

Reflection and Prospect about the Development of Rural Mobile Commerce in China

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Abstract—M-commerce (mobile commerce) is a breakthrough of our new rural informatization construction. This article discusses relevant concepts and characteristics of M-commerce, summarizes the present developing situation of our country rural M-commerce, and points out the problems existing in the development and countermeasures, and on this basis predicts the developing prospect of our country rural M-commerce.

Keywords-countryside; mobile commerce; developing situation; countermeasures; prospect

1. Introduction

In recent years, along with the advance of our new countryside construction steadily, e-commerce has gotten a rapid development in the countryside. However, as we know, the “last mile problems” of our country rural informatization construction has still existed; rural residents have a low level of computer application and operation universally; farmers' income is relatively low and they are reluctant to buy personal computers. Because of the above reasons, e-commerce in rural development has been restricted. To our delight, owing to the rapid spread of mobile phones and 3G technology applications in the countryside, new vitality and vigor have been brought to M-commerce in rural development.

2. M-COMMERCE OVERVIEW

2.1. M-commerce Concept

M-commerce is an innovative business model; it appears in the process of e-commerce development. Most different from traditional e-commerce, it lies in M-commerce's mobility. Traditional e-commerce is based on PC mainly to launch business activities, while M-commerce will launch business activities through mobile phones, personal digital assistant (PDA), handheld computers and other various mobile terminals. By means of these carried mobile terminals, people can develop all kinds of business activities anywhere anytime. No doubt, M-commerce will play an important role in people's life in the future.

2.2. M-Commerce Characteristics

1) *Anytime and anywhere*

Unlike desktop computers used in traditional e-commerce mainly, mobile terminals used in M-commerce can be carried conveniently because of their smaller volume. So people can launch business activities in any places covered with mobile information in any time.

2) *More openness and more comprehensiveness*

Because of wireless access method, M-commerce can make anyone enter the network world more easily, which makes the network extend broader scope and become more open. At the same time, it makes the network virtual function get more realistic, consequently it becomes more comprehensive.

3) *Identifiability*

In terms of traditional e-commerce, the user's consumer credit question has been one of the biggest problems affecting its development, while in this respect M-commerce obviously has certain advantages. This is because, different from traditional computers, mobile communication terminals usually belong to individuals, and namely each mobile terminal has its corresponding user and it can be identified. Moreover, different from PC anonymous access, mobile phone can use built-in ID to confirm the user's identity, and with the implementation of China's phone-real-name system, the identity authentication will enable M-commerce more dominant.

4) *Locatability*

In the M-commerce, what is movable is not just the mobile terminal, and we should see more is the movement of person and service. Thus, in virtue of GPS technology we can identify geographical positions of mobile devices, which is locatability. Combining identifiability and locatability together will bring incomparable advantages to M-commerce.

5) *Personalized service*

The identity of mobile terminal is fixed and conveniently located; therefore, we can provide users with personalized trading services in virtue of the platform of M-commerce.

3. China's rural M-COMMERCE PRESENT DEVELOPMENT SITUATION

In recent years, M-commerce has raised upsurge in global scope. After years of exploration M-commerce has become an important direction of China's e-commerce development, and it becomes the concern. However, the author thinks, rural M-commerce is worth development "gold". At present, our country rural M-commerce development situation can be described as the following several aspects:

3.1. Rural Potential User Groups is Huge

According to the data from the "2009 China's rural development of Internet condition investigation report" issued by China Internet Network Information Center (CNNIC), by the end of 2009, rural mobile Internet users had been about 71.89 million, compared with 2008, the growth was more than 30 million, annual growth rate for 79.3 percent. Instead, in 2009 the ratio of rural residents using desktop computers as Internet terminals was fallen to 68 percent, the mobile phone subscribers accounted for 67.3 percent of 106.81 million rural Internet users, the proportion of mobile phone Internet users' growth was nearly 20 percent, compared with the same situation, town mobile phone Internet users took up 58.3 percent. Thus, the prevalence rate of mobile phone Internet in rural areas is above that of town, the cell phones become the main rural residents' Internet terminals. Along with the advancement of "Home appliance countryside" project in China and the rapid development of 3G applications, rural mobile phone users will be increasing, the mobile phone Internet will enter the rapid development stage in the countryside, and rural mobile M-commerce will have a huge and growing potential user groups..

