

Effect of Information Technology Competency On Electronic Word-of-Mouth Services of Tejarat Bank in Urmia City

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Abstract

Aim: The aim of this study is to investigate of the effect of information technology competency on electronic word-of-mouth services of Tejarat Bank in Urmia City.

Materials and Methods: The search method is based on the applied purpose and descriptive. Standard questionnaire validity and reliability (Cronbach's alpha coefficient 0.968) it was approved. The research data were collected from a random sampling of 384 of Tejarat Bank's Customers in Urmia that use Electronic Services and were analyzed using SPSS software.

Results: The results show that, information technology competency has direct effect on electronic word-of-mouth services. Also information technology competency has direct effect on trust, Functional Consistency and Perceived Entitativity.

Conclusion: This study attempts to understand the relationship between information technology and e-WOM and its dimensions. Several key findings can be derived from the study. First, this study reveals that trust in web e-WOM services can be transferred to mobile e-WOM services. More importantly, the effect of information technology on trust in web e-WOM services lead to behavioral intention to use mobile e-WOM services and adoption of mobile e-WOM services without the formation of trust in mobile e-WOM services. Second, this study shows the effect of information technology on functional consistency between web and mobile e-WOM services that when the functions of mobile and web e-WOM services are similar, users will be more likely to trust in mobile e-WOM services given their initial trust in web e-WOM services. Third, this study also finds the effect of information technology on perceived entitativity plays an important role in predicting trust in mobile e-WOM services, indicating that when users perceive there is a strong association between the web e-WOM services and the mobile e-WOM services, they will be more likely to trust in mobile e-WOM services given their initial trust in web e-WOM services.

Key words: information technology competency, electronic word-of-mouth service, trust, Functional Consistency, Perceived Entitativity

INTRODUCTION

The proliferation of mobile devices and the advancement in wireless network has created an "always-on" society or "ubiquitous society," where mobile services have penetrated to every corner of today's life. Various mobile services including mobile commerce services, mobile

banking services, mobile health services, mobile instant messaging and mobile entertainment services have greatly changed people's way to shop, to work, and even to live. Despite the practical importance of mobile services, the theoretical understanding and empirical investigations on users' mobile service adoption behavior are still far from adequate. In the recent years, e-WOM service providers have started to expand their e-WOM services into the mobile context to better leverage the advantage of ubiquitous computing such as ubiquity, mobility, localization and personalization and enable the real-time and interactive services.¹⁻¹⁰

However, the success in web services cannot promise the success in mobile services because there are several

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problems which will be generated in the service transition process. First, compared to the

PC- and broadband-based web services, in the mobile context, the screen is smaller and the processing capability is relatively low. Further, the wireless network may be not so stable as broadband. This

may make mobile e-WOM services not be able to work well, raising users' concerns about its competence to provide quality services. Second, since context-sensitive information will be used in the mobile service delivery process, users may suffer a risk of privacy invasion. Further, as e-WOM services engage in providing users with consumption recommendations, users may be confused about whether the information provided is really according to their personal needs or just commercial advertisements, raising users' concerns about the benevolence and integrity of service providers.¹¹⁻²⁰

Therefore, trust becomes a critical issue relevant to users' mobile e-WOM service adoption behavior. So in this paper our purpose is to investigate the effect of information technology competency on electronic word-of-mouth services of Tejarat Bank in Urmia City.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

IT Competency

IT competency refers to the capacity of a firm to assemble, integrate, and deploy IT resources to meet business needs and capitalize on business opportunities. In the literature, several typologies of IT competency have been proposed based on the taxonomy of organizational resources [26]. For example, Bharadwaj (2000) posits that IT competency includes tangible IT resources, human IT resources, and intangible IT-enabled resources. Wade and Hulland (2004) categorize IT competency as inside-out, outside-in, and spanning IT capabilities. These typologies are developed from the perspective of the IT unit rather than from the perspective of the firm [24]. Tippins and Sohi (2003) state that research on the effects of IT competency in the supply chain context requires firm-level conceptualization. In particular, Tippins and Sohi (2003) propose IT objects, IT operations, and IT knowledge as the three dimensions of IT competency. This taxonomy captures the manner in which IT resource endowments are deployed in support of supply chain processes and is therefore helpful for understanding IT competency in the context of supply chain management. Thus, we follow

Tippins and Sohi (2003) and conceptualize IT competency as flexible IT infrastructure, IT assimilation, and managerial IT knowledge. In particular, flexible IT infrastructure refers to a shared set of technological resources that provide the foundation for the rapid development and implementation of present and future IT applications [22]. IT assimilation denotes the capacity of a firm to apply IT in supporting, shaping, and enabling its business strategies and value chain activities. Managerial IT knowledge connotes the extent to which top managers have the necessary business acumen and technical skills to foresee the value and potential of IT and leverage IT effectively to achieve alignment between business processes and organizational goals [23].

e-WOM services

Web-mobile service transition

Advance in wireless technology and mobile devices have given rise to the booming of mobile services. With the extensive coverage of wireless network (e.g. WiFi hotspots), the improvement of communication protocol (e.g. wireless application protocol and global positioning system), and the upgrade of mobile devices (e.g. high processing capability of Smartphone and large and touch-screen), mobile services have become a necessary and important component of today's life. Mobile services can be generally classified into two categories in terms of the service providers. The first type of mobile services is provided by telecommunication service providers. These services include a variety of value-added services such as short message services (SMS) [19] and mobile internet [6] which are originally rooted in the mobile context. The second type of mobile services is provided by the content providers. Besides certain services which are rooted in the mobile context such as a variety of mobile applications, there are still many services that have been well established in the web context but are extended to the mobile context to leverage the advantage of ubiquitous computing [7], such as the mobile version of Amazon.com, Wikipedia and Facebook. Unlike those mobile services which are originated in the mobile domain, the mobile services transited from web services have several unique features. First, the potential users of mobile services are not developed from zero, because users of the initial web services may be easily changed into mobile service users. Second, the mobile services possess a strong relationship with the web services. This relationship can be reflected in the functional consistency or similarity as well as the business ties (e.g. belong to a same company) [16]. Third, users' initial perceptions about the mobile services may be inherited from their perceptions about the web services through the mechanism of perception transfer [2]. These unique features call for viewing the adoption of this type

of mobile service from a new perspective rather than the prior theoretical explanations on the initial technology adoption.

One specific mobile service studied in this paper is called as mobile electronic word-of-mouth (e-WOM) services. e-WOM services are generally delivered through a professional website which is sponsored by the third-party to enable consumers to share their consumption experience [1]. For example, Dianping.com is a Chinese website that facilitates consumers to share their consumption experience about a restaurant or an entertainment venue. Following the development of mobile technologies, the e-WOM services have been extended to the mobile context [12]. Mobile e-WOM services enable consumers to seek and share consumption experience in a real-time and interactive manner, leading mobile e-WOM to increasingly replace person-to-person or PC-based WOM in many diverse practice areas. Despite the practice importance of mobile e-WOM services, the empirical investigations on users' mobile e-WOM service adoption behavior have been rarely found. Therefore, this study can be regarded as a try to fill this research gap.

Trust in mobile service adoption

Previous studies on mobile service adoption can be generally classified into two streams. The first stream of research, following the tradition of information systems (IS) research, stresses on the role of technology by drawing upon the theories such as technology acceptance model (TAM), diffusion of innovation theory (DIT), task-technology fit theory (TTF), and information systems (IS) success model [3]. The most frequently used theory is TAM which postulates perceived usefulness and perceived ease of use as the predictors of mobile service adoption. The research using diffusion of innovation theory argues that mobile service features such as relative advantage, compatibility, complexity, triability and observability determine its adoption. Based on the task-technology fit theory, some studies propose that the extent to which task requirements and technology features (e.g. ubiquity) are fit determines the technology adoption. Those using IS success model as the theoretical underpinning engage in identifying a variety of context-specific dimensions of information quality, system quality and service quality. However, technology acceptance is not only relevant to technology but also associated with person. As Keen notes, "not the software but the human side of the implementation cycle ... will block progress in seeing that the delivered systems are used effectively". Thus, the second research stream person-centric perspective relies on the theory of planned behavior (TPB), trust theory and value theory. TPB argues attitude, subjective norm and perceived behavioral control as the predictors of mobile service adoption behavior [9].

Value theory proposes that mobile service adoption behavior is affected by a variety of value perceptions including utilitarian value, hedonic value and social value. Among the person-centric theories, trust theory is the most frequently discussed one. Specifically, the previous studies have found that trust can influence users' mobile service adoption behavior by affecting performance expectancy, perceived risk, perceived usefulness, attitude, behavioral intention, satisfaction, and loyalty [8].

