



Institutional Isomorphism and the Adoption of Mobile Application in Malaysian Tourism Small and Medium Enterprise

William Eng Y.K.

Sunway University, Business School, Subang Jaya, MALAYSIA

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Abstract

The benefits of smart phones apps has created opportunity for the tourism businesses to connect with their customers. However, most research focused on individual adoption of mobile apps while there is very little academic research has been done in reference to the phenomenon and its implications for tourism small and medium-sized enterprises (tourism SMEs) in Malaysia. This paper explore the key issues on mobile apps adoption and used a theoretical framework based on the institutional environment factors to predict the rate of mobile apps adoption intention. The main question is what are the institutional environment factors influence tourism SMEs toward mobile apps adoption intention? With the proposed framework, we are able to investigate their relative contribution to mobile apps adoption intention decisions. The finding show that there are three major institutional environment factors that significantly affect the adoption of mobile applications by tourism SMEs: i.Coercive pressures, ii. Normative pressures and iii. Mimetic pressures. Using a survey method, data were collected from 423 tourism SMEs in Malaysia. Results showed that these factors were found to play important role in the adoption of mobile apps. The result contributes to a deeper understanding of the institutional environment factors that promote the use of mobile apps in the tourism SMEs.

Keywords: Mobile apps, institutional environment, tourism small and medium-sized enterprise, adoption.

Introduction

The new mobile communication technologies has providing extraordinary changes to virtually every aspect of societies worldwide. These technologies are more than merely improving business organization internal operating, enhance efficiency and also to gain bigger markets. The favourable inherent in the mobile communication technologies such as mobility and broad reach characteristics have created five value-added attributes that break the barriers of geography and time: ubiquity, convenience, instant connectivity, personalization and localization of product and services¹. With these value-added attributes of the mobile technology, mobile applications(apps)is growing since popular mobile operating software including Apple iOS and Android. Mobile apps are application program in which extend the capabilities of mobile device system software². According to ZDNet, travel mobile apps are one of the most popular mobile apps category being downloaded³. There are many mobile apps pertaining to the travel industry including airline tickets booking, restaurant reviews apps, and etc. These mobile apps usually either made available at a minimal fee or free of charge. Compared with traditional desktop computer system, tourism mobile apps through mobile device platform are portable and flexible for tourists. With the tourism mobile apps, tourists could access to the interactive information in real time anywhere and anytime. Further, tourism mobile apps provide tourists more localize and personalize information in consumption decisions.

In Malaysia, tourism has become one of the fastest growing industry in service sector. Moreover, the industry was rank as second highest earner in foreign exchange and national income⁴. There are 25 million international tourists arrived in year 2012 as compared to 10 million in year 2000. With the increase in international tourist arrivals, tourism industry has created business potential and diversification on tourism products and services to Malaysian tourism small and medium enterprises (SMEs). However, there are relatively low gross output of tourism SMEs, only 24.7% of total output of SME in the Malaysia service sector. With the advancement of mobile technologies, it is believed that mobile apps able to create value for tourism SMEs. Being a service sector, mobile apps can be used as abusiness tool to enhance value creation and business performance of tourism SMEs Malaysia.

With the current hyper competition in the tourism industry, it is necessary to understand the benefits of mobile apps toward tourism business. Mobile apps ability to reach hundreds of millions of customers simply by uploading their tourism business related apps to mobile platforms such as iPhone operating systems (iOS), Android, and Windows Mobile 8. The benefits of adopting mobile apps to tourism business including provide information to the customers, improve customers engagement, improve customer loyalty, and improve brand awareness. However, many Malaysian tourism have not been able to realize the business value brought about by mobile apps. Mobile smartphone usages are growing up very fast at Malaysia. More than 26% of mobile phone users using smartphone and

half of feature phone users intend to change to smartphone in year 2014 or later⁵. With the fast mobile network services, like 3G and 4G and global positioning services (GPS) enable smart phone is providing the new opportunities for businesses including tourism industry. The dependency of smart phone is very important to reach the competition by find the new markets and providing value-added services to customers. Therefore, this research tries to fill the gaps on mobile apps adoption intention research and identifying the impacting macro-environment factors.

