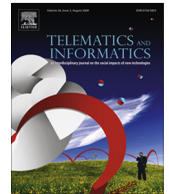




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# Hall of fame for mobile commerce and its applications: A bibliometric evaluation of a decade and a half (2000–2015)



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## ABSTRACT

This study intends to evaluate the current development and trends of researches on mobile commerce and its applications through bibliometric analysis. Several publication characteristics were examined, on top of lists for most cited articles on this area and most studied mobile commerce applications. Through the data gathered from Web of Science database, this study employs several measures, namely impact factor, h-index, and citation counts to evaluate the productivity, impact, and research performance of countries, journals, authors, and research institutions. The number of publications are increasing yearly, with USA leading most of the times. Several international collaboration patterns were identified, and surprisingly some Asian countries have comparable performance to Western countries, in terms of the measures employed. Likewise, Asian authors and research institutions are found to have outstanding achievements too. Moreover, both the most studied mobile commerce applications and most cited lists offer some future directions. This study serves as a forerunner in using bibliometric analysis to evaluate researches on mobile commerce and its applications, and expected to benefit researchers in the area of mobile commerce, by identifying potential research directions. In addition, this study also serves as a useful guide to potential researchers and practitioners. However, improvements could be made, if extra analyses, such as content analysis, are added in.

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## 1. Introduction

Mobile commerce (m-commerce) is a rising discipline that involves mobile computing technologies (Faqih and Jaradat, 2015), and it has high popularity and full of potentials (Nilashi et al., 2015). Other than traditional brick-and-mortar operating style, businesses are extending their reach to the customers by m-commerce (Maity and Dass, 2014). Enabling by mobile technologies, m-commerce allows businesses to deliver unique services (Kim et al., 2008a), and serves as a new business model for businesses, which might eventually deliver large impacts to businesses (Chong et al., 2012). The popularity of m-commerce is increasing (Tan et al., 2014), hence it is foreseen that m-commerce has substantial influence on businesses and society in the future (Chen et al., 2011).

In comparison with electronic commerce (e-commerce) conducted through wired internet, m-commerce works in a separate operating environment, as it requires mobile devices and mobile internet to operate (Kim et al., 2008a). Mobile devices (e.g., smartphones and tablets) are becoming an essential in daily life, as they make communications convenient (Dinh et al., 2013; Wong et al., 2015), and enable various types of mobile services (Jung, 2014), such as SMS, MMS, GPS, mobile payment, and mobile banking (Hsiao and Chen, 2015). Other than offering useful functions, mobile devices are being used for

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entertainment purposes too, such as mobile music (Sim et al., 2014). Besides, mobile devices are the fastest adopted consumer products, compared to computers (Chen et al., 2011). Undeniably, the rapid growth of mobile devices, such as smartphones, has promoted the growth of m-commerce to its current state (Faqih and Jaradat, 2015). The use of mobile devices in m-commerce has formed two unique characteristics of m-commerce, namely ubiquity and localization, which are not found in e-commerce and allow businesses to connect with consumers anytime and anywhere (Huang et al., 2015). In addition, Krotov et al. (2015) also supported that m-commerce carries some characteristics that distinguish it from e-commerce, one of it being ubiquity.

Owing to the above facts, numerous applications on m-commerce have emerged in business world (Ngai and Gunasekaran, 2007). They are mobile banking, mobile payment, mobile entertainment, mobile music, mobile learning, and etc. Accordingly, researches on m-commerce and its applications are in their blooming season in recent years, as researchers have been devoting their attention to this emerging research area. However, evaluation of these growing literatures has yet to be performed. As such, it is now a good timing to present a bibliometric study that evaluates the quantity and quality of research (Bakri and Willett, 2011) in this discipline.

Ngai and Gunasekaran (2007) once conducted a review on m-commerce research; nonetheless, the study only identified 149 articles published between 2000 and 2003, and listed a limited number of m-commerce applications. They opined that m-commerce applications list should be extended, as more applications emerge in future. Given the facts that researches on m-commerce and its applications have grown since the review, and with the huge emergence of m-commerce applications, it is therefore crucial to resume the work done by Ngai and Gunasekaran (2007) in this bibliometric study.

To the best knowledge of the author, a comprehensive bibliometric study for researches on m-commerce and its applications on a worldwide basis has yet to be done. With the purpose of fulfilling the said literature gap, this bibliometric study aims to generally analyze and evaluate the current development and trends of m-commerce research and its applications, through data gathered from Web of Science (WoS) database. Several publication characteristics such as years, countries, journals, authors, research institutions would be examined and presented. This study also lists the most cited articles and most studied m-commerce applications. Zyoued et al. (2014) have considered bibliometric analysis as a useful tool in comprehending the status quo and future of researches in a particular discipline. Therefore, this study is expected to benefit researchers, by identifying potential research directions for future studies. This would definitely help in shaping the m-commerce research in next decade. Besides, the results from the bibliometric analysis serve as a good reference guide to potential m-commerce researchers. They could know the most relevant journals in this discipline and start to search for articles. Moreover, the results are also beneficial to practitioners. They are able to get some ideas on what are the popular m-commerce applications currently and who are the experts to consult with, especially when it comes to policy and decision making. Concurrently, they also could know what are the journals to subscribe for, in order for them to get the first hand information.

## 2. Concept of m-commerce and its applications

Ever since the introduction of e-commerce, the ways business are being conducted have greatly changed (Ngai and Gunasekaran, 2007). In comparison with e-commerce applications, m-commerce offers additional benefits and unique services (Mahatanankoon et al., 2005). These services include location and localization services, among others (Faqih and Jaradat, 2015). Another unique function of m-commerce, ubiquity, allows users to access information anytime and anywhere (Chong et al., 2012; Krotov et al., 2015). This presents new opportunities to businesses in satisfying users' needs under different situations (Ha et al., 2012). Mobile banking, which allows users to perform banking activities through mobile devices, is one m-commerce application that provides ubiquitous and convenient services to users (Oliveira et al., 2014). Users are therefore, able to obtain information ubiquitously and enjoy the services provided by m-commerce service providers (Chong, 2013a), and these services include location-based services (Zhang et al., 2012). This particular type of service, which makes use of users' location information in real-time, has been perceived by Zou and Huang (2015) as an essential feature of m-commerce. One application of localization is delivering personalized messages to users based upon their selected preferences, which allows them to take lesser effort in seeking information needed (Eastin et al., 2016).

M-commerce is a subcategory of e-commerce (Ngai and Gunasekaran, 2007). However, Featherman et al. (2010) opined that m-commerce carries more potentials than e-commerce (Chan and Chong, 2013). Some researchers have narrowly defined m-commerce. To name a few, Hew et al. (2016a) and Kim et al. (2009) described m-commerce as business transactions conducted through mobile internet and network; while Wu and Wang (2005) viewed all direct or indirect transactions with monetary value conducted through wireless telecommunication network as m-commerce. This narrow scope of m-commerce was also used by Chong (2013b), who defined m-commerce as buying and selling goods and services via mobile devices.

Nevertheless, m-commerce should have a larger scope, as raised by Ngai and Gunasekaran (2007, p.4), who referred m-commerce as the "conduct of commerce via wireless devices", consented that m-commerce including, but not limited to transaction mode, as the term "commerce" activity carries a large scope of meaning. Concurring to the same view, Chong et al. (2012), elaborated that m-commerce activities are both informational and transactional based, concluded that m-commerce is not only limited to monetary transactions. Yadav et al. (2016), who deemed m-commerce as business activities that conducted through mobile devices under wireless environment, supported such views too.

Mahatanankoon et al. (2005) noted that there are two general operation modes of m-commerce, namely content delivery and transaction mode. The former refers to the delivery of content messages such as sports news and personalized financial news through mobile internet; while the latter concerns on the conduct of transactions. Therefore, it is unsurprised that there are numerous applications of m-commerce in business world (Ngai and Gunasekaran, 2007).

Varshney and Vetter (2002) have labeled some major m-commerce applications, such as mobile advertising, mobile auctions, mobile entertainment, mobile financial applications, mobile learning, mobile offices, mobile shopping, and more. Hew et al. (2015) also consented that m-commerce applications have several classes, such as mobile advertising and mobile entertainment. M-commerce applications normally apply to tasks that need mobility, such as mobile banking, mobile payments, and mobile ticketing (Dinh et al., 2013; Kim et al., 2009). The dominant features of m-commerce applications include mobility and broad reach (Ngai and Gunasekaran, 2007), and these applications are more user-friendly than traditional wired internet applications (Kim et al., 2008a).

### 3. Methodology

This study employs a bibliometric analysis, which is considered as a methodological innovation compared to conventional literature reviews, to determine qualitative and quantitative changes, organize the publication profiles, and identify tendencies within the research topic of mobile commerce and its applications (Rey-Martí et al., 2015). As put forth by Zyoud et al. (2014), bibliometric analysis has been increasingly used in assessing researches. Mao et al. (2015) also agreed that bibliometric methods are useful in examining the structure, characteristics and patterns of an underlying topic. Moreover, as referred by Qiu and Lv (2014), bibliometric methods have been massively engaged to assess research trend in many research disciplines such as science and engineering. Besides, Bakri and Willett (2011) have also agreed that bibliometric indicators are able to evaluate both quantity (by assessing the numbers of publications) and quality (by looking at citations received) of research.

