

# The Influence of Environmental Factors on Innovation Adoptions of Geo-location Social Media in Malaysian Restaurant Business

<sup>1</sup>William Eng Y. K.

<sup>1</sup>Lecturer

<sup>1</sup>School of Business,

<sup>1</sup>Sunway University, Selangor, Malaysia

**Abstract**—The benefits of geo-location social media (GSM) has been increasingly recognized by retail businesses. However, many retail businesses including restaurant are still trying to understand how GSM can help increase sales. The main question is what are the macro-environment factors influence Malaysian restaurant businesses toward GSM adoption intention? Many researches have been done in reference to the phenomenon and its implications for Malaysian small and medium enterprise. This paper reviews the literature on GSM adoption and used a theoretical framework in order to identify the critical environmental factors to capture a complete picture of GSM adoption intention. With our proposed critical factors, we are able to investigate their relative contribution to GSM adoption intention decisions. We obtain findings that suggested that there are three factors that significantly affect the adoption of GSM by restaurant businesses: 1. Coercive pressures, 2. Normative pressures and 3. Mimetic pressures. The sample for this study consisted of advertisers of Malaysia food and dining portal who being adopted GSM. Using a survey method, data were collected from 197 respondents in Malaysia. Results showed that all three environmental factors were found to play important role in the adoption of GSM. The result contributes to a deeper understanding of the macro-environment factors that promote the use of geo-social media in the Malaysian restaurant.

**IndexTerms**—Geo-location social media; Macro-environment; Malaysian restaurant; Institutional theory.

## I. INTRODUCTION

The growth of restaurant offering differentiated food products and services was accelerating in Malaysia and it is relatively stiff competition within the food and beverage (F&B) industry. With the wide food varieties and services, the customers have a wide range of options to choose from. Being ensure restaurant continue survive, restaurant will need to look at various strategic vehicles to build and regain customers. The high-contact and people-processing services characteristics for a restaurant business is very challenging in order to build and regain various types of customers. Restaurant business continually competing for more recently information about customers. Piccoli, Spalding, and Ives [1] stated that restaurant business need to structure the way they think around how customers think and act. Therefore, the innovation information communication technology (ICT) has providing the new way businesses are being marketed. Tapping into customers need through the use of ICT including mobile technology and Internet can be instrumental in building loyalty and gaining competitive advantage [2]. This information base can be seen through the explosion of personal and business social network sites such as LinkedIn, Facebook, and Twitter. Geo-location social media (GSM), social networks centered on the locations of users and businesses, it is an social network applications that allow internet users to construct profiles, establish connections, share postings of information, and then navigate information shared by others within the social networking system [3]. White and Pauxtis [4] opined GSM help to enhance works more efficiently whereby businesses are now competing at a different level.

Restaurant industry is playing a significant role in the Malaysia's economic development. In year 2011, this industry contributes around USD 9 billion toward the nation's last year Gross National Product [5]. Undeniably, the industry is blooming as competition among restaurants has intensified. The consumers' trend expenditure pattern on foodservice in Malaysia is expected to continue into the future and grow at a faster rate [6]. In such a competitive environment and with the need to survive, businesses must listen what customer want and "push" information to their potential customers. Adoption of GSM is considered to be a means to enable these businesses to compete with improved efficiency and customer relationship.

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 later [7]. With the fast mobile network services, like 3G and 4G and global positioning services (GPS) enable smartphone is providing the new ways for businesses including restaurant industry. The dependency of smartphone is very important to reach the competition by find the new markets and providing value-added services to customers. GSM enable restaurant businesses to engage their customers to deliver greater services and superior experiences thereby providing them with opportunities to increase their customers spend. Therefore, this research tries to fill the gaps on GSM adoption intention research by attempting to identify the macro-environment factors, and provide a mean to appreciate the complementarities that through this research stream.

