

2014

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(12), 2014 [6526-6531]

A competency-based training mode research of applied and innovation talent education and training for m-commerce

Hu Hui*

Economics and Management School, East China Jiaotong University, No.808
Shuanggang Road, Nanchang, (CHINA)

ABSTRACT

With rapid development of mobile communication technology and market in China, M-commerce is booming and creating a strong demand for M-commerce education and training. To meet the demands, it's necessary to study M-commerce present condition and develop novel mode of higher education and training for M-commerce. Firstly, we summarize the current situation of M-commerce in China and point out typical characteristics. Then, we propose a competency-based model to describe the relevant factors meeting M-commerce talent requirements. Finally, a training mode solution for M-commerce education is presented, which includes training objective, curriculum design, platform framework etc.

KEYWORDS

M-commerce; Competency-based; Applied and innovation talent; Education and training.



INTRODUCTION

Generally speaking, Mobile commerce (commonly referred to ‘M-commerce’) is concerned with the use, application and integration of wireless telecommunication technologies and wireless devices within the business systems domain (Geoffrey Elliott, Nigel Phillips, 2003). During the recent years, M-commerce is receiving more and more attention, owing to the booming mobile communication market with an explosively growing participation connected by extending wired Internet to wireless Internet. Till Jan. 2014, the number of mobile phone users in China had reached more than 9 hundred million, ranked as the largest in the world. The popularization of mobile phone combined with Internet provides huge M-commerce opportunities for China as well as the world.

From the view point of education and training, M-commerce’s rapid development needs new intellectual personnel who are maybe insufficient whether quantity or quality. So, it’s necessary to distinguish the principle requirements of M-commerce and try to provide solutions for it. In this paper, firstly summarizing the current status of M-commerce in China, a competency-based training mode is proposed to accomplish the requirements analysis and corresponding strategies are provided thereafter.

CURRENT STATUS OF M-COMMERCE IN CHINA

In order to understand M-commerce talent needs deeply, the principal problem is to summarize the current situation and characteristics of M-commerce in China. They’re analyzed from three main aspects as followed which includes wireless communication network, smart phone and mobile application.

Wireless communication network

M-commerce is closely related with wireless communication network. From the wireless network development history, there were 1G analog network, 2G GSM network, 3G network, 4g network etc. The latter three formed the basis of M-commerce, in which SMS, MMS were the typical applications. At the present time, there’re three main cellular technology 3G standards: TD-SCDMA, CDMA2000, WCDMA for commercial use in China and they are competing against each other to gain better development. Since 4G network has just been deployed in China, we focus the analysis on 3G network.

Although 2G network dominated the market’s majority, 3G network which is managed by 3 main telecom operators China Mobile, China Unicom, China Telecom is attracting more and more users. As depicted from Figure 1, with the 3G network users rapidly increasing, it will lay a solid foundation for M-commerce.

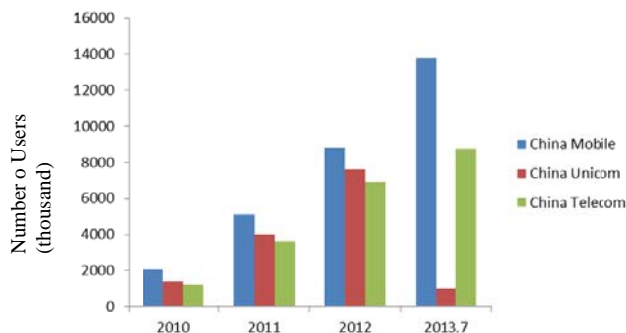


Figure 1 : Three main telecom operators’ 3G user comparison (unit: 10 thousand)

Smart phone

With the development of 3G wireless communication network, smart phone is considered as the most important channel of M-commerce instead of conventional mobile phone, not to speak of emulation mobile phone in China. Smart phones are becoming mainstream and are no longer used by tech elite only. An astonishing amount of 37% of smart phone owners have already used their phone to purchase regular goods and this new shopping channel is expected to grow fast. A survey conducted by eDigital Research has found that around a year ago only 20 percent of smartphone owning consumers were harnessing m-commerce apps and services to buy products. This has leapt to 50 percent because the firm believes that connected mobiles are being seen as a must-have accessory for modern life. Figure2 shows the smartphone share market which is mainly composed of Google Android, Apple iPhone, Microsoft Windows Phone.

Now, Google Android is used most widely for secondary development in China, such as Ophone, Tapas OS, MIUI OS, even Baidu cell phone OS etc.

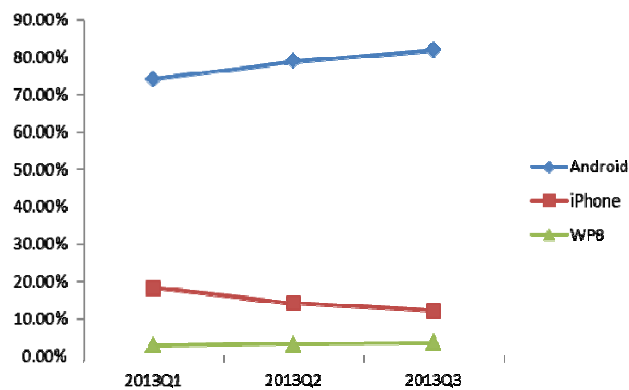


Figure 2 : Top Smartphone Platforms market share in 2013

Source: <http://zdc.zol.com.cn/431/4315148.html>

Mobile applications

With the development of 3G wireless communication network, smart phone is considered as the most important

The general M-commerce applications can be categorized as followed and most of them have already been launched in China.

- Mobile ticketing. Tickets can be booked and cancelled on the mobile.
- Mobile vouchers, coupons and loyalty cards. The mobile delivery enables economy of scale and environment-friendly and resources-saving efficacy.
- Content purchase and delivery. Music tracks and video can be downloaded in a couple of seconds.
- Location-based services. Local maps, local offers, local weather will be provided via mobile phone.
- Information services. A wide variety of information services can be delivered to mobile phone users in much the same way as it is delivered to PCs, which include News services, stock data, sports results, traffic data etc.
- Mobile banking.
- Mobile brokerage. Stock market services offered via mobile devices have also become more popular.
- Auctions and Mobile purchase.
- Mobile marketing and advertising.
- Internet of things.

According to iResearch consultant report, M-commerce barter size will keep a sustained and rapid growth between 2011 and 2015 as Figure3 depicted.

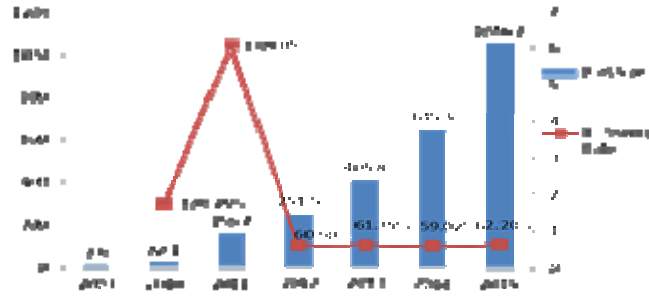


Figure3 : M-commerce barter size (Unit: hundred million RMB) and increasing rate

COMPETENCY-BASED TRAINING MODE FOR M-COMMERCE TALENTS

Competency-based quality model and training mode

As seen from section 2, M-commerce is booming in China and it has already produced and will produce a great demand for various levels of talents, while M-commerce higher education and training have just been started and can't meet the requirements for talents. Herein, the talent quality model based on competency is put forward to describe the requirements.

Competency is the ability of an individual to perform a job properly. A competency is a set of defined behaviors that provide a structured guide enabling the identification, evaluation and development of the behaviors in individual employees, it consists of multiple factors such as technical skill, knowledge, social role, self consciousness, motivation and character (Spencer, 1993). And further, these factors can be classified into explicit and implicit factors. Explicit factors which are easily measured and trained include technical skill, knowledge, whereas implicit factors which are difficultly tested include the others.

There are two main aspects focused in M-commerce development. One is application in different domains, the other is innovation especially for new business modes and they're innovation-centered. So, applied innovation talents, and innovation entrepreneurial talents are both needed.

