

Mobile Users' Behaviour Preferences for Always-On and at the Best Connected

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Mobile network operators (MNO) are met with market saturation, which is shown by an increase in mobile Internet users but is not followed by a significant growth of the average rate per user (ARPU). The users want to be connected (*always on*) to the best network (*always best connected*) from the MNO to obtain an optimum benefit with a minimum cost of service. This study aims to analyse the effects of the motivations of utilitarian and hedonic needs and technological characteristics upon the decision to choose an MNO and to shape user behaviour. The study data was collected from surveys in Jakarta, Indonesia. The 258 samples utilised are derived from active users of pre-paid and post-paid cellular data services. The samples were selected by employing purposive sampling techniques. The data analysis applied a structural equation model. This research highlighted four key findings. Firstly, the motivation of utilitarian needs, both perceived utility and perceived price value, have a positive effect on the decision to choose a cellular operator. Secondly, the motivation of hedonic needs, both perceived self-image and perceived trust, have a positive effect on the decision to choose a cellular operator. Thirdly, technology characteristics, both compatibility and relative advantage, have a positive effect on the decision to choose a cellular operator. Fourthly, the decision to choose a cellular operator — from both need technology fit, and functionality technology fit perspectives — has a positive effect on cellular usage behaviour in terms of intensity, and variety usage.

Keywords: *Utilitarian needs, Hedonic needs, Characteristic technology, Task-technology fit, Usage behaviour.*



Introduction

The digital era requires Internet connectivity with the availability of devices, technology (network), applications, and content, as part of the mobile ecosystem (Yoo, Henfridsson, & Lyytinen, 2010). Digital technology has changed the map of business telecommunication, particularly mobile services (Evans, Hagi, & Schmalensee, 2006; Tiwana, Konsynski, & Bush, 2010; Griffith & Dougherty, 2007). Digital services can be combined quickly and be easily reset into a new form. The usage of devices through the mobile network access provides flexibility for the user in terms of time (temporal), and spatial (space) (Zhou, 2014). Users can access data services to obtain content or utilise applications anytime and anywhere. Users want to be connected (*always on*) to the best network (*always best connected*) from the mobile network operator (MNO) to obtain an optimum benefit with a minimum cost of service. This provides a positive utility and affects the user behaviour in choosing an MNO. The dynamics of economics will balance innovations in the Indonesian telecommunication market to reach market stability and distribute the market share between newly introduced innovation (Kamel & Watfa, 2018). Mobile network operator provides the best service to users by offering the best heterogeneous cellular networks.

Cellular devices can access mobile services using the network technology from the MNO (Kumar & Ravindran, 2012). The mobile phone's usage has become more numerous and diverse. The MNO provides a network platform to access various online services. Furthermore, mobile service usage is significant in all age groups, lifestyles, and motivations for use (Ahmad, 2012). The youth demographic adopts the innovations of mobile services, such as multimedia messaging services (chat application), streaming music, searching the web, camera and video functionality, mobile money, global positioning systems (GPS), and so on.

Technology innovation has become a major component in the mobile telecommunications industry (Hamdouch & Samuelides, 2001; Du Preez & Pistorius, 2003; Fernández & Usero, 2009). The emergence of mobile devices (smartphones and tablets) that are adapted for mobile Internet usage and the diffusion of content consume significant data services to encourage the data usage services in mobility (Tilson & Lyytinen, 2006; West & Mace, 2010; Whitehead, Phillips, Page, Molina, 2011; De Reuver, Ongena, & Bouwman, 2013). The MNO must innovate with the support of investments in technology and the mobile network infrastructure to improve the availability and quality of data services with a higher speed of access (Ghezzi, Cortimiglia, & Frank, 2015; Garcia-Swart & Martin Campbell-Kelly, 2019; Islam et al., 2018).

The mobile data rates tend to be lower in line with the growth of various digital businesses. The complex environment of competition in the mobile telecommunication industry, and regulatory elements contribute to changing the needs and customer behaviours. It makes the competition among MNOs become more competitive and serves as an important factor for

MNOs to formulate a business strategy (Buellingen & Woerter, 2004; Du Preez & Pistorius, 2003; Zhang & Liang, 2011). The MNOs continue to introduce various types of new innovative services. Users are not ready to face the choice of various unnecessary services with a high complexity. The Table 1 below shows the average rate per user (ARPU) of MNOs in Indonesia.

Table 1. ARPU of Indonesia mobile network operator'

No.	MNO	ARPU Blended Cellular (IDR)						
		2011	2012	2013	2014	2015	2016	2017
1	Telkomsel	39,000	37,000	37,000	39,000	42,724	44,948	42,739
2	Indosat	28,381	27,781	27,515	27,198	26,045	25,165	20,290
3	XL Axiata	32,000	31,000	27,000	26,000	34,000	35,000	34,000
4	Smartfren	12,000	16,000	18,300	19,000	21,200	19,400	34,500
5	Smart Telecom	12,000	14,000	14,300	20,800	7,000	32,000	34,000
6	STI	21,381	43,325	67,956	380,850	211,797	181,301	91,739
7	H3I	9,000	15,556	18,274	14,700	14,740	16,514	14,872
8	AXIS	9,258	12,198	16,988	N/A	N/A	N/A	N/A

Source: SDPPI Ministry of Communication and Informatics of Republic of Indonesia (2018)

Table 1 shows several data services provide a substantial increase in the ARPU to increase the revenue of the MNO. The data obtained from Republic of Indonesia Communication and Informatics Ministry (2018) shows that in the first quarter of 2014, industry profits fell sharply, but rebound in the third quarter. The profit margin industry showed a downward trend due to a decrease in the operators' ARPU since 2017. The Table 1 shows that the observed ARPU decreased by end of 2016, and 2017. The highest average rate per user (ARPU) for prepaid mobiles is owned by Sampoerna Telekomunikasi Indonesia (STI), with an amount of IDR 43.415. However, this value dropped sharply compared with STI figures in 2012. The lowest ARPU for pre-paid services of MNOs was held by H3I at IDR 14.817. Meanwhile, XL Axiata's ARPU reached IDR 33.000, Indosat's ARPU reached IDR 20.964, and Telkomsel's ARPU reached IDR 38.016.