Although studies on social media adoption by businesses have proliferated in the last few years, most of these studies have been conducted by private organizations such as inter alia Gartner, Clearswift, PEW/internet and American Life Project and KPMG, with limited academic research being performed [8]. In Malaysia, past study had identified social media usage among Malaysian

SMEs is still at its infancy and more efforts should be undertaken by relevant parties to spearhead the use of social media for business purposes [9]. However, little academic and empirical research is done on combination of social networking with location-based services to date. Thus, this study will dig the institutional factors that influencing GSM adoption intention.

## II. 2. OBJECTIVES OF THE STUDY

This research study has two objectives:

- To determine some aspects that influence GSM adoption intention, i.e. mimetic pressures, coercive pressures, and normative pressures.
- To determine which, among mimetic pressures, coercive pressures and normative pressures, is the most influential external factor of the GSM adoption intention..

## III. 3. THEORETICAL PERSPECTIVE

According to Oliveira and Martins [10], the literature on technology innovation on business firm suggest most researches are based on the following models:

- The Diffusion of Innovation (DOI) [11][12];
- Technology Acceptance Model (TAM) [13];
- The Technology-Organization-Environment Framework (TOE) [14][15][11];
- Institutional Theory [16][17];
- Resource-based Theory [12];
- Unified theory of acceptance and use of technology (UTAUT) [18];

These models have differences in term of their focus and are designed to examine different aspects of technology adoption. 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 studies of technology adoption in restaurant businesses, researchers have emphasized the macro-environment factors of the industry especially their competitors, customers and other stakeholders of the businesses. This is because such macro-environment usually directly and/or indirectly pressurized the business in all decision making on innovation technology adoption. This study is focused on the adoption of GSM in Malaysian restaurant business. Therefore, it is replete with references to the adoption of social media [19][20][21][22].

Past social media adoption studies identify that high level of mimetic pressure experienced by organizations, in their quest to mirror the social networking tools adoption practices of competitors perceived to be leading in their use and application [19]. Mimetic pressures from competitors have a positive influence on an organization's intent to adopt a social networking tool. The two reasons why organizations imitate the actions of other organizations in its environment when they face mimetic pressure are: 1. They do not want to be seen as a laggard by its stakeholders or competitors, because imitation reduces uncertainty of the action, 2. Their organization's management believes it should follow the action in order to reduce fears of losing competitive advantages. Coercive pressure can also manifest in the form of customer driven pressure. Today, social-networking Web sites, such as Facebook, have more than 500 million monthly active users in 2010 and increase to 1.11 billion monthly active users [9]. As the popularity of social networking users grown, companies have realized the intense consumer engagement and creativity surrounding these technologies. Therefore, many business organizations are keen to harness the benefits of social networking tool. Powerful customers demand or compel organization to adopt GSM.

Normative pressure occurs when organizations aligned their behavior and practices with external professional norms. The normative pressures from these studies included the extent of adoption of IT innovation adoption by suppliers, customers and influences from professional, trade and business associations that promote IT innovation adoption. Furthermore, consulting groups including McKinsey, McAfee, Gartner, and Forrester have suggested that adopting social networking tool can be beneficial to business and forecast more organizations will adopt social networking tool. These professional bodies included normative pressure on organizations to adopt social networking tool. 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 adoption [23].

## IV. HYPOTHESES

Three hypotheses are developed based on the review of the literature on various studies done in other related information technology adoption by business. The model identifies three factors as independent variables influencing GSM adoption intention.

### *Coercive Pressures*

Based on the institutional theory, coercive pressures occurred when business organizations adopt behavior and activities as response to customers' pressures which they rely [24]. In the context of technology adoption decision, powerful and dominant customer can exert direct and indirect pressures such as expectation, demand and encouragement toward business organizations [25][26][21]. Past studies had identified direct and indirect pressures from customers may influence an organization technology innovation. Restaurant businesses intend to adopt GSM because they fear that they lose legitimacy from their customers. Realizing the importance of customers' pressures toward GSM adoption intention. Therefore, the following hypothesis (H1) is formulated:

H1. Greater coercive pressures from the customers will be positively related to the GSM adoption intention.

