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Organisational Capability on ICT Support And SMEs' Performances in Malaysia

Capacidad organizacional en el apoyo a las TIC y el desempeño de las PYMEs en Malasia

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ABSTRACT

This study is intended to investigate the Information and communication technology (ICT) support that affects small and medium enterprises' (SMEs) performances in Malaysia, which are mediated by the organisational capability. There were 296 surveys that were collected, and then it's done a reliability analysis, descriptive analysis, Pearson correlation analysis, multiple linear analysis, and hierarchical regression analysis. The results showed that the ICT support presented a positive relationship with SMEs performance by using the multiple regression analysis. Also the organisational capability became the full mediating role in the relationship between ICT support, and SMEs performance.

Keywords: ICT support, Malaysia, organisational capability, SMEs' performances.

RESUMEN

Este estudio tiene como objetivo investigar el apoyo a las tecnologías de la información y las comunicaciones (TIC) que afecta el desempeño de las pequeñas y medianas empresas (PYMEs) en Malasia, las cuales están mediadas por la capacidad organizativa. Hