The Effects of Internet Usage on Business Sustainability of Small Technology-based Rural Business in Malaysia

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Abstract

This study examines the effects of internet usage on the business sustainability of small technology based rural business. It adopts the quantitative study methodology using self–administered survey method. The findings of this study shows that internet usage has positive and significant effects on the business sustainability of small rural businesses in this study. This study utilized IBM SEM AMOS 21 in analyzing the effects of internet usage on business sustainability of small technology based rural business in Malaysia. This study has contributed to the literature of small business entrepreneurship by adding perspective of internet usage among the technology-based rural business and its effects on business sustainability.

Keywords: technology-based rural business, business sustainability, internet usage, Structural Equation Modeling (SEM)

1. Introduction

Most research related to small business sustainability concentrated on those in the cities rather than in the rural settings (Kamunge, Njuru, & Tirimba, 2014). Nevertheless, entrepreneurial researchers need to determine the business sustainability factors for small rural businesses because they react with the business environment differently with their urban counterparts (Battisti, Deakins, & Perry, 2013). Previous research have identified several business sustainability factors for small business, for example Mohd. Zin (2015), mentioned marketing support as important factors and Hayden et al. (2014) reported that business networking as important business performance and sustainability factor for small business. Adoption of internet marketing has also been mentioned in literatures as success factors for rural business to market their products, even though they are located in remote areas (Mokhtar, 2015; Canavan, O., Henchion, M., & O’Reilly, 2007). However, many small rural businesses chose to stay with their traditional marketing methods rather than using the internet as business process and marketing tool (Mokhtar, 2015). The objective of this study is to build on the scarcity of data related to the effects of internet usage on the sustainability and performance of small rural business in Malaysia.

2. Literature Review

Previous research related to business sustainability have been reported by Rezaee (2016), Bartkus & Grunda (2011) and Nadim & Lussier (2012). According to Rezaee (2016), business sustainability is the results of taking into account the economic, social and environmental factors when making business decision to satisfy the businesses’ stakeholders. Nadim & Lussier (2012) indicated that small rural businesses need to engage and network better with their nearby communities to make strategic business decision related to business sustainability. This particular study will concentrate on the internet networking usage as marketing tool which affects sales and business sustainability. It will look into the economics and social improvements of the small rural business. Internet usage in marketing can assist small rural businesses to reach their customers and give information about their products and services, even though they are located in remote areas. Therefore, rural entrepreneurs need to have the competencies for information and communication technology (ICT). Radzi, Nazi, & Nor (2017) reported that technology competencies such as internet usage is one of the important success factors for technology based rural business. Those who have better internet usage competencies can grow their business better than those who do not have the required skills in internet usage. According to Boumediene, Delroy and Densil (2013) the availability of technology, organisation and environmental contexts also impact small businesses adoption of enterprise application and internet usage. The findings by Jaganathan, Mahmood, & Ahmad (2014), Gan, Inversini, & Rega (2018) and Lim, Baharudin, & Low (2017), mentioned that businesses need to adopt ICT to gain competitive advantage and to survive in the challenging businesses environment. ICT adoption has been found to enhance the competitive advantage of a business (Gan, Inversini, & Rega, 2018). This findings were supported by Noor (2018) who reported that the internet usage through the internet centers established by the government have become a place for the rural entrepreneurs to promote their products and services through internet networking. Mokhtar (2015) studied small business entrepreneurs in Malaysia to look into their perceptions of the adoption of Internet marketing in their business marketing strategy. The study utilized qualitative study methods whereby 10 in-depth semi-structured interviews were conducted with small business owners located in Malaysia. The study concluded that Internet Marketing assisted small business to increase sales, decrease cost, and enhance community relationship.
Therefore, based on the above discussion, the hypothesis for this study is proposed:

Hypothesis 1 (H1): Internet usage has positive and significant effect on business sustainability of small technology-based rural business in Malaysia.

Figure 1 below shows the conceptual framework of the study. The focus of the study is on technology based rural business. The study will look into the effects of internet usage among the small technology based rural business in Malaysia on its sustainability.

![Figure 1: Conceptual Framework of the study](image)

3. Methodology

This research employs the Resource-Based View (RBV) Theory to explain how small technology-based rural businesses utilize the tangible and intangible resources to achieve sustainability competitive advantage. RBV proposed that businesses with tangible and intangible resources which are valuable, rare, inimitable and non-substitutable will gain sustainable competitive advantage (Barney, 1991). Internet usage is considered as technological capabilities which can be viewed as the resources of the firm in the form of capabilities which can have an impact on business sustainability of the small technology-based rural business.

