms such a social network. Examining the four case studies from this angle created a framework that included the different actors involved in mobile money. This resulted in creating an understanding of the holistic context that shapes a mobile money ecosystem. This perspective helped deepen the analysis from very interesting facts about each country. For instance, Zambia has a history in mining and urbanization that has led to a strong formal economy. On the contrary, this is quite the opposite in Congo DRC, where the country has a long history of conflict and distrust of formal (banking) structures. In this study, the specific economic context of each country was another country's focus point and included the different economic circuits/hierarchies found in society. Given the ethnographic approach, insights into these various contexts allowed for a more in-

depth approach and critique of the development of digital financial services, their specific products and their (potential) user (ibid).

In relation to ethnography and the mobile money ecosystem, all country cases followed the methodological framework that involved “mapping” and each study had a clear ethnographic approach to describing users involved in the mobile money chains. The emphasis was on the real users (consumers) of monetary transfer services and thus less on those providing the services (although they were included as informants). Ethnography revealed such things as perceptions, practices and attitudes towards mobile money. Following actors (users and non-users) and their relation to mobile money services gave insight into the historical differences and current ecosystem in which mobile money transfers take place. In order to create such an in-depth understanding of the mobile money ecosystem, methods employed in these country case studies included observations, photos and interviews (Bruijn, Butter and Fall, 2017).

THE ZAMBIAN MOBILE MONEY TRAJECTORY UNVEILED THROUGH ETHNOGRAPHIC METHODS

Celpay introduced mobile financial services to Zambia in 2002. However, operational challenges and allegations of fraudulent transactions resulted in defunct service provision, leading to shut down of the company’s digital finance division in 2013 (Kabala and Seshamani, 2016). In 2009, Zoono was the first company to effectively launch mobile financial services, starting as a small-scale payment system for cotton farmers. Quite uniquely, Zoono has remained independent of telecom providers, offering an interoperable network service (Kabala-Litana and Pesa, 2016). Zoono relies solely on mobile financial services for its profits. Therefore, Zoono initially struggled to reach commercial viability and scale.

Mobile money kiosks only started appearing on the money transfer scene in 2011. Mobile network operators Airtel and MTN launched their mobile financial services in 2011 and 2012 respectively (UNCDF, 2014). This was the first attempt at diversifying the offer of mobile financial services and increasing the customer base away from the usual services that Zoono provided (Kabala- Litana and Pesa, 2016).

Despite having an increased number of mobile money service providers, differences existed in how mobile money services were provided to clientele on the market. The main distinction between the three mobile financial services providers is that Zoono works without customer accounts. Thus, all transactions only require valid identity documentation and a personalized PIN. Zoono from inception largely dealt with transactions involving money transfers services only.

In contrast, Airtel and MTN, aim to create a ‘network effect’ through the use of customer accounts for all mobile money transactions. The mobile money accounts that are created for customers by agents that subscribe to the mobile network providers enable the clients to do more than money transfer transactions. Customers can also pay utility bills, save money and even pay wages using Airtel and MTN mobile money services. These major telecom providers use promotions on reduced money transfer and other mobile money transaction fees to attract customers to join their network. In order to attract clients to their networks, they charge higher fees when transacting money to non-users (people without an account) (Kabala-Litana and Pesa, 2016; Donovan 2012). Although Zoono was not primarily interested in using mobile money for bill settlement, recently, their focus has also shifted in this direction to match the emerging competition in usage of digital financial services.

Mobile financial services transfers in Zambia have experienced steady growth rates since 2012, booming from early 2014 onwards (Finscope, 2015). In August 2014 Zoono reported having 650+ agents, 600,000+ active customers and a monthly average transaction volume of \$25,000,000+ (<http://www.m4dimpact.com/analysis/case-studies/zoono/>).

A large majority of Zambian adults particularly those residing in rural areas, still lack access to formal financial services especially formal bank accounts. The 2015 Finscope study estimated that only 38.2% of the adult population in Zambia was formally financially included.

