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Business Model on M-Business: A Systematic Review

Agung Purnomo[a], Nur Afia[b], Yogi Tri Prasetyo[c*], Elsa Rosyidah[b], Satria Fadil Persada[a], Fairuz Iqbal Maulana[d], Meiryani[e]

[a]*Entrepreneurship Department, Bina Nusantara University, Jl. K.H. Syahdan No. 9 Kemanggisan, Jakarta, Indonesia*
[b]*Institute for Research and Community Services, Universitas Nahdlatul Ulama Sidoarjo, Jl. Rangkah Kidul, Sidoarjo, Indonesia*
[c]*School of Industrial Engineering and Engineering Management, Mapua University, 658 Muralla St., Mapua, Philippines*
[a]*Computer Science Department, Bina Nusantara University, Jl. K.H. Syahdan No. 9 Kemanggisan, Jakarta, Indonesia*
[e]*Accounting Department, Bina Nusantara University, Jl. K.H. Syahdan No. 9 Kemanggisan, Jakarta, Indonesia*

Abstract

Business model research on m-business with an entrepreneurial mindset continues to grow. The purpose of this study was to review the body of knowledge and research on the relationship between business models and m-business from the standpoint of a systematic literature review. The PRISMA protocol for conducting and reporting the systematic review was followed when conducting the systematic literature review. Based on a systematic search of the Scopus database, a total of 21 peer-reviewed articles were included. The research agenda for further work in this field was provided in themes such as yearly research, multilevel, perspective, as well as the geographic context of the business model on m-business. The categorization of the business model on m-business was carried out to understand the direction of study in this field and the emphasis on certain aspects.

Keywords: Business model, Digital business, Entrepreneurship, M-Business, and Systematic literature review

* Corresponding author. Tel.: +63 2 8247 5000.
E-mail address: ytprasetyo@mapua.edu.ph

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1. Introduction

Mobile business or m-business refers to any type of business activity carried out on networks and the internet with the aid of mobile devices. The term "mobile" indicates a 24/7 mobile appliance access to business processes [1] and enables users to make Internet purchases without a computer [2]. Mobile devices can be very important in the deployment of this new business model since they can assist ins preserving confidentiality and simultaneously providing position solutions [3]. Trading now has a new dimension thanks to mobility. A mobile business application in the tourism industry has been created recently for a variety of platforms and services [4], [5].

There were two different business models: rural and urban. To retain and produce results following local needs, rural business models in developed nations must be locally adapted. Innovation in the construction of business models that are specific to developing countries is also necessary [6]. An implementation of a general framework for mobile service business models. Using a self-created mobile service software application as an illustration. An effective strategy for navigating the challenges of planning leisure activities is to create mobile hybrid communities [7]. Interest in technical viability influenced the creation of 3G mobile solutions. Only by putting the needs of the user first can applications and business models be built to be useful and successful [8], the Internet, conventional telecommunication networks, and consumer electronics all work together to advance mobile business [9]. Identification, payment, and customization make up mobile identity. One of the important elements of a business model was the business model canvas [10]. The idea of a business model (BM) has gained a lot of attention in management literature.

Supply chain management could be considerably and favorably impacted by mobile commerce, the continued investigation into mobile commerce with an entrepreneurial mindset [11], [12]. The mobile communications industry has seen a significant transformation in recent years as both public and private organizations search for strategic alignments and modify their business models [13]. Due to the widespread use of mobile phones in many nations, mobile advertising has just become a new marketing communication medium [14] which is one of the mobile business promotion tools. More variety in digital payment options to facilitate transactions [15]. For the demands of digital citizens, the digital economy generates digital businesses based on technopreneurship [16]. However, not many business model studies on m-business use a systematic literature review approach.

A systematic literature review (SLR) is a credible, academic survey of the body of work on a certain topic or field [17]. All relevant studies have to be found, evaluated, and synthesized using a transparent, repeatable approach [18]. Protocols are explained and offer a paper trail of the procedures followed for the document search, document exclusion and inclusion, and analysis [19]. Regardless of their origin, an SLR aims to compile as much current, evidence-based research as possible that is pertinent to the subject under study [20]. SLRs are well known for generating rigorous evidence reviews since they call for the adoption of many approaches that can reduce inaccuracy and bias [18]. The review's suggested research questions include: What is the current state of the literature and research on the relationship between business model and m-business? The purpose of this study was to review the body of knowledge and research on the relationship between business models and m-business from the standpoint of a systematic literature review.