As described above, the benefits of mobile apps has the potential to create value for the tourism business. The empirical research need to be conducted on the tourism SME toward the adoption of mobile apps specifically tourism SMEs. Most previous research focused on mobile services⁶, mobile shopping⁷, mobile entertainment apps⁸, usage of young consumers on m-commerce⁹, and mobile coupon¹⁰. Further, past studies related to examine the behavioural intention on young consumers toward m-commerce adoption and the used of m-coupons¹⁰. In Malaysia, m-credit⁸ and mobile learning apps¹¹ studies were studied on the behavioural adoption intention. Thus, no study has been conducted on the reason of whether tourism SMEs are either willing or unwilling to adopt mobile apps. Moreover, gaps also exist in IT adoption literature particularly lack of studies on the influence of the business organization's external environment toward organizations' technology innovation adoption using institutional theory. Therefore, this research topic will focus on the institutional factors toward the Malaysian tourism SMEs adoption intention of mobile apps. Specifically, this paper aims to fulfil the following objectives: i. To identify tourism SMEs perceptions of normative pressures, mimetic pressures and coercive pressures. ii. To assess dimensions of tourism SMEs perceptions of normative pressures, mimetic pressures, and coercive pressures when deciding to adopt mobile apps in the future.

This research uses institutional model to fill the gaps of knowledge in the literature. The finding of this research serve as a useful guide for managers to aware the external environmental factors in their decisions to adopt mobile apps to continue sustain competitiveness within the industry. The finding also help to provide new insight of mobile apps technology to related bodies including the Malaysian government and Malaysian tourism industrial associations.

Theoretical perspective: According to past study¹², the literature on technology innovation on business firm suggest most past studies used the following models: i. The Diffusion of Innovation (DOI)¹³. ii. Technology Acceptance Model (TAM)¹⁵. iii. The Technology-Organization-Environment Framework (TOE)¹³. iv. Institutional Theory¹⁵. v. Resource-based Theory¹³.

Each of the above model are designed to focus and examine different types of technology innovation adoption in business organization such as electronic fund transfer (EFT), electronic

data interchange (EDI), enterprise resource planning (ERP) and many others. Some models examine the technology adoption at firm level such as DOI, TOE and Institutional theory, while TAM, TPB, and UTAUT are used for study technology adoption at the individual level.

In this study of technology adoption in tourism SMEs, institutional theory are used because it enable researcher to gain a useful insight into the reaction of organization decision toward technology and factors affecting their reaction. The institutional environment mediates in the innovation diffusion. For the business organizations to sustain competitiveness and legitimacy, the innovative strategies¹⁶ of businesses have become isomorphic. Researcher had emphasised the macro-environment factors of the industry especially their competitors, customers and other stakeholders of the businesses. Macro-environment usually pressurized the business in all decision making on innovation technology adoption. In the other word, institutional theory emphasizes that institutional environments are crucial in shaping organizational structure and actions¹⁹. Based on the prior studies, researchers^{17,18} have identified that organizations adopt information technology (IT) innovations due to environmental forces. In their studies, IT not only used by organization to improve operation efficiency and effectiveness, but also to gain legitimacy in their environments. The technology innovation adoption have to be compliantly modified the practices to fit individual business organizations^{19,20}. In particular, organizations can reduce the risk of initial adoption by imitate industry leaders structures. Therefore, broader factors based on the institution theory will be used to study the influence a tourism SMEs adoption intention of mobile apps.

Past technology innovation adoption studies such as radio frequency identification (RFID) technology have identified that high level of mimetic pressure experienced by retail businesses (GAP and Wal-Mart), in their quest to mirror the RFID technology adoption practices of competitors perceived to be leading in their use and application²¹. The two reasons why businesses imitate the actions of other businesses in its environment when they face mimetic pressures are: i. they do want to be lag behind others. ii. To reduce their worries over the competition in the industry.

