M-Commerce and Mobile Apps: Opportunities for SMEs in Developing Countries

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ABSTRACT

From Uber to Airbnb mobile apps are changing the ways business is done and opening numerous new avenues for business and creating new markets. Technology has made asset sharing a reality, leading to efficient utilization of resources at costs much lower than were thought possible. Markets are becoming more interconnected and communication is vitally ingrained in our business transactions. The current research paper is a review of current concepts in M-commerce and Mobile Applications. In the paper, M-commerce is defined as a part of e-commerce. The conclusion suggests that M-commerce depends significantly on e-commerce technologies. Technology adoption is becoming more affordable as well as a necessity to survive in today's ultra-competitive business environment. Only brick and mortar or businesses without presence on the internet would be at a big disadvantage and may even close down sooner than later. Flexibility characteristic of SME business makes it easier to make a decision on a large scale, such as new technology adoption, modifying or even revamping an existing business process to meet market demands and avail existing or potential opportunities. M-Commerce, therefore, holds great benefits for SMEs to grow their revenues greatly by being available at the fingertips of millions of potential buyers around the world.

1. Introduction

Technology is changing our lives at a pace faster than ever. Businesses and societies are being shaped by the new technological advancements. Mobile apps are growing at an enormous rate, it seems there is the app for everything, from food, groceries, clothing, booking a taxi ride to renting or sharing a home. SMEs need to adopt and keep pace with this ever-changing technology to grab these opportunities available in abundance. M-Commerce or mobile commerce is an online channel for sale and purchase of products, services and information through smartphones, tablet PCs, iPads and laptops using wireless technology (Laudon et. al., 2016). Extensive use of ICTs is shaping our societies and businesses world today. The use of internet in general and smartphones, in particular, has grown at an unprecedented rate worldwide. Smartphone users have grown tremendously and is projected at 2.32 billion by the end of year 2017 (www.statista.com/statistics). In Pakistan alone, the smartphone users reached 40 million by the end of 2016. Further, over 2 million internet users in Pakistan every month look to buy a smartphone making it the number one selling item in all of the E-Commerce platforms in the country (tribune.com.pk). Smartphones bring a wealth of opportunities to businesses (Causse, A. 2012) especially in terms of knowledge management (Hopkins, John L. 2012), profiling customers, recording and tracking purchase history and buying patterns. Usability of mobile apps makes shopping more convenient and time-saving (Holzinger, et. al. 2012) as people almost at any time have access to their phones. In today’s busy world people are connected through various ICT devices, such as laptops, Tablet Pcs, PDAs, iPads but predominantly smartphones which are more portable and necessary for staying in touch with work, family, and friends. Life without smartphones in this age of high technology and digitized economy is unimaginable. According to the World Bank from 1960 - 2015 the cellular phone subscription grew from 0 to 98.6%, further, low and middle-income world population had 94% cellular subscription (data.worldbank.org). According to the same data source, the internet usage worldwide accounted for 43.99% and for low and middle-income population 36.80% by the year 2015. The smartphone usage statistics worldwide and even in developing countries show exponential growth, 30.90% of the world population will be using smartphones by the year 2017 (www.statista.com/statistics). These statistics are too big to ignore for any business operating in this strongly interconnected world of digital economy. Particularly SMEs being flexible business enterprises can hugely benefit from M-Commerce. These are typically the enterprises with limited resources in terms of finance and HR, in addition, with significant barriers to financial
access (Zhao, et.al. 2016), larger SMEs comparatively have better access to Finance (Owen, et.al. 2016) but they are a very few in number compared to micro and medium size SMEs. Limited resources mean that SMEs cannot spend much on marketing, advertising, exploring new markets. M-Commerce has the potential to help SMEs reach vast markets around the globe at a much lower cost, faster speed and instant communication would mean less ambiguity for both the buyer and sellers.

2. Literature Review
Literature review gives an understanding of the research work that has already been done on the subject. Literature review gives an understanding of the research work that has already been done on the subject.