3.2. Rural Potential Market Demand is Large

The emergence of e-commerce promotes the development of our country in the new rural construction, simultaneously; rural areas provide a broader market space for the development of e-commerce. According to relevant information from the "2009 China's rural development of Internet condition investigation report" issued by CNNIC, in 2009 rural network shopping utilization rate was 17.6 percent and rose by 2.2 percent more than that of 2008; rural network bank utilization rate was 15.2 percent and went up by 5.7 percent more than that of 2008. Especially the countryside network bank and network payment users were more than doubled that of 2008. Thus, rural residents have certain understanding of e-commerce and begin to try to be involved with it, and the situation goes ahead very fast. But at present in the rural informatization construction the "last mile problems" exists, to a certain extent, it has restricted traditional e-commerce in rural

development. While M-commerce will be able to maximize its advantages over low cost, “anytime and anywhere”, to the greatest extent, cater to and constantly deep look for rural market demand.

3.3. Good Policies Worked Out by China’s Government Guide Rural M-commerce Development

In order to promote the development of China's M-commerce, in the “e-commerce development ‘11th five-year’ plan” China's relevant government department in June 2007 explicitly proposed “developing small payment service, convenient service and business information service, exploring new service model facing different levels of consumers”, and required “encouraging the use of bank CARDS and other electronic payment tools, pushing forward the development of online payment, telephone payment, mobile payment and other emerging payment tools”, and cited M-commerce as one of the six key guiding projects.

3.4. Pilot Projects Actively Promote Rural M-commerce Applications

As a key project of the “e-commerce development ‘11th five-year’ plan”, M-commerce pilot demonstration projects were implemented in Hunan province, Chongqing city, Guangzhou city and other places. On February 23, 2008, state council informatization office in Changsha city officially announced to Hunan province become the first country M-commerce pilot demonstration province. In April, 2008, rural M-commerce pilot was conducted in Xinning village, Shaoyang city, Hunan province. Till the end of 2008, in Xinning village rural M-commerce pilot acquired preliminary achievements. Successful rural M-commerce pilot in Xinning village, Hunan province has provided valuable experiences to other areas in Hunan province. In September, 2009, Hunan SMC (supply and marketing society) with China mobile communications group Hunan Co. LTD, agricultural bank of China branches in Hunan province jointly established rural M-commerce -- “online SMC” project. In March 2010, national first municipal-scale “online SMC” -- Loudi supply e-commerce Co. LTD. formally registered and settled in Loudi city. On September 26, 2010, Hunan rural M-commerce pilot work report and online SMC Loudi mode promotion meeting was held. At the meeting a leader summarized to say: rural M-commerce “online SMC” is a large project created by Hunan supply and marketing cooperative to help farmers, and benefit farmers in virtue of government, it works for the purpose of enlivening the rural circulation, by means of information technology, adopts “entity and network”, “online and off-line”, “mobile phone and website” mode of operation ,and provides a new way in cracking rural informatization construction “last mile problems” and solving the peasants’ “buying difficultly, selling difficultly” problem. As a mobile M-commerce pilot demonstration province, Hunan province centers on the rural informatization construction, and explores an “using the modern business concept, using mobile communication technology and wireless networks, integrating agriculture information resources, providing rich content and practical two-way information service for farmers and agricultural materials enterprises, on the basis of making use of agricultural information and combining agricultural trade characteristics, and carrying out rural M-commerce system with the help of the carrier -- peasants’ mobile terminals and agricultural terminal machines” road.