The big challenge for MNOs is the development of rapid technological and telecommunication market changes. An MNO should improve the utilisation of all available resources to innovate and find ways to grow sustainably by creating top-line revenue (Wang, Lai, & Chang, 2016). Mobile Network Operator invest heavily to launch data services to retain users and facilitate use sustainability to generate profit. Previous research has shown the cost of the acquisition of new users is five times greater than maintaining the existing users (Reinheld & Schefer, 2000). The development of mobile technology can improve the bandwidth and speed of access. Mobile network operators can offer a variety of data services, such as the addition of features from a previous service (Ju, 2011). This study was conducted

to increase the needs motivation of users who are included in the context of mobile technology services

Mobile services provide utilitarian and/or hedonic values to users. The consumption of some services involves utilitarian and hedonic value at different levels. Previous studies analysed the effect of utilitarian and hedonic values on Internet users (Ahmad, 2012; Lin, 2016; Ju, 2011) to develop cellular service classifications based on utilitarian and hedonic values from a user's perspective. The study purpose was to analyse the user behaviour and technology characteristics in the decision to choose a mobile operator and determine post-purchase usage behaviour. The model will be obtained by adding the classification of services offered by MNOs based on technology characteristics and the pattern of mobile services usage.

Literature Review and Research Hypothesis

Preference to be 'Always On' and 'Best Connected'

The user sets the cell phone to be 'always on', even when there is nothing to wait for. The 'always the best connected' (ABC) scenario creates a possibility for the user to select the best quality access network and device availability, at all times (Gustafsson & Jonsson, 2003). The personal preferences and motivation of being 'always on' and 'best connected' means that the user can fulfil their needs by using cellular technology to complete tasks and enjoyment. Therefore, users will choose the MNO with the best network and service.

The task-technology fit (TTF) model proposed by Goodhue and Thompson (1995) is a model of technological suitability based on user task needs. Specifically, the technology is used to support the user to complete tasks. The measurements on the TTF model by Goodhue and Thompson (1995) have undergone many modifications. For example, Klopping and McKinney (2004; Yem, et.al. (2010); Zhou, Lu, and Wang (2010); Lin (2016) stated that information technology can encourage active use if it meets the users' needs as a functional task. Yen et al. (2010) examined the factors that affect the acceptance of wireless technology, such as MNOs. The results showed that correspondence between task and technology affect the use of the MNOs' network.

Kwai Fun IP and Wagner (2008), Lin (2016), and Yen et al. (2010) stated that the theory of TTF is highly important to explain consumer behaviour use of information technology services. Kwai Fun and Wagner (2008) stated that motivation requires a decisive factor to affect the technology services to complete the task. The research was performed to examine the user need to complete tasks. The needs-technology fit model was proposed as a dimension of the decision-making model of the TTF. Another factor is the decision to choose an MNO and technology functionality fit based upon the suitability of user requirements with the network functionalities accessed via an interface (Negahban, 2012).

This study represents perceived needs technology fit, and perceived technology functionality fit as the synthesis of sub-purchasing decisions (Kotler & Keller, 2012), the choice of product brands of the MNOs, suppliers, and the mode of payment. The TFF also affects the characteristics of users, so the adoption of a technology service is the product of task characteristics, and technology affects user performance and actual usage (Zhou, Lu, & Wang, 2010). Rapid technological advances have created a multi-function device within a mobile phone (Negahban & Chung, 2014), where MNOs should continue to provide network access technology for all kinds of devices. The device is an interface to connect to the mobile network. Therefore, the device characteristics and network capabilities become important factors in mobile service usage (Sarker & Wells, 2003). Mobile network operators have established customer care channels that can be accessed from a variety of digital platforms to facilitate their communication with users. Goodhue and Thompson (1995) found that TTF was used to assist in the decision making to choose information technology services. Based on the description above, the conceptual model of this study is shown below in Figure 1.

Figure 1. Conceptual Model

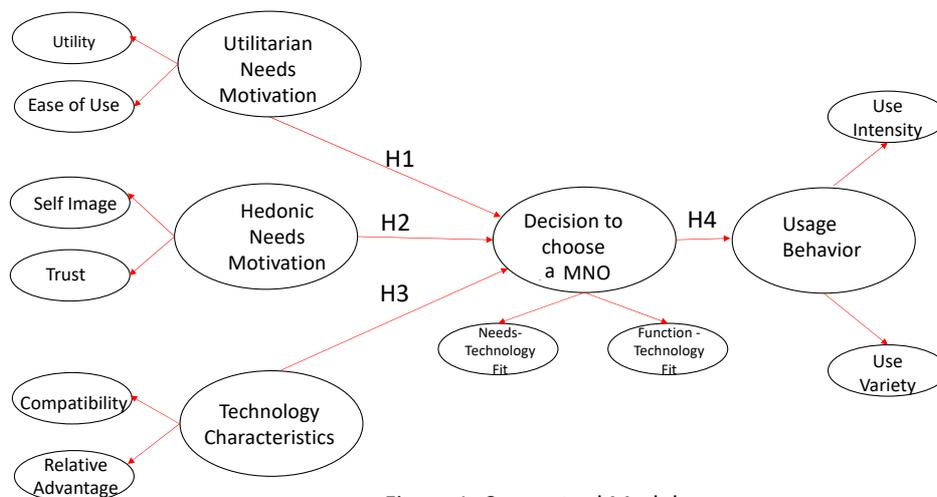


Figure 1. Conceptual Model

Hedonic and Utilitarian Motivations Needs

Kotler and Keller (2012) stated that Frederick Herzberg developed the theory of two factors to distinguish dissatisfaction (factors that cause dissatisfaction) and satiation (factors that cause satisfaction). For example, the eases of use of a device can satisfy the user. In line with this theory, the manufacturer must identify and provide the main satisfaction or purchase motivator because it determines the satisfaction of what brand will be purchased by consumers. Saroso, Hudiyanto, and Purnomo (2019) found that a service that meets the needs of the consumer tends to encourage usage behaviour that starts from an intention to continue using this technology and continues into its actual use.

Saroso, Hudiyanto, and Purnomo categorised various motivations to consume into hedonic, and utilitarian values (Babin, Darden, & Griffin, 1994; Chitturi et al., 2008). Purchase and consumption motivation are classified into two types: hedonic, and utilitarian motivations. Hedonic motivation is based upon the value of the spontaneous, while utilitarian motivation is based on the value of the consciousness (Babin, Darden, & Griffin, 1994). Products or services with a hedonist value focus on the consumption experience (Holbrook and Hirschman, 1982), thus reflecting the psychological or emotional fulfilment as fun and excitement. On the contrary, utilitarian products or services are usabilityes rationales, instrumental or functional. The mobile service is a blended service to meet both the needs of utilitarian, and hedonic values (Bigne, Mattila, & Andreu, 2008).

Utilitarian motivation is the consumers' ability to perform functions in everyday life (Chowdhary & Prakash, 2001). This suggests that utilitarian motivation reflects purchases to complete the work efficiently, specifically, and economically (Holbrook & Hirschman, 1982). Utilitarian consumer behaviour is described as a functional point of view on a task and a job (Babin et al., 1994). Utilitarian motives include the desire to ease purchases, obtain a high-quality product or service, and at a worthy price.

Hedonic motivation is more subjective and personal and produces pleasure and comfort. Consumers are motivated by hedonic needs to be involved in multisensory, fantasy, and emotional activities (Keelson, 2012). Hedonic motivation can be attributable to fun and playfulness rather than the completion of a task, as well as enjoyment of the process to buy and socialise with others to strengthen the self-image in their environment (Holbrook & Hirschman, 1982). Pleasure activities increase the creativity and context to develop creative processes (Elisondo, 2018), which can be obtained through mobile services. Chang et al. (2013) examined the admissions process of technology based upon the theory of intrinsic motivation (hedonic) and extrinsic motivation (utilitarian). Davis (2013) introduced Technology Acceptance Model (TAM) to emphasise the impact of utilitarian motivations of perceived ease of use, and perceived usefulness. Empirical studies examine the effect of hedonic motivation on TAM-based acceptance. The findings showed that hedonic motivations and intentions affects the user behaviour, while the utilitarian motivation affects the technology usage (Lee & Cheung, 2007). Therefore, the hypotheses are stated below:

- H1:** Utilitarian needs motivation positively affects the decision to choose a MNO.
- H2:** Hedonic needs motivation positively affects the decision to choose a MNO.

Technology Characteristics

Technology has become a necessity for the community. The technology usage will simplify and accelerate the transaction process; save the cost, time, and effort; and also complement the broader market (Saroso, Hida, & Sudrajat, 2019). Technological compatibility in mobile networks is synonymous with the use of sophisticated communication technology that covers

the characteristics of innovation (Rogers, 1995), which includes the coverage, quality, and capacity of a network that is available anytime and anywhere (ubiquity). The ability of the compatibility of mobile technology is needed to deliver content quickly to provide satisfaction to users with MNO services (Ozer, Argan, & Argan, 2013). The users who request the 'ABC' preference, need a cellular network that can meet all the technological standard parameters and network configuration options that are suitable to each of their preferences. The ABC concept is always connected to best cellular networks that provide connectivity to applications by using devices and access technology to meet user needs. The increase in access technology combines with cellular service systems to improve user experiences on 2.5G, 3G, and 4G/Long-Term Evolution (LTE) networks, and so on (Gustafsson & Jonsson, 2003). The compatibility of mobile network technologies with consumers needs includes the individual's perception of the quality of service, specifically, in terms of performance software, and hardware (Bharati & Chaudhury, 2006) from a MNO.

The 'perceived ease of use' is a measurement or the confidence level of technology that is easily understood and used (Davis, 1989). The intensity of use and interaction between users and technology also demonstrates the ease of use. The system is often used to denote that it is easily understood and operated by a user (Adam et al., 1992). The confidence of users that a system is easy to learn and operate (compatible) and will do everything as easy as the user wants, also increases the user's skills (Davis, 1989). Swan and Combs (1976) theoretically stated an aspect of network quality instrument data services. If the network performance is below the expectation (threshold), it can lead to dissatisfaction with data services.

Mobile network operators provide service excellence based upon the characteristics of flexible cellular networks to provide great opportunities to adopt a market orientation (Chakraborty & Sengupta, 2014). Mobile operators can collect the latest information about consumer needs and the capabilities of competitors through market orientation to create superior services. Consumers can use the mobile services, quota promotion, and competitive bonus packages (Malhotra & Malhotra, 2013), as well as the introduction of new value-added services (VAS), which are more sophisticated and attractive. The operator will have the advantage to deliver VAS satisfaction in accordance with the needs of consumers (Santouridis & Trivellas, 2010). Rapid technological advances lead MNOs to focus on product innovation (Gerhard et al., 2014). However, the development of new innovation requires an interplay of management models related to organisational structures that support innovative models, which are directly related to the innovation process and product or service development (Wilder et al., 2019). The latest version of mobile services can facilitate a user who wants to follow the evolution of technology more closely, and it is emotionally affected to always be up to date. The mobile operator has provided services that are beneficial to consumers, such as bundling, data plan packaging, value-added, and interactive customer service channels. Therefore, the hypothesis is stated below:

H3: Technology characteristics positively affect the decision to choose a MNO.

The Decision to Choose a Mobile Operator and Usage Behaviour

The TTF decision making model was developed to understand user behaviour to select and evaluate the cellular services to obtain the suitable technology required (Dishaw & Strong, 1998). Liu, Guo, and Lee (2011) interpreted the concept of 'fit' as an indication of conformity and unity of the perspective between the motivation of individual needs and purchasing decisions. Kottler and Keller (2007) stated that the purchase decision was the evaluation phase, where consumers build a brand preference among the set of options. The purchase intentions of consumers have the following sub-decisions: the choice of brand, product, supplier, a quantity of purchase, time of purchase, and payment methods. This is consistent with the revelation of Goodhue and Thompson (1995), that the TTF component consists of the dimensions of data quality, location point, data access authorisation, data compatibility, ease of use, timelines, system compatibility, and technology relationships with users. This study uses a model of TTF as a decision basis to choose a MNO.

Lu and Yang (2014) found that social media users need utilities and social orientation. Yen et al. (2010) divided the motivation needs into two categories. Firstly, the information needs or external motives, also referred to as utilitarian values. Secondly, the motivation social needs or internal motives, also referred to as hedonic values. Kwai Fun IP and Wagner (2008) found the behaviour of mobile users affects the suitability perception of motivation needs and technology needs that underlies the decision to choose a MNO to meet the utilitarian, and hedonic needs.

Following the fundamental study by Davis, Bagozzi & Warshaw (1989) the actual usage in technology acceptance was often measured subjectively. However, several studies (Sharp, 2006) have shown that usage was measured objectively, and subjectively, as the dependent variable associated with the independent variables in the models Perceive Ease of Use (PEOU) and Perceived Utility (PU) of TAM. The results showed that the amount of usage frequency for light users tended to be larger than for heavy users (Collopy, 1996). The excessive users expect to meet the desired target, although the subjective and objective measures were often inconsistent (Straub, Limayem, & Karahana-Evaristo, 2001).

The needs suitability and technology is the next process in a decision to purchase a product or service in a consumption cycle (Ju, 2011). Sarker and Wells (2003) mentioned that the initial step of the process was to explore the use and continue with an experiment or try out all the services offered by a MNO. The 'consumer journey' was associated with the usage intensity. The usage intensity refers to how often a product is used (amount of time), regardless of the different applications used for services (Ram & Jung, 1990). The characteristics of intensity are the frequency and duration of usage based upon the consumer task. The usage intensity will be high immediately after the purchase.

Gerpott, May, and Nas (2017) stated that the actual usage of mobile services was the usage intensity (duration with operator), a quantity of service usage and purchasing (re-charge), and the types of service usage (package data plan) that are used simultaneously. The range of services usage shows how consumers use the services (Ram & Jung, 1990). A mobile service offers many features and functions that can be selected based upon consumers' needs. The users can enjoy various services from various mobile applications, which can meet various needs to undertake various activities simultaneously in numerous situations. An important aspect in the various usage shows the connection between the service or application to another that is easier to use at the same time to facilitate the completion of an activity or task simultaneously. Sarker and Wells (2003) stated that the second step of the technology fit process was the experience to use mobile services, as reflected in the various usage. The options to add various services, usage, and exclusivity increase the usage diversity. Thus, the following hypothesis is postulated:

H4: The decision to choose a mobile operator has a positive effect upon the usage behaviour.

Research Methods

This research refers to Lin (2016), and Negahban (2012). The population is comprised of active users of mobile services in Jakarta, Indonesia. The sampling unit is the largest Internet service users. The samples are selected by non-probability sampling through purposive sampling techniques.

The research was conducted with a consumer survey method using questionnaires completed by the respondents. All statement items were measured by a five-point Likert scale, ranging from '1' or 'strongly disagree' to '5' or 'strongly agree'. The interviews were undertaken in addition to an online survey.

The items measurement of motivation utilitarian needs was adapted from the studies of D. Lee et al. (2015). The dimensions of perceived utility, and perceived price value were adapted from Ramirez-Correa, Rondan-Cataluña, and Arenas-Gaitán (2015). The instruments to measure motivation needs, as the perception of self-image hedonic values, were adapted from Ramirez-Correa, Rondan-Cataluña, and Arenas-Gaitán (2015). The dimension of trust perception was adapted from Kim, Ferrin, and Rao (2008). Besides, items to measure the technology characteristics were compatibility, and relative advantage as adapted from Özer, Argan, and Argan (2013); Chakraborty and Sengupta (2014). The items of decision to choose the mobile operator were taken from Gerpott, May, and Nas (2017), and Negahban and Chung (2014). Finally, the item to measure behaviour was adapted from Ram and Jung (1990), and Nikou and Mezei (2013). A total of 258 responses were collected and analysed through the structural equation model.

Research Results

The demography analysis shows that a majority of respondents were female (54.26 per cent), aged 16–25 years old with a student background (78.68 per cent), and with an income of approximately Indonesia Rupiah (IDR) one to million a month. Most respondents chose Telkomsel (53.01 per cent) as their MNO, and a majority use pre-paid card (27.82 per cent), and post-paid (25.19 per cent) methods. The smallest mobile operator users were Smartfren (2.63 per cent), followed by H3I (9.02 per cent), XL Axiata (20.30 per cent), and Indosat-Ooredoo (15.04 per cent). The length of stay (LoS) or duration of MNOs above six months amounted to 93.8 per cent. The post-paid user contribution was 46.9 per cent, and pre-paid card was 46.51 per cent. This suggests that relative subscriber identity module (SIM) card users continue to use their cards rather than change them to another MNO.

The validity and reliability of entire construct latent variables within the 0.50–1.00 range are categorised as good because the validity of the indicators with Standardized Loading Factors values is ≥ 0.50 . The Table 2 shows the construct reliability (CR) score was 0.701–0.0969, which was above 0.70. The score variance extracted between 0.526 and until 0.913, was above 0.50. The results of this analysis showed that all the indicators of Perception of utilities (PU), Perceived Price Value (PNH) Perceived Self Image (PCD), Perceived Trust (PK), Compatibility (COMP), Relative advantage (RA), Needs Technology Fit (NTF), Technology Functionality Fit (TFF), Intensity of use (IP), Variety of use (RP) can explain the intent of technology mobile and device functions related to the intensity and variety of mobile service usage. The validity and reliability test results are shown in Table 2 below.

Table 2: Results of Validity and Reliability Test

Constructs (n=258)	Indicators	Loading Factor	Error	CR	VE
<i>Utilitarian needs motivation</i>					
Utility Perceptio n (PU)	Mobile service usage is easy to understand	0.55	0.69	0.701	0.557
	Mobile technology supports me to complete my tasks	0.50	0.75		
	Mobile services improve my performance	0.90	0.18		
Price Value Perceptio n (PNH)	Affordable price for mobile network connectivity	0.77	0.41	0.797	0.526
	Device prices fit the benefits	0.55	0.70		
<i>Hedonic needs motivation</i>					
Self-Image Perceptio n (PCD)	Mobile service improves the self-image	0.91	0.17	0.892	0.736
	Mobile service can build new relationships	0.73	0.47		
	Increasing social status	0.92	0.15		
Trust Perceptio n (PK)	Mobile service helps me to make my decisions independently	0.82	0.33	0.877	0.706
	I choose a trusted MNO	0.75	0.10		
	The MNO guarantees my data security	0.70	0.29		
<i>Technology characteristics</i>					

Compatibility (COMP)	Cellular network coverage	0.99	0.01	0.907	0.773
	High speed access of connectivity	1.00	0.00		
	Interoperability	0.58	0.67		
Relative Advantage (RA)	MNO provides innovative products	0.69	0.71	0.782	0.590
	Data plan packages are provided by MNO	0.50	0.75		
	MNO offers product bundling	0.99	0.03		
	Customer service of MNO can be accessed through online, office, and call centre modes	0.59	0.65		
Decision to choose MNO					
Needs Technology Fit (NTF)	SIM card activation directly after purchase	0.98	0.03	0.969	0.913
	Cellular technology helps to complete tasks	0.97	0.06		
	Having fun through app and content	0.91	0.17		
Technology Functionality Fit (TTF)	The cell phone works properly to access the network	0.84	0.29	0.872	0.638
	Device interoperability to other Internet networks	0.74	0.45		
	Cell phones provide various features	0.98	0.04		
	Cellular technology function is as desired	0.58	0.67		
Usage behaviour					
Use Intensity (UI)	Use mobile service all the time	0.61	0.63	0.715	0.547
	Use mobile service more than five times a day	0.57	0.68		
Use Variety (UV)	Using all products of the mobile service	0.68	0.53	0.797	0.526
	Use simultaneously mobile service more than three services a day	0.62	0.61		

*SFL = *Standardised Factor Loading*, good SFL value ≥ 0.50

**CR = *Construct Reliability*, good CR value ≥ 0.70

***VE = *Variance Extracted*, good VE value ≥ 0.50

The analysis method used in this research is the *structural equation model* (SEM). Before making hypotheses, all models (*the overall fit model*) were first valued to ensure that the model can illustrate all the relationships and effects (goodness of fit). The model test result with various measurements of goodness-of-fit is shown in Table 3 below.

Table 3: Test Results Overall Model Fit

Overall model fit measurement	Result	Ideal Value	Remark
Absolute fit Model			
Root Mean Square Error of Approximation (RMSEA)	0.061	≤ 0.08	Good Fit
Goodness of Fit Index (GFI)	0.97	≥ 0.90	Good Fit
Incremental Fit Model			
Comparative Fit Index (CFI)	0.98	≥ 0.90	Good Fit
Normed Fit Index (NFI)	0.96	≥ 0.90	Good Fit
Non-Normed Fit Index (NNFI)	0.97	≥ 0.90	Good Fit
Incremental Fit Index (IFI)	0.98	≥ 0.90	Good Fit
Relative Fit Index (RFI)	0.98	≥ 0.90	Good Fit
Parsimonious Fit Model			
Adjusted Goodness of Fit Index (AGFI)	0.95	≥ 0.90	Good Fit
Parsimony Goodness of Fit Index (PGFI)	0.94	≥ 0.50	Good Fit

Source: LISREL 8.7

The Table 3 shows that the overall model fit was good. The hypotheses tests were undertaken to answer the problem formulation in this study. The hypotheses test results are shown in Table 4.

Table 4: Results of Hypotheses Testing

Hypotheses	Standardised Coefficient	t-value
H ₁ : Utilitarian needs motivation → decision to choose a MNO	0.59	7.89**
H ₂ : Hedonic needs motivation → decision to choose a MNO	0.42	7.89**
H ₃ : Technology characteristics → decision to choose a MNO	0.62	5.15**
H ₄ : Decision to choose a MNO → usage behaviour	0.16	6.87**

Notes: **p<0.01

Source: Primary data processed

Table 4 shows the path coefficient and t-test to explain the relationship and effect between behaviour and technology usage. The hypotheses testing results showed that all the hypotheses have a positive value (path coefficient = 0.59; 0.42; 0.62; 0.16) by the t-test values of 7.89, 7.89, 5.15, and 6.87. The result showed that utilitarian needs motivation has a positive and significant effect upon the decision to choose a MNO. The greater the utilitarian needs motivation in the mobile services, it will increase the decision to choose a MNO that provides service in accordance with the utilitarian needs. Similarly, hedonic motivation needs have a positive and significant effect on the decision to choose a MNO. The greater the hedonic needs motivation in the mobile services, it will increase the decision to choose a MNO that provides service in accordance with the hedonic needs. The technological characteristics have a positive and significant effect on the decision to choose a MNO. The greater the technological characteristics in the mobile services, it will increase the decision to

choose a MNO that provides services in accordance with the technological characteristics needs of the customer.

The decision to choose a MNO has a positive and significant effect on the usage behaviour. The greater the decision to choose a MNO, it will increase the usage behaviour towards the MNO that provides service in accordance with the customer needs.

Discussion

The results showed that the decision to select a MNO was affected by utilitarian needs motivation, hedonic needs motivation, and technology characteristics. The compatibility of the functions and services of mobile technology with the utility needs and pleasure were the deciding factors to choose an operator in accordance with the consumers' needs. The utilitarian needs motivation consists of perceived utility, and perceived price value to allow users to utilise mobile services at a reasonable price and benefit. This is consistent with confirmation that utility is a key factor for cellular services (D. Lee et al., 2015). Various digital functions continue to evolve and must be accessed through mobile devices. The consumption of mobile services has increased dramatically in terms of volume and frequency and the type of data services when users access the Internet with advanced devices. Responding to these developments, mobile operators should provide reliable cellular network technologies to provide access speed data services by implementing the latest technologies, such as 4G/LTE (Lim et al., 2016). The data service relates with the price based upon the cost and benefits because mobile users can choose from many mobile operators (Ramirez-Correa, Rondan-Cataluña, & Arenas-Gaitán, 2015). The data service is still relatively expensive for lower classes, however, at same time, it is also a cost-saving device. Price becomes expensive if consumers use all the available applications, including streaming media (Stork, Esselaar, & Chair, 2017).

The research results are consistent with the findings of Correa et.al. (2015), that product or service usages are a way to express themselves, so the usage decision will be consistent with the self-concept. This means that the concept of the self-image is not the same as the company image or brand. The utilitarian needs motivation and technology needs on data services are considered as socialisation tools within mobile phone users to be closed each other. The hedonic needs motivation requires the mobile service to provide pleasure in the form of the self-image, and a sense of security to use the MNOs who provide network and mobile services. In addition, the reputation of the mobile network reliability is an important factor that affects the initial confidence in the decision to choose a MNO (Fuller, Serva, & Benamati, 2007).

Technology characteristics have the capability to be compatible with technology devices and applications, as well as to deliver content quickly. This will give satisfaction to users when accessing services from mobile operators, in accordance with their needs (Ozer, Argan &



Argan, 2013). Mobile network operators with a reliable network and excellent service, coupled with product benefits and a competitive edge, can form the main reason to meet the users' needs. Technology-based cellular services that available was changing rapidly and dynamically It allows MNOs to provide a range of services and attractive products at affordable prices. Rapid technological advances lead MNOs to focus on product innovation (Gerhard et al., 2014) to be able to fulfil the needs of their users. Relative advantage reflects the features of technology itself (Shaw, Ellis, & Ziegler, 2018). This feature can provide a range of data services with more advanced technology.

This study's findings highlight that the decision to choose a MNO has become an important factor which affects the usage behaviour of mobile services and the potential to create loyal customers. Nikou and Mezei (2013) stated that mobile services usage consists of voice communications services, short messaging services (SMS), and data services in the form of entertainment, information and transaction, applications, and content. They can increase the usage intensity and variation at once. This comfort discourages users to switch to another MNO.

Managerial Implication

The research results have three benefits for business practitioners within the telecommunication industry. Firstly, it improves customer management and provision of value-added digital services for mobile operators. Secondly, content developers can provide applications and innovative content. Third and lastly, manufacturer devices can provide product customisation in accordance to user needs. User habits to be 'always on' to access the various features of mobile services requires an 'always best connected' connectivity.

Mobile operators are trying to shape their users' behaviour by providing the best experience in the journey to consume the service. It begins with I choose, I access, I connect, I use the service, I enjoy the service, and I stay with the MNO. The end-to-end quality of the service facilitates the users to increase the intensity and variation to use a mobile service from a provider. It will increase the revenue for the digital industry players. The combination to understand usage behaviour based on motivational needs and technology characteristics that fulfil the customer needs will become determinants for users to choose a MNO. The developers of applications and content should utilise the usage behaviour to develop service content in accordance with the users' needs. As equally important, device manufacturers should provide a device with reliable and multi-use features that is complementary with a digital lifestyle.

Overall, telecom industry players can continue to grow with the dynamic usage behaviours of mobile services in Indonesia, which are highly sensitive to technological innovation, especially digital technology. In addition, mobile industry players can adjust to the market mechanism, including by following the rapid technological advances. The digital industry



players should also collaborate with device manufacturers, and content and application developers to meet the utilitarian and hedonic needs of mobile users.

Limitation of Research

This study has several limitations. Firstly, although the cellular service decreases the limit of space, place, and time, local knowledge can shape consumer behaviour, which in turn will impact upon the usage patterns of digital services. Therefore, future research should examine other major cities in Indonesia to increase the generalisation. Secondly, this study only focusses on the selection to choose a MNO. Further research should analyse the users' choice for applications and content, and the type of device usage. Thirdly, the determinant factor of technology adoption is limited to usage motivation and technology characteristics. Future research should be undertaken by adding other factors, such as post-sales services, pricing, and thematic promotion, to attract users to choose a technological product.



REFERENCES

- Ahmad, Norlia. 2012. "Utilitarian and Hedonic Values of Mobile Services: A Preliminary Analysis from Users' Perspective." *Business & Accounting Review*. http://www.kwansei-ac.jp/iba/results/pdf/BandA_review_vol9_p69-83.pdf.
- Babin, Barry J., William R. Darden, and Mitch Griffin. 1994. "Utilitarian Shopping Value." *Journal of Consumer Research* 20 (4): 644–57. <https://doi.org/DOI:10.1086/209376>.
- Bigne, J Enrique, Anna S Mattila, and Luisa Andreu. 2008. "The Impact of Experiential Consumption Cognitions and Emotions on Behavioral Intentions" 4 (May 2006): 303–15. <https://doi.org/10.1108/08876040810881704>.
- Buelligen, Franz, and Martin Woerter. 2004. "Development Perspectives, Firm Strategies and Applications in Mobile Commerce." *Journal of Business Research* 57 (12 SPEC.ISS.): 1402–8. [https://doi.org/10.1016/S0148-2963\(02\)00429-0](https://doi.org/10.1016/S0148-2963(02)00429-0).
- Chakraborty, Shibashish, and Kalyan Sengupta. 2014. "Structural Equation Modelling of Determinants of Customer Satisfaction of Mobile Network Providers: Case of Kolkata, India." *IIMB Management Review* 26 (4): 234–48. <https://doi.org/10.1016/j.iimb.2014.10.001>.
- Chang, Chi Cheng, Chaoyun Liang, Chi Fang Yan, and Ju Shih Tseng. 2013. "The Impact of College Students' Intrinsic and Extrinsic Motivation on Continuance Intention to Use English Mobile Learning Systems." *Asia-Pacific Education Researcher* 22 (2): 181–92. <https://doi.org/10.1007/s40299-012-0011-7>.
- Chitturi, Ravindra, Rajagopal Raghunathan, Vijay Mahajan, and Ravi Chitturi. 2008. "DELIGHT BY DESIGN: The Role of Hedonic Versus Utilitarian Benefits The First Author Acknowledges the Support of Laura." *Journal of Marketing Article Postprint* 72 (3): 48–63. <https://pdfs.semanticscholar.org/d946/94d47e7eeb8bc850f9d48f7f5a3fbd3efc0f.pdf>.
- Chowdhary, Nimit, and Monika Prakash. 2001. "Service Quality: Revisiting The Two Factors Theory." *The First International Conference on Electronic Business, Hong Kong, December 19-21*, 1–8.
- Collopy, Fred. 1996. "Biases in Retrospective Self-Reports of Time Use- An Empirical Study of Computer Users." *Management Science* 42 (5): 758–67.
- Dale L. Goodhue and Ronald L. Thompson. 1995. "Task-Technology Fit and Individual Performance." *MIS Quarterly: Management Information Systems* 10 (3): 278–88. <https://doi.org/10.1093/bib/bbp020>.
- Davis, Fred D., P. Bagozzi, Ricard, and R. Warshaw, Paul. 1989. "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models." *Management Science* 35 (August): 982–1003.
- Davis, Fred D. 2013. "Information Technology Introduction" 13 (3): 319–40.
- Dishaw, Mark T, and Diane M Strong. 1998. "TTF and TAM Models" 36: 9–21. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.5961&rep=rep1&type=pdf>.



- Elisondo, Romina Cecilia. 2018. "Serious Leisure, Self-Perceptions and Everyday Creativity." *International Journal of Innovation, Creativity and Change* 4 (1): 52–73.
- Evans, D S, A Hagi, and R Schmalensee. 2006. "List of Sources for Platforms." <http://mitpress.mit.edu/catalog/item/default.asp?ttype=2&tid=11447>.
- Fernández, Zulima, and Belén Usero. 2009. "Competitive Behavior in European Mobile Telecommunications Industry: Pioneers vs. Followers." *Telecommunications Policy* 33 (7): 339–47. <https://doi.org/10.1016/j.telpol.2009.03.004>.
- Fuller, Mark A., Mark A. Serva, and John Benamati. 2007. "Seeing Is Believing: The Transitory Effect of Reputation Information on E-Commerce Trust and Decision Making: Research Note." *Decision Sciences* 38 (4): 675–99. <https://doi.org/10.1111/j.1540-5915.2007.00174.x>.
- Gerhard, Daniel, Alexander Brem, Christian Baccarella, and Kai-Ingo Voigt. 2014. "Innovation Management and Marketing in High-Tech Sector: A Content Analysis of Advertisements." *SSRN Electronic Journal* 28 (1): 330–49. <https://doi.org/10.2139/ssrn.2433961>.
- Gerpott, Torsten J., Sebastian May, and Gokhan Nas. 2017. "The Impact of Mobile Internet on Mobile Voice Usage: A Two-Level Analysis of Mobile Communications Customers in a GCC Country." *Information and Management* 54 (7): 958–70. <https://doi.org/10.1016/j.im.2017.02.003>.
- Ghezzi, Antonio, Marcelo Nogueira Cortimiglia, and Alejandro Germán Frank. 2015. "Strategy and Business Model Design in Dynamic Telecommunications Industries: A Study on Italian Mobile Network Operators." *Technological Forecasting and Social Change* 90 (PA): 346–54. <https://doi.org/10.1016/j.techfore.2014.09.006>.
- Garcia-Swartz, Daniel D. and Martin Campbell-Kelly. (2019). Openness as a business strategy: Historical perspectives on openness in computing and mobile phones. *Information Economics and Policy*, Volume 48: 1-14
- Griffith, Terri L, and Deborah J Dougherty. 2007. "Information Technology and Changing Fabric of Organization" 18 (5): 749–62. <https://doi.org/10.1287/orsc.1070.0307>.
- Gustafsson, Eva, and Annika Jonsson. 2003. "Always Best Connected." *IEEE Wireless Communication* Februari: 49–55.
- Hamdouch, Abdelillah, and Esther Samuelides. n.d. "Innovation ' s Dynamics in Mobile Phone Services in France Innovation ' s Dynamics in Mobile Phone Services in France La Dynamique d ' Innovations Dans Les Services de Télécommunications Mobiles En France," no. I: 106–12.
- Holbrook, Moris B, and Elizabethh C Hirschman. 1982. "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings and Fun." *The Journal of Consumer Research* 9 (2, Sept 1982): 132–40.
- Islam, Md. Mazharul, Essam M. Habes, Md. and Mahmudul Alam. (2018). The usage and social capital of mobile phones and their effect on performance of microenterprise: An empirical study. *Technological Forecasting and Social Change*, Volume 132: 156-164



- Ju, Su Yi. 2011. "Telecom Upgraded Services Adoption Model Using the Use - Diffusion Theory: The Study of China'S Telecommunications Market." *International Journal of Organizational Innovation* 4 (2): 77–122.
- Kamel, Almoataz, and Mohamed K. Watfa. 2018. "Disruption-Based Innovations for Incumbent Technology Businesses." *International Journal of Innovation, Creativity and Change* 4 (2): 20–50.
- Keelson, Solomon A. 2012. "Factors Affecting Consumer Choice of Multiple Mobile Services." *Global Journal of Business Research (GJBR)* 6 (4): 59–67. <http://search.ebscohost.com/login.aspx?direct=true&db=bsh&AN=82211186&site=ehost-live>.
- Kim, Dan J., Donald L. Ferrin, and H. Raghav Rao. 2008. "A Trust-Based Consumer Decision-Making Model in Electronic Commerce: The Role of Trust, Perceived Risk, and Their Antecedents." *Decision Support Systems* 44 (2): 544–64. <https://doi.org/10.1016/j.dss.2007.07.001>.
- Klopping, Inge M, and Earl Mckinney. 2004. "Extending the Technology Acceptance Model and Task-Technology Fit Model to Consumer e-Consumer." *Information Technology, Learning, and Performance Journal* 22 (1): 35–48.
- Kwai Fun IP, Rachael, and Christian Wagner. 2008. "Weblogging: A Study of Social Computing and Its Impact on Organizations." *Decision Support Systems* 45 (2): 242–50. <https://doi.org/10.1016/j.dss.2007.02.004>.
- Lee, Dongwon, Junghoon Moon, Yong Jin Kim, and Mun Y. Yi. 2015. "Antecedents and Consequences of Mobile Phone Usability: Linking Simplicity and Interactivity to Satisfaction, Trust, and Brand Loyalty." *Information and Management* 52 (3): 295–304. <https://doi.org/10.1016/j.im.2014.12.001>.
- Lee, Matthew K O, and Christy M K Cheung. 2007. "Understanding User Acceptance of Multimedia Messaging Services: An Empirical Study" 58 (13): 2066–77. <https://doi.org/10.1002/asi>.
- Lim, Keun Woo, Stefano Secci, Lionel Tabourier, and Badis Tebbani. 2016. "Characterizing and Predicting Mobile Application Usage." *Computer Communications* 95: 82–94. <https://doi.org/10.1016/j.comcom.2016.04.026>.
- Lin, Kuan Yu. 2016. "User Communication Behavior in Mobile Communication Software." *Online Information Review* 40 (7): 1071–89. <https://doi.org/10.1108/OIR-07-2015-0245>.
- Lu, Hsi Peng, and Yi Wen Yang. 2014. "Toward an Understanding of Behavioral Intention to Use a Social Networking Site: An Extension of Task-Technology Fit to Social-Technology Fit." *Computers in Human Behavior* 34: 323–32. <https://doi.org/10.1016/j.chb.2013.10.020>.
- Malhotra, Arvind, and Claudia Kubowicz Malhotra. 2013. "Exploring Switching Behavior of US Mobile Service Customers." *Journal of Services Marketing* 27 (1): 13–24. <https://doi.org/10.1108/08876041311296347>.
- Ministry of Communication and Informatics. 2018. "Survey Penggunaan Teknologi

Informasi Dan Komunikasi.”

