SYSTEMATIC LITERATURE REVIEW: FACTORS IMPACTING ON MOBILE PAYMENT ADOPTION ON USER PERSPECTIVE

[1]YUYANG ZHAO, [2]FERNANDO BAÇÃO

[1]PhD Student of Universidade NOVA de Lisboa, Information Management School
[2]Professor of Universidade NOVA de Lisboa, Information Management School
E-mail: [1]D2015046@novaims.unl.pt, [2]F.bacao@novaims.unl.pt

Abstract - This paper implements the systematic literature review investigating the factors impacting on mobile payment adoption from user perspective. There are total 58 selected paper been analyzed through proposed five steps systematic literature review process. The results present that culture as an important factor impacting on user adoption intention, meanwhile, interaction between factors can impact on technology adoption model, and comprehensive adoption model generating TAM and UTAUT as efficient analysis tool for new technology adoption studies. This paper provides a systematic literature review process to analyze the factors impacting on mobile adoption. it can help researcher to understand adoption models and adoption factors better on mobile payment aspect, in order to analysis other technology adoption research. Moreover, this paper also provides the companies or organizations with quality advices of understand consumer consumption performance for better decision making.

Keywords - Mobile Payment Adoption, Structural Equation Model (SEM), Systematic Literature Review

I. INTRODUCTION

With increasingly developed telecommunication technology, mobile payment is the future, that can lead us to move towards a cashless world (Merchantsavvy, 2019). Related to Allied Market Research, global mobile payment transactions will be worth more than £3.5 trillion by 2023, following growth of 33.8% CAGR between 2017-2023 (Merchantsavvy, 2019). On the other hand, comparing with sharp growth of global mobile payment transactions, the penetration's distribution in different national market shown wide disparity (Miao and Jayakar, 2016). China with 47% of mobile wallet usage rate leading the highest rate of mobile payment adoption in 2017, however, UK with 27%, Japan with 20%, Australia with 19%, United States and Singapore with 17% and Canada with 16% (Wang, 2019). Therefore, clear identification of which factors impacting on smart phone users adopting mobile payment can provide business managers better understanding of mobile payment market, in order to more efficient strategy management. Therefore, what factors that most impacting on smart phone users adopting mobile payment? This paper will systematically review previous studies which implemented Structural Equation Model (SEM) to explore users adopting mobile payment, in order to identifying factors, analyzing adoption models and summarizing obstacles from selected papers. To be more specific, this paper will consist of following parts, Section 2 will describe the conceptual background of Systematic Literature Review. Section 3 will illustrate Systematic Literature Review implemented related to research targets. Following Section 4 will present the findings and results to answer the research questions. Finally, section 5 will provide conclusion and its implication limitations and recommendations for future research. This paper can provide researcher a guidance of systematic review implementation, and better understanding of adoption models and adoption factors. For stakeholder in mobile payment industry, this paper provides evidences of customers adopting mobile payment to better understanding the consumers' behavior for better decision.

II. METHODOLOGY

In order to efficiently reviewing and analyzing the previous literatures, Systematic Literature Review method as a methodological reviewing approach be implemented in this paper to examine and analyze the existing related literatures and gather the evidence to achieve the research target. To Systematic Literature Review can be divided into five steps for clearly identifying the review process, which including: (i) Formulating research questions; (ii) Identifying studies; (iii) Selecting and evaluating studies; (iv) analysis and synthesis; (v) Presenting the results. This five steps systematic literature review process had been widely implemented in different field of studies, such as, in IT aspect, investigation of cloud computing integrating with supply chain (Novais, Maqueira and Ortiz-Bas, 2019), and analysis the mobile payment adoption by UTAUT (Al-Saedi et al., 2019).

A. Step 1. Formulating research questions;

Based on systematic literature reviews framework, the beginning point is identifying the review questions as guidance for building literature search strategies (Kitchenham and Charters, 2007; Novais, Maqueira and Ortiz-Bas, 2019). Specifically, in this paper, the review questions designed to systematically explore previous literatures, which focused on factors impacting on mobile payment adoption on user

perspective. Therefore, the general targets of this paper are addressed by following questions:

- How is the distribution of previous studies implement SEM related to user's mobile payment adoption? (publication years, regions)
- What are the different factors that previous studies focused on related to user's mobile payment adoption?
- What is the theoretical basis that underpins previous studies on analyzing user's mobile payment adoption?
- What are the obstacles previous research met related to user's mobile payment adoption?

B. Step 2. Identifying relevant studies;

The second stage of the systematic literature review involves searching and locating relevant literatures, in order to answering the main research questions (Kitchenham and Charters, 2007; Ahmed et al., 2019). In the pursuit of this target, the relevant studies' locating and collecting processes implemented by keyword-based search in conducted of the main bibliographic databases (Brereton et al., 2007; Kitchenham and Charters, 2007). Since the objective has been to identify literatures address in mobile payment adoption from user perspective. There are three sets of keyworks been established and connected with Boolean Logic as search strategy show in follow:

' Consumer' OR 'User' OR 'Customer'

AND

' Mobile Payment' OR 'Mobile Banking' OR 'Mobile transfer'

AND

' Adoption' OR 'Acceptance'

IT was determined that these keywords should appear in the titles or abstracts of relevant peer-reviewed journals and conference publications from scientific databases 'Web of science', Science Direct and Google scholar. To more specific, the additional criteria of search strategy is focusing on literatures, which written by English and published between January 2009 and March 2019.

As the result, there are 615 papers from Web of Science, and 268 from ScienceDirect. Meanwhile, in order to understand the brief performance of previous literatures, the literature data be described by VOSviewer to visualizing the items mentioned in titles and abstracts from previous studies. There are four clusters of items from web of science, consisting adoption factors, adoption technology, research method, and mobile banking, which shown in fig 1.

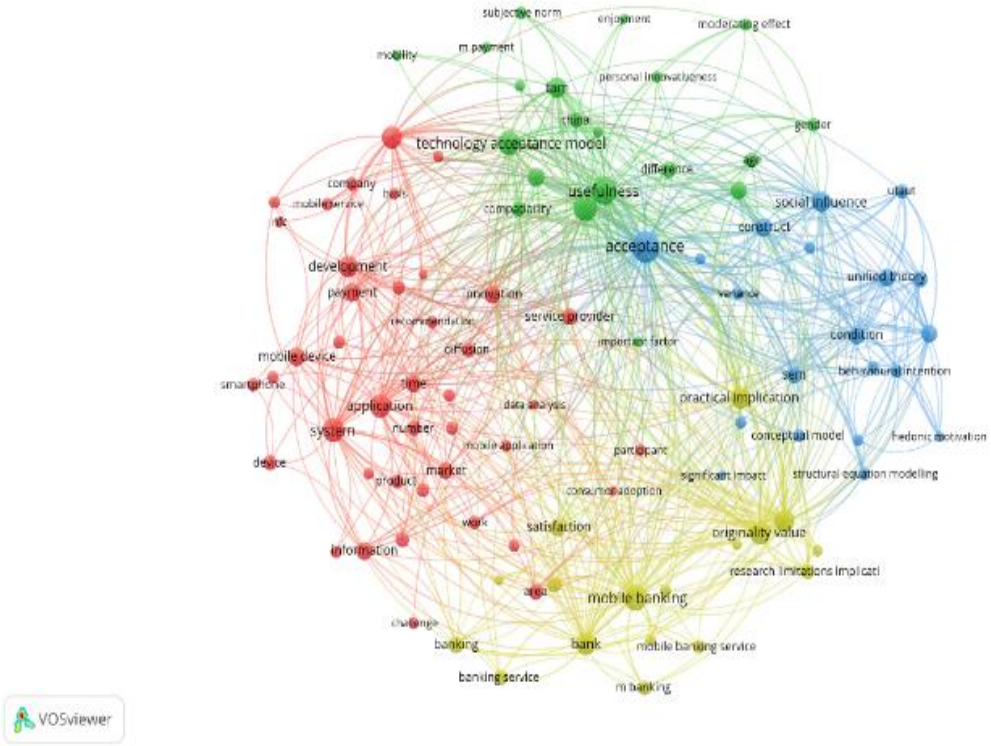


Fig. 1.

C. Step 3. Selecting studies;

After the potentially relevant primary studies have been obtained and full-text accessed, this stage is consisting of scanning and assessing papers for their actual relevance in order to eliminate the research questions (Kitchenham and Charters, 2007). Brereton et al. (2007) and Kitchenham and Charters (2007) suggest that involving inclusion and exclusion criteria to select the appropriate studies, which shown as followed.

Inclusion Criteria	• Involving Mobile Payment Adoption as a primary condition. • Analysis from user perspective • Involving Structural Equation Modeling (SEM) as analysis tool. • Written in English. • Journal Article or Conference paper • Full-Text article available
Exclusion Criteria	• Duplicated literatures • Involved Mobile payment concept but not focusing on user adoption aspect • Analysis from Server or organization aspect. • Not involving SEM analysis • Written in other language than English • Full-text not available

After implementing inclusion and exclusion criteria full-text scanning through previous literatures, there are 58 papers been selected for following in-depth analysis.

D. Step 4. Data extraction and synthesis;

This stage consists of synthesizing and interpreting data from selected 58 literatures. The data can be extracted by sifting, charting and sorting material based on the research aims (Brereton et al., 2007; Kitchenham and Charters, 2007). In order to clear presenting the data from previous literatures, the following information of each article will be collected and extracted as analysis variables, be tabulate to answer the research question analytically, consisting of Author(s), year of publication; Target location; Sample size; Theorical basis; Methodology; Important result(s); Obstacle(s). These variables were conducted by picking quotations from the corresponding paper with authors' own comments that matched the research dimension(Brereton et al., 2007; Kitchenham and Charters, 2007; Duran and Mussbacher, 2019)

E. Step 5. Reporting the results;

The fifth stage of this study consisted of an analysis of the resulting tabulation and summarizing and reporting the results and circulating the results to potentially interested parties(Brereton et al., 2007; Kitchenham and Charters, 2007). To be more specific, the thematic analysis of the results as qualitative analysis methodology will be applied to answer research questions. First, a descriptive analysis of selected papers will be presented; next, the first main topic (factors impacting on user's mobile payment adoption) is will be addressed, following by the second main topic (adoption models been applied for user's mobile payment) analysis; finally, the third main topic (Obstacles summarized from previous literatures) will be analyzed.

III. FINDING AND RESULT

This part of study consists of the finding from systematic literature review through previous literatures related to user's mobile payment adoption from 2009 to 2019, in order to answer the research questions. The results present in following four parts.

A. The distribution of previous studies related to user's mobile payment adoption (publication years, regions)

The publication year distribution of select studies been summarized in table 1. Then, delivering each number of studies in line chart (fig. 2) sorted by year from 2009 to 2019, the result shows that the number of studies related to user adopting mobile payment has continuing grown from 2011 and had increased sharply from 2015 till now.

Years	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
No. of Studies	3	3	1	1	2	4	7	11	10	11	5

Table 1

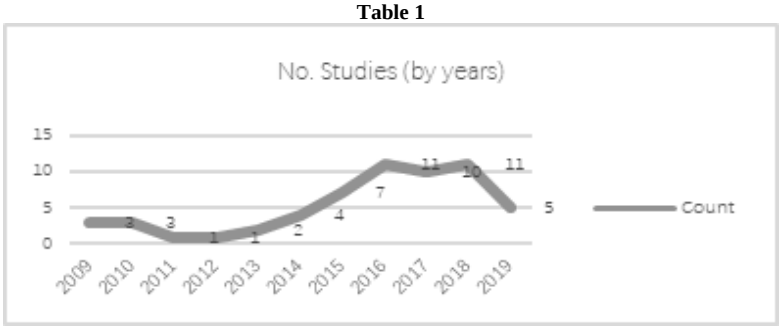


Fig.2

Target regions' distribution: There are total 27 countries had been considered as target regions in selected papers. The target regions' distribution been summarized and formulated to graphic heat map from selected studies excel tabulation presented in Fig. 3. The color of each county from green to red representing the number of articles from low to hig, which summarized in Table 2.

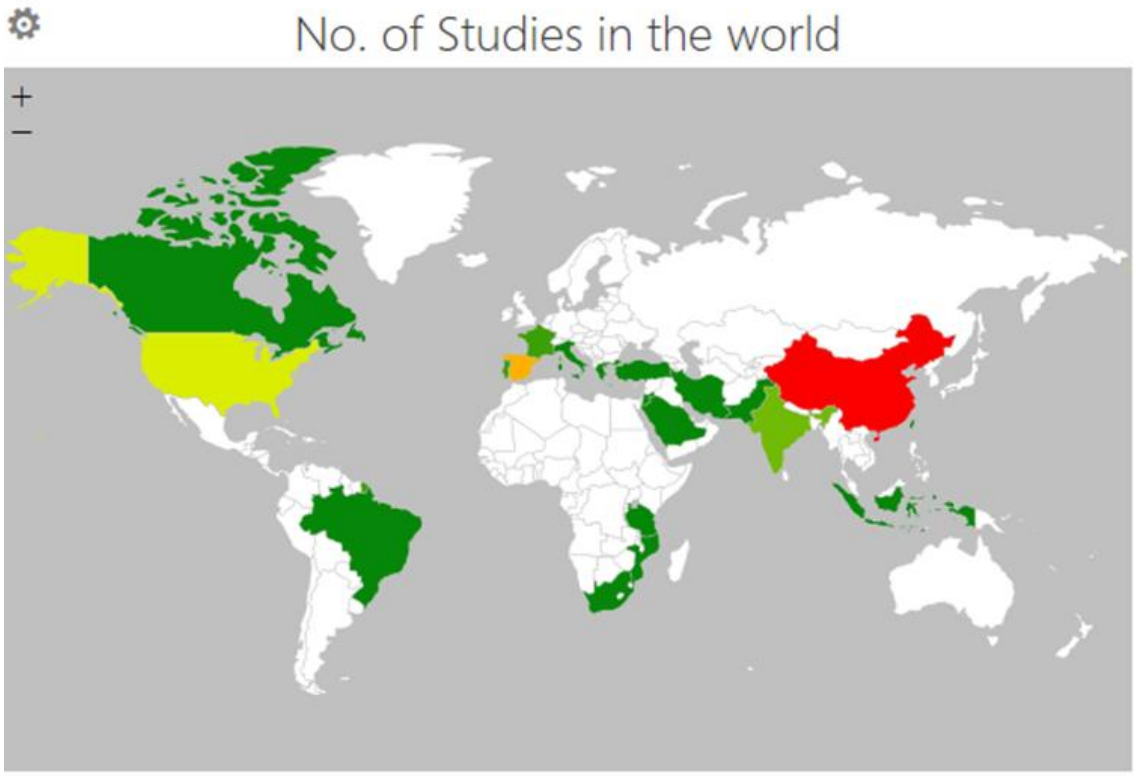


Fig.3

Countries	No. of Studies
China	10
Spain	7
Thailand	5
United States	5
Malaysia	4
India	3
France	2
Portugal	2
South Korea	2
Brazil	1

Table 2

Key terms distribution: The terms 'Adoption', 'Factor', 'Mobile payment' and 'Intention' as the most occurrent terms link with key factors of user's payment adoption terms, such as, 'Usefulness', 'Ease' & 'Use'(Ease of Use), 'Trust' and 'Risk' as popular adoption factors been mentioned in previous literatures. The result shown by VOSviewer in Fig. 4.

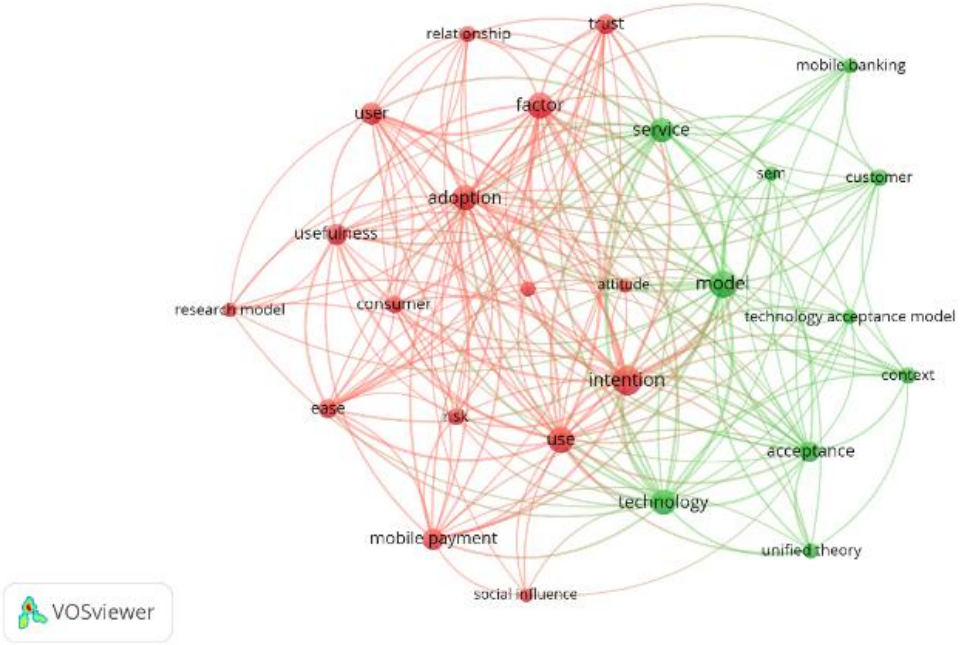


Fig.4

B. Different factors that previous studies focused on about user's mobile payment adoption.

1. Perceived Usefulness

Previous selected researches have been found that perceived usefulness is significant in determining behavior intention to adopting mobile payment and in shaping the attitude of a user towards actual usage(Gu, Lee and Suh, 2009; Di Pietro et al., 2015; Pham and Ho, 2015; Hong Zhu and Ying L. Y. P. Chang, 2017; Riskinanto, Kelana and Hilmawan, 2017; Haider et al., 2018; Liébana-Cabanillas, Molinillo and Ruiz-Montañez, 2018). Meanwhile, perceived usefulness also interacts with other variables to preform directly or indirectly impact on user's behavior intention of adopting mobile payment. For example, the earlier study from Suh and Han (2002) indicated that perceived usefulness affect trust in Internet banking adoption. However, perceived usefulness also can be impacted by other factor, such as personal emotion (Wu, Liu and Huang, 2016), familiarity (Theodora et al., 2010), trust and perceived ease of use (Alalwan, Dwivedi and Rana, 2017) Furthermore, in some specific situation, the gender or age can determine the user perceiving usefulness. For example, perceived of usefulness has more significant impact on males' intention to adopt mobile banking in Pakistan, Haider et al. (2018) analyzed that male in Pakistan adopting mobile banking by perceived usefulness and perceived self-expressiveness, which is significantly impacted by their desire for personality, value and status.

2. Perceived Ease of use

However, there are some disagreement on perceived usefulness has significant impact on behavior intention. Such as study from (Daştan and Gürler, 2016) present that Perceived Usefulness and Perceived Ease of Use factors has no significant effect on the user's adoption of mobile payment system. Moreover, perceived ease of use been found that can be significantly moderated by perceived self-efficacy that in turn impacting on behavioral intention to use mobile payment (Kongarchapatara, 2018). Therefore, the perceived ease of use also should be determined by related variable from user internal and external aspect to support the measurement of perceived ease of use impacting on behaviour intention(Shin, 2009; Pal, Vanijja and Papasratorn, 2015; Ramos-de-Luna, Montoro-Ríos and Liébana-Cabanillas, 2016; Riskinanto, Kelana and Hilmawan, 2017)

3. Social

Same as 'Subjective norm' been defined as an individual's perception to perform the recommended behavior according to pressures from his/her peers, family, society, and culture (Hong Zhu and Ying L. Y. P. Chang, 2017; Liébana-Cabanillas and Lara-Rubio, 2017). Meanwhile, it been presented that no significant gender differences when user adoption mobile payment (Koenig-Lewis et al., 2015). To be more specific, on factors' interaction aspect, Shin (2009) presented that Social influence and perceived security are additional antecedents of attitude and intention of using mobile wallet. Therefore, the measurement of social influence need been determined by other variables, such as, personal-related factor, trust, security and culture factors together(Zhou, Lu and Wang, 2010; Abrahão,

Moriguchi and Andrade, 2016; Cocosila and Trabelsi, 2016; de Kerviler, Demoulin and Zidda, 2016; Lu et al., 2017; Haider et al., 2018; Cao and Niu, 2019).

4. Trust

Trust is defined as the subjective belief and willingness that service provider will fulfil their obligations and expecting a positive outcome regarding the service provider's future behavior, it also plays an important role in uncertain mobile financial transactions(Gu, Lee and Suh, 2009; Zhou, Lu and Wang, 2010; Zhou, 2013; Hong Zhu and Ying L. Y. P. Chang, 2017). Furthermore, earlier researches have proven that trust is an important determinant in adoption and continuance of usage (Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi, 2018; Khalilzadeh, Ozturk, & Bilgihan, 2017). In addition, prior literature has also proved that trust has a positive influence on perceived usefulness consequently impacting on user behavior intention of mobile payment (Gu, Lee and Suh, 2009; Chen and Li, 2017). Moreover, one previous study from (Daştan and Gürler, 2016), they confirmed that environmental risk and firm reputation are associated with trust negative and positive separately on adoption mobile payment system. Therefore, trust is a multi-dimensional variable (Hong Zhu and Ying L. Y. P. Chang, 2017).

5. Perceived Risk

Perceived risk was identified by Cocosila and Trabelsi (2016) as an essential obstacle to measure the user adopting new technology. Perceived risk adds a stronger power to predict intention of adoption new technique, it has significant negative influence on the intention to accept mobile payment(Daştan and Gürler, 2016; de Kerviler, Demoulin and Zidda, 2016; Chen and Li, 2017; Khalilzadeh, Ozturk and Bilgihan, 2017), to be more specific, the measurement of perceived risk can group in four independent variables, time risk, social risk, psychological risk and privacy risk, in addition, the psychological and privacy risks has most negative impact user adopting mobile payment (Cocosila and Trabelsi, 2016). Furthermore, perceived risk has a strong negative effect on behavioral intention for non-users of NFC MP then marketers need to resolve these communication problems (Slade et al., 2015). Therefore, According to perceived risk as a significant negative impact on intention of adoption ((Muñoz-Leiva, Climent-Climent and Liébana-Cabanillas, 2017; de Kerviler, Demoulin and Zidda, 2016), perceived risk can be measure by external variables (Cocosila and Trabelsi, 2016) or associated with other factors such as trust (Shao et al., 2018)

6. Culture

Cultural characteristics are among the factors that previous studies indicated to have significant impacts on one's technology adoption propensity by affecting constructs of social influence, attitude, usefulness, and behavioral intention. (Khalilzadeh, Ozturk and Bilgihan, 2017). To be more specific, The cultural influence as an antecedent of perceived social influence and mobility and perceived privacy protection (Lu et al., 2017). However, Culture factors mostly been mentioned in limitations or recommendations from previous study (Baptista and Oliveira, 2015; Pham and Ho, 2015; Ramos-de-Luna, Montoro-Ríos and Liébana-Cabanillas, 2016; Park et al., 2018; Shankar, 2018). It been recommended as an external variable may interact with each other and with other UTAUT2 variables to exam the culture influence on new technology adoption research, such as associated with social influence, trust, perceived risk etc. For example, the culture may impact on the individual consumption habit or payment habit for adopting new technology.

7. Habit

Habit is defined as 'the tendency to automatically use a technology as a result of learned behavior' (Venkatesh et al., 2012). The result from previous researches shown that habit have significant impact on behavioral intention same as any other variable (Chawla and Joshi, 2019), sometime, even higher than other variables, including performance expectancy et al. 2012) about habits suggests that habitual responses may cause users to bypass such a cognitive process, for example, Payment system in mainly Europe countries and United Stated, where have well-established credit system, with mobile payment adoption developed slower than the nations with less developed credit systems, such as, China, Japan, South Korea and Africa.(Okazaki, 2006; Ghezzi et al., 2010; Kapoor, Dwivedi and Williams, 2013; Nickerson, 2013). Moreover, traditional payment methods were available long before mobile payment, Individuals from different regions with different culture may have already developed different habits of using cash or bank cards or mobile wallet in various particular contexts (Slade et al., 2015; Chen and Li, 2017). Therefore, the habit factor could be set up as an indicator involve in various cultural variables to measure its impact on new technology adoption, especially in comparing the regions or culture differences scenario.

C. Theoretical basis that underpins the studies of user's mobile payment adoption?

the theorical basis models and relevant articles been summarized in table 4.3. TAM is the most basis model been implemented and modified from selected 58 papers. The comprehensive model consists more variables to measure the user intention on adopting new technology. Therefore, two main adoption models TAM and UTAUT and comprehensive models

will be critical analyzed separately in following three parts.

Models	Studies
TAM	(Haider et al., 2018); (Liébana-Cabanillas et al., 2018); (Anthony and Mutalemwa, 2014); (Chawla and Joshi, 2019); (Daştan and Gürler, 2016); (Jenkins and Ophoff, 2016); (Kapoor, Dwivedi and Williams, 2013); (Kim, Mirusmonov and Lee, 2010); (Kongarchapatara, 2018); (Liébana-Cabanillas and Lara-Rubio, 2017); (Mun, Khalid and Nadarajah, 2017); (Muñoz-Leiva, Climent-Climent and Liébana-Cabanillas, 2017); (Ramos-de-Luna, Montoro-Ríos and Liébana-Cabanillas, 2016); (Riskinanto, Kelana and Hilmawan, 2017); (Shankar, 2018); (Siyal et al., 2019); (Gu, Lee and Suh, 2009); (Ramos de Luna et al., 2018)
UTAUT	(Zhou, Lu and Wang, 2010); (Baptista and Oliveira, 2015); (Abrahão, Moriguchi and Andrade, 2016); (Kaitawarn, 2015); (Khalilzadeh, Ozturk and Bilgihan, 2017); (Shin, 2009); (Slade et al., 2015); (Oliveira et al., 2016); (Boonsiritomachai and Pitchayadejanant, 2018); (Oliveira et al., 2014); (Alalwan, Dwivedi and Rana, 2017); (Morosan and DeFranco, 2016);
DOI	(Al-jabri, 2012); (Johnson et al., 2018); (Shao et al., 2018); (Pham and Ho, 2015); (Di Pietro et al., 2015); (Oliveira et al., 2016)
TRA	(Theodora et al., 2010); (Liébana-Cabanillas, Sánchez-Fernández and Muñoz-Leiva, 2014a); (Liébana-Cabanillas, Sánchez-Fernández and Muñoz-Leiva, 2014b)
Comprehensive model	(Hamidi and Safareeyeh, 2019); (Liébana-Cabanillas, Molinillo and Ruiz-Montañez, 2018); (Liébana-Cabanillas, Ramos de Luna and Montoro-Ríosa, 2017); (Wu, Liu and Huang, 2016); (Cao and Niu, 2019); (Sharma and Sharma, 2019); (Park et al., 2018); (Sripalawat, Thongmak and Ngramyarn, 2011); (Yan et al., 2009); (Lu et al., 2017)

1. Technology acceptance model (TAM)

TAM is the most extensively used theory in the field of information systems for analyzing new technology adoption (Abrahão, Moriguchi and Andrade, 2016) Moreover, In the research studies related to mobile payments, many articles have used concepts from the original TAM, extending them with different constructs(Gu, Lee and Suh, 2009; Anthony and Mutalemwa, 2014; Riskinanto, Kelana and Hilmawan, 2017). Therefore, many researchers have thus recommended that TAM be extended to incorporate additional variables and thus strengthen the model. Such as, Yan et al. (2009) applied TAM and TPB models to explain the mobile phone user adopting mobile payment in Malaysia with extra variables, Peer Influence and Perceived Price Level; Chawla and Joshi (2019) improved the technology acceptance model (TAM) by adding Trust, Convenience and Efficiency as relevant factors for analyzing user's mobile banking adoption in India, and Daştan and Gürler (2016) modified TAM described that Perceived Trust, Perceived Mobility and Attitude factors have a positive effect on the adoption of mobile payment service in Turkey, Gu, Lee and Suh, (2009) modified TAM with Trust-associated to analyze user adopting mobile bank in South Korea. This study found out the interaction between trust and perceived ease of use has positive impact on perceived usefulness. This model presented that trust as the strong indicator of user's behavioral intention. Therefore, TAM as the most classical adoption model been widely applied and modified with other indicators such trust, social influence to support model performance.

2. Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT, developed by Venkatesh et al. (2003), is an extension of TAM model and developed to been incorporated by four determinants: performance expectancy, effort expectancy, social influences, and facilitating conditions, that the first two determinants are similar to TAM's perceived usefulness, and perceived ease of use(Kongarchapatara, 2018). In addition, Unlike TAM, UTAUT introduces moderating constructs (gender, age, experience, and voluntariness of use) which are posited to moderate the impact of the four key constructs on usage intention and behavior. exploring user acceptance of mobile payment technology. Such as Wu, Tao, and Yang (2008) include education as a moderator for user adopting 3g mobile telecommunication; Shin (2009) applied social influence and self-efficacy constructs as moderating variables in UTAUT model to analyze the user adopting mobile wallet in US. Therefore, UTAUT as advance level of TAM achieves a better performance. Moreover, the additional moderators, such as, personal factors, perceived risk, trust and security also could significant improve UTAUT performance. (Baptista and Oliveira, 2015;

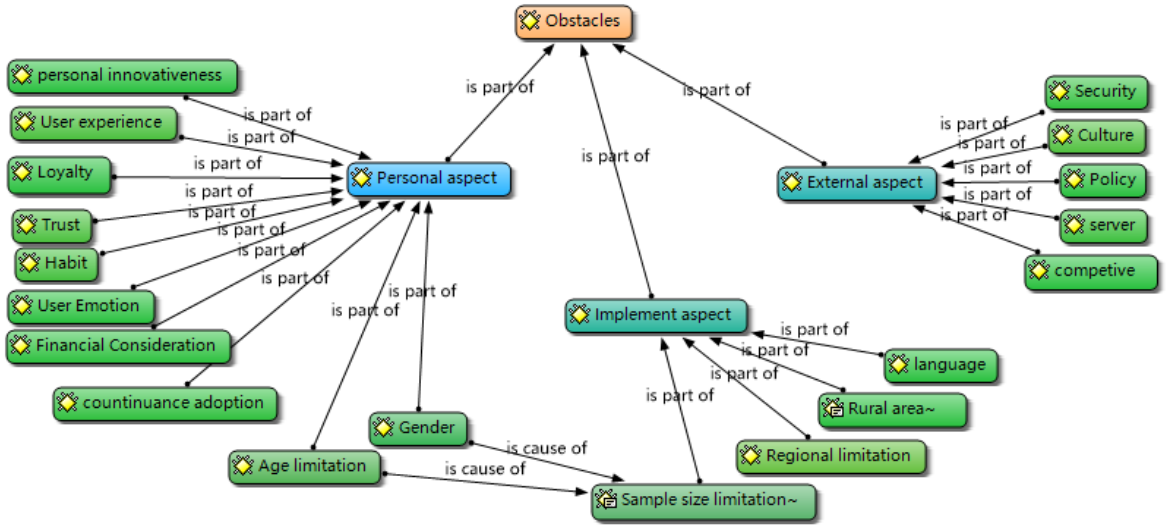
Koenig-Lewis et al., 2015; Morosan and DeFranco, 2016; Khalilzadeh, Ozturk and Bilgihan, 2017)

3. Comprehensive models

Comprehensive model is defined as integrating adoption model with other adoption model(s), or supporting variable(s), or interactional factor(s) together, to analysis adoption factors of user adopting new technology. According to the summary of selected studies and relevant theorical basis models, the comprehensive models had widely applied in mobile payment adoption on user perspective (Morosan and DeFranco, 2016; Liébana-Cabanillas, Ramos de Luna and Montoro-Ríosa, 2017; Liébana-Cabanillas, Molinillo and Ruiz-Montañez, 2018; Hamidi and Safareeyeh, 2019). Theodora et al. (2010) modified TAM with factor 'familiarity with Technology' from TRA to analyzed the mobile transactions adoption in Greece. Furthermore, Zhou, Lu and Wang (2010) presented that TTF been affected by task characteristics and technology characteristics which in turn determines individual performance and actual utilization, also affects performance expectancy. They integrated model of TTF and UTAUT to figure out performance expectancy, task technology fit, social influence, and facilitating conditions have significant effects on user adoption of M-banking in China. Therefore, the comprehensive model as more efficient analysis tool, combine different models, Factors and indicators together been suggest for future research related to new technology adoption.

D. Obstacles for implementing SEM analyzing user adopting mobile payment from selected researches

Based on the differences between target regions, sample sizes, adoption models and adoption factors been focused on from select literatures, there are various obstacles in each article.



1. User internal obstacles

User internal obstacles been collected and divided into following detail obstacles, which from results of code neighbours formulated by ATLAS. Ti v7.

Code: Personal aspect {0-11}
<is part of> Obstacles
Age limitation <is part of>
Continuance adoption <is part of>
Financial Consideration <is part of>
Gender <is part of>
Habit <is part of>
Loyalty <is part of>
personal innovativeness <is part of>
Trust issues <is part of>
User Emotion <is part of>
User experience <is part of>

To be more specific, the result presents that 'Age limitation', 'Trust', 'Use experience' and 'Habit', are most popular limitations been focused on previous. Meanwhile, the experience of consumption may change the habit of payment in order to impact on new technology adoption (Al-jabri, 2012; Baptista and Oliveira, 2015).

2. External obstacles

External obstacles been collected and divided into following specific obstacles shown in following results of code neighbours from ATLAS. Ti v7.

Code: External aspect {0-6}
<is part of> Obstacles
completive <is part of>
Culture limitation <is part of>
Policy <is part of>
Perceived security <is part of>

Server quality <is part of>

_____

To be more specific, the culture factor been most mention with 18 quotations in previous studies from external obstacles perspective. Baptista and Oliveira (2015) suggested that UTAUT can including a wider range of individuals in different countries, different environments, cultural groups, and technologies for the future research on mobile payment adoption.

3. Implemental obstacles

Implemental obstacle is defined as the barriers and limitations during the research implement process, including, language, location and sample size perspectives, shown in the results of code neighbours from ATLAS. Ti v7.