The lack of access to formal financial services is mostly prominent among adults in informal employment, agriculture or trade. For these groups of people, cash remains of paramount importance to any kind of financial transaction. Therefore, mobile financial services have proved convenient in these areas, as they can be used for a variety of purposes. Mobile money services have been appreciated by those who were unbanked for purposes such as sending and receiving money to/from friends or relatives, to business transactions, paying utility bills, buying mobile phone credit or paying school fees (Finscope, 2015; Kabala and Seshamani, 2016).

Zambia having a long history of mobility and labor migration has been characterized by long-distance financial transactions enabled by mobile financial services which have proven popular. Through the aid of ethnographic techniques such as portraits and in-depth interviews, the flow of money from the sender to the receiver via mobile money has been captured. Individuals that wish to send money simply have to deposit cash at an agent's outlet in order for them to transfer money to a receiver in another location. The agent then converts the cash into e-value (termed as *float*), which is transferred to the recipient's phone through an SMS message. The SMS message on the recipient's mobile phone contains a unique transaction code or reference number. Just by visiting an agent of the same money transfer company or service, the recipients can have their e-value captured from the SMS message and the system converted back into cash and then withdrawing the money also occurs (Maurer, Nelms and Rea, 2013; Morawczynski, 2009). In this case, mobile money services revolve around the exchange of cash and e-value. This exchange is normally mediated by agents (Jack, Ray and Suri, 2013).

The degree of financial "formalization" has been shifted from informal exchange (through personal remittances, for instance) to greater formality through the use of mobile money agents (Duncombe, 2012: 571). The most significant shift accompanying the introduction of mobile money services can be understood from a user's point of view. For a user, the change from interpersonal money transfers in cash to the introduction of intermediaries in the form of agents and virtual money transfer might be a considerable difference (Interview with Sandra Jere and Sydney Makofi, Kitwe, 12th April, 2018). This reveals that agents play a pivotal role in mobile financial services, by connecting customers to service providers and also establishing trust in the system. Further, agents still continue to place themselves at the center of mobile money transactions by running profit-making businesses. According to Duncombe (2014: 573), agents 'play an important role in delivering [mobile financial] services', yet that there 'is little evidence from the literature concerning their impact on livelihoods.' As such, Kabala- Litana and Pesa in 2015 conducted an ethnographic study on some agents in Kitwe, to understand this surprising omission. This involved inserting mobile money agents into debates on financial inclusion, entrepreneurship and development.

The inquiry into the missing empirical evidence concerning how agents impact on livelihoods raised the following question in the Kitwe study: Can mobile money agents contribute to employment generation, entrepreneurship and financial inclusion? Some agents have indeed

managed to start their own businesses, open multiple outlets and earn high profits from mobile money businesses. However, the role of most agents remains precarious (See Dolan and Rajak, 2016; Kabala- Litana and Pesa, 2016). To a large extent, this is because of the fact that mobile financial services in Zambia are part of larger franchises (Sigué, 2012).¹ Airtel, MTN, Zoono and more recently, Zamtel have given the right to use their brand name to individual mobile money agents, who function as independent retailers. Yet, as indicated earlier, agents remain very dependent on the actual service providers for network and other operational services that require the smooth flow of mobile money services. The nature of the relationship between agents and service providers influences the ability of agents to act in an entrepreneurial manner.