Coercive pressures can also manifest in the form of customer driven pressure. For instance, social-networking websites, such as Face book, have more than 500 million monthly active users in 2010 and increase to 1.11 billion monthly active users²². As the popularity of social networking users grown, businesses have realized the intense consumer engagement and creativity surrounding these tools. The powerful customers demand or compel businesses to adopt social networking tool. Therefore, many businesses are keen to harness the benefits of social networking tools.

Normative pressure occurs when businesses aligned their behaviour and practices with external professional norms. The normative pressures from past study included the usage of technology innovation by stakeholders including professional, trade and business associations that promote IT innovation adoption²³. Today, consulting groups including McKinsey, McAfee, Gartner, and Forrester have suggested that adopting technology innovation can be beneficial to business and forecast more organizations will adopt technology innovation. These professional bodies included normative pressure on businesses to adopt technology innovation. This shown that these professional bodies influence business organizations' diffusion of innovation decision.

Hypotheses: Five hypotheses are proposed in this research based on the past review of the literature done in other related technological innovation adoption by business. The model (Figure-1) identifies five environmental factors as independent variables determining mobile apps adoption intention.

Coercive Pressures: Based on the institutional theory, the business stakeholders including customers, suppliers, and government regulatory bodies of a business organization can exert coercive pressures to change their existing business operation¹⁹. In the current hyper competitiveness business industry, customers can exert pressures toward business organizations^{17,18,20}, in the context of technology innovation adoption decision. Organizations intend to adopt the technology innovation because these organizations might otherwise loss their customers. Past related studies^{18,20} identified powerful customers' exert direct and indirect pressures the business organization on technology innovation adoption intention decision. In order not to lose organizational legitimacy from customer, business organizations intent to adopt the technology innovation. Realizing the importance of customers pressures toward intention of technology innovation, H1 is developed to test the relationship of coercive pressures from customers and mobile apps adoption intention:H1: Greater coercive pressures from the customers will be positively related to the mobile apps adoption intention.