2.1 M-Commerce and E-Commerce in Developing Countries
M-Commerce is expanding at much faster rate than the conventional E-Commerce which used PCs and laptops as the main tool (Narang, et.al. 2016). More people in developing countries have smartphones today than the PCs because they are more affordable, portable, convenient and necessary to stay in touch virtually 24/7. Unlike PCs, smartphones are always in the hands or pockets of the owners. More smartphones are 3G and 4G enabled making web browsing, communicating, socializing and shopping on the go anytime convenient. Mobile banking and payment systems have boosted M-commerce way ahead (Shrier, et. al. 2016). There are numerous mobile payment apps available in the world market today: Alipay, Payal, Google Wallet, Apple Pay, WeChat, Venmo and Facebook Messenger to name a few. It is not uncommon in developed economies to see shoppers going to stores and malls without carrying money or the credit/debit cards, the mobile phone does it all. In developing countries, it is comparatively less common but the trend is changing rapidly. The main barriers to mobile banking and payments in developing countries are the payment security concerns, poor IT infrastructure, and low quality of telecom services and lack of trust (Mullan, et. al. 2016), (Malaquias, et al. 2016). Smartphone users are more likely to buy online than those on the PCs because of the easy access (Anshari, et al. 2016) which also encourages impulsive buying behavior as most people use their smartphone in their free time or while taking short breaks between works. There is an enormous number of mobile apps available including many shopping, traveling, hotel/ hostel/house booking apps. It seems that there is app for almost everything one can think of Airbnb for renting room, Uber for taxi ride then there is further division UberX for taxi, UberBlack, for higher priced cars for executives, UberPool for shared taxi that saves cost, Washio for laundry service, Heal for doctor check-up at your home and BloomThat for flower delivery are few of the mobile apps among many others that have changed the traditional businesses in hotel, transportation, maintenance and cleaning, real estate and grocery shopping industry (Laudon, et al, 2016).

Mobile app surfing is another phenomenon very common in smartphone users because the phone is always in reach and one's fingertips, users surf on the installed apps including shopping apps and end up buying on impulse (Kim, et al. 2016). This normally does not happen so frequently with brick and mortar stores, as people don’t go to shopping malls except when they plan to buy something. Further, on brick and mortar stores the variety of goods is not enough and it is not convenient to search in different departments of the store for long time which turns one off due to fatigue. For businesses, on the other hand, it offers an opportunity to target customers almost any time of the day with their products and services or send them their deals and promotions.

2.2 State of SMEs in Developing Countries with respect to M-Commerce
SMEs are indispensable for the growth of an economy, they create jobs, they are innovative, flexible, and bring prosperity to the nation (Sin, et al. 2016). It is vital for the sustainability and growth of any country’s economy to have a robust private sector and SMEs are the overwhelming majority of firms in the private sector. When it comes to technology adoption SMEs in developing countries lag behind for which the government support is found to be the most important factor in encouraging SMEs to adopt E-Commerce [Awiagah, et al. 2016]. SMEs represent a huge number of firms, that is more than 95% in many countries and provides jobs in the private sector to over half of the population according to the World Bank. By the same source, SMEs have a significant role in generating economic opportunities, ICT and Mobile technology adoption are expanding in developing countries at a great pace and can tap into clean-technology one of the high demand sectors which estimated at USD 1.6 trillion in the next ten years (www.worldbank.org). However, the market is still in its nascent stage in terms of M-Commerce share. In Pakistan, a lower middle-income country, the share of M-commerce is only 5% of the traditional retail trade [tribune.com.pk]). This trend is changing rapidly with explosive growth in technology, increasing trust in online shopping worldwide but still in many developing countries the online payment system is not developed enough, they do not have Alipay or PayPal equivalent payment platform.

2.3 Problems faced by SMEs in Developing Countries
SMEs face various obstacles, difficulties in borrowing for business being the biggest hurdle (Auboin, et al. 2016), Inadequate government support and poor infrastructure such as roads, railways, bridges, and airports, transportation make it less reliable in terms of timely delivery of goods and expensive at the same time. Research has highlighted numerous other obstacles in the way of SMEs in emerging economies that include a shortage of skilled human resource, resistance to change, lack of IT resources, security concerns and lack of support (Dubelaar, et al. 2005). Limited resources and lack of access to finance mean the cost of financing would be high which will increase operation cost of the business. There will be less budget for marketing, reaching out to new markets
becomes difficult and costlier. Most SMEs in developing countries mainly target domestic markets. SMEs are reluctant to entering international markets owing to lack of market information, complex customs procedures, language barrier and cultural differences. Export is the most common and simple and quick way of entering foreign markets as it takes up fewer organizational resources and is less risky for the business compared to investing directly in a foreign market, joint venture, licensing and contract manufacturing (Leonidou, et al. 2007). SMEs are the main source of selling domestic products and services in international markets (Ensari, et al. 2014). In spite of huge benefits that exports offer, very few SMEs actually take it. In this regard, the role of government to support SMEs in export is of great importance. Government must build necessary infrastructure for the businesses to operate smoothly and formulate policies to support export so that SMEs can stay competitive in the international markets. Research also reveals that there is a link between exporting SMEs and the E-Commerce adoption (Ueasangkomsate, et al. 2015).