Particularly, in order to study the entrepreneurship of mobile money agents in Zambia, Kitwe City in the highly urbanized Copperbelt region proved to be an ideal location in the study by Kabala – Litana and Pesa in 2015. Although the number of mobile financial services outlets in Kitwe has increased rapidly from 2014 onwards, there is still much scope for expansion (Interview with Mbamwabi, Kitwe, 27 August 2015). In the reality of high unemployment rates in the city and countrywide, the potential of entrepreneurship can be particularly significant in Kitwe. In the period of July-September 2015 the authors first conducted a survey among 52 agents of Airtel, MTN and Zoono in Kitwe using regular structured interviews and participant observations techniques. The survey attempted to explore topics such as educational and employment background, the process of starting the job and setting up the business, benefits and difficulties of being an agent, customer relations, transactions, profits as well as future plans. After the first round of surveys, in-depth interviews were held with some of these agents, to ask them about their career trajectories, business ideas and activities in a more detailed manner. In the following year (2016), these agents were followed ethnographically. Based on the follow-up interviews, the authors constructed the three portraits below. The three portraits serve as a starting point to discuss the potential of entrepreneurship among Kitwe's mobile money agents.

PORTRAITS OF ENTREPRENEURSHIP: TALES OF THREE MOBILE MONEY AGENTS IN KITWE

The potential of entrepreneurship among mobile money agents in Zambia has largely been seen through existing narratives of case studies of single agents used as advertising material by mobile financial services providers. Nonetheless, by sketching three in-depth portraits of mobile money agents in Kitwe, the authors wished to draw out some broader themes along which to structure the debates about agents, entrepreneurship and local economic development.

Sandra Jere

Sandra Jere is Kitwe's biggest mobile money agent, who runs 21 outlets and employs over 25 tellers. She started out as a sales representative for Zoono in 2010 when the company was just taking off with offers for some individuals to become mobile money agents. By then Zoono had just launched mobile financial services and Sandra seized the opportunity to start her first outlet in Kitwe Central Business District in July 2011. Certainly, Sandra is an example of a

¹ 'Franchising is a channel contractual arrangement by which a franchisor (generally a manufacturer or a service provider) enters into contracts with individual franchisees (retailers) and offers them, within a specified timeframe, exclusive dealership of the products or services or the use of its business format in a given area. More importantly, franchisees have the use of the franchisor's brand name, often in exchange for franchisee fees and royalty payments' (Sigué, 2012: 168).

beneficiary of opportunity entrepreneurship (Alvarez and Barney, 2014). Sandra established herself in a busy area, next to the post office. The post office at the time was seen as the major competitor to mobile financial services through its offer of Swift Cash money transfer services. Sandra kept up the competitive edge and tried to convince post office customers to make transactions at her Zoono outlet instead. She dwelled on benefits that Zoono offered such as shorter queues and that clients would be notified once their relatives and friends withdrew the money that was sent. She also provided a friendly service to all clients to ensure that they came back and potentially spread word around of their experience with Zoono services. Zoono then provided her with a loan to open two more outlets, once she had attracted a steady flow of customers. This enabled her business to grow to the extent that she repaid from her commissions and profits over the next three years. Subsequently, Sandra opened more outlets in the Kitwe Business District without any financial assistance.

Interestingly, Sandra came straight from secondary school, with no prior job experience before starting as a Zoono sale representative. Thus, it is not easy to determine what caused the success of her mobile money business. On the one hand, part of the explanation lies in the 'first mover' advantage. In this case, she carved out a market niche for herself because she was the first mobile money agent in Kitwe. She managed to build trust among her customers who came to value her services and expected reliable transactions. Further, another explanation lies in more intangible assets, such as human capital, business skills and perseverance. Sandra had the foresight to recognize this business opportunity and act on it. She also had enough patience to wait for the business to take off. Furthermore, she established good customer relations and trust, which earned her a growing and loyal customer base. Sandra's success cannot be attributed to previous job experience (since she had none). In addition, she did not have a very high level of education (she completed Grade 12 and only enrolled in college for a business administration course once she had been an agent for several years) or to a personal network and social capital (she relied on new customers who did not know Zoono or mobile money services previously, although she did subsequently establish a loyal customer base). Therefore, Sandra serves as an example of entrepreneurship and employment generation in mobile money service provision. However, pinpointing the exact factors behind her success is considerably more difficult (Interview with Sandra Jere, Kitwe, 14 and 20 August 2015).