2. Research Methods

The Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) criteria were followed in this study [21] to conduct a systematic literature review. In this study, a sizable database of the literature was subjected to a thorough literature review. Transparency in PRISMA was the criteria of relevance for the inclusion or exclusion of studies must be made explicit, alongside each search string used, according to the PRISMA procedure [22]. We select a database in the field business model on m-business. This study has associated appropriate keywords connected to the business model and m-business research to find and associate relevant papers in the worldwide database of Scopus. The database of Scopus was utilized as the primary resource of information because academics regard it as a credible resource of scholarly papers.

This study utilized the keywords "business model" and "m-business" in the title, abstract, and keywords of the author to acquire relevant data from the database Scopus as shown in Figure 1. The mining of the data was restricted to yearly data to collect completely published data for a year. Data mining was a relatively new sub-discipline of computer science that aims to automate the interpretation of large datasets [23]. The search query option used in data mining was as follows (TITLE-ABS-KEY ("m-business" OR "mobile business") AND TITLE-ABS-KEY ("business

model*")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (SUBJAREA, "BUSI") OR LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "ECON")) 2002-2020 as of August 2022. We discovered 21 articles in this stage.

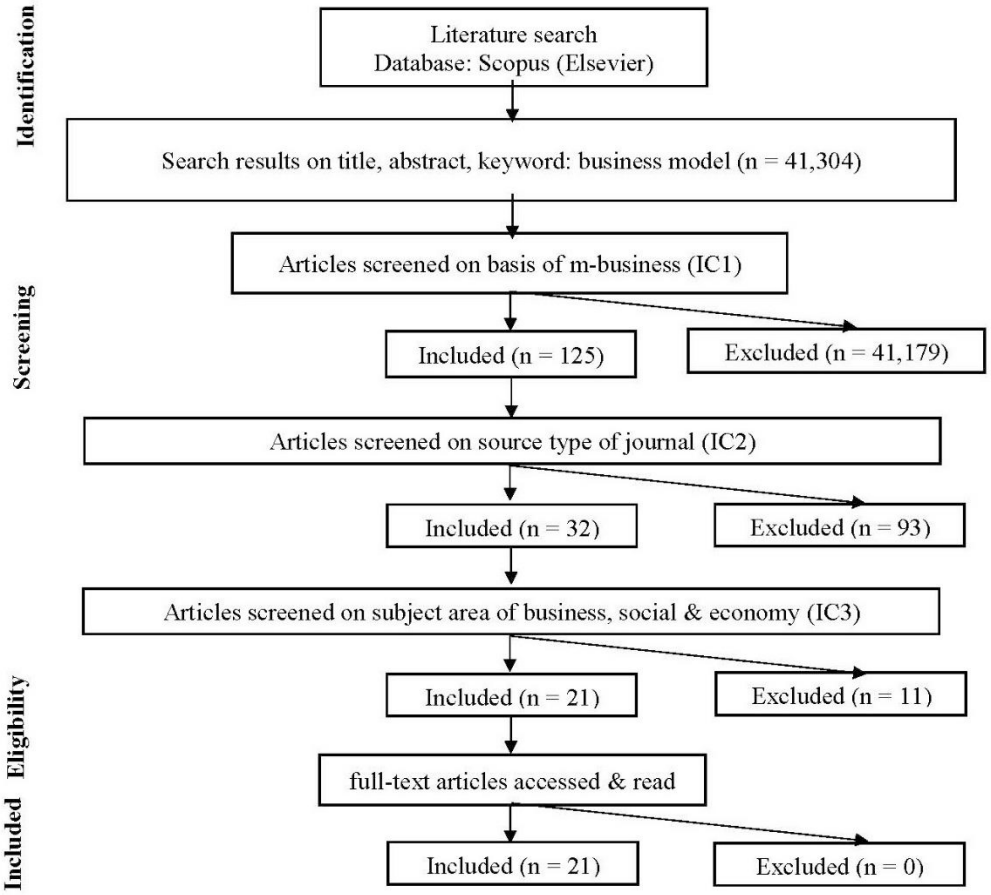

Fig 1. PRISMA Protocol

This SLR uses quantitative analysis, perspective analysis, and multilevel analysis. The quantitative analysis consisted of annual publications and country productivity. The multilevel analysis consists of levels of individual, team, firm, network, and institutional. The perspective analysis consists of entrepreneurship, economy & finance, information and communication technology, knowledge, marketing, operation & supply chain, organization & human resources, and strategy. Quantitative research that can be replicated was typically used to validate concepts and relationships, and it was especially appropriate for increasing research rigor to address the complexity of the phenomenon under investigation [22].

3. Result and Discussion

This SLR uses analysis of quantitative, multilevel, and perspectives consisting of annual publications, and geographical contexts.

3.1. Quantitative Analysis