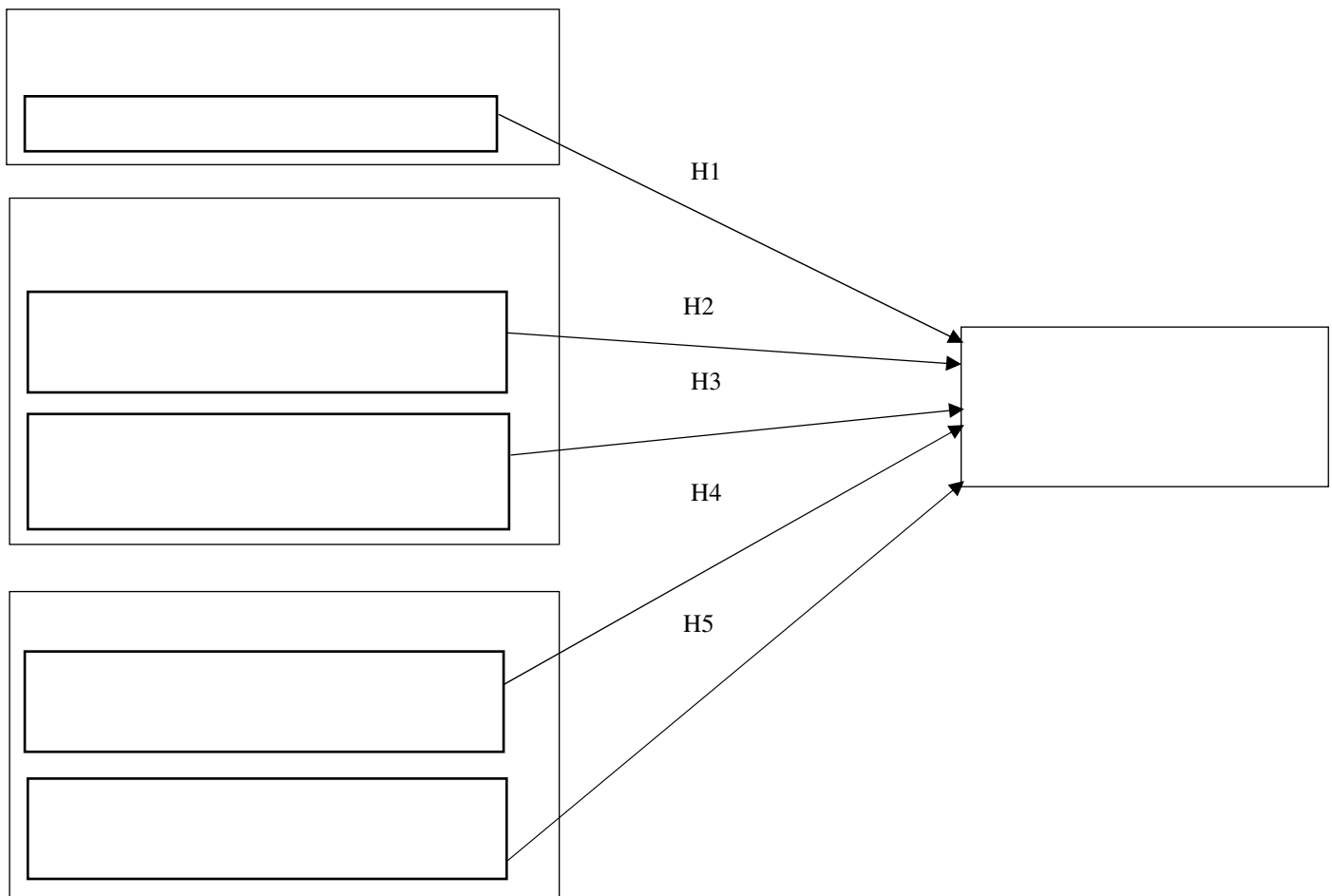


Figure-1
The Research Model for Mobile Apps Adoption Intention

Mimetic Pressures: Institutional theory suggests that mimetic pressures force business organizations responses to uncertainty and adopt the actions or innovation imitating of competitors that are perceived to be similar; closely connected by ties, including resources, information, and board interlock; have high status or prestige; and are more successful. According to Haveman²⁵, mimetic pressures are exerted on an organization in two ways. First, an organization can face mimetic pressures if the number of organizations in its environment that have taken the same action increase, such mimetic pressures led to a bandwagon²⁶. In addition, a business organization can face mimetic pressures when their competitors are successful and beneficial from an actions. Business organization conforms to these mimetic pressures by imitating the actions of other competitors in its industry in order not to be seen as a laggard to its stakeholders or competitors, reduces uncertainty of the action, and to reduce fears of losing competitive advantages. Prior studies on web technologies adoption found positive relationship between mimetic pressures from competitors with organizational adoption innovation decision¹⁷. In these studies, the extent of adoption among competitors and the benefits gained by competitors who have adopted a particular technology innovation, pressure business organization to adopt the technology in order to compete. As such, H2 and H3 are proposed to identify the nature relationship between mimetic pressures and mobile technology adoption intention: H2: Mimetic pressure originated from perceived extent of adoption by competitors is positively related to the mobile apps adoption intention. H3: Mimetic pressure originated from perceived success of adoption by competitors is positively related to the mobile apps adoption intention.