Consistent with the approach practiced by Maharana (2014) and Rey-Martí et al. (2015), this study utilizes Web of Science (WoS) database, on the grounds that it offers data required for bibliometric analysis and contains various disciplines of scientific documents (Rey-Martí et al., 2015). Moreover, there are more than 15,000 journals and 50,000,000 articles covered by WoS database, and these materials have the highest quality standards (Merigó et al., 2015).

Following the measures proposed by Mao et al. (2015), this study engages journal impact factor and the h-index proposed by Hirsch (2005), in order to measure the influence of journal, and assess the productivity and impact of published works. Impact factor is an useful indicator in assessing the quality of journals (Mao et al., 2015), with the journals' impact factor retrieved from Thomson Reuters' Journal Citation Reports 2014 (JCR 2014). In addition, the 5-year impact factor, a more robust measure against manipulation, is used to further assess the journals' quality (Merigó et al., 2015). The h-index, which could be used to measure productivity and the impact of a scholar, university, country, and journal (Mao et al., 2015), is furnished and calculated in the reports generated by WoS database (Maharana, 2014). Basically, h-index takes both impact (frequency of citations) and quantity (frequency of publications) into account, and "a scientist has index  $h$  if  $h$  of his/her  $N_p$  papers have at least  $h$  citations each, and the other ( $N_p - h$ ) papers have no more than  $h$  citations each" (Hirsch, 2005, p. 16569).  $N_p$  represents the total number of publications over  $n$  years. On top of these measures, citation count is another measure used in this bibliometric study to evaluate the research performance (Bornmann et al., 2008; Franceschini et al., 2015).

In order to look for documents pertaining to m-commerce and its applications in WoS database, a "Basic Search" was conducted by specifying "mobile commerce" and "m-commerce" under two different "Topic" fields. Moreover, "OR" was specified as the "Search Operator" to combine the two "Topic" fields. The search was further limited to the documents listed in Science Citation Index Expanded (SCI-E), Social Sciences Citation Index (SSCI), and Arts & Humanities Citation Index (A&HCI). Time span was set to 2000–2015, as m-commerce researches increased significantly since 2000 (Ngai and Gunasekaran, 2007).

The search was conducted on 8 December 2015, and resulted in 1108 documents (comprised of articles, editorial materials, book reviews, letters, conference proceedings, reviews, and news). This study looks into journal articles only, as journal articles are often used by researchers and practitioners to gather information and diffuse research findings (Ngai and Gunasekaran, 2007). For this reason, other document types such as editorial materials (28), book reviews (6), letters (1), conference proceedings (158), reviews (25), and news (4) are excluded from the initial result. Additionally, documents written in other languages (11) are further excluded. This leaves 875 articles written in English.

### 4. Analysis

#### 4.1. Publications by years

Fig. 1 graphs the distribution of publications by years, from 2000 to 2015. The trend indicates that researches on m-commerce and its applications increased steadily from 2000 to 2004, but suffered a slight drop in 2005. Subsequently, the publications maintained its counts around 40, before a sudden rise in 2008. The number of publications increased beyond 70 in 2011 and 2012, after it stayed between 60 and 70 from 2008 to 2011. Lastly, there was a surge in 2013, which still stands in the present. Overall, researches on m-commerce and its applications were on the rise all along the way, and the

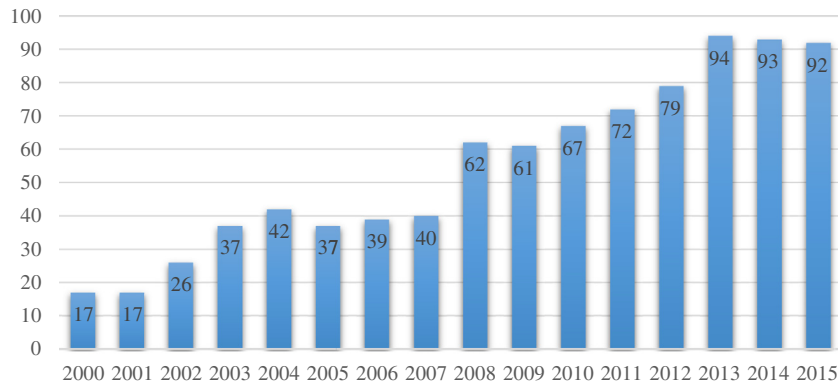


Fig. 1. Number of publications by years.

Table 1

Most productive countries and its top contributing authors.

Rankings	Countries	Counts	TC	AC/Y	AC/I	h-index	Top contributing authors	LKRC
1.	USA	226	3681	230.06	16.20	32	Lin BS (14) Varshney U (11) Ooi KB (11)	USA USA Malaysia
2.	Taiwan	180	2669	205.31	14.83	23	Chang CC (8) Chen CL (6) Chung YF (6)	Taiwan Taiwan Taiwan
3.	China	150	1532	127.67	10.21	21	Lu YB (19) Zhou T (18) Chong AYL (11)	China China China
4.	South Korea	86	985	75.77	11.45	18	Shin DH (6) Yoon EJ (5) Park YT (4)	South Korea South Korea South Korea
5.	England	42	292	20.86	6.95	9	Barnes SJ (2) James A (2) Zhang N (2)	England England England
6.	Canada	41	842	70.17	20.54	16	Chong AYL (2) Yuan YF (4) Turel O (4)	China Canada Canada
7.	Spain	37	321	24.69	8.68	8	Serenko A (3) Okazaki S (6) Lopez-Catalan B (3)	Canada Spain Spain
8.	Australia	29	223	22.30	7.69	9	Lopez-Nores M (3) Lopez-Nicolas C (3) Pazos-Arias JJ (3)	Spain Spain Spain
9.	Germany	28	267	17.80	9.54	8	Akter S (2) D'ambra J (2) Ray P (3)	Australia Australia Australia
10.	Malaysia	24	254	36.29	10.58	9	Wang H (2) Zhang YC (2) He P (2)	Australia Australia China
							Muntermann J (2) Pousttchi K (2) Reichhart P (2)	Germany Germany Germany
							Varshney U (2) Brem A (2) Ooi KB (19)	USA Denmark Malaysia
							Lin BS (10) Chong AYL (9)	USA China

Note: TC = total cites; AC/Y = average citations per year; AC/I = average citations per item; LKRC = last known residing countries.

figure further reveals that the researches in this area are now in its blooming season. It is therefore expected that more number would be published in the coming years.

#### 4.2. Most productive countries

Table 1 records top ten of the most productive countries and the top contributing authors. USA leads the list with 226 publications, and the list continues with three Asian countries, namely Taiwan, China, and South Korea. Each of them has

its own impressive counts. The rest of the countries are having less than 50 publications, and all of them are western countries, except Malaysia (a country located at Southeast Asia), which ranks at 10.

Other than having the most number of publications, USA also has the most total cites, average citation per year, average citation per item, and h-index. From the pattern revealed, generally, it looks like these readings drop according to the ranking, except for Canada and Spain. In comparison with England, Canada and Spain have better readings, although all of them have adjacent publication counts. Australia and Germany on the other hand have their own distinctiveness. Australia has better average citation per year and h-index, while Germany is higher in terms of total cites and average citation per item. Lastly, although being placed at the bottom of the list, Malaysia has relatively notable average citation per year and average citation per item.

Besides, [Table 1](#) also shows the top contributing authors and their last known residing countries. In order to make the table simple yet informative, only top three contributing authors are listed. More than three authors are listed in England and Germany, as all top authors have only 2 publications. Moreover, in Spain, in view of the top author has 6 publications, while all the second most productive authors have 3 publications, it is then decided to honour all of the second most productive authors. The same case goes to Australia. As per expected, top contributing authors for Taiwan, China, South Korea, Canada, and Spain are all residing in their respective countries. Similarly, most of top authors in USA, England, Australia, and Germany are presently residing in their respective countries. However, for Malaysia, there is only one Malaysian author who made significant contribution. Moreover, some international collaboration patterns were revealed by the list too. Malaysia has great amount of collaboration with USA and China, while China appears to have considerable number of collaboration with England and Australia. Besides, it is also noted that Germany has numerous joint works with USA and Denmark.

#### 4.3. Revolution in publications

The revolutions of publications for the top 10 most productive countries are described in [Table 2](#), from 2000 to 2015. Among others, USA is the only country that has publications in 2000. South Korea, England, and Germany joined the list later in 2001. Taiwan, China, Canada, and Spain started their contributions in 2002, while Australia entered in 2004. Malaysia, which has been contributing since 2008, started relatively late. However, its growth has been promising over the years, and ultimately turned itself as one of the top contributing countries. It should also be noted that both Taiwan and China have contributed a large portion in recent years.

#### 4.4. Most productive journals

There are 12 journals identified in [Table 3](#), each with their publication counts on m-commerce and m-commerce applications, total cites, average citation per year, average citation per item, h-index, impact factor, and 5-year impact factor (both impact factors are obtained from JCR 2014). Since both *Computers in Human Behavior* and *Electronic Commerce Research and Applications* have identical counts in publications, they share the same ranking. The same goes to the two journals in rank number seven.

*International Journal of Mobile Communications* has the most number of publications in this field, with great h-index, fairly well in both total cites and average citation per year, but has the bottom-most in average citation per item and both impact factor readings. These imply that this journal has excellent level of relevancy with studies on m-commerce and m-commerce applications, but not on its ability to deliver impacts.