Progress Mwansa

Progress Mwansa is also an example of a successful entrepreneur in Kitwe's mobile financial services landscape. She began working as a sales champion for MTN when the company first launched mobile financial services in 2012. Progress spent most of her time visiting clients door to door in an attempt to advertise MTN mobile financial services. Progress also spent time selling mobile financial services to bus drivers at the Savage Yard bus station in Kitwe City Centre. Initially, the bus drivers were skeptical about these services. So Progress required a drawn-out marketing campaign. Eventually, the bus drivers came to trust Progress because of her reliable and friendly customer services with regard to mobile financial services. Later, MTN started to invite applications from individuals who wanted to become agents for MTN mobile financial services. Given her previous experience as a sales Champion for MTN financial services, Progress had enough information and tacit knowledge of how mobile financial services worked. She submitted an application to become an MTN mobile money agent and immediately sought a stand in a high traffic area. She found a spot right opposite the Savage Yard bus station where most of her clients operated. The MTN mobile money inspection team came to inspect the premises of Progress's stand upon receipt of her application. They were satisfied and registered her as an MTN agent.

Progress seized the opportunity to become an MTN agent as this enabled her to be an independent business owner. She settled in comfortably as an entrepreneur because the new position as an agent compared favorably to her previous work as an MTN sales champion. Both these opportunities involved work on a precarious commission basis. It is important to note that a factor contributing to her success was that Progress proved keen to use her social network of clients from the bus station and surrounding areas to grow her business as a mobile money agent. Progress was among the first to trade as a mobile money agent around the Savage Yard bus station. This led her to enjoy the considerable 'first mover' advantages, just like Sandra. However, unlike Sandra, Progress did not get a loan for expansion of the business. She used start-up capital from her previous job and managed to persevere as a mobile money agent by investing her earnings in the growth of the mobile money business.

In order to earn additional profits, Progress would sometimes lend some of her earnings from the mobile money business to bus drivers at a small interest. Further, bus drivers considered Progress to be financially disciplined that they felt comfortable to save their daily cash earnings through their mobile money accounts held with Progress. Although Progress's income can be erratic, especially if MTN fails to pay her commissions on time, she has continued to survive and prosper as a mobile money agent. Her activities have been a source of important assets and they have enabled her to buy a plot and build a house. The MTN mobile money business has given Progress a chance to be self-employed and to provide an education for her children. The success of Progress's mobile money business lies in her commitment to serve her clients in a friendly and reliable manner. In addition, Progress has taken the risk of investing in a money lending business that has diversified her sources of income (Interview with Progress Mwansa, Kitwe, 21 August 2015).

Sydney Makofi

Sydney Makofi is a mobile money super dealer who operates Zoona, Airtel and MTN mobile financial services from his store in Kitwe's Kwacha Township. Sydney has managed to navigate the three mobile financial service providers to his advantage despite official clauses of exclusivity (a Zoona agent is not supposed to deal in Airtel or MTN mobile money, and vice versa). Sydney first started business as a retail fish trader from his shop at Kwacha market in 2008. In 2010 Sydney came across people who were advertising the need for mobile money agents under Zoona who were to start operating in different locations. In order to set up as a Zoona agent, one was required to have a minimum capital of K3, 000 to avoid float problems during transactions. At that time, Sydney had some money from his fish sales. Sydney then decided to invest all his money in the mobile money business so that he could meet the requirements to be registered as a Zoona agent. Sydney became registered and trained by Zoona as an agent, enabling him to start providing mobile financial services directly from his fish shop. Sydney's mobile financial services business were a success from the start, probably because he already had a shop that was well known by people in Kwacha township and he was considered as a reliable business figure in his community.