4. Problems and Countermeasures in The Development of China's Rural M-Commerce

4.1. Work Out Relevant Laws and Regulations for Standardizing Our Country Rural M-commerce Market

In order to correctly guide the development of e-commerce, since the first law -- “the People's Republic of China of electronic signatures in law” was formulated by China ministry of commerce in August 2004, there have been much legislation in e-commerce field, but these laws, regulations cannot totally meet the demands of M-commerce. So, what is important is to perfect the related laws and regulations as soon as possible in the development of M-commerce.

4.2. Accelerate Technology Research and Development and Enhance Our Country Rural Mobile Communication Security

Communication security should be a problem that is firstly considered and always guaranteed. But the current wireless communication is in an extremely open state, it is hard to prevent eavesdropping or stealing personal data. Therefore, in order to eliminate the possible worry when our country rural residents use M-commerce, relevant departments should intensify technology research and development, perfect the security of mobile communication system quickly, and improve the efficiency of security mechanism and implement effective management about security mechanism.

4.3. Intensify Training Power and Teach Rural Residents to Correctly Use Wireless Mobile Terminals

General speaking, in reality a lot of people use the mobile phone and never think the problem of its loss, can't even consider the risk which could bring. However, when we use mobile phone -- this mobile terminal -- to develop e-commerce activities, we must lay emphasis on this problem. This is because the loss of mobile terminal means that other people will see telephone information, digital certificate and other important data ,what is more terrible is that people have gotten mobile terminal can undertake mobile payment and have access to the internal network and the file system. Therefore, we should educate rural residents to form a good habit of using mobile terminal, when they open the phone the identification must be put in practice by technical methods, thus that will reduce the possible loss after the mobile terminal is lost, which is an important factor of healthy development of M-commerce or not.

4.4. Integrate Industrial Chain and Seek Innovation in China's Rural M-commerce Business Model

Till today, traditional e-commerce business model has been mature, but M-commerce belongs to a new thing, its commercial mode also needs to gradually improve. In order to create a good business model, we must integrate the industrial chain and complete the distribution of interests of each section of the industrial chain. In particular, in our China's countryside a safe and efficient mobile payment mechanism should be built, various operators and banks must strengthen the relationship and cooperation, eliminate payment barriers, and in providing high-speed network services at the same time constantly enhance customers' terminal function. Meanwhile, all operators and banks should also reduce mobile payment poundage, thus which can make our country rural residents more conveniently select shopping or pay.

4.5. Increase Government Investment and Perfect Our Country Rural Logistics Distribution System

Because our country rural population distribution is wide in regions, traffic relatively is backward, which causes the countryside e-commerce logistics distribution is very difficult. Therefore, in order to promote the development of rural M-commerce, relevant government departments should increase the logistics infrastructure investment, and establish the logistics region between the county, town (township) and village. Meanwhile, we should encourage and guide social capital, trade circulation enterprises and postal systems energetically to develop modern rural logistics by means of preferential taxation, finance and other aspects.

5. Conclusion

To sum up, with the advancement of our country new rural construction, M-commerce will be a breakthrough of our country new rural informatization construction. With the popularization of successful experience of rural M-commerce pilot project continuously, rural M-commerce will enter the high-speed development stage, it will bring the Internet, mobile communications, Internet of things and even the whole rural development mode reform and innovation. And it will play an important role in changing China's rural economic growth mode, optimizing the agricultural structure, promoting the rural consumption, facilitating residents' life and benefiting people's livelihood.

6. Acknowledgment

I am heartily thankful to my supervisor, Shao Kang, whose encouragement, guidance and support from the initial to the final level enabled me to develop a train of thought of the paper. Then I would like to thank

my family for providing everything, such as money, to buy anything that was related to this paper. Last but not least, my colleagues who were doing this paper with me and sharing our ideas. They were helpful that when we combined and discussed together, we had this paper done.

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