In light of these research outcomes, a conceptual model of Competency-based innovation education and training mode for M-commerce is demonstrated in Figure4. And the corresponding training mode can be developed as the followed sub-sections outlined.

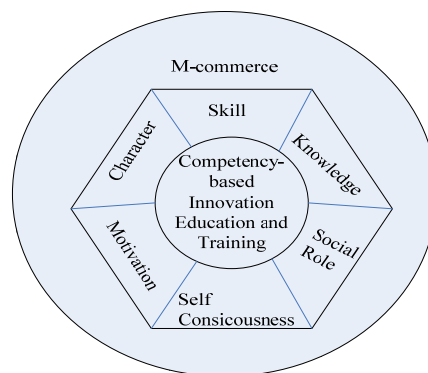


Figure 4 : T Competency-based innovation training mode for m-commerce

Training objective

Based on the above analysis of M-commerce talents, higher education and training objective can be summarized as below:

- Dynamically adapt to professional and social needs and keep a comprehensive development of character, intelligence, physical health etc.
- Proficiently grasp IT fundamentals and knowledge especially wireless communication network skill and knowledge.
- Adequately possess interdisciplinary knowledge such as management, economics, law, cross culture etc.
- Applied, professional, entrepreneurial talents who can develop, manage and operate mobile applications and services in wireless network environment among corporations, government and other organizations.

Curriculum design

Besides E-commerce courses, wireless network fundamentals and curriculum should be emphasized during the whole training process. The typical courses may be designed based on three levels:

- Basic courses include wireless communication fundamental etc.
- Profession basic courses include WAP, 3G wireless network etc.
- Profession courses include J2ME, Mobile commerce theory and applications.

It's necessary to point out that these courses should be integrated and optimized dynamically according to the contents, outlines and requirements.

Platform framework

In order to cultivate M-commerce talents above mentioned, a comprehensive platform framework is constructed as Figure5 depicts. The bottom layer is composed of M-commerce course repository and Practice projects which form the basis of M-commerce theory and application in the education and training process. And further, knowledge, ability and quality of M-commerce personnel are continually trained and formed so that M-commerce talents in different levels are provided for M-commerce application and innovation.

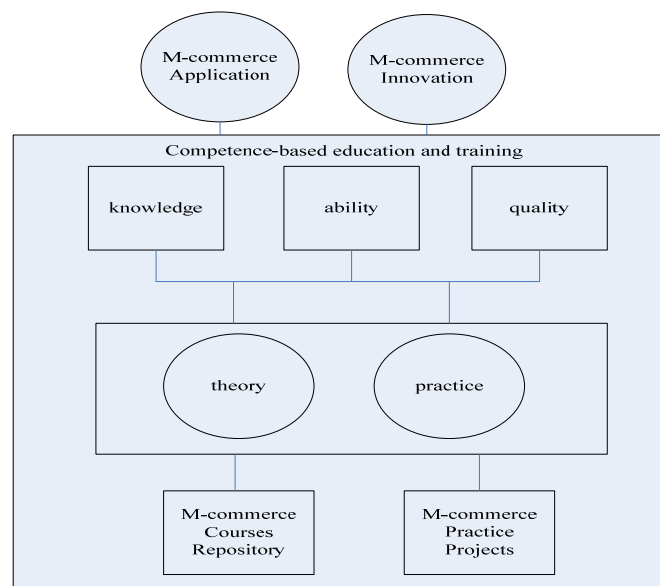


Figure 5 : A comprehensive platform framework for m-commerce

CONCLUSION

A bright prospect for M-commerce will assume in the near future in China as well as in the world, so it's worth educating and training talents for M-commerce development. In this paper, after summarizing current status of M-commerce in China, a conceptual competency-based quality model for M-commerce education and training mode is put forward and the corresponding solution is provided which includes training objective, curriculum design and platform etc.

This paper provides ideas and concepts for the cultivation mode study of the applied innovation talents for M-commerce in China, and provides a comprehensive framework to improve the M-commerce talents quality in China.

ACKNOWLEDGEMENTS

This work was supported by Doctorial Initial Funding of East China Jiaotong University (Grant No.26441001).

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