### *Mimetic Pressure*

Mimetic pressures force organizations voluntarily and consciously adopt a practice or innovation imitating successful competitors. Mimetic pressures arise when the number of organizations in its industry that have taken the same action increases, beneficial and successful. When an organization faces such pressures, the organization conforms to these mimetic pressures by imitating the actions of other organizations in its environment with two reasons: (1) the organization does not want to be seen as a laggard to its stakeholders or competitors, because imitation reduces uncertainty of the action, (2) the organization's management believe it should follow the action in order to reduce fears of losing competitive advantages. In addition, business organizations can minimize search cost, experimentation costs, and avoid risk inherent from being the first-movers through imitating competitors [24]. Prior studies on social media adoption found that mimetic pressure from competitors have a positive influence on an organization [19]. Based on the institutional theory and prior studies, it is highly possible that potential restaurant adopters of GSM are subject to mimetic pressure from competitors. Therefore, the following hypothesis regarding the effects of mimetic pressures:

H2. Mimetic pressure originated from the competitors is positively related to the GSM adoption intention.

### *Normative Pressure*

Normative pressures come from dyadic relationships where business organizations and external professional groups share some information, rules, and norms. Sharing these norms through relational channels amongst members of a network facilitates consensus, which, in turn, increases the strength of these norms and their potential influence on organizational behavior [24]. For instance, consulting groups including McKinsey, McAfee, Gartner, and Forrester have suggested that adopting social media can be beneficial to business and forecast more organizations will adopt social media. These professional bodies included normative pressure on business organizations to adopt social media. 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 adoption [23]. Therefore, the following hypothesis is formulated:

H3. Normative pressure is positively related to the adoption intention of GSM.

## V. METHODS

### *Dependent and independent variables*

The dependent variable of this study is the adoption of GSM among restaurant businesses in Malaysia. In this study, the adoption of GSM is defined as web applications that allow internet users to construct profiles, establish connections, share postings of information, and then navigate information shared by others within the social networking [3]. The main purpose of this study is to identify the factors that lead to the adoption of GSM. However, it is not possible to study on all related factors that cause the adoption of GSM in Malaysian restaurant industry. In this study, only macro-environment factors were chosen to study the adoption of GSM. These selected macro-environment factors are mimetic, coercive and normative pressures as the independent variables for this study.

### *Participant and procedure*

To test the stated hypotheses, a questionnaire survey was conducted in 2013. The measurement items for the survey were adapted from previous research where their psychometric properties have been established (Table 1). Multiple items for each construct organized in a survey questionnaire were used for gathering data. Most theoretical constructs were assessed on the basis of a five-point Likert type scale (1=Strongly disagree to 5=Strongly agree). A summary of the measurement items is provided in Table 1. The choice of theoretical constructs to be examined was determined through a review of the technological adoption literature. The sampling frame used was drawn from yellow pages directory in Malaysia. The population under study consists of 1434 restaurant managers representing the restaurant industry in Malaysia. Out of 1434 questionnaires distributed, 385 questionnaires were collected and returned to the researcher. This consequently provided an effective overall response rate of 26.8%. The questionnaire went through a pretesting process before it was administered. Our target respondents were assured of confidentiality and an executive summary was promised as an incentive to encourage their participation. Specifically, researchers captured the following information in our survey: (1) demographic profile (in terms of restaurant category, average annual revenue, number of employees); (2) GSM adoption intention; (3) mimetic pressures associated with GSM adoption intention; (4) coercive pressures associated with GSM adoption intention; and (5) normative pressures associated with GSM adoption intention.