4. Findings

Figure 2 below shows the CFA results of the study.

![Figure 2: CFA results of the study](image)

Referring to Figure 2, the model fulfilled the requirement for fitness index. Average Variance Extracted (AVE) for Business Sustainability (BS) is 0.623 and 0.826 for Internet Usage (INT) which is exceeding the required value of 0.50, indicating that the reliability of the measurement model in measuring the construct. The result for Composite Reliability (CR) is also achieved because the value of CR is above 0.6 which is 0.948 for BS and 0.950 for INT.

<table>
<thead>
<tr>
<th>Table 1: The discriminant validity index summary of the constructs</th>
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<tr>
<td><strong>Construct</strong></td>
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<tr>
<td>BS</td>
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| Table 1: The discriminant validity index summary of the constructs |

Based on Table 1, the discriminant validity for all constructs is achieved when the diagonal value (in bold which is the square root of AVE) is higher than the value in its row and column. The data in this model is distributed normally because the Assessment of Normality Distribution of Data shows that the absolute value of skewness is 1.0 or lower. 0.275 is the estimated correlation between BS and INT which shows that the constructs do not correlate with each other. This shows that multicollinearity problem does not exist in this model.
Based on SEM output in Figure 3, it is estimated that the predictors of BS explain 8 percent of its variance. In other words, the error variance of BS is approximately 92.5 percent of the variance of BS itself. Internet usage factor among the technology based rural business only explained 8 percent of the business sustainability construct in this study.

The standardized total (direct and indirect) effect of INT on BS is .275. That is, due to both direct (unmediated) and indirect (mediated) effects of INT on BS, when INT goes up by 1 standard deviation, BS goes up by 0.275 standard deviations. That is, internet usage construct does not correlate with the business sustainability construct in this study.

Table 2: Regression Weights and significance of the effects between the construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Path</th>
<th>Construct</th>
<th>P-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>←→</td>
<td>INT</td>
<td>0.006</td>
<td>Significant at 0.01 level</td>
</tr>
</tbody>
</table>

The Unstandardized Estimate for SEM output is 0.167 and the Standardized Estimate is 0.275. Therefore, it can be concluded that when INT goes up by 1, BS goes up by 0.167.

When INT goes up by 1 standard deviation, BS goes up by 0.275 standard deviations.

Based on the SEM result in Table 2, it can be concluded that Hypothesis 1 (H1) is accepted. Therefore, internet usage has positive and significant effect on business sustainability of small technology based rural business. The results show that internet usage is one of the factors that affects the sustainability of small technology-based rural business.

5. Conclusions

Based on the above findings, it can be concluded that internet usage has positive and significant effect on business sustainability of small technology based rural business. This study supported the findings by Mohcttar (2015), Riyad Eid & Hatem El-Gohary (2013) and Tarutė & Gatautis (2014) that internet marketing has positive impact on small business performance.

This study also supported the findings by Radzi, Nazri, & Nor (2017) who mentioned that technology competencies in internet usage is one of the important success factors for technology based rural business. Internet usage competencies enable the small technology based rural entrepreneurs to market their products and services online to gain more customers and thus, enhance success and sustainability for the business.

Therefore, small technology based rural entrepreneurs should follow the recommendations made by Jaganathan, Mahmood, & Ahmad (2014) and Lim, Baharudin, & Low (2017) for them to adopt ICT to gain competitive advantage and to sustain their businesses. Although internet marketing has positive impact on business performance, small business tend to prefer the conventional methods for sharing information with their stakeholders rather than using more advanced technology such as cloud computing methods because of reliability issues (Gupta, Seetharaman, & Rudolph, 2013).

The information from this study will broaden our knowledge and understanding related to the impact of internet usage of technology based rural business on their business sustainability. The proposed model provided in this paper will help guide future research related to the sustainability for technology based rural business in Malaysia. This study differs from other similar previous research because it employed structural equation modelling using SEM AMOS to develop the proposed model. This method is known to be more rigorous in explaining the effects among constructs. Future studies need to be done by including more exogenous and endogenous constructs into the model and using a more rigorous methodology to confirm the suggested model.

References