2.4 How M-Commerce can help SMEs solve many of their problems?
M-Commerce uses wireless mobile devices such as smartphones and PDAs. Smartphones and PDAs are being easy to use and a necessity has an impact on the intentions and behavioral outcome (Hubert, et al. 2017). M-Commerce can help SMEs in the following important aspects: increasing market reach, increased revenues, improved communication with customers and suppliers, better company image, speedy process, better staff productivity (Rahayu, et al. 2016). Further, empirical findings show that SMEs in Indonesia, a developing country, higher the E-commerce adoption level higher the profit (Rahayu, et al. 2016). M-Commerce can help company target more customers as a result of extended market reach due to online nature of business. Extended markets mean more customers which will increase sales revenue of these SMEs. Improved communication with customers and suppliers will enhance the quality of service, better relations with customers and suppliers and less chance of ambiguity in delivering the right product or service at the right time. M-Commerce can improve the image of the company as a modern enterprise and finally, it improves the productivity of the employees as the technology enables them to perform their tasks efficiently. Online business saves the costs incurred on brick and mortar stores such as rent, salaries, insurance, decorations and other things needed for setting up a physical store. Data from eMarketer shows that more than 80% of all online shoppers use mobile shopping as well and this number is estimated to grow to 95% in the year 2019.

Mobiles have become a major E-Commerce platform, and platform for advertising, movies, TV shows and e-books. It brings innovation as in the case of Alipay, Uber, Airbnb and numerous other apps that are used every single day by millions of users around the globe. It makes enterprise efficient, effective, and competitive thus drives growth (Ollo-López, at al 2012), (Steinfield, et al 2012).

3. Conclusion
The literature reveals that there are several obstacles to SMEs in general and those in developing countries in particular. It also highlights how M-commerce can help in overcoming many of these obstacles facing SMEs in developing countries. For instance, extending market reach, increased revenues, reducing transaction cost and intermediaries, speeding up processes, improving communication, more productivity of staff. Many SMEs working in transport and real estate industry, for example, can register at Uber/Didi, Airbnb; for a ride or renting a room, respectively, thustapping into a new revenue source. Alternatively, SMEs can also get a customized mobile app to perfectly suit their business requirements and to better serve customer and that would range on average between USD2000 to USD250000 but complex apps or those involving more features and functions such as location-based features, payment synchronization, social media, in-app purchases, synchronization across device etc. would cost much higher. SMEs, especially the micro SMEs can rather choose to register on already well-known global E-commerce giants such as Alibaba, Amazon, Flipkart, eBay and Shopify among many others for reaching out to customers around the globe using their established networks. Through these giant E-commerce platforms and their Global Shipping Program (GSP), SMEs can deliver goods at a rate much lower than the normal shipping rates. Saving cost on shipping means increased profitability and increased market reach. Finally, it is also validated through the empirical research findings in Indonesian SMEs that SMEs with a higher level of E-Commerce showed higher profits as stated above in the literature. Post E-Commerce adoption results showed a significant increase in profitability.

References
- Laudon, Kenneth C., and Carol Traver. E-commerce 2016: business, technology, society. Pearson Higher Ed, 2016.
- https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/
- https://tribune.com.pk/story/953333/telecom-sector-pakistan-to-have-40-million-smartphones-by-end-of-2016/
- Causse, A. "Smartphones in Business. Retrieved June 2, 2014." (2012).
- Hopkins, John L. "What value do Smartphones offer business adopters?" International Journal of Electronic Business 10.1 (2012): 64-78, CrossRef
- Holzinger, Andreas, Peter Treitler, and Wolfgang Slany. "Making apps useable on multiple different mobile platforms: On interoperability for business application development on smartphones." International Conference on Availability, Reliability, and Security. Springer Berlin Heidelberg, 2012.
- http://data.worldbank.org/indicator/IT.CEL.SETS.P2
- http://data.worldbank.org/indicator/IT.NET.USER.2
- https://www.statista.com/statistics/203734/global-smartphone-penetration-per-capita-since-2005/
Zhao, Tianshu, and Dylan Jones-Evans. "SMEs, banks and the spatial differentiation of access to finance." Journal of Economic Geography (2016): lbw029, CrossRef.