Table 1 Research Variables and Measurement

| Item                           | Description                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------------------|
| <i>Mimetic Pressures [26]</i>  |                                                                                                |
| MP1                            | Many of our competitors are currently adopting GSM technology.                                 |
| MP2                            | Many of our competitors will be adopting GSM technology in the near future.                    |
| MP3                            | Many of our competitors that adopt GSM technology are benefiting greatly.                      |
| MP4                            | Many of our competitors that adopt GSM technology are perceived favourably by their customers. |
| <i>Coercive Pressures [21]</i> |                                                                                                |
| CP1                            | Many of our customers expect we use GSM technology.                                            |

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CP2                                | Many of our customers encourage us to use GSM technology. Our company may not retain our important customers without GSM technology.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CP3                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Normative Pressures [26]</b>    | Many of our customers are currently adopting GSM technology.<br>Many of our customers will be adopting GSM technology.<br>Large pressure is placed on our firm to adopt GSM technology by industry sources (e.g., industry or trade associations).<br>Our company actively participates in industry, trade, or professional associations that promote GSM technology adoption.<br>Our company often receives information regarding GSM technology from external sources (such as industry associations, professional associations, or trade newsletters). |
| NP1                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP2                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP3                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP4                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP5                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>GSM Adoption Intention [27]</b> | Adopting GSM technology in the organization is a good choice.<br>Using GSM technology in the organization would be pleasant.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| AD1                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| AD2                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Reliability and validity of data

The Kaiser-Meyer-Olkin (KMO) overall measure of sampling adequacy (MSA) was 0.879, which was considered middling (Hair et al., 2010). Second, the overall significance of the correlation matrix was 0.000 with a Bartlett Test of Sphericity value was 1360.48. These measures indicated that the items had good predictive power for the underlying dimensions. The factor analysis with VARIMAX rotation was used to identify the underlying dimensions of mimetic pressures, coercive pressures and normative pressures. Item were retained based on the following criteria: (i) items with loading of 0.50 or more were retained; (ii) items with loading of less than 0.50 were removed; and (iii) items with loading beyond 0.50 on two or more components were removed. The results of the factor analysis and reliability assessment using Cronbach's alpha are presented in Table 2. The three underlying dimensions that identified were given a label. First dimension was labelled as "Mimetic Pressures" which explained 56.51% of the variance with a reliability coefficient of 0.89. The second dimension was labelled as "Coercive Pressures", which accounted for 12.91% of the variance with a reliability coefficient of 0.92. The third dimension labelled as "Normative Pressures" and explained 10.61% of the variance with a reliability coefficient of 0.74.

Table 2 Underlying Dimension of Institutional Factors

| Attributes                                                                                                               | Factor loading | Variance explained | Reliability coefficient |
|--------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------------|
| <b>Mimetic Pressures</b>                                                                                                 |                | 56.51%             | 0.89                    |
| Many of our competitors are currently adopting GSM technology.                                                           | 0.81           |                    |                         |
| Many of our competitors will be adopting GSM technology in the near future.                                              | 0.85           |                    |                         |
| Many of our competitors that adopt GSM technology are perceived favourably by their customers.                           | 0.83           |                    |                         |
| <b>Coercive Pressures</b>                                                                                                |                | 12.91%             | 0.92                    |
| Many of our customers expect we use GSM technology.                                                                      | 0.87           |                    |                         |
| Many of our customers encourage us to use GSM technology.                                                                | 0.89           |                    |                         |
| Our company may not retain our important customers without GSM technology.                                               | 0.83           |                    |                         |
| <b>Normative Pressures</b>                                                                                               |                | 10.61%             | 0.74                    |
| Many of our customers are currently adopting GSM technology.                                                             | 0.82           |                    |                         |
| Many of our customers will be adopting GSM technology.                                                                   | 0.79           |                    |                         |
| Large pressure is placed on our firm to adopt GSM technology by industry sources (e.g., industry or trade associations). | 0.81           |                    |                         |

|                                                                                                                          |      |        |  |
|--------------------------------------------------------------------------------------------------------------------------|------|--------|--|
| Our company actively participates in industry, trade, or professional associations that promote GSM technology adoption. | 0.77 |        |  |
| <b>Total Variance Explained</b>                                                                                          |      | 80.03% |  |

## VI. RESULTS AND DISCUSSION

### Sample Characteristics

Out of the total 385 respondents, only 197 respondents have adopting GSM in their restaurant businesses. In this study, we only examine based on the respondents already adopted GSM technology. More than 20% of the respondents for this study are operating in the restaurant types (20.3%). Table 6.1 shows the Malaysian restaurant industry was represented in the survey. Four types of restaurants have accounted for 61.42% of the respondents. The largest proportion recorded is 20.3% of restaurant, 17.7% of food court, 12.69 of bakery, and 10.66 of café. As shown in the Table 3 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. As frequency analysis the number of the respondents' restaurant located at Malaysian districts, we could remark that the majority of the restaurants located at the capital city of Malaysia (28.13%), followed by Petaling Jaya and Shah Alam (17.7%).