Sydney did not spend the profits he made from his commissions right away. Instead, he reinvested the money in the fish and mobile money businesses. This enabled his enterprises to grow steadily with diversified financing from the two businesses which was crucial for growth. In 2011 Airtel launched mobile financial services as well. Sydney was ready to seize the opportunity and decided to become the first Airtel mobile money agent in his area. His business boomed and his transactions were much more than other Airtel agents in surrounding areas. This enabled him to become a recognized 'super dealer' under Airtel. This implied that Sydney could now distribute float to other Airtel agents at an additional

commission. Furthermore, Airtel decided to reward Sydney for his hard work and built him a shop and branded it for him free of charge. Apart from dealing in Airtel money services, Sydney also added MTN mobile financial services to his offerings once they launched their mobile financial services in 2012. This enabled his business to grow even further, as today he operates Zoono, Airtel and MTN mobile financial services in his store.

The factors behind Sydney's success are, again, difficult to mark down and are very multidimensional. Reasons of the first mover advantage, his reliable image in the community, Sydney's self-proclaimed 'business sense' and his willingness to work long hours to serve customers undoubtedly contributed to high transaction rates and profit levels. Unlike other mobile money agents, Sydney also stretched the operating hours to include customers who work late but would like to access mobile financial services by keeping his shop open during evening hours. Sydney can be classified as a versatile entrepreneur. Sydney is experienced at dealing with customers and always attempts to ensure satisfactory services. Despite Sydney not having formal educational qualifications, he has been able to succeed as a self-employed mobile money businessman. He also used his business skills to educate his employees about managing the mobile money and fish businesses, thereby generating employment and enhancing skills in this low-income community (Interview with Sydney Makofi, Kitwe, 23 August 2015).

ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT: WHAT ETHNOGRAPHY REVEALS IN ZAMBIAN CASE STUDIES

In general economic thinking, it is 'taken for granted that entrepreneurship is indispensable for economic development' (Naudé, 2010: 2). On the other hand, entrepreneurs work tirelessly to seize opportunities and actively change their socio-economic settings. This includes changing existing resource constraints, such as lack of capital, knowledge or skills (Eckhardt and Shane, 2003: 339). Mobile money agents have been largely identified as entrepreneurs by mobile financial services providers with similar reference in the entire discourse surrounding ICT4D. On the other hand, using ethnographic techniques in the Kitwe study of mobile money agents helps us understand what kind of entrepreneurs mobile money agents exactly are and whether their activities have any consequences on the social environment.

Entrepreneurship literature distinguishes 'survival' or 'necessity' and 'growth' or 'opportunity' entrepreneurs that exist: "necessity entrepreneurship," implies having to become an entrepreneur because an individual has no better option. On the other hand, "opportunity entrepreneurship," refers to an active choice to start a new enterprise based on the perception that an unexploited or underexploited business opportunity exists. (Acs, 2006: 97; Kabala-Litana and Pesa, 2016).

Clearly, mobile money agents serve as 'opportunity' entrepreneurs who work to induce 'higher job creation, higher productivity, and social mobility' (Naudé, 2010: 10). Although it is not an easy task to understand the actual factors behind the success of the mobile money agents, the portraits and in-depth interviews provided a clear link between agents and entrepreneurship. It was revealed that mobile money agents run business, build trust and social relationships and also generate employment by recruiting tellers who are paid wages in exchange for their service to mobile money customers.

In terms of running businesses, mobile money agents, have become diverse in owning other enterprises apart from being agents. For instance, Sandra revealed that through the profits she accrued from commissions, she was able to open a lingerie and hair shop where she also earns some money. Sydney also shared that through the proceeds from Zoono, Airtel and MTN

Mobile money services, he built enough capital which he reinvested in being a DSTV agent as well as a ZANACO Express agent. Further, Progress also mentioned that she was able to start a money lending business using the profits that she earned from being an MTN mobile money agent. This entails that mobile money agents who persevere and succeed have a high likelihood of expanding and diversifying their businesses into other ventures.