- Negahban, Arash. 2012. “Factors Affecting Individual’s Intention to Purchase Smartphones from Technology Adoption and Technology Dependence Perspectives.” *18th Americas Conference on Information Systems 2012, AMCIS 2012* 5: 3679–89.
- Negahban, Arash, and Chih-hung Chung. 2014. “Computers in Human Behavior Discovering Determinants of Users Perception of Mobile Device Functionality Fit.” *Computers in Human Behavior* 35: 75–84. <https://doi.org/10.1016/j.chb.2014.02.020>.
- Nikou, Shahrokh, and József Mezei. 2013. “Evaluation of Mobile Services and Substantial Adoption Factors with Analytic Hierarchy Process (AHP).” *Telecommunications Policy* 37 (10): 915–29. <https://doi.org/10.1016/j.telpol.2012.09.007>.
- Özer, Alper, Mehpare Tokay Argan, and Metin Argan. 2013. “The Effect of Mobile Service Quality Dimensions on Customer Satisfaction.” *Procedia - Social and Behavioral Sciences* 99: 428–38. <https://doi.org/10.1016/j.sbspro.2013.10.511>.
- Preez, Gert T. Du, and Carl W.I. Pistorius. 2003. “Analyzing Technological Threats and Opportunities in Wireless Data Services.” *Technological Forecasting and Social Change* 70 (1): 1–20. [https://doi.org/10.1016/S0040-1625\(02\)00253-6](https://doi.org/10.1016/S0040-1625(02)00253-6).
- Ram, S, and Hyung-Shik Jung. 1990. “The Conceptualization and Measurement of Need.” *Journal of Academy of Marketing Science* 18 (1): 67–76. <http://books.google.com/books?hl=en&lr=&id=hRuIAgAAQBAJ&pgis=1>.
- Ramirez-Correa, Patricio E., F. Javier Rondan-Cataluña, and Jorge Arenas-Gaitán. 2015. “Predicting Behavioral Intention of Mobile Internet Usage.” *Telematics and Informatics* 32 (4): 834–41. <https://doi.org/10.1016/j.tele.2015.04.006>.
- Reji Kumar, G., and D. Sudharani Ravindran. 2012. “An Empirical Study on Service Quality Perceptions and Continuance Intention in Mobile Banking Context in India.” *Journal of Internet Banking and Commerce* 17 (1).
- Reuver, Mark De, Guido Ongena, and Harry Bouwman. 2013. “Should Mobile Internet Be an Extension to Fixed Web? Fixed-Mobile Reinforcement as Mediator between Context of Use and Future Use.” *Telematics and Informatics* 30 (2): 111–20. <https://doi.org/10.1016/j.tele.2012.02.002>.
- Santouridis, Ilias, and Panagiotis Trivellas. 2010. “Investigating the Impact of Service Quality and Customer Satisfaction on Customer Loyalty in Mobile Telephony in Greece.” *TQM Journal* 22 (3): 330–43. <https://doi.org/10.1108/17542731011035550>.
- Sarker, Supratek, and John D. Wells. 2003. “Understanding Mobile Handheld Device Use and Adoption.” *COMMUNICATIONS OF ACM*, 2003.
- Saroso, Hardijanto, Dicky Hida, and Darjat Sudrajat. 2019. “E-Service Quality and Corporate Image on Customer Perception”. *International Journal Innovation, Creativity and Change*. Volume 10 (8): 284–94.
- Saroso, Hardijanto, Hadir Hudiyanto, and Bambang Purnomo. 2019. “The Challenge to Acceptance Model Technology.” *International Journal of Innovation, Creativity and Change* 10 (8): 338–49.
- Sharp, Jason H. 2006. “Development, Extension, and Application: A Review of Technology



- Acceptance Model.” *Proc ISECON 23* (2522 (refereed): 2–25.
- Shaw, Heather, David A. Ellis, and Fenja V. Ziegler. 2018. “The Technology Integration Model (TIM). Predicting the Continued Technology usage.” *Computers in Human Behavior* 83: 204–14. <https://doi.org/10.1016/j.chb.2018.02.001>.
- Stork, Christoph, Steve Esselaar, and Chenai Chair. 2017. “OTT - Threat or Opportunity for African Telcos?” *Telecommunications Policy* 41 (7–8): 600–616. <https://doi.org/10.1016/j.telpol.2017.05.007>.
- Straub, Detmar, Moez Limayem, and Elena Karahana-Evaristo. 2001. “Measuring System Usage for IS Theory Testing.” *Management Science* 41 (8): 1328–42.
- Swan, John E, and Linda Jones Combs. 1976. “Product Performance and Consumer Satisfaction: A New Concept.” *American Marketing Association Product* 40 (2): 25–33.
- Tilson, David, and Kalle Lyytinen. 2006. “The 3G Transition: Changes in US Wireless Industry.” *Telecommunications Policy* 30 (10–11): 569–86. <https://doi.org/10.1016/j.telpol.2006.09.002>.
- Tiwana, Amrit, Benn Konsynski, and Ashley A. Bush. 2010. “Platform Evolution: Coevolution of Platform Architecture, Governance, and Environmental Dynamics.” *Information Systems Research* 21 (4): 675–87. <https://doi.org/10.1287/isre.1100.0323>.
- Wang, Juite, Jung Yu Lai, and Chih Hsin Chang. 2016. “Modeling and Analysis for Mobile Application Services: The Perspective of Mobile Network Operators.” *Technological Forecasting and Social Change* 111: 146–63. <https://doi.org/10.1016/j.techfore.2016.06.020>.
- West, Joel, and Michael Mace. 2010. “Browsing as the Killer App: Explaining the Rapid Success of Apple’s iPhone.” *Telecommunications Policy* 34 (5–6): 270–86. <https://doi.org/10.1016/j.telpol.2009.12.002>.
- Wilder, Jhon, Zarthia Sossa, José Luis, Solleiro Rebolledo, and Juan Manuel. 2019. “Innovation Management Models - A Literature Review.” *International Journal of Innovation, Creativity and Change* 10 (6): 175–94.
- Yen, David C., Chin Shan Wu, Fei Fei Cheng, and Yu Wen Huang. 2010. “Determinants of Users’ Intention to Adopt Wireless Technology: An Empirical Study by Integrating TTF with TAM.” *Computers in Human Behavior* 26 (5): 906–15. <https://doi.org/10.1016/j.chb.2010.02.005>.
- Yoo, Youngjin, Ola Henfridsson, and Kalle Lyytinen. 2010. “The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research.” *Information Systems Research* 21 (4): 724–35. <https://doi.org/10.1287/isre.1100.0322>.
- Zhang, Jing, and Xiong Jian Liang. 2011. “Business Ecosystem Strategies of Mobile Network Operators in 3G Era: The Case of China Mobile.” *Telecommunications Policy* 35 (2): 156–71. <https://doi.org/10.1016/j.telpol.2010.12.009>.
- Zhou, Tao. 2014. “Understanding Continuance Usage Intention of Mobile Internet Sites,” 329–37. <https://doi.org/10.1007/s10209-013-0313-4>.
- Zhou, Tao, Yaobin Lu, and Bin Wang. 2010. “Computers in Human Behavior Integrating



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Volume 13, Issue 1, 2020

TTF and UTAUT to Explain Mobile Banking User Adoption.” *Computers in Human Behavior* 26 (4): 760–67. <https://doi.org/10.1016/j.chb.2010.01.013>.