Normative Pressures: Normative pressures come from dyadic relationships where business organizations and external professional groups such as trade, business and professional associations share some practices and norms. Sharing these practices and norms through amongst business organizations in the industry increases the strength of these practices and norms and their potential influence on organizational behaviour¹⁹. In other word, business organizations adopting a particular business practice if they perceived it is an appropriate thing to do¹⁵. In the context of mobile apps adoption intention, the penetration of smartphone and tablet increase continuously based on Ericsson Consumer Lab in Southeast Asia and Oceania²⁷. The figure shown that more potential passengers may engaged with the mobile apps. In the context of technology innovation adoption intention, consulting groups including McKinsey, McAfee, Gartner, and Forrester have suggested that adopting new technologies including mobile apps can be beneficial to business and forecast more organizations will adopt mobile apps. These professional bodies included normative pressure on business organizations to adopt mobile apps. The positive discourse from professional bodies about an innovation, organizations are more likely to adopt the innovation because they learn the norm and values regarding the innovation adoption²⁴. In the past studies, there are significant

positive relationship on normative pressures arises from customers, suppliers and professional with business associations technology innovation adoption intention decision^{18,20}. In this study, two normative pressures including the extent of adoption of mobile apps among its customers and participation in industry associations that promote and share information on the mobile apps adoption will be used to study the mobile apps adoption intention in Malaysian tourism SMEs. Therefore, the following hypothesis is formulated: H4: Perceived extent of adoption by customers is positively related to the mobile apps adoption intention. H5: Perceived professional and trade association participation is positively related to the mobile apps adoption intention.

Mobile Apps Adoption Intention: The dependent variable of this study is the mobile apps adoption intention among Malaysian tourism SMEs. In this study, the adoption intention of mobile apps is defined as mobile applications that tourism SME intent to develop a related mobile applications designed to run on smart phones, tablet computers and other mobile devices allow mobile users (customers and potential customers) to access the interactive information in real time. The main purpose of this study is to identify the factors that impact the adoption intention of mobile apps. In this study, only macro-environment factors were chosen to study the adoption intention of mobile apps. These selected macro-environment factors are mimetic, coercive and normative pressures as the independent variables for this study.

Methodology

A survey was carried out in 2013 from four major tourist destinations: Klang Valley, Malacca, Penang Island and Pahang. The stratified sampling frame was drawn from the Ministry of Tourism and Culture Malaysia's list of tourism SMEs in these destinations. The selection sample on the above areas was appropriate since these states received more than 53% of the total tourist visited Malaysia. In addition, tourism SMEs in these four areas have represents more than 60% of the total tourism SMEs in Malaysia. The database comprise various tourism sectors including accommodation services, travel agency services, tour operator services or tourism guide services. There were 1,605 questionnaires distributed to a sample list of companies registered to Ministry of Tourism and Culture Malaysia. An effective overall response rate of 423 questionnaires (26.4%) were collected and returned to the researcher. Questionnaire was targeted 423 personnel with the job position either IT manager, IT executive, or general manager from each tourism enterprise was the respondents for this study. IT managers were selected to participate in this study because they were responsible for the IT and computer systems in their respective businesses. General managers were also participate in this study because they were involved in with business decision making on the investment of new tools toward business processes as well as identifying and exploiting the enterprise's knowledge resources. The measurement items for

the survey were adapted from past technology adoption innovation research. A summary of the measurement items is provided in table-1. These survey questionnaires were pre-tested on 10 tourism SMEs. Specifically, researchers captured demographic profile of respondent and their company (in terms of tourism business type, type of ownership, and number of employees), mobile apps adoption intention, coercive pressures associated with mobile apps adoption intention, perceived extent of adoption by competitors pressures associated with mobile apps adoption intention, perceived success of adoption by competitors pressures associated with mobile apps adoption intention, perceived extent of adoption by customers' pressures associated with mobile apps adoption intention and professional and trade association participation associated with mobile apps adoption intention. The table-1 shown the research variables and measurement.

The data obtained was coded and analysed using a statistical package software and spreadsheet software. Data analysis methods such as descriptive statistics, factor analysis, reliability, and multiple regression analysis were used for this study.

Construct reliability: In this study, Cronbach's alpha was used to measure internal consistency between the items in the measures. Based on the rule of thumb from Hair²⁸, stated alpha's coefficient value of 0.7 and higher is adequate and signifies high reliability. In the pilot test, Cronbach's alpha was performed to test the reliability and internal consistency of the constructs. The results showed that the alpha coefficients for

each dimension concluded as reliable. The results suggested that the instrument were reliable and no further changes to the items were required (table-2).