The need for agents to diversify their businesses is crucial for their survival. This is because mobile financial services can generate high earnings, but profits are always precarious (Standing, 2014). Mobile financial services are risky, because high profits are never stable – commissions and earnings vary from month to month (Interview with Mbamwabi, Kitwe, 27 August 2015). Most recently, Sandra disclosed in an interview that Zoono commissions are very low and people have become less tolerant of their high service charges. As such she was forced to close down some of her outlets. Compared to 2015 when Sandra had 21 outlets and over 25 employees, she now has 13 Zoono outlets that are active with only 14 employees. She can only fall back on her lingerie business that is doing very well. Similarly, Sydney is surviving only through MTN and Airtel Money but Zoono mobile money services have since reduced in returns. Progress continues to enjoy being an MTN mobile money business with booming popularity of cheap services but complained of not having been paid by MTN for several months when we interviewed her in August 2015 and more recently, in 2018.

Despite mobile money agents being regarded as independent entrepreneurs, they remain dependent on service providers who determine commissions and profits. Furthermore, the franchising relationship generates the risk of market saturation, which lowers the profits for each individual agent and illustrates the limits to an individual agent's entrepreneurship (Interview with Mbamwabi, Kitwe, 27 August 2015). For instance, both Sandra and Sydney identified that the astronomical profits they were making in 2014 could no longer be sustained at present due to increased competition. For both agents, profits had continued to rise since 2014 only because they had opened more outlets and diversified into other businesses. However, in dealing with the structural irregularities of markets, mobile money agents have to rely on other resources, such as social relationships and the building of trust to consolidate their market share.

Entrepreneurship is supposed to contribute to employment generation and long-term economic sustainability (Meagher, Mann and Bolt, 2016; Kabala – Litana and Pesa, 2016). However, one can raise an inquiry into whether mobile money services have indeed contributed to creating new jobs, and if so, what kinds of jobs these are exactly. In-depth interviews with some of the agents and tellers revealed that mobile money agents have mainly employed tellers to look after everyday transactions in their outlets. In general, tellers are very young and on average under 25 years of age. They are mainly grade 12 school leavers who are awaiting results and being absorbed into tertiary education institutions. Tellers work long hours and receive minimal payments ranging between K500 and K1500. Although mobile financial services are helping removing tellers off the unemployment bracket, they do not create secure and sustainable employment. Rather, they entrench precarious and short-term jobs for disenfranchised youth (Meagher, 2016).

In relation to the future employment outlook for agents, even the most stable agents do not appear to consider their engagement in mobile financial services business as a long-term career option. Sandra, Progress and Sydney all reported other career plans which ranged from retail business to more risky investment businesses. Yet, even for mobile financial services providers it is equally unclear whether mobile money and its system of agents will prove to be

a long-term source of profit or merely a transitory stage towards a 'cashless future' (Maurer, Nelms and Rea, 2013; Kabala- Litana and Pesa, 2016). This is all evidence that carefully points towards the limits of agents' entrepreneurship and their restrained opportunities to contribute to socio-economic transformations. Notwithstanding, in the current setting agents and tellers through franchised services of mobile money service providers play a crucial role in establishing the trustworthiness of mobile money transactions and good customer relations are essential to attract consumers and achieve financial inclusion.

CONCLUSION

This paper used the Zambian mobile ecosystem as a case study to illustrate the insightful results that the application of ethnographic method yields. Such results cannot be obtained by the exclusive or even predominant application of quantitative techniques. Quantitative techniques, in other words, would be a poor substitute for qualitative techniques such as ethnography for undertaking such studies. In many economic research studies, reliable and insightful results can be obtained only through a judicious combination of both qualitative and quantitative techniques. Even if a research theme is amenable to the application of sophisticated quantitative methods that could yield robust results, qualitative analysis may still constitute a useful supplement to deepen our understanding of the issues involved.

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