_____

Code: Implement aspect {0-5}
<is part of> Obstacles
language <is part of>
Regional limitation <is part of>
Rural area <is part of>
Sample size limitation <is part of>

_____

Regional limitation as popular recommendation from previous literature, the cross-regions and cross-culture comparison been most highlighted from other previous researches (Baptista and Oliveira, 2015; Di Pietro et al., 2015; Junadi and Sfenrianto, 2015a; Hamidi and Chavoshi, 2018).

IV. CONCLUSION

In conclusion, this paper implements the systematic literature review investigating the factors impacting on mobile payment adoption from user perspective. The systematic literature review been organized in 5 steps from identify the research questions about user's mobile payment adoption focusing on the adoption factors and adoption model been applied from previous studies and how the distribution and obstacles of relevant studies; afterwards, inspired from VOSviewers to understand the related research direction and implemented inclusion and exclusion criteria to select 58 studies, moreover, data been extracted and statistical analysis in excel, and qualitative analysis involved to answer the research questions by quotation management software ATLAS. Ti to present the results. The results of this paper found that user mobile payment adoption topic mainly focused on Asian and European countries (Gu, Lee and Suh, 2009; Ghezzi et al., 2010; Guo and Bouwman, 2016; Kongarchapatara, 2018), with increasing trend from recent years. Moreover, the popular factors been analyzed and summarized by importance of impacting technology adoption, including perceived usefulness, perceived ease of use, Social Influence, Trust, perceived risk, Security, Hedonic motivation, Culture and Habit (Liébana-Cabanillas, Sánchez-Fernández and Muñoz-Leiva, 2014; Baptista and Oliveira, 2015; Jenkins and Ophoff, 2016; George and Sunny, 2018). In addition, this paper found that interaction between factors can impact on technology adoption model. Furthermore, this paper also found out that comprehensive model has higher performance than using single adoption model TAM, or UTAUT (Wang et al., 2015; Ramos de Luna et al., 2018). Last but not least, the obstacles from previous studies been summarized from user internal, external and implemental limitations, to found out regional and cultural obstacles been most mentioned and recommended for the research in technology adoption (Baptista and Oliveira, 2015; Junadi and Sfenrianto, 2015b).

LIMITATIONS AND RECOMMENDATIONS

According the systematic review processes and results in previous parts of this paper, the basic steps in the systematic review process been recommend relevant to new technology adoption in information technology and information management aspect. However, some modifications to proposed review steps and practices could significantly improve review performance, such as, increasing literature range, because of the limited number of selected relevant studies by access limitation; or involved in other stakeholder in mobile payment industry, like, from service provider or merchant or organization perspective. Therefore, the viewing process in this paper as a research tools or as a framework for relevant study be extended by incorporating other attributes such as databases, and research purposes to analysis the new technology adoption on user perspective. This paper also provides the companies or organizations with quality advices of understand consumer consumption performance by mobile payment for better decision making in business management and strategy management.

REFERENCES

[1] Abrahão, R. de S., Moriguchi, S. N. and Andrade, D. F. (2016) 'Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT)', RAI Revista de Administração e Inovação.-FEA/USP, 13(3), pp. 221–230. doi: 10.1016/j.rai.2016.06.003.

[2] Ahmed, Y. A. et al. (2019) 'Social media for knowledge-sharing: A systematic literature review', Telematics and Informatics. Elsevier, 37(October 2017), pp. 72–112. doi: 10.1016/j.tele.2018.01.015.

[3] Al-jabri, I. M. (2012) 'Mobile Banking Adoption: Application of Diffusion of Innovation Theory', Electronic Commerce Research, 13(4), pp. 379–391.

[4] Baptista, G. and Oliveira, T. (2015) 'Understanding mobile banking: The unified theory of acceptance and use of

technology combined with cultural moderators', Computers in Human Behavior, 50, pp. 418–430.

[5] Cao, Q. and Niu, X. (2019) 'Integrating context-awareness and UTAUT to explain Alipay user adoption', International Journal of Industrial Ergonomics. Elsevier, 69(March 2018), pp. 9–13.

[6] Dahlberg, T., Guo, J. and Ondrus, J. (2015) 'A critical review of mobile payment research', Electronic Commerce Research and Applications. Elsevier B.V., 14(5), pp. 265–284.

[7] Duran, M. B. and Mussbacher, G. (2019) 'Reusability in goal modeling: A systematic literature review', Information and Software Technology. Elsevier B.V., 110(July 2018), pp. 156–173

[8] Hamidi, H. and Safareeyeh, M. (2019) 'A model to analyze the effect of mobile banking adoption on customer interaction and satisfaction: A case study of m-banking in Iran', Telematics and Informatics. Elsevier, 38(June 2018), pp. 166–181.

[9] Zhou, T. (2013) 'An empirical examination of continuance intention of mobile payment services', Decision Support Systems. Elsevier B.V., 54(2), pp. 1085–1091. doi: 10.1016/j.dss.2012.10.034.

[10] Zhou, T., Lu, Y. and Wang, B. (2010) 'Integrating TTF and UTAUT to explain mobile banking user adoption', Computers in Human Behavior. Elsevier Ltd, 26(4), pp. 760–767. doi: 10.1016/j.chb.2010.01.013.

★★★