3.1.1 M-business Sector's Yearly Research

The number of publications worldwide on business models and m-business research published annually was unstable. Based on these data, it shows that the number of publications related to the business model of m-business has increased and decreased, the number of publications began to stabilize in 2003 although the growth rate was not too high. The graph shows that the volume of m-business publications in the business model remained largely unchanged from 2010 to 2011 and 2016 to 2018 as shown in Figure 2.

This growth rate was due to curiosity in the issue has been raised by many business models on m-business published by scientific publication sources, those include International Journal of Journal Cuadernos de Economía (2020), Family and Consumer Sciences Research Journal (2019), Journal of Enterprise Information Management (2016).

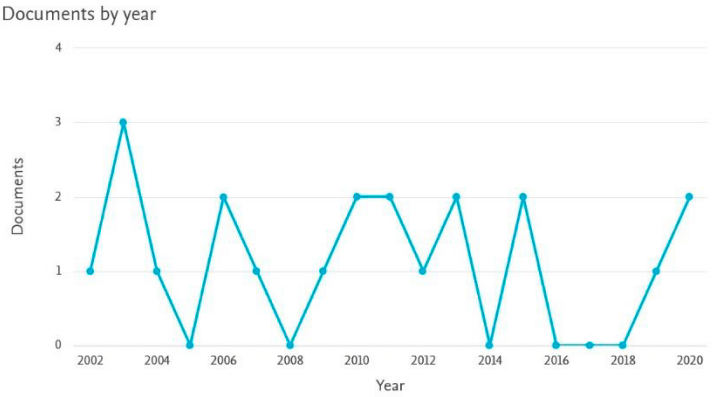

Fig 2. Business Model on M-business Sector's Yearly Publications

3.1.2. Geographical Context

Research related to the business model and m-business was mostly done by European and Asian countries (can be seen in Table 1). To determine which countries contributed the most to this study, we looked at the location of the research data (if the researcher attaches the research location) or the author's location (if the research uses observation, case studies, or literature review). Otherwise, the author's location has considered whether the article uses empirical analysis or publishes secondary data.

From a total of 21 articles, we found that there were 22 different countries in the paper. Research conducted in Europe consists of 15 articles, of which Switzerland, Austria, Czech Republic, Finland, Belgium, Germany, Greece, the Netherlands, Norway, Slovakia, Spain, and Ukraine. Asia was the second continent to have contributed to this topic (n=5). Research conducted in America consists of three articles from the United States. Research conducted in Africa consists of 1 article from Egypt. Research conducted in Australia consists of two articles from Australia and New Zealand. The countries that publish the most on this theme were Switzerland and United States. The diversity of locations demonstrates the growing role of m-business on model business research as a topic and its continuing interest to professional scholars around the world [24]. Business Intelligence (BI), a high-level business application tool for the business model, was used to collect, clean, process, and analyze data [25] and can provide new business insights and predictions based on analytics [26].