Results and Discussion

Sample characteristics: In this study, the frequency distribution analysis is used to describe the demographic characteristics of the study's respondents regarding their response on the mobile apps adoption intention. Table-3 shows that there were 423 respondents in total, and distributed into two categories (female and male). Approximately three-quarter (70.2%) of the respondents were male, and 29.8% were female. Majority of the respondents have attained the Bachelor's degree at 59.6%, and followed by the Diploma qualification at 23.2%. Only 3.3% reported that they attained a certificate. As shown in table-3 below, almost half of the respondents have reported that they are the owner of the business (44.2%), 32.6% are general managers and only 23.2% are IT managers.

Table-4 shows the Malaysian tourism SME was represented in the survey. Six types of tourism SME have accounted for 61.42% of the respondents. The largest proportion recorded is 36.8% of travel agency services, tour operator, and tourism guide services. As shown in the table-4 around 60% of the companies surveyed were companies with 5-20 employees, followed by about 16.67% of companies with 21-50 employees, and only 9.9% of companies have less than 5 employees.

Table-1
Research variables and measurement

Item	Description
Coercive Pressures¹⁷ CP1 CP2 CP3	Many of our customers expect we use mobile apps. Many of our customers encourage us to mobile apps. Our company may not retain our important customers without mobile apps.
Mimetic Pressures¹⁷ MP1 MP2 MP3 MP4	Many of our competitors are currently adopting mobile apps. Many of our competitors will be adopting mobile apps in the near future. Many of our competitors that adopt mobile apps are benefiting greatly. Many of our competitors that adopt mobile apps are perceived favourably by their customers.
Normative Pressures¹⁷ NP1 NP2 NP3 NP4 NP5	Many of our customers are currently adopting mobile apps. Many of our customers will be adopting mobile apps. Large pressure is placed on our firm to adopt mobile apps by industry sources (e.g., industry or trade associations). Our company actively participates in industry, trade, or professional associations that promote mobile apps adoption. Our company often receives information regarding mobile apps from external sources (such as industry associations, professional associations, or trade newsletters).
Mobile App Adoption Intention¹⁷ AD1 AD2	My organization intends to adopt mobile apps. It is likely that my organizations will take some steps to adopt mobile apps.

Table-2
Cronbach's Alpha for the Constructs

Constructs'	Number of Items	Value
Coercive pressures	3	0.968
Mimetic pressures		
- Perceived Extent of Adoption by Competitors	2	0.928
- Perceived Success of Adoption by Competitors	2	0.979
Normative pressures		
- Perceived Extent of Adoption by Customer	2	0.963
- Professional and Trade Association Participation	3	0.920
Mobile Apps Adoption Intention	2	0.966

Table-3
Profile of Respondents

Demographic Characteristics	Frequency	Percent (%)
Gender		
Male	297	70.2
Female	126	29.8
Education Attained		
Certificate	14	3.3
Diploma	98	23.2
Degree	252	59.6
Postgraduate degree	59	13.9
Current Position		
IT Manager	98	23.2
Owner	187	44.2
General Manager	138	32.6
n=423		

Table-4
Respondents' Tourism Small and Medium Enterprises Demographics

Demographic Characteristics	Frequency	Percent (%)
Type of Business		
Travel agency services, tour operator, and tourism guide services	156	36.8
Accommodation services		
Transportation services	32	7.6
Art, entertainment and recreation services	48	11.4
Food and beverage services	69	16.3
Miscellaneous tourism services (i.e. Personal care and sales per Aqua (SPA), camping sites, Zoo, museum, and theme parks)	48	11.4
	70	16.5
Number of Employees		
5-19	159	37.6
20-50	264	62.4
Ownership Structure		
Sole Proprietorship	58	13.7
Partnership	129	30.5
Private Limited Company	236	55.8
State		
Penang	78	18.4
Malacca	47	11.1
Klang Valley	152	35.9
Pahang	146	34.6
n=423		

Testing of hypotheses: Multiple linear regression analysis was conducted to test the relationship on five independent variables and a dependent variable. Five factors derived from the factor analysis were used as the input variables in the analysis. The results of the regression analysis are presented in Table-5.

Based on the Table-5, 47.2% of the variation of the overall mobile apps adoption intention was explained by the five institutional independent variables together. The significant F-ratio ($F=74.41$, $p<0.001$) indicated that the satisfactory level of the “Goodness-of-Fit” of this regression model. Of the five independent variables from institutional model context, all factors were found to be significantly related to mobile apps adoption intention.

Five hypotheses (H1, H2, H3, H4 and H5) were constructed to determine the relationship between coercive pressures, mimetic pressures and normative pressures and tourism SMEs adoption intention of mobile apps. As shown in table-5, all five factors have significant influence on the adoption intention of mobile apps among tourism SMEs. Of the five factors, “Coercive Pressures” ($\beta=0.612$) was the highest in explaining the overall level of mobile apps adoption apps. This was followed by “Normative Pressures” (Perceived Extent of Adoption by Customer ($\beta=0.242$)) and “Mimetic Pressures” (Perceived Extent of Adoption by Competitors ($\beta=0.241$)). Professional and trade association participation ($\beta=0.164$) in explaining the overall level of mobile apps adoption apps. The lowest was “Mimetic Pressures” (Perceived Success of Adoption by Competitors) in which $\beta=0.140$. There was not a high degree of collinearity among the independent variables because all VIF for all environmental factors were between 1.10 and 2.43, which was less than 10.0.

Based on the results of regression analysis, hypotheses 1, 2, 3, 4 and 5 were supported as the predicted path from all three institutional factors from mimetic pressures to coercive pressures of mobile apps adoption intention were statistically significant at the 0.000 level. These results shown that suggest that institutional factors play important role in influencing

organization adoption intention toward mobile apps. The finding also provide strong empirical support that the environmental factors are key predictors of mobile apps adoption intention.

Coercive pressures from customers (0.612) and perceived extend of adoption by customers(0.242) were found to have the stronger influence on mobile apps adoption intention. Similar finding was reported by past studies^{20, 29, 17, 30, 21} in the context of IT innovation (i.e., RFID). It is ideally suited for customer engagement and offer opportunities for reach, access and intimacy that simply not available with other channels. One plausible explanation for this finding may be due to the high extent of mobile apps adoption by customers, and the high extent to which customers participate actively in mobile apps. As a result, organizations perceive the coercive pressures exerted by customers to be critical. Another plausible explanation for the consistent finding is that customers may participate in mobile apps for their daily activities such as entertainment, communication, and social media. As such, they may exert specific pressure on organizations to adopt mobile apps. In addition, prior studies also find strong effects of coercive pressures in the context of IT innovations (i.e., EDI and ETS) are being used to support business activities between organizations and their customers. Since mobile apps are actively used for such activities, pressures from customers are found to be significant in this study. With the high penetration of smart phone, the pressures from customer may exert specific pressure on tourism SMEs to adopt mobile apps. Moreover, travel apps are the seventh most popular category of apps being downloaded³. In other words, as the extent to which their customers have adopted mobile apps increases, organizations perceive mobile apps adoption as normatively appropriate and valuable. Thus, organizations intend to adopt the mobile apps that their customers have already adopted. As a result, customers pressures exerted to tourism SMEs tourism SMEs perceive the pressures exerted by customers to be critical. To successfully exploit the potential of the mobile apps toward customers, tourism SMEs need to create strategies that deliver tangible value in return for customers’ time and attention.

Table-5
Regression Model of Predicting Mobile Apps Adoption Intention Behaviour

Factors	Std.β	t	p	VIF
Coercive Pressures	0.612	11.040	0.000	2.48
Mimetic Pressures				
Perceived Extent of Adoption by Competitors	0.241	4.474	0.000	2.29
Perceived Success of Adoption by Competitors	0.140	3.736	0.000	1.11
Normative Pressures				
Perceived Extent of Adoption by Customer	0.242	6.480	0.000	1.10
Professional and Trade Association Participation	0.164	4.365	0.000	1.11
$R^2=0.472$; Adjusted $R^2=0.465$; $F=74.41$; $p<0.001$				

Stated differently, the increase number of competitors from tourism industry adopt mobile apps, higher adoption intention toward mobile apps by the tourism SMEs. Tourism SMEs intent to adopt mobile apps simply because of pressures being exerted by their competitors to adopt mobile apps technology. The purpose of tourism SMEs adoption intention toward same technology innovation in order to achieve organizational legitimacy. This reflects the concept of organizational isomorphism from institutional theory. Based on literature review, this is consistent with the findings of prior studies on IT innovation, which observed effect of mimetic pressures³⁰. Mobile apps technology has become one of the popular tools among businesses. Businesses adopt mobile apps as what competitors did in order to achieve organizational legitimacy. Moreover, tourism SMEs perceived that competitors that have adopted mobile apps have benefited or succeeded. It is important for tourism SMEs to align mobile apps with business strategy in order to gain and maintain their competitive edge in the service industry.

In addition to competitor pressures, professional and trade associations' pressures were found to have positive and significant impacts on the organizational adoption intention of mobile apps technology. Tourism SMEs perceived mobile apps adoption intention as norm, appropriate and valuable as their partners.

Conclusion

The result of this study provide an implication for tourism business as a useful reference to develop marketing strategies using innovative technology. In addition, it also encourages companies to embark into mobile commerce. Business has entered a new era of hyper competition, business should react fast to the changing business circumstances. Business must efficiently utilizing mobile technology for its operation. Based on the institutional theory, business can gain understanding in different elements of macro-environment, including how their industry gain legitimacy from internal and external constituencies. This study also provide tourism SMEs as a useful reference associated with macro-environment factors specifically on competitors, and their customers and others stakeholders on the mobile apps adoption decision to avoid being left out of their tourism industry.

This study also gives mobile apps vendors with knowledge on the signification relationships between the environmental factors with mobile apps adoption in Malaysian tourism SMEs. With the insight information, the vendors can thus devise more marketing strategies related mobile apps technology to target their marketing at Malaysian tourism SMEs with positive attitude toward innovation adoption. In addition, mobile apps vendors should emphasize and promote the potential advantages and benefits of mobile apps. Activities such as products presentation specifically designed for tourism related businesses will help vendor to identify potential tourism SMEs adopter, and

will give chance to them to make enterprises understand positive features of mobile apps.

Government ministries and related industries association that are responsible for the development of the tourism business industry of the country should focus their effort to promote the benefits on the adoption of mobile apps technology. For example, government and association could provide details information related to the technology through subsidised seminars specially designed for tourism SMEs in order to create a strong innovative culture in the industry.

This study has provides a better understanding of tourism SMEs adoption of mobile apps by explaining empirically tourism SMEs mobile apps adoption intention. The survey data from 423 tourism businesses able to explain empirically tourism SMEs mobile apps adoption intention, as it found that coercive pressures, mimetic pressures and normative pressures influence tourism SMEs technology adoption intention. Second, this study offers strong empirical evidence for the applicability of institutional theory as a guide to understanding organizational adoption of mobile apps and other new IT innovations. Lastly, this study provides empirical evidence that it is important to examine environmental factors in studying organizational adoption of IT Innovation.

Although this study has mainly focused on the macro-environmental factors such as mimetic pressures, coercive pressures and normative pressures, there may be other potential factors of mobile apps adoption in Malaysian tourism SME industry. Hence, future research should examine possible organizational determinants of business organization toward mobile apps adoption.

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