It is worth noting that although the role of trust has been examined in the studies on a variety of mobile services (e.g. mobile commerce or banking), its role in the mobile e-WOM services has been less explored. However, the information adoption literature has clearly shown that information credibility is key to the information adoption [18]. Several recent e-WOM studies also suggest that perceived credibility of online reviews determines consumers' adoption of these reviews [1]. Therefore, trust in online information is a critical and challenging issue for e-WOM services [13]. In particular, the unique features of mobile services make the trust issue become more salient. First, the small screen and relatively slow processing capability of mobile devices and the relative instability of wireless network challenge the competence of mobile e-WOM services. Users may suffer the risk of not accessing to the mobile services due to technical problems, blocking their service adoption behavior. Second, since mobile e-WOM services can provide context-sensitive services such as location-based services (LBS), users may be concerned with their privacy [20]. Further, the recommendation generated according to the contextual information will bring users' doubt about the motivation: is the recommendation really personalized to users' needs or fictitious out of marketing objectives [20]? This raises users' concerns about the benevolence and integrity of mobile e-WOM services. Regarding trust as a factor covering competence, benevolence and integrity [10], users' trust in mobile e-WOM services should play an important role in the mobile e-WOM service adoption. Therefore, this study attempts to propose and empirically test a research model to theorize the impact of trust on mobile e-WOM service adoption behavior.

Trust transfer theory

Trust building mechanism has been a key research topic in e-commerce research. According to McKnight et al. [11], there are three major mechanisms to build trust: institution-based process, knowledge-based process and trust transfer process. Institution-based process stresses on building trust through a variety of institutional structures such as feedback system, escrow services, credit card guarantees and intermediary [14]. Knowledge-based process means that people's trust in one party can be based

on their prior interactions with the party [4]. Trust transfer process refers to a trust mechanism that one's trust in an unknown person/object can be derived from his trust in a known person/object who has certain association with the unknown person/object [16]. In our research context, since the institutional structures for e-WOM services are difficult to be defined and knowledge-based process is relevant to ongoing trust rather than initial trust, they are not so appropriate to explain the initial trust on mobile services which are transitioned from web services. In contrast, the trust transfer mechanism which well captures the web–mobile service transition process is more appropriate to explain the phenomenon. Trust transfer can be described as a mechanism involving three actors: the trustor who makes judgments on if or not to trust others, the trustee whose trustworthiness is assessed by the trustor, and a third person who is the broker in the trust belief transfer process [17]. The underlying logic is that when the trustor trusts in the third person and there is a close relationship between the trustee and the third person, the trustor's trust in the third person will be transferred to the trustee. Accordingly, the third person is called as the source of trust transfer and the trustee as the target of trust transfer. The trust transfer theory further points out that the trust transfer process relies on two types of relationships between source and target namely similarity and business tie. Similarity captures the internal relationship between source and target; such that they share certain same innate features which make people have same perceptions about them. Business tie captures the external relationship between source and target, such that they may not be same in nature but share certain external cues. For example, the source and the target may belong to the same company. Thus, people will form same perceptions about source and target because they are categorized in the same group [21–26].

HYPOTHESES DEVELOPMENT

The customers of Tejarat Bank in Urmia city of west Azerbaijan province were chosen in this study. The sampling technique employed is non-probability random sampling. So we collected data from 384 customers that use electronic bank services. This study uses the data collected through a series of questionnaire. The questionnaire was divided into two sections, which the first section contained the questions concerning the demographic information like gender, age, education, occupation and use of electronic banking services. Meanwhile, the second section contained a set of instrument used to measure information technology competency, electronic word-of-mouth services (and its dimensions) and the respondents were asked to give their perception on a scale of 1 (Totally disagree) to 5 (Totally agree).

Information Technology and Trust in E-WOM

In the context of web–mobile service transition, mobile e-WOM services can be regarded as the target of trust transfer while web e-WOM services as the source. An underlying logic for trust transfer is that trust in the source can lead to trust in the target. However, this linkage has been ignored by researchers in a long time [16]. According to the structure of trust transfer which is formed based on three actors (e.g. source, target, relationships between source and target), including the initial trust in the model can provide a more comprehensive picture.

Hypothesis a. Information Technology has Positive effect on Trust in E-WOM Services of Tejarat Bank in Urmia City.