Table 1. Geographical contexts of the business model and m-business studies

Countries	Papers	Percentage (%)
Asia	**5**	**20%**
India	1	4%
Jordan	1	4%
South Korea	1	4%
Taiwan	1	4%
United Arab Emirates	1	4%
America	**3**	12%
United States	3	12%
Europe	**15**	**60%**
Switzerland	3	12%
Austria	1	4%
Belgium	1	4%
Czech Republic	1	4%
Finland	1	4%
Germany	1	4%
Greece	1	4%
Netherland	1	4%
Norway	1	4%
Slovakia	1	4%
Spain	1	4%
Ukraine	1	4%
United Kingdom	1	4%
Australia	**2**	**8%**
Australia	1	4%
New Zealand	1	4%
African	**1**	**4%**
Egypt	1	4%
Undefined	**1**	4%
Total		**100%**

3.2. Perspective and Multilevel Analysis

Research on the business model of m-business can be analyzed using multilevel analysis and perspective analysis as shown in table 2. The three levels of analysis—individual, firm, and network—have been the primary emphasis of the studies that have been examined. In total, three publications concentrate on the individual level of analysis, i.e. on people who work primarily as entrepreneurs or members of business teams. This paper presents a theoretical model to analyze the privacy issues involved in business models for location-based mobile services, mobile technology has prompted governments around the world to develop mobile business models and drive the transition from electronic government (e-government) to mobile government (m-government), and mobile advertising has become a new form of marketing communication in recent years as mobile phones have become ubiquitous in some countries [3], [27], [14].

Table 2. The business model on M-business papers was categorized according to various perspectives and multi-levels of analysis

Perspective	Individual	Firm	Network
Strategic	[3]	[28], [6], [13], [29]	[30], [5], [31], [32]
Marketing	[27], [14]	[2]	[33]
Management information system		[4], [8], [9]	[34], [1]
Finance			[35]
Human resource & organization		[7]	
Operation and supply chain		[11]	

Then there were eight publications on business models that analyze m-business at the firm level. Three of them discussed mobile trading systems enabling customers to purchase products over the Internet without using a computer. It also created a new mobile business model and changed the e-commerce paradigm, which had a significant effect [2]. This second paper discusses the advantages and disadvantages of so-called mobile travel recommendation systems [4]. This third group of researchers investigated a mobile business model that provides customized services to rural Indian communities that were at a disadvantage when compared to urban communities [6].

Most of the publications included in this study examine business models in the context of m-business by considering network-level analysis, there were eight articles. Two of them explain about sees mobility as giving a new dimension to the way trade works [5]; Mobile business refers to all types of business activities that were carried out using mobile devices on networks and the internet [1].

There were several research gaps in the study of the business model of m-business. There were not many studies that examine the perspective of human resources & organization, and operation and supply chain using multilevel analysis of individuals and networks. Also, there was not much research linking finance to individual and firm multilevel analysis. Research with a management information system perspective has not been associated with individual multilevel analysis. Individual multilevel analysis has not been synergized with the perspective of management information systems, finance, human resource & organization, and operation and supply chain. The least researched level for business models on m-business was the individual level. The least studied perspectives for e-business in the digital economy were finance, human resources & organization, and operations & supply chain.

4. Conclusion

The business model and m-business were very important in the entrepreneurship and digital economy. This study investigates the distribution of research related to business models on m-business providing several quantitative, perspective, and multilevel analyzes related to the model business on m-business literature, such as annual publication, and geographic context. The results of the study show that business models on m-business have been studied in various fields of science with different sectors. The continent of Europe has contributed the most to this field. The annual analysis carried out shows that since 2003 research in the field has begun to stabilize, and strategy has become the most relevant and related topic in this research. A systematic literature review is a methodology that is supported by a large number of scientific papers. However, it is dependent on the available and accessible research studies, as well as the researcher's criteria. The use of specific criteria for the inclusion and exclusion of papers introduce publication bias, which should be regarded as an inherent limitation of a systematic literature review.

Further research is possible, such as a business model on m-business, using the individual level. Also, how does the research business model on m-business link the perspective of finance, human resource & organization, and operations & supply chain? Research business models on m-business on the metaverse and web 3.0 is also interesting. It is hoped that this review will pave the way for new research on disciplines that lack knowledge and sophisticated analysis.

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