Owen, Robyn, Tiago Botelho, and Osman Anwar. "Exploring the success and barriers to SME access to finance and its potential role in achieving growth." (2016).

Narang, Barkha, and Jyoti Batra Arora. "Present and Future of Mobile Commerce: Introduction, Comparative Analysis of M Commerce and E Commerce, Advantages, Present and Future." Securing Transactions and Payment Systems for M-Commerce. IGI Global, 2016. 293-308, CrossRef.

Shrier, David, German Canale, and Alex Pentland. "Mobile money & payments: Technology trends." (2016).

Mullan, Jennifer, Laura Bradley, and Sharon Loane. "Barriers and Drivers to Future Bank Adoption of Mobile Banking: A Stakeholder Perspective." The Book of Payments. Palgrave Macmillan UK, 2016. 325-338.

Malaquias, Rodrigo F., and Yujong Hwang. "An empirical study on trust in mobile banking: A developing country perspective." Computers in Human Behavior 54 (2016): 453-461, CrossRef.

Anshari, M., et al. "Smartphone habit and behavior in Brunei: Personalization, gender, and generation gap." Computers in Human Behavior 64 (2016): 719-727, CrossRef.

Kim, Sang Chon, Doyle Yoon, and Eun Kyoung Han. "Antecedents of mobile app usage among smartphone users." Journal of marketing communications 22.6 (2016): 653-670, CrossRef.

Sin, Kit Yeng, et al. "Relative Advantage and Competitive Pressure towards Implementation of E-commerce: Overview of Small and Medium Enterprises (SMEs)." Procedia Economics and Finance 35 (2016): 434-443, CrossRef.

Awiagah, Raphael, Juyoung Kang, and Jay Ick Lim. "Factors affecting e-commerce adoption among SMEs in Ghana." Information Development 32.4 (2016): 815-836.

http://www.worldbank.org/en/news/feature/2016/06/20/entrepreneurs-and-small-businesses-spur-economic-growth-and-create-jobs

https://tribune.com.pk/story/953333/telecom-sector-pakistan-to-have-40-million-smartphones-by-end-of-2016/

Auboin, Marc, Harry Smythe, and Robert Teh. "Supply chain finance and SMEs: Evidence from international factoring data." (2016).

Dubelaar, C., Sohal, A. & Savic, V. (2005). "Benefits, impediments and critical success factors in B2C e-business adoption." Technovation, (2005): 25(11), 1251-1262, CrossRef.

Leonidou, Leonidas C., et al. "An analytical review of the factors stimulating smaller firms to export: Implications for policy-makers." International Marketing Review 24.6 (2007): 735-770, CrossRef.

Ensari, M. Şebnem, and Melisa Erdilek Karabay. "What Helps to Make SMEs Successful in Global Markets?" Procedia-Social and Behavioral Sciences 150 (2014): 192-201, CrossRef.

Ueasangkomsate, Pittawat. "Adoption E-Commerce for Export Market of Small and Medium Enterprises in Thailand." Procedia-Social and Behavioral Sciences 207 (2015): 111-120, CrossRef.

Hubert, Marco, et al. "Acceptance of Smartphone-Based Mobile Shopping: Mobile Benefits, Customer Characteristics, Perceived Risks, and the Impact of Application Context." Psychology & Marketing 34.2 (2017): 175-194, CrossRef.

Rahayu, Rita, and John Day. "E-commerce adoption by SMEs in developing countries: evidence from Indonesia." Eurasian Business Review (2016): 1-17.

Olo-López, Andrea, and M. Elena Aramendia-Muneta. "ICT impact on competitiveness, innovation and environment." Telematics and Informatics 29.2 (2012): 204-210, CrossRef.

Steinfeld, Charles, et al. "Small and medium-sized enterprises in rural business clusters: the relation between ICT adoption and benefits derived from cluster membership." The information society 28.2 (2012): 110-120, CrossRef.