Information Technology and Functional Consistency

Functional consistency refers to the extent to which the functions of web and mobile e-WOM services are consistent. Because compared to PC-based e-WOM services, mobile e-WOM services are operated on the relatively small screen of mobile devices and telecommunication providers may charge high fees for mobile e-WOM services, e-WOM service providers need to adjust the service content in order to adapt to the mobile context. For example, when delivering the mobile e-WOM services, quantity of pictures or images is reduced, and the interface is redesigned to fit the small screen. These changes give rise to the issue of functional consistency. According to trust transfer theory, when similarity between source and target is high, people will be more likely to trust in the target because of trust in the source [16]. Thus, when users consider that the functions of mobile e-WOM services are inconsistent with web e-WOM services, the similarity between these two types of services is low, leading to low trust in mobile e-WOM services as well. Therefore, we propose:

Hypothesis b. Information Technology has Positive effect on Functional consistency in E-WOM Services of Tejarat Bank in Urmia City.

Information Technology and Perceived Entitativity

Perceived entitativity refers to the extent to which a group of entities is perceived as being bonded together [15]. Within our research context, it describes the degree to which users regard mobile and web e-WOM services belong to a same group (e.g. company). When users consider that these two types of services are operated by the same company, users may transfer their trust in the web e-WOM services to the trust in mobile e-WOM services because they trust in the company who operates these two types of services [16].

Hypothesis c. Information Technology has Positive effect on Perceived Entitativity in E-WOM Services of Tejarat Bank in Urmia City.

Hypothesis 1. Information Technology has Positive effect E-WOM Services of Tejarat Bank in Urmia City.

MATERIALS AND METHODS

Sampling and Data Collection

The customers of Tejarat Bank in Urmia city of west Azerbaijani province were chosen in this study. The sampling technique employed is non-probability random sampling. So we collected data from 384 customers that use electronic bank services

Measures

An English questionnaire was first developed by adopting/adapting previously validated measures from the existing literature. The questionnaire adopted a five-point Likert scale with options ranging from 1 (“strongly disagree”) to 5 (“strongly agree”) to measure the items.

Data Analysis

Demographic Analysis

The results of demographic analysis of the respondents show: 75.7% of them are male and 24.3% are female; 55.8% of them are between 31 to 40 years that have most frequency and the respondents below 20 years old with 4.5% have less frequency; most of them (66.4%) are bachelors and whom are under diploma have low, 44.8% of the respondents used ATM, 23.3% mobile banking and 17.8% used internet banking.

RESULTS

The result of the result of Pearson correlation analysis between Information Technology competency and Electronic Word-Of-Mouth Service is shown in Table 1.

Also the results of regression analysis are between information technology competency and Electronic Word-Of-Mouth Service is shown in Table 2.

As shown in Table 2 because of significant of the variables that are below 0.05, so information technology competency has positive effect on Electronic Word-Of-Mouth Service, and its dimensions (Trust, Functional and Entitativity).

CONCLUSION

This study attempts to understand the relationship between information technology and e-WOM and its dimensions. Several key findings can be derived from the study. First, this study reveals that trust in web e-WOM Services can be transferred to mobile e-WOM services. More importantly, the

Table 1. Pearson correlation analysis

Variable	Correlation	R Square	Standard deviation
Electronic Word-Of-Mouth Services	0.700	0.490	0.46510
Trust	0.347	0.121	0.83490
Functional	0.503	0.253	0.65932
Entitativity	0.343	0.117	0.76478

Table 2. Regression analysis

Variable	B coefficient	S.D.	Beta	T value	Sig. *
Electronic Word-Of-Mouth Service	0.0689	0.057	0.700	12.012	0.000
Trust	0.421	0.093	0.347	4.535	0.000
Functional	0.522	0.073	0.503	7.123	0.000
Entitativity	0.380	0.085	0.343	4.468	0.000

*Significant at 0.05 level.

effect of information technology on trust in web e-WOM services lead to behavioral intention to use mobile e-WOM services and adoption of mobile e-WOM services without the formation of trust in mobile e-WOM services.

Second, this study shows the effect of information technology on functional consistency between web and mobile e-WOM services that when the functions of mobile and web e-WOM services are similar, users will be more likely to trust in mobile e-WOM services given their initial trust in web e-WOM services.

Third, this study also finds the effect of information technology on perceived entitativity plays an important role in predicting trust in mobile e-WOM services, indicating that when users perceive there is a strong association between the web e-WOM services and the mobile e-WOM services, they will be more likely to trust in mobile e-WOM services given their initial trust in web e-WOM services.

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