**Table 2**  
Revolution in publications by countries.

Year	USA	Taiwan	China	South Korea	England	Canada	Spain	Australia	Germany	Malaysia
2000	9	–	–	–	–	–	–	–	–	–
2001	5	–	–	2	3	–	–	–	2	–
2002	10	1	1	1	5	1	2	–	2	–
2003	15	3	5	2	4	3	–	–	2	–
2004	9	8	5	2	4	2	1	1	2	–
2005	13	8	4	3	–	–	1	1	–	–
2006	5	9	6	3	3	8	1	1	3	–
2007	11	9	5	2	2	1	3	2	1	–
2008	15	17	4	7	1	4	1	2	2	1
2009	14	18	6	11	3	5	3	2	2	1
2010	21	14	13	13	2	4	3	3	1	2
2011	12	20	22	6	–	–	2	3	–	4
2012	11	18	19	11	3	3	5	2	2	2
2013	20	29	25	8	5	5	6	5	2	3
2014	30	12	20	5	3	2	5	3	4	4
2015	26	14	15	10	4	3	4	4	3	7
Total	226	180	150	86	42	41	37	29	28	24

**Table 3**  
Most productive journals.

Rankings	Journals (Publishers)	Counts	TC	AC/Y	AC/I	h-index	IF (JCR 2014)	5-year IF (JCR 2014)
1.	International Journal of Mobile Communications (Inderscience)	71	550	68.75	7.75	13	0.700	1.040
2.	Computers in Human Behavior (Elsevier)	31	931	93.10	30.03	15	2.694	3.624
3.	Electronic Commerce Research and Applications (Elsevier)	31	337	33.70	10.87	9	1.482	2.340
3.	Expert Systems with Applications (Elsevier)	30	563	43.31	18.77	14	2.240	2.571
4.	Decision Support Systems (Elsevier)	29	762	50.80	26.28	10	2.313	2.933
5.	Industrial Management & Data Systems (Emerald)	19	318	24.46	16.74	9	1.226	1.544
6.	Behaviour & Information Technology (Taylor & Francis)	18	207	18.82	11.50	7	0.891	1.408
7.	Computer Standards & Interfaces (Elsevier)	17	263	20.23	15.47	9	0.879	1.314
7.	International Journal of Electronic Commerce (Taylor & Francis)	17	402	26.80	23.65	8	1.872	3.091
8.	Journal of Computer Information Systems (Taylor & Francis)	16	143	13.00	8.94	7	0.722	1.118
9.	Information & Management (Elsevier)	15	1053	105.30	70.20	10	1.865	3.105
10.	Communications of the ACM (Association for Computing Machinery)	14	660	47.14	47.14	11	3.621	3.609

Note: TC = total cites; AC/Y = average citations per year; AC/I = average citations per item; IF = impact factor.

The data further indicates that number of publications do not correlate with all the indicators. This can be seen in the case of *Information & Management* and *Communications of the ACM*, which are ranked at the lowermost. *Information & Management* has impressive, and in fact, superlative figures in total cites, average citation per year, and average citation per item. This possibly implies that the works published in it are cutting-edge, able to deliver enormous impact and therefore has attracted great number of citations. On the h-index, both journals, especially *Communications of the ACM*, have relatively high readings, given the insubstantial number of publications.

#### 4.5. Most productive and influential authors

Table 4 ranks the top 10 most productive authors in m-commerce and m-commerce applications. Moreover, other than the indicators of performance, the last known affiliations and residing countries are listed as well. As some of the authors might have similar number of publications, there are more than one author listed in certain ranks. On the other hand, the top 10 most productive authors are reshuffled in Table 5, which ranks the authors based on their h-index. As h-index takes both impact (frequency of citations) and quantity (frequency of publications) into account, so it is believed that this measure could help in ascertain the influences of the authors.

In term of number of publication, the top author is Ooi Keng-Boon (Ooi KB), with 20 counts in publication, and quite well in terms of total cites, average citation per year, average citation per item, and h-index. Moreover, Ooi Keng-Boon (Ooi KB) is accountable for the majority of the publications contributed by Malaysia (19 out of 24 publications). The second most

**Table 4**  
Most productive authors.

Rankings	Authors	Counts	LSARC
1.	Ooi KB (Ooi, Keng-Boon)	20	UCSI University, Malaysia
2.	Lu YB (Lu, Yaobin)	19	Huazhong University of Science and Technology, China
3.	Zhou T (Zhou, Tao)	18	Hangzhou Dianzi University, China
4.	Chong AYL (Chong, Alain Yee-Loong)	15	The University of Nottingham Ningbo, China
5.	Lin BS (Lin, Binshan)	14	Louisiana State University, USA
6.	Varshney U (Varshney, Upkar)	11	Georgia State University, USA
7.	Wang B (Wang, Bin)	9	University of Texas–Pan American, USA
8.	Chang CC (Chang, Chin-Chen)	8	Feng Chia University, Taiwan
8.	Gupta S (Gupta, Sumeet)	8	Indian Institute of Management Raipur, India
8.	Siau K (Siau, Keng)	8	Missouri University of Science and Technology, USA
8.	Tan GWH (Tan, Garry Wei-Han)	8	Universiti Tunku Abdul Rahman, Malaysia
9.	Yang SQ (Yang, Shuiqing)	7	Zhejiang University of Finance and Economics, China
9.	Yen DC (Yen, David C.)	7	State University of New York at Oneonta, USA
10.	Chen CL (Chen, Chin-Ling)	6	Chaoyang University of Technology, Taiwan
10.	Chung YF (Chung, Yu-Fang)	6	Tunghai University, Taiwan
10.	Leong LY (Leong, Lai-Ying)	6	Universiti Tunku Abdul Rahman, Malaysia
10.	Okazaki S (Okazaki, Shintaro)	6	Autonomous University of Madrid, Spain
10.	Shin DH (Shin, Dong-Hee)	6	Sungkyunkwan University, SouthKorea
10.	Wang YS (Wang, Yi-Shun)	6	National Changhua University of Education, Taiwan

Note: LSAC = last known affiliations and residing countries.

**Table 5**  
Most influential authors.

Rankings	Authors	h-index	TC	AC/Y	AC/I
1.	Lu YB (Lu, Yaobin)	10	377	62.83	19.84
	Chong AYL (Chong, Alain Yee-Loong)	10	253	42.17	16.87
2.	Ooi KB (Ooi, Keng-Boon)	9	250	41.67	12.5
	Zhou T (Zhou, Tao)	9	295	49.17	16.39
3.	Lin BS (Lin, Binshan)	8	150	18.75	10.71
4.	Varshney U (Varshney, Upkar)	7	280	20	25.45
	Siau K (Siau, Keng)	7	270	20.77	33.75
5.	Wang B (Wang, Bin)	6	193	32.17	21.44
	Shin DH (Shin, Dong-Hee)	6	116	19.33	19.33
6.	Gupta S (Gupta, Sumeet)	5	281	20.07	35.12
	Yen DC (Yen, David C.)	5	80	6.15	11.43
7.	Leong LY (Leong, Lai-Ying)	5	82	20.5	13.67
	Chang CC (Chang, Chin-Chen)	4	64	9.14	8
	Tan GWH (Tan, Garry Wei-Han)	4	45	15	5.62
	Yang SQ (Yang, Shuiqing)	4	78	15.6	11.14
	Chung YF (Chung, Yu-Fang)	4	45	7.5	7.5
	Okazaki S (Okazaki, Shintaro)	4	76	9.5	12.67
	Wang YS (Wang, Yi-Shun)	4	275	27.5	45.83
8.	Chen CL (Chen, Chin-Ling)	3	31	3.44	5.17

Note: TC = total cites; AC/Y = average citations per year; AC/I = average citations per item.

productive author, Lu Yaobin (Lu YB), who occupies the first place in the list of most influential authors, has better readings compared to Ooi Keng-Boon (Ooi KB), and those reading, except for average citation per item, are excellent among all the authors. Surprisingly, Wang Yi-Shun (Wang YS), who owns the least ranking in term of number of publications, has the best average citation per item. This might possibly be attributed to a highly cited article that co-authored by him (refer to Table 7). Besides, both Tables 4 and 5 suggest that top three most productive and influential authors are all Asians, which is a noteworthy fact.

#### 4.6. Most productive institutions

Table 6 displays the top 10 most productive institutions. As some institutions share the same counts, therefore there are more than one institution listed in the rankings. Most of the institutions are located in Taiwan (8 in total), USA (5 in total), and South Korea (4 in total).

From Table 6, “Huazhong University of Science Technology”, which located in China, appears to be the leading institution, with 22 counts in publications, and remarkable average citation per year and h-index. However, “National Taiwan University

**Table 6**  
Most productive institutions.

Rankings	Institutions	Country	Counts	TC	AC/Y	AC/I	h-index
1.	Huazhong University of Science Technology	China	22	404	67.33	18.36	11
2.	City University of Hong Kong	Hong Kong	19	298	29.8	15.68	8
3.	Universiti Tunku Abdul Rahman	Malaysia	18	219	36.5	12.17	8
4.	Hangzhou Dianzi University	China	17	290	48.33	17.06	9
	Louisiana State University	USA	17	232	23.2	13.65	9
5.	University System of Georgia	USA	17	443	31.64	31.64	9
	National Chung Hsing University	Taiwan	15	89	9.89	5.93	6
6.	Sungkyunkwan University	South Korea	15	148	21.14	9.87	7
	National Cheng Kung University	Taiwan	14	141	20.14	10.07	7
7.	Georgia State University	USA	14	443	31.64	31.64	9
	National Sun Yat-sen University	Taiwan	13	463	46.3	35.62	6
8.	University of Texas-Pan American	USA	13	200	25	15.38	6
	Yonsei University	South Korea	13	280	25.45	21.54	8
9.	Feng Chia University	Taiwan	12	100	14.29	8.33	4
	Hong Kong Polytechnic University	Hong Kong	12	220	18.33	18.33	6
10.	National Taiwan University	Taiwan	12	83	9.22	6.92	6
	National Taiwan University of Science and Technology	Taiwan	12	508	50.8	42.33	7
	Chaoyang University of Technology	Taiwan	11	57	6.33	5.18	5
	Korea Advanced Institute of Science and Technology	South Korea	11	145	13.18	13.18	5
	National Chiao Tung University	Taiwan	11	138	11.5	12.55	7
10.	Seoul National University	South Korea	11	104	8	9.45	5
	Chinese Academy of Sciences	China	10	55	6.11	5.5	3
	McMaster University	Canada	10	427	38.82	42.7	8
	Pennsylvania State University	USA	10	103	7.92	10.3	4

Note: TC = total cites; AC/Y = average citations per year; AC/I = average citations per item.

**Table 7**  
Top 10 most cited articles.

Rankings	Titles	Authors	Journals	Year	TC	AC/Y
1.	The JPEG2000 still image coding system: an overview	Christopoulos, C; Skodras, A; Ebrahimi, T	IEEE Transactions on Consumer Electronics	2000	588	36.75
2.	What drives mobile commerce? An empirical evaluation of the revised technology acceptance model	Wu, JH; Wang, SC	Information & Management	2005	368	33.45
3.	Toward an understanding of the behavioral intention to use mobile banking	Luarn, P; Lin, HH	Computers in Human Behavior	2005	248	22.55
4.	Value-based adoption of mobile internet: an empirical investigation	Kim, HW; Chan, HC; Gupta, S	Decision Support Systems	2007	213	23.67
5.	Intentions to use mobile services: antecedents and cross-service comparisons	Nysveen, H; Pedersen, PE; Thorbjornsen, H	Journal of the Academy of Marketing Science	2005	211	19.18
6.	Explaining consumer acceptance of handheld Internet devices	Bruner, GC; Kumar, A	Journal of Business Research	2005	188	17.09
7.	Consumer attitudes toward mobile advertising: an empirical study	Tsang, MM; Ho, SC; Liang, TP	International Journal of Electronic Commerce	2004	159	13.25
8.	An examination of the determinants of customer loyalty in mobile commerce contexts	Lin, HH; Wang, YS	Information & Management	2006	138	13.8
9.	Exploring the implications of m-commerce for markets and marketing	Balasubramanian, S; Peterson, RA; Jarvenpaa, SL	Journal of the Academy of Marketing Science	2002	136	9.71
10.	Building customer trust in mobile commerce	Siau, K; Shen, ZX	Communications of the ACM	2003	126	9.69

Note: TC = total cites; AC/Y = average citations per year.

**Table 8**  
Most studied m-commerce applications.

Rankings	M-commerce applications	Counts
1.	Mobile services/mobile value-added services	46
2.	Mobile payment	38
3.	Mobile banking	31
4.	Mobile advertising	29
5.	Mobile applications	21
6.	Mobile internet	19
7.	Mobile shopping	16

of Science and Technology” from Taiwan clearly outperforms in terms of total cites and average citation per item. It is reasonable to have high level of average citation per item, given the lesser counts in publications and higher number of total cites. Moreover, it should also be highlighted that “Universiti Tunku Abdul Rahman”, the only institution from Southeast Asia, alone accountable for 75% (18 out of 24) of Malaysian publications on m-commerce and m-commerce applications.

#### 4.7. Most cited articles

The most cited articles list in [Table 7](#) shows that aside from first publication, those articles are either investigating m-commerce as a whole, or specialized in m-commerce applications, namely mobile banking, mobile internet, mobile services, mobile advertising, and mobile marketing. All these applications, except for mobile marketing, are under the list of most studied m-commerce applications (refer to [Table 8](#)). Moreover, the publication years for the top cited articles are quite “aged”, with the “youngest” published in 2007. This is reasonable, as citation counts are not accumulated over night. It should be noted that there is only one article published in 2007 that breaks into the upper part of the list. This signifies the outstanding performance of the publication.

The first publication described the work on image compression that designed to address the requirements of applications under mobile environment, e-commerce, and etc. It is captured as it forms part of m-commerce researches.

#### 4.8. Most studied m-commerce applications

From the data gathered, a careful review was performed on the titles and abstracts of the articles to identify the m-commerce applications studied. The most studied applications are shown in [Table 8](#); while [Appendix A](#) shows the details of the articles identified. Only those applications with more than 10 counts are included in [Table 8](#). The most studied application is mobile services, or sometimes known as mobile value-added services. By comparing the examples given by studies in mobile services and mobile value-added services ([Kuo et al., 2009](#); [Turel and Serenko, 2006](#)), it can be ascertained that these two terms are used interchangeably. Moreover, in comparison with the list made by [Ngai and Gunasekaran \(2007\)](#),



a shift in research interests has been observed in this decade. There are several new applications appeared, namely “mobile services/mobile value-added services”, “mobile payment”, “mobile applications”, “mobile internet”, and “mobile shopping”.

## 5. Conclusion

To the best knowledge of the author, this study serves as the first study in bibliometrically evaluating the quantity and quality of researches on m-commerce and its applications. Therefore, it is believed that this bibliometric study on m-commerce and its applications has closed the literature gap identified. Furthermore, several future directions are also generated from the evaluation, in hopes of adding variety into the growing literatures of m-commerce and its applications.

Publications from WoS database were evaluated by several adopted indicators, namely impact factor, h-index, and citation counts. Moreover, only English written articles were considered. The analysis part appraised and presented several publication characteristics of the articles gathered in WoS database, specifically those indexed in SCI-E, SSCI, and A&HCI. Moreover, a list of most cited articles and most studied m-commerce applications were illustrated as well.

In this particular area of research, the publication counts are on the rise, and reached its climax in recent years. USA, a leading country in term of publication counts, has notable international collaborations with Germany and Malaysia. Other than western countries, several Asian countries are listed on top as well. Malaysia, the only Southeast Asian country which listed in the list, has a rather late starting point. Nevertheless, this lateness does not hamper on its success in recent years. This achievement might attribute to the contribution made by Ooi Keng-Boon (Ooi KB), the most productive author in the world and Malaysia. On the matter of relevancy, *International Journal of Mobile Communications* is believed to be the most relevant journal for studies in m-commerce and its applications. In a surprising manner, the top 3 most productive institutions are all located in Asian countries, despite the fact that USA is the most productive country.

Additionally, several most studied m-commerce applications appeared on the most cited list (see Tables 7 and 8), and those articles are mostly published a decade ago. This urges researchers to draw their attention on other emerging m-commerce applications, such as mobile auction, mobile cloud computing, mobile coupon, mobile government, mobile health-care, mobile ticketing, and so forth. The list of most studied m-commerce applications (see Table 8) has suggested the same matter too. Besides, in agreement with Lee and Phang (2015), it is suggested that future studies should emphasize more on mobile social media, given its significant roles in lives. The fusion of mobile social media and m-commerce resembles a promising and interesting topic (Hew et al., 2016b; Kucukcay and Benyoucef, 2014).

From the review on the titles and abstracts of the articles, it was discovered that cross cultural and cross national studies are limited. Researchers who devoted their attentions towards this matter (Bouwman et al., 2010; Chen et al., 2012; Chong et al., 2012; Dai and Palvi, 2009; Jung et al., 2015; Kao, 2009; Kim et al., 2008b; Liu et al., 2012; Shin, 2009; Vlachos et al., 2011; Wu et al., 2012) have been the minority. Hence, it is believed that cross country comparison by incorporating Hofstede's cultural dimensions (Hofstede, 2001, 1980) as moderator is another proposition that helps to enhance the current literatures and knowledge on m-commerce and its applications.

Moreover, despite that longitudinal study has been a long proposed future direction (Chen and Leung, 2015; Kim, 2012; Lee, 2013; Leong et al., 2013; Ramirez-Correa et al., 2015; Sim et al., 2014; Tan et al., 2014), only a small group of researcher addressed this issue (Lee et al., 2005; Lin et al., 2014; Samuelson and Björk, 2014; Yang et al., 2012). In association with that, this study calls for more longitudinal study, especially on novel m-commerce applications.

Based upon the outcomes of this bibliometric study, it is believed that those researchers and practitioners who are interested in this particular discipline will benefit from this study. The lists of most productive journals, authors, and institutions serve as a useful guidance for practitioners when they need to seek for professional advices in forming their future policy and making better decisions. Moreover, some future directions have also been suggested, in a hope to further enhance the current growing literature. However, this bibliometric study is imperfect, as bibliometric analysis was solely used in evaluating the past literatures on m-commerce and its applications. This in turn, to a certain extent, diminishes the insights delivered to researchers. Future studies could consider performing a content analysis, both quantitatively and qualitatively, in this particular area. This could ultimately identify more literature gaps and benefit researchers.

## Appendix A

	Titles	Authors	Journals	Years	Volumes	Issues
<i>Mobile services/mobile value-added services (46 articles)</i>						
1	Ten usability principles for the development of effective WAP and m-commerce services	Condos, C; James, A; Every, P; Simpson, T	Aslib Proceedings	2002	54	6
2	Konark: a system and protocols for device independent, peer-	Lee, CH; Helal, A; Desai, N; Verma, V; Arslan, B	IEEE Transactions on Systems Man and	2003	33	6

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
3	to-peer discovery and delivery of mobile services Automating negotiation for M-services	Paurobally, S; Turner, PJ; Jennings, NR	Cybernetics Part A-Systems and Humans IEEE Transactions on Systems Man and Cybernetics Part A-Systems and Humans	2003	33	6
4	Alcatel and SK Telecom join forces to deliver mobile services, starting with m-commerce	Petit, F; Lee, CH; Petitjean, D	Alcatel Telecommunications Review	2003		4-1
5	Intentions to use mobile services: antecedents and cross-service comparisons	Nysveen, H; Pedersen, PE; Thorbjornsen, H	Journal of the Academy of Marketing Science	2005	33	3
6	Mobilizing the brand – the effects of mobile services on brand relationships and main channel use	Nysveen, H; Pedersen, PE; Thorbjornsen, H; Berthon, P	Journal of Service Research	2005	7	3
7	Performance evaluation of protocols for group-oriented mobile services	Varshney, U	Mobile Networks & Applications	2005	10	4
8	Predicting consumer intention to use mobile service	Wang, YS; Lin, HH; Luarn, P	Information Systems Journal	2006	16	2
9	Satisfaction with mobile services in Canada: an empirical investigation	Turel, O; Serenko, A	Telecommunications Policy	2006	30	5–6
10	Selection of mobile value-added services for system operators using fuzzy synthetic evaluation	Kuo, YF; Chen, PC	Expert Systems with Applications	2006	30	4
11	Mobile communications: a study of factors influencing consumer use of m-services	Mort, Gillian Sullivan; Drennan, Judy	Journal of Advertising Research	2007	47	3
12	An empirical study on the determinants affecting the adoption of the next-generation mobile services in Korea	Seo, Jung-Hae; Moon, Hee-Cheol; Oh, Hyeon-Jeong	Journal of Korea Trade	2007	11	3
13	An assessment of advanced mobile services acceptance: contributions from TAM and diffusion theory models	Lopez-Nicolas, Carolina; Molina-Castillo, Francisco J; Bouwman, Harry	Information & Management	2008	45	6
14	Deconstructing mobile commerce service with continuance intention	Lin, Yi-Min; Shih, Dong-Her	International Journal of Mobile Communications	2008	6	1
15	A systematic approach to new mobile service creation	Kim, Chulhyun; Choe, Suhwan; Choi, Changwoo; Park, Yongtae	Expert Systems with Applications	2008	35	3
16	Service quality and customer satisfaction measurement of mobile value-added services: a conceptual review	Chen, Jengchung V; Aritejo, Bayu Aji	International Journal of Mobile Communications	2008	6	2
17	The impact of use context on mobile services acceptance: the case of mobile ticketing	Mallat, Niina; Rossi, Matti; Tuunainen, Virpi Kristiina; Oorni, Anssi	Information & Management	2009	46	3
18	The impact of context and incentives on mobile service adoption	Xu, Zhengchuan; Yuan, Yufei	International Journal of Mobile Communications	2009	7	3

## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
19	Evaluation of mobile services for the future of 3G operators	Tsai, Wen-Hsien; Lo, Hsueh-Wei; Chou, Wen-Chin	International Journal of Mobile Communications	2009	7	4
20	The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services	Kuo, Ying-Feng; Wu, Chi-Ming; Deng, Wei-Jaw	Computers in Human Behavior	2009	25	4
21	Towards an understanding of the behavioral intention to use 3G mobile value-added services	Kuo, Ying-Feng; Yen, Shieh-Neng	Computers in Human Behavior	2009	25	1
22	Agent-based simulation of competitive and collaborative mechanisms for mobile service chains	Jiang, Guoyin; Hu, Bin; Wang, Youtian	Information Sciences	2010	180	2
23	Factors influencing the adoption of personalisation mobile services: empirical evidence from young Australians	Hill, Sally Rao; Troshani, Indrit	International Journal of Mobile Communications	2010	8	2
24	An empirical analysis of factors influencing users' adoption and use of mobile services in China	Deng, Zhaohua; Lu, Yaobin; Wang, Bin; Zhang, Jinlong; Wei, Kwok Kee	International Journal of Mobile Communications	2010	8	5
25	Value creation of mobile services through presence: designing mobile information and entertainment applications with presence in mind	Lee, Kwan Min; Yates, David; Clark, Joseph; El Sawy, Omar	Presence-Teleoperators and Virtual Environments	2010	19	3
26	Unlocking the promise of mobile value-added services by applying new collaborative business models	Chen, Peng-Ting; Cheng, Joe Z	Technological Forecasting and Social Change	2010	77	4
27	An empirical examination of users' post-adoption behaviour of mobile services	Zhou, Tao	Behaviour & Information Technology	2011	30	2
28	Effect of use contexts on the continuous use of mobile services: the case of mobile games	Liang, Ting-Peng; Yeh, Yi-Hsuan	Personal and Ubiquitous Computing	2011	15	2
29	Developing an instrument to measure the adoption of mobile services	Gao, Shang; Krogstie, John; Siau, Keng	Mobile Information Systems	2011	7	1
30	The impact of privacy concern on user adoption of location-based services	Zhou, Tao	Industrial Management & Data Systems	2011	111	1–2
31	Examining postadoption usage of mobile services from a dual perspective of enablers and inhibitors	Zhou, Tao; Lu, Yaobin	International Journal of Human-Computer Interaction	2011	27	12
32	The influencing factors of Chinese farmers adopt m-commerce services: social network perspective	Huo, Yunfu; Zhang, Ping; Ma, Lin; Zhang, Bo	International Journal of Innovative Computing Information and Control	2011	7	6
33	An empirical study of the existence, relatedness, and	Yang, Cheng-Liang; Hwang, Mark; Chen, Ya-Chien	African Journal of Business	2011	5	19

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
	growth (ERG) theory in consumer's selection of mobile value-added services		Management			
34	Age cohort analysis in continued usage intention of mobile value-added services: Generation Y and Baby boomers	Liu, Wen-Liang; Huang, Kai-Ping; Wang, Chih-Hsing	African Journal of Business Management	2011	5	14
35	Modeling users' acceptance of mobile services	Zarmpou, Theodora; Saprikis, Vaggelis; Markos, Angelos; Vlachopoulou, Maro	Electronic Commerce Research	2012	12	2
36	Post-adoption modeling of advanced mobile service use	Tojib, Dewi; Tsarenko, Yelena	Journal of Business Research	2012	65	7
37	Factors influencing mobile services adoption: a brand-equity perspective	Wang, Wei-Tsong; Li, Hui-Min	Internet Research	2012	22	2
38	Consumer lifestyles: alternative adoption patterns for advanced mobile services	Bouwman, Harry; Lopez-Nicolas, Carolina; Molina-Castillo, Francisco-Jose; Van Hattum, Pascal	International Journal of Mobile Communications	2012	10	2
39	An integrated adoption model for mobile services	Lee, Sangjae; Noh, Mi-Jin; Kim, Byung Gon	International Journal of Mobile Communications	2012	10	4
40	Contextual factors and continuance intention of mobile services	Liang, Ting-Peng; Ling, Yu-Ling; Yeh, Yi-Hsuan; Lin, Binshan	International Journal of Mobile Communications	2013	11	4
41	Assessing the indicators of reuse intention of mobile services	Tseng, Kuang-Jung	International Journal of Mobile Communications	2013	11	3
42	Understanding the role of consistency during web-mobile service transition: dimensions and boundary conditions	Sun, Yongqiang; Shen, Xiao-Liang; Wang, Nan	International Journal of Information Management	2014	34	4
43	Consequents of functional and technical quality: evidence from electronic and mobile service industry in China	Dai, Hua; Midha, Vishal; Koong, Kai S	International Journal of Mobile Communications	2014	12	5
44	Integration and consistency between web and mobile services	Yang, Shuiqing; Wang, Yan; Wei, June	Industrial Management & Data Systems	2014	114	8
45	Proactive privacy practices in transition: toward ubiquitous services	Wang, Shu-Ching; Wu, Jen-Her	Information & Management	2014	51	1
46	Smart phone demand: an empirical study on the relationships between phone handset, Internet access and mobile services	Hsiao, Ming-Hsiung; Chen, Liang-Chun	Telematics and Informatics	2015	32	1
<i>Mobile payment (38 articles)</i>						
1	Understanding m-commerce payment systems through the analytic hierarchy	Chou, YT; Lee, CW; Chung, JR	Journal of Business Research	2004	57	12
2	Mobile payment: a journey through existing procedures and standardization initiatives	Karnouskos, Stamatis	IEEE Communications Surveys and Tutorials	2004	6	4

## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
3	Towards a holistic analysis of mobile payments: a multiple perspectives approach	Ondrus, Jan; Pigneur, Yves	Electronic Commerce Research and Applications	2006	5	3
4	A new mobile payment scheme for roaming services	Hwang, Ren-Junn; Shiau, Sheng-Hua; Jan, Ding-Far	Electronic Commerce Research and Applications	2007	6	2
5	A practical electronic payment system for message delivery service in the mobile environment	Lin, Iuon-Chang; Chang, Chin-Chen	Wireless Personal Communications	2007	42	2
6	A model of consumer acceptance of mobile payment	Chen, Lei-da	International Journal of Mobile Communications	2008	6	1
7	Proposing a comprehensive framework for analysis and engineering of mobile payment business models	Pousttchi, Key; Schiessler, Max; Wiedemann, Dietmar G	Information Systems and E-Business Management	2009	7	3
8	A multimodal technique for an embedded fingerprint recognizer in mobile payment systems	Conti, V; Militello, C; Sorbello, F; Vitabile, S	Mobile Information Systems	2009	5	2
9	Adaptation of proxy certificates to non-repudiation protocol of agent-based mobile payment systems	Ou, Chung-Ming; Ou, CR	Applied Intelligence	2009	30	3
10	An anonymous mobile payment system based on bilinear pairings	Popescu, Constantin	Informatica	2009	20	4
11	Strategic Use of Resources in Mobile Payment: the Case of Korea	Park, Seungbong; Lee, Jun-Suk; Yoon, Min-Suk	Information-an International Interdisciplinary Journal	2009	12	5
12	Towards an understanding of the consumer acceptance of mobile wallet	Shin, Dong-Hee	Computers in Human Behavior	2009	25	6
13	An empirical examination of factors influencing the intention to use mobile payment	Kim, Changsu; Mirusmonov, Mirsorbit; Lee, In	Computers in Human Behavior	2010	26	3
14	Dynamics between the trust transfer process and intention to use mobile payment services: a cross-environment perspective	Lu, Yaobin; Yang, Shuiqing; Chau, Patrick YK; Cao, Yuzhi	Information & Management	2011	48	8
15	The effect of initial trust on user adoption of mobile payment	Zhou, Tao	Information Development	2011	27	4
16	A usability-centred perspective on intention to use mobile payment	Liu, Yuan; Wang, Shaojian; Wang, Xiaoyi	International Journal of Mobile Communications	2011	9	6
17	Mobile payment services adoption across time: an empirical study of the effects of behavioral beliefs, social influences, and personal traits	Yang, Shuiqing; Lu, Yaobin; Gupta, Sumeet; Cao, Yuzhi; Zhang, Rui	Computers in Human Behavior	2012	28	1

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
18	To M-Pay or not to M-Pay-Realising the potential of smart phones: conceptual modeling and empirical validation	O'Reilly, Philip; Duane, Aidan; Andreev, Pavel	Electronic Markets	2012	22	4
19	A combinative model of behavioural and technical factors affecting 'Mobile'-payment services adoption: an empirical study	Keramati, Abbas; Taeb, Rose; Larijani, Arad Mousavi; Mojir, Navid	Service Industries Journal	2012	32	9
20	Empirical test of determinants of accepting mobile payment	Zhang Aihua; Yue Xing; Zheng Mingxing	China Communications	2012	9	7
21	An empirical examination of continuance intention of mobile payment services	Zhou, Tao	Decision Support Systems	2013	54	2
22	Predicting the determinants of the NFC-enabled mobile credit card acceptance: a neural networks approach	Leong, Lai-Ying; Hew, Teck-Soon; Tan, Garry Wei-Han; Ooi, Keng-Boon	Expert Systems with Applications	2013	40	14
23	Antecedents of the adoption of the new mobile payment systems: the moderating effect of age	Liebana-Cabanillas, Francisco; Sanchez-Fernandez, Juan; Munoz-Leiva, Francisco	Computers in Human Behavior	2014	35	
24	Role of gender on acceptance of mobile payment	Jose Liebana-Cabanillas, Francisco; Sanchez-Fernandez, Juan; Munoz-Leiva, Francisco	Industrial Management & Data Systems	2014	114	2
25	An empirical examination of initial trust in mobile payment	Zhou, Tao	Wireless Personal Communications	2014	77	2
26	Realising M-Payments: modelling consumers' willingness to M-pay using Smart Phones	Duane, Aidan; O'Reilly, Philip; Andreev, Pavel	Behaviour & Information Technology	2014	33	4
27	Proposed m-payment system using near-field communication and based on WSN-enabled location-based services for m-commerce	Noh, Sun-Kuk; Lee, Seong-Ro; Choi, DongYou	International Journal of Distributed Sensor Networks	2014		
28	Competition, cooperation, and regulation: understanding the evolution of the mobile payments technology ecosystem	Liu, Jun; Kauffman, Robert J; Ma, Dan	Electronic Commerce Research and Applications	2015	14	5
29	The effects of convenience and speed in m-payment	Teo, Aik-Chuan; Tan, Garry Wei-Han; Ooi, Keng-Boon; Hew, Teck-Soon; Yew, King-Tak	Industrial Management & Data Systems	2015	115	2
30	P2PM-pay: person to person mobile payment scheme controlled by expiration date	Martinez-Pelaez, Rafael; Toral-Cruz, Homero; Ruiz, Joel; Velarde-Alvarado, Pablo	Wireless Personal Communications	2015	85	1
31	Customer data scanner for hands-free mobile payment	Kim, SooHyung; Choi, Daeseon; Jin, Seung-Hun; Yoon, Hyunsoo; Son, JinWoo; Yoon, MyungKeun	IEICE Transactions on Communications	2015	E98B	11
32	User behaviour in QR mobile payment system: the QR Payment Acceptance Model	Liebana-Cabanillas, Francisco; Ramos de Luna, Iviane; Montoro-Rios, Francisco J	Technology Analysis & Strategic Management	2015	27	9

## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
33	Modeling consumers' adoption intentions of remote mobile payments in the united kingdom: extending UTAUT with innovativeness, risk, and trust	Slade, Emma L; Dwivedi, Yogesh K; Piercy, Niall C; Williams, Michael D	Psychology & Marketing	2015	32	8
34	The integrated model on mobile payment acceptance (IMMPA): an empirical application to public transport	Di Pietro, L; Mugion, R; Guglielmetti; Mattia, G; Renzi, MF; Toni, M	Transportation Research Part C- Emerging Technologies	2015	56	
35	Antecedents of consumer trust in mobile payment adoption	Xin, Hua; Techatassanasoontorn, Angsana A; Tan, Felix B	Journal of Computer Information Systems	2015	55	4
36	Behavioral model of younger users in m-payment systems	Liebana-Cabanillas, Francisco; Munoz-Leiva, Francisco; Sanchez-Fernandez, Juan	Journal of Organizational Computing and Electronic Commerce	2015	25	2
37	Payment systems in new electronic environments: consumer behavior in payment systems via SMS	Francisco, Liebana-Cabanillas; Munoz-Leiva; Juan, Sanchez-Fernandez	International Journal of Information Technology & Decision Making	2015	14	2
38	Why consumers adopt mobile payment? A partial least squares structural equation modelling (PLS-SEM) approach	Teo, Aik-Chuan; Tan, Garry Wei-Han; Ooi, Keng-Boon; Lin, Binshan	International Journal of Mobile Communications	2015	13	5
<i>Mobile banking (31 articles)</i>						
1	Mobile banking services	Mallat, N; Rossi, M; Tuunainen, VK	Communications of the ACM	2004	47	5
2	Toward an understanding of the behavioral intention to use mobile banking	Luarn, P; Lin, HH	Computers in Human Behavior	2005	21	6
3	Understanding dynamics between initial trust and usage intentions of mobile banking	Kim, Gimun; Shin, BongSik; Lee, Ho Geun	Information Systems Journal	2009	19	3
4	Determinants of behavioral intention to mobile banking	Gu, Ja-Chul; Lee, Sang-Chul; Suh, Yung-Ho	Expert Systems with Applications	2009	36	9
5	Effect of trust level on mobile banking satisfaction: a multi-group analysis of information system success instruments	Chung, Namho; Kwon, Soon Jae	Behaviour & Information Technology	2009	28	6
6	Evaluating mobile banking portals	Zarifopoulos, Michalis; Economides, Anastasios A	International Journal of Mobile Communications	2009	7	1
7	Integrating TTF and UTAUT to explain mobile banking user adoption	Zhou, Tao; Lu, Yaobin; Wang, Bin	Computers in Human Behavior	2010	26	4
8	Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: an empirical study of mobile banking services	Luo, Xin; Li, Han; Zhang, Jie; Shim, JP	Decision Support Systems	2010	49	2
9	Assessing user experiences and usage intentions of m-banking service	Shih, Kuang-Hsun; Hung, Hsu-Feng; Lin, Binshan	International Journal of Mobile Communications	2010	8	3

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
10	Toward an understanding of the mediating role of trust in mobile banking service: an empirical test of Indonesia case	Koo, Chulmo; Wati, Yulia	Journal of Universal Computer Science	2010	16	13
11	An empirical investigation of mobile banking adoption: the effect of innovation attributes and knowledge-based trust	Lin, Hsiu-Fen	International Journal of Information Management	2011	31	3
12	An empirical examination of initial trust in mobile banking	Zhou, Tao	Internet Research	2011	21	5
13	M-banking in metropolitan Bangkok and a comparison with other countries	Sripalawat, Jiraporn; Thongmak, Mathupayas; Ngramyarn, Atcharawan	Journal of Computer Information Systems	2011	51	3
14	The effect of trust transference in multi-banking channels; offline, online and mobile	Kang, Inwon; Lee, Kun Chang; Kim, Sang-Man; Lee, Jiwon	International Journal of Mobile Communications	2011	9	2
15	Determinants of low-income non-users' attitude towards WIG mobile phone banking: evidence from South Africa	Raleting, T; Nel, J	African Journal of Business Management	2011	5	1
16	Factors affecting individuals to adopt mobile banking: empirical evidence from the UTAUT model	Yu, Chian-Son	Journal of Electronic Commerce Research	2012	13	2
17	Understanding users' initial trust in mobile banking: an elaboration likelihood perspective	Zhou, Tao	Computers in Human Behavior	2012	28	4
18	Examining mobile banking user adoption from the perspectives of trust and flow experience	Zhou, Tao	Information Technology & Management	2012	13	1
19	Are you still with us? A study of the post-adoption determinants of sustained use of mobile-banking services	Kang, Hyunjeong; Lee, Min Jae; Lee, Jin Kyu	Journal of Organizational Computing and Electronic Commerce	2012	22	2
20	Gender differences in low-income non-users' attitude towards Wireless Internet Gateway cellphone banking	Nel, J; Raleting, T	South African Journal of Business Management	2012	43	3
21	Perceived risk, usage frequency of mobile banking services	Chen, ChauShen	Managing Service Quality	2013	23	5
22	Determining the relative importance of mobile banking quality factors	Lin, Hsiu-Fen	Computer Standards & Interfaces	2013	35	2
23	Research of the m-banking and m-commerce potentials - case study: Serbia	Rankovic, Marko; Simovic, Vladimir; Vaskovic, Vojkan	Metalurgia International	2013	18	1
24	Mobile-banking adoption by Iranian bank clients	Hanafizadeh, Payam; Behboudi, Mehdi; Koshksaray, Amir Abedini; Tabar, Marziyeh Jalilvand Shirkhani	Telematics and Informatics	2014	31	1
25	Extending the understanding of mobile banking adoption: when UTAUT meets TTF and ITM	Oliveira, Tiago; Faria, Miguel; Thomas, Manoj Abraham; Popovic, Ales	International Journal of Information Management	2014	34	5



## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
26	Understanding consumers' mobile channel continuance: an empirical investigation of two fitness mechanisms	Yang, Shuiqing; Lu, Yaobin; Chen, Yuangao; Gupta, Sumeet	Behaviour & Information Technology	2015	34	12
27	Understanding mobile banking: the unified theory of acceptance and use of technology combined with cultural moderators	Baptista, Goncalo; Oliveira, Tiago	Computers in Human Behavior	2015	50	
28	A multi-criteria decision making for innovation services attributes: an empirical study of mobile banking system	Lin, Wan-Rung; Wang, Yi-Hsien; Shih, Kuang-Husn	Journal of Testing and Evaluation	2015	43	4
29	User purpose analysis for mobile banking service	Lin, Ching-Wen	Journal of Testing and Evaluation	2015	43	3
30	The intention to use mobile banking: further evidence from Saudi Arabia	Al-Jabri, IM	South African Journal of Business Management	2015	46	1
31	A study of mobile banking loyalty in Iran	Mohammadi, Hossein	Computers in Human Behavior	2015	44	
<i>Mobile advertising (29 articles)</i>						
1	A recommendation mechanism for contextualized mobile advertising	Yuan, ST; Tsao, YW	Expert Systems with Applications	2003	24	4
2	Consumer attitudes toward mobile advertising: an empirical study	Tsang, MM; Ho, SC; Liang, TP	International Journal of Electronic Commerce	2004	8	3
3	The influence of personalization in affecting consumer attitudes toward mobile advertising in China	Xu, David Jingjun	Journal of Computer Information Systems	2006	47	2
4	Havana agents for comparison shopping and location-aware advertising in wireless mobile environments	Mahmoud, Qusay H; Yu, Leslie	Electronic Commerce Research and Applications	2006	5	3
5	How mobile advertising works: the role of trust in improving attitudes and recall	Okazaki, Shintaro; Katsukura, Akihiro; Nishiyama, Mamoru	Journal of Advertising Research	2007	47	2
6	Consumer perceptions and attitudes towards SMS advertising: recent evidence from New Zealand	Carroll, Amy; Barnes, Stuart J; Scornavacca, Eusebio; Fletcher, Keith	International Journal of Advertising	2007	26	1
7	An exploratory investigation of consumers' perceptions of wireless advertising	Peters, Cara; Amato, Christie H; Hollenbeck, Candice R	Journal of Advertising	2007	36	4
8	Narrowcasting of wireless advertising in malls	Tripathi, Arvind K; Nair, Suresh K	European Journal of Operational Research	2007	182	3
9	Combining empirical experimentation and modeling techniques: a design research approach for personalized mobile advertising applications	Xu, David Jingjun; Liao, Stephen Shaoyi; Li, Qjudan	Decision Support Systems	2008	44	3
10	The impact of SMS advertising on members of a virtual community	Nantel, Jacques; Sekhavat, Yasha	Journal of Advertising Research	2008	48	3

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
11	Consumer privacy concerns and preference for degree of regulatory control a study of mobile advertising in Japan	Okazaki, Shintaro; Li, Hairong; Hirose, Morikazu	Journal of Advertising	2009	38	4
12	Perception of interactivity: effects of four key variables in mobile advertising	Gao, Qin; Rau, Pei-Luen Patrick; Salvendy, Gavriel	International Journal of Human-Computer Interaction	2009	25	6
13	Consumer acceptance of SMS advertising: a study of American and Turkish consumers	Moynihan, Brynn; Kabadayi, Sertan; Kaiser, Mark	International Journal of Mobile Communications	2010	8	4
14	Content relevance and delivery time of SMS advertising	Rau, Pei-Luen Patrick; Zhang, Ting; Shang, Xiaoli; Zhou, Jia	International Journal of Mobile Communications	2011	9	1
15	Determinants of consumer perceptions toward mobile advertising - A comparison between Japan and Austria	Liu, Chia-Ling 'Eunice'; Sinkovics, Rudolf R; Pezderka, Noemi; Haghirian, Parissa	Journal of Interactive Marketing	2012	26	1
16	Predictors of attitudinal and behavioral outcomes in mobile advertising: a field experiment	Varnali, Kaan; Yilmaz, Cengiz; Toker, Aysegul	Electronic Commerce Research and Applications	2012	11	6
17	Building a targeted mobile advertising system for location-based services	Li, Kai; Du, Timon C	Decision Support Systems	2012	54	1
18	Mobile advertising avoidance: exploring the role of ubiquity	Okazaki, Shintaro; Jose Molina, Francisco; Hirose, Morikazu	Electronic Markets	2012	22	3
19	AdTouch: a 2D-barcode based mobile advertising service system	Oumtrakul, Siriphat; Chanuntawaree, Natharin; Gao, Jerry Zeyu; Mei, Hsing; Zhang, Frank	Journal of Internet Technology	2012	13	2
20	The integrated mobile advertising model: the effects of technology- and emotion-based evaluations	Yang, Byunghwa; Kim, Youngchan; Yoo, Changjo	Journal of Business Research	2013	66	9
21	Consumer responses to SMS advertising: antecedents and consequences	Drossos, Dimitris A; Giaglis, George M; Vlachos, Pavlos A; Zamani, Efpraxia D; Lekakos, George	International Journal of Electronic Commerce	2013	18	1
22	A perceptual measure of mobile advertising using fuzzy linguistic preference relation	Lin, LZ; Yeh, HR	Iranian Journal of Fuzzy Systems	2013	10	5
23	Can smartphones be specialists? Effects of specialization in mobile advertising	Kim, Ki Joon	Telematics and Informatics	2014	31	4
24	Location-based advertising in an emerging market: a study of Mongolian mobile phone users	Chen, Jengchung V; Su, Bo-chiuan; Yen, David C	International Journal of Mobile Communications	2014	12	3
25	Mobile advertising: the changing landscape of the advertising industry	Wong, Choy-Har; Tan, Garry Wei-Han; Tan, Boon-In; Ooi, Keng-Boon	Telematics and Informatics	2015	32	4
26	Influence of SMS advertising on consumer behavioral intention	Lin, Hongyan; Chen, Zhankui	Journal of Organizational and End User Computing	2015	27	4

## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
27	Mobile advertising: an empirical study of temporal and spatial differences in search behavior and advertising response	Goh, Khim-Yong; Chu, Junhong; Wu, Jing	Journal of Interactive Marketing	2015	30	
28	Understanding mobile advertising acceptance: an integrative approach	Ozcam, Dilek Saglik; Kuscuk, Asli; Yozgat, Ugur	International Journal of Mobile Communications	2015	13	4
29	Consumer sensitivity analysis in mobile commerce advertising	Martin-Consuegra, David; Gomez, Mar; Molina, Arturo	Social Behavior and Personality	2015	43	6
<i>Mobile applications (21 articles)</i>						
1	The value of mobile applications: a utility company study	Nah, FFH; Siau, K; Sheng, H	Communications of the ACM	2005	48	2
2	Combining empirical experimentation and modeling techniques: a design research approach for personalized mobile advertising applications	Xu, David Jingjun; Liao, Stephen Shaoyi; Li, Qiudan	Decision Support Systems	2008	44	3
3	Exploring the benefits of the combination of a software architecture analysis and a usability evaluation of a mobile application	Biel, Bettina; Grill, Thomas; Gruhn, Volker	Journal of Systems and Software	2010	83	11
4	Mobile application market: a developer's perspective	Holzer, Adrian; Ondrus, Jan	Telematics and Informatics	2011	28	1
5	Personalized recommendation of popular blog articles for mobile applications	Liu, Duen-Ren; Tsai, Pei-Yun; Chiu, Po-Huan	Information Sciences	2011	181	9
6	Privacy risk versus socialness in the decision to use mobile location-based applications	Roback, Darren; Wakefield, Robin L	Data Base for Advances in Information Systems	2013	44	2
7	Exploring trust of mobile applications based on user behaviors: an empirical study	Yan, Zheng; Dong, Yan; Niemi, Valtteri; Yu, Guoliang	Journal of Applied Social Psychology	2013	43	3
8	Application discoverability and user satisfaction in mobile application stores: an environmental psychology perspective	Song, Jaeki; Kim, Junghwan; Jones, Donald R; Baker, Jeff; Chin, Wynne W	Decision Support Systems	2014	59	
9	User control of personal information concerning mobile-app: notice and consent?	Liu, Yue	Computer Law & Security Review	2014	30	5
10	Computational analytics of client awareness for mobile application offloading with cloud migration	Nandhini, Uma; TamilSelvan, Latha	KSII Transactions on Internet and Information Systems	2014	8	11
11	Determinants of mobile apps' success: evidence from the app store market	Lee, Gunwoong; Raghu, TS	Journal of Management Information Systems	2014	31	2
12	User's adoption of free third-party security apps	Han, Bo; Wu, Yu; Windsor, John	Journal of Computer Information Systems	2014	54	3

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
13	A customer value, satisfaction, and loyalty perspective of mobile application recommendations	Xu, Chenyan; Peak, Daniel; Prybutok, Victor	Decision Support Systems	2015	79	
14	Exploring mobile application customer loyalty: the moderating effect of use contexts	Chang, Chiao-Chen	Telecommunications Policy	2015	39	8
15	The effects of adopting and using a brand's mobile application on customers' subsequent purchase behavior	Kim, Su Jung; Wang, Rebecca Jen-Hui; Malthouse, Edward C	Journal of Interactive Marketing	2015	31	
16	Here's my location, for your information: the impact of trust, benefits, and social influence on location sharing application use among Indonesian university students	Beldad, Ardion; Kusumadewi, Margareta Citra	Computers in Human Behavior	2015	49	
17	Designing branded mobile apps: fundamentals and recommendations	Zhao, Zhenzhen; Balague, Christine	Business Horizons	2015	58	3
18	e-souvenir appification: QoS web based media delivery for museum apps	Sakkopoulos, Evangelos; Paschou, Mersini; Panagis, Yannis; Kanellopoulos, Dimitris; Eftaxias, Georgios; Tsakalidis, Athanasios	Electronic Commerce Research	2015	15	1
19	Biometric security system over finite field for mobile applications	Vigila, Soosai Antony Maria Celestin; Muneeswaran, Karuppiah; Antony, William Thomas Berkin Albert	IET Information Security	2015	9	2
20	What catalyses mobile apps usage intention: an empirical analysis	Hew, Jun-Jie; Lee, Voon-Hsien; Ooi, Keng-Boon; Wei, June	Industrial Management & Data Systems	2015	115	7
21	What drives purchase intention for paid mobile apps? - An expectation confirmation model with perceived value	Hsu, Chin-Lung; Lin, Judy Chuan-Chuan	Electronic Commerce Research and Applications	2015	14	1
<i>Mobile internet (19 articles)</i>						
1	Securing the wireless Internet	Gupta, V; Gupta, S	IEEE Communications Magazine	2001	39	12
2	Toward a reference process for developing wireless Internet services	Ocampo, A; Boggio, D; Munch, J; Palladino, G	IEEE Transactions on Software Engineering	2003	29	12
3	Security in third generation mobile networks	Xenakis, C; Merakos, L	Computer Communications	2004	27	7
4	Adoption of mobile Internet services: an exploratory study of mobile commerce early adopters	Pedersen, PE	Journal of Organizational Computing and Electronic Commerce	2005	15	3
5	Use contexts for the mobile internet: a longitudinal study monitoring actual use of mobile Internet services	Lee, I; Kim, J; Kim, J	International Journal of Human-Computer Interaction	2005	18	3

## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
6	Value-based adoption of mobile internet: an empirical investigation	Kim, Hee-Woong; Chan, Hock Chuan; Gupta, Sumeet	Decision Support Systems	2007	43	1
7	Adoption of the mobile Internet: an empirical study of multimedia message service (MMS)	Hsu, Chin-Lung; Lu, Hsi-Peng; Hsu, Huei-Hsia	Omega-International Journal of Management Science	2007	35	6
8	Distribution strategies for the contextualized mobile Internet	Buchholz, Thomas; Hochstatter, Iris; Linnhoff-Popien, Claudia	Electronic Commerce Research and Applications	2007	6	1
9	A cross-national study of mobile internet services: a comparison of US and Korean mobile internet users	Shin, Dong Hee	Journal of Global Information Management	2009	17	4
10	Examining influencing factors of post-adoption usage of mobile internet: focus on the user perception of supplier-side attributes	Shin, Young Mee; Lee, Seung Chang; Shin, Bongsik; Lee, Ho Geun	Information Systems Frontiers	2010	12	5
11	Mobile broadband services and the availability of instant access to cyberspace	Kellerman, Aharon	Environment and Planning A	2010	42	12
12	Examining the determinants of Mobile Internet service continuance: a customer relationship development perspective	Ng, Ee Hong; Kwahk, Kee-Young	International Journal of Mobile Communications	2010	8	2
13	An integrated model of mobile internet services usage and continuance	Kim, Hee-Woong; Kwahk, Kee-Young; Lee, Hyoung-Yong	International Journal of Mobile Communications	2010	8	4
14	Perceived electronic service quality: some preliminary results from a cross-national study in mobile internet services	Vlachos, Pavlos A; Giaglis, George; Lee, Inseong; Vrechopoulos, Adam P	International Journal of Human-Computer Interaction	2011	27	3
15	An empirical analysis of mobile internet acceptance from a value-based view	Chong, Xiaoli; Zhang, Jinlong; Lai, Kin-Keung; Nie, Lei	International Journal of Mobile Communications	2012	10	5
16	Does context matter? The impact of use context on mobile internet adoption	Yang, Shuiqing; Lu, Yaobin; Gupta, Sumeet; Cao, Yuzhi	International Journal of Human-Computer Interaction	2012	28	8
17	Consumer acceptance of the mobile Internet	Koenigstorfer, Joerg; Groeppel-Klein, Andrea	Marketing Letters	2012	23	4
18	How is the mobile internet different? Search costs and local activities	Ghose, Anindya; Goldfarb, Avi; Han, Sang Pil	Information Systems Research	2013	24	3
19	An empirical analysis of mobile Internet acceptance in Chile	Esteban Ramirez-Correa, Patricio; Javier Rondan-Cataluna, Francisco; Arenas-Gaitan, Jorge	Information Research-An International Electronic Journal	2014	19	3
<i>Mobile shopping (16 articles)</i>						
1	Havana agents for comparison shopping and location-aware advertising in wireless mobile environments	Mahmoud, Qusay H; Yu, Leslie	Electronic Commerce Research and Applications	2006	5	3

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## Appendix A (continued)

	Titles	Authors	Journals	Years	Volumes	Issues
2	Improving accessibility and security for mobile phone shopping	Lee, S; Park, S	Journal of Computer Information Systems	2006	46	3
3	Development of a tool for selecting mobile shopping site: a customer perspective	Wu, Jen-Her; Wang, Min	Electronic Commerce Research and Applications	2006	5	3
4	A location-aware recommender system for mobile shopping environments	Yang, Wan-Shiou; Cheng, Hung-Chi; Dia, Jia-Ben	Expert Systems with Applications	2008	34	1
5	Factors affecting purchase intention on mobile shopping web sites	Lu, Hsi-Peng; Su, Philip Yu-Jen	Internet Research	2009	19	4
6	Exploring individual personality factors as drivers of M-shopping acceptance	Aldas-Manzano, Joaquin; Ruiz-Mafe, Carla; Sanz-Blas, Silvia	Industrial Management & Data Systems	2009	109	5–6
7	Personalized recommendation over a customer network for ubiquitous shopping	Kim, Hyea Kyeong; Kim, Jae Kyeong; Ryu, Young U	IEEE Transactions on Services Computing	2009	2	2
8	An empirical comparison of consumer usability preferences in online shopping using stationary and mobile devices: results from a college student population	Ozok, A Ant; Wei, June	Electronic Commerce Research	2010	10	2
9	Application of salesman-like recommendation system in 3G mobile phone online shopping decision support	Lin, Ching-Torng; Hong, Wei-Chiang; Chen, Yi-Fun; Dong, Yucheng	Expert Systems with Applications	2010	37	12
10	Consumer motivations in browsing online stores with mobile devices	Ono, Akinori; Nakamura, Azusa; Okuno, Ayako; Sumikawa, Masayoshi	International Journal of Electronic Commerce	2012	16	4
11	An empirical study of consumer switching Behavior towards mobile shopping: a Push-Pull-Mooring model	Lai, Jung-Yu; Debbarma, Sutapa; Ulhas, Khire Rushikesh	International Journal of Mobile Communications	2012	10	4
12	An empirical examination of the determinants of mobile purchase	Zhou, Tao	Personal and Ubiquitous Computing	2013	17	1
13	Mobile shoppers: types, drivers, and impediments	San-Martin, Sonia; Lopez-Catalan, Blanca; Ramon-Jeronimo, Maria A	Journal of Organizational Computing and Electronic Commerce	2013	23	4
14	Cloud-based mobile commerce for grocery purchasing in developing countries	Yesudas, M; Gupta, S; Ramamurthy, H	IBM Journal of Research and Development	2014	58	5–6
15	Mobile shopping: the next frontier of the shopping industry? An emerging market perspective	Wong, Choy-Har; Tan, Garry Wei-Han; Ooi, Keng-Boon; Lin, Binshan	International Journal of Mobile Communications	2015	13	1
16	Understanding consumers' continuance intention towards mobile purchase: a theoretical framework and empirical study – a case of China	Gao, Lingling; Waechter, Kerem Aksel; Bai, Xuesong	Computers in Human Behavior	2015	53	

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