Table 3 Respondents demographics

| Demographic Characteristics | Frequency | Percent (%) |
|-----------------------------|-----------|-------------|
| <b>Type of Restaurant</b>   |           |             |
| Restaurant                  | 40        | 20.30       |
| Bakery/ Confectionary       | 25        | 12.69       |
| Bistro/ Bar/ Pub            | 13        | 6.60        |
| Café                        | 21        | 10.66       |
| Fast Food                   | 15        | 7.61        |
| Food Court                  | 35        | 17.77       |
| Mamak                       | 19        | 9.64        |
| Specialty                   | 11        | 5.58        |
| Kiosks                      | 14        | 7.11        |
| Others                      | 4         | 2.03        |
| <b>Number of Employees</b>  |           |             |
| <5                          | 19        | 9.64        |
| 5-10                        | 56        | 28.43       |
| 11-20                       | 65        | 32.99       |
| 21-50                       | 32        | 16.24       |
| >50                         | 25        | 12.69       |
| <b>Revenue (RM)</b>         |           |             |
| <100,000                    | 56        | 28.43       |
| 100,000 – 200,000           | 46        | 23.35       |
| 200,000 – 500,000           | 59        | 29.95       |
| 500,000 - 1 million         | 25        | 12.69       |
| >1 million                  | 11        | 5.58        |
| <b>District</b>             |           |             |
| Petaling Jaya               | 34        | 17.26       |
| Subang Jaya                 | 25        | 12.69       |
| Wilayah Persekutuan         | 54        | 27.41       |
| Kajang                      | 12        | 6.09        |
| Selangor                    | 6         | 3.05        |
| Rawang                      | 7         | 3.55        |
| Klang                       | 25        | 12.69       |
| Shah Alam                   | 34        | 17.26       |
| n=197                       |           |             |

## VII. TESTING OF HYPOTHESES

In order to explore whether the independent variables of three factors had statistically significant impacts on the dependent variable, GSM adoption intention, multiple linear regression analysis was conducted. Three 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 4.

Table 4 Regression Model of Predicting GSM Technology Adoption Intention Behavior

| Factors                                                                 | Std.β | t     | p     | VIF  |
|-------------------------------------------------------------------------|-------|-------|-------|------|
| Mimetic Pressures                                                       | 0.383 | 7.687 | 0.000 | 1.77 |
| Coercive Pressures                                                      | 0.294 | 6.148 | 0.000 | 1.63 |
| Normative Pressures                                                     | 0.336 | 6.913 | 0.000 | 1.68 |
| R <sup>2</sup> =0.854; Adjusted R <sup>2</sup> =0.729; F=72.51; p<0.001 |       |       |       |      |

According to the adjusted R<sup>2</sup> of this regression model, 85.4% of the variation of the overall technology adoption was explained by the three institutional independent variables together. The significant F-ratio (F=72.51, p<0.05) indicated that the satisfactory level of the “Goodness-of-Fit” of this regression model. Of the three independent variables from perceived benefits context, “Mimetic Pressures” (t=7.687, p<0.001), “Coercive Pressures” (t=6.148, p<0.001), and “Normative Pressures” (t=6.913, p<0.001) were found to be significantly related to adoption intention of GSM technology.

Three hypotheses (H1, H2, and H3) were constructed to determine the relationship between mimetic pressure, coercive pressure, normative pressure and organizational adoption of GSM technology. As shown in Table 4, mimetic pressures, coercive pressures, and normative pressures have significant influence on the adoption of GSM among Malaysian restaurant businesses adopt of GSM technology. Of the three factors, “Mimetic Pressures” (β=0.383) and “Normative Pressures” (β=0.336) were the highest in explaining the overall level of GSM technology adoption intention, followed by “Coercive Pressures” (β=0.294). There was not a high degree of collinearity among the independent variables because all VIF for all three technology factors were between 1.63 and 1.77, which was less than 10.0.

Based on the results of regression analysis, hypotheses 1, 2 and 3 were supported as the predicted path from all three factors from mimetic pressures to coercive pressures of GSM technology adoption intention were statistically significant at the 0.01 level.

These findings suggest that environmental factors play important role in influencing organization adoption of Web 2.0. More importantly, these finding provide strong empirical support that the factors rooted in institutional theory are key predictors of GSM technology adoption intention. This is being validated empirically the institutional theory in the context of GSM technology.

Mimetic pressures (0.38) were found to have the stronger influence on GSM adoption intention. Restaurant businesses adopt GSM simply because of pressure being exerted by their competitors to adopt GSM technology. Based on literature review, this is consistent with the findings of prior studies, which observed effect of mimetic pressures (e.g. [19][22]). GSM technology has become popular among restaurant businesses. Businesses adopt GSM as what competitors did in order to achieve organizational legitimacy. They perceived that competitors that have adopted GSM have benefited or succeeded. It is important for business organization to align GSM with business strategy in order to gain and maintain their competitive edge.

Coercive pressures from customers were found to have found to have positive impacts on the organizational adoption of GSM. Similar finding was reported by past studies (e.g. [25][20][21][22]). It is ideally suited for customer collaboration and offer opportunities for reach, access and intimacy that simply not available with other channels. To successfully exploit the potential of GSM toward consumers, businesses need to create strategies that deliver tangible value in return for customers’ time and attention.

In addition to coercive pressures, normative pressures were found to have positive and significant impacts on the organizational adoption of GSM technology. Similar finding was concluded by Mackenzie [19] and Young [22], retail-chain businesses perceived GSM adoption as norm, appropriate and valuable as their partners. The norms and values learned from business and professional associations play significant roles in influencing retail-chain to adopt GSM technology. To encourage the more Malaysian restaurant businesses to engage in GSM, businesses and Malaysian Government should look into the issues influencing the GSM adoption, and creating awareness on the available of GSM technologies.

### VIII. CONCLUSION AND RECOMMENDATION

The result of the research may have implication for restaurant businesses with a better understanding of macro-environment factors specifically on competitors, customers and others stakeholders associated with the adoption intention of GSM, which will be useful reference for them to develop marketing strategies using innovative information technology. Based on the institutional theory, businesses can gain further insight by taking a closer interest in different elements of macro-environment, businesses can understand how competitors and consumers gain legitimacy from internal and external constituencies. For new technology like GSM, macro-environment pressures of competitors and customers by mediating the relationships between the players and the technologies which enable them to exchange resources.

This study also gives GSM providers with an insight into the factors that are significantly associated with GSM adoption intention in Malaysian restaurant businesses. The findings of this study suggested that GSM companies should emphasize and promote the potential advantages and benefits of GSM to create a positive perception about the technology. In addition, the researcher suggested that to develop and improve the GSM such as personalization application, GSM providers need to educate organizations to ensure that they know the advantages and benefits of GSM. Activities such as live presentations and hosting technology fairs specifically designed for organizations will help GSM providers to identify potential GSM adopters, and will give chance to them to make organizations understand positive features of GSM and limitations as well. With the insight information, GSM providers can thus devise more marketing strategies related GSM technology to target their marketing at Malaysian restaurant business with positive attitude toward innovation adoption.

Government ministries and industries association that are responsible for the development of the restaurant industry of the country should focus their effort to encourage the adoption of GSM technology. For example, government and association could provide details information related to the technology through subsidized seminars specially designed for restaurant businesses in order to create a strong innovative culture in the industry.

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 determinants of GSM adoption in Malaysian restaurant industry. Hence, future research should examine possible internal determinants of business organization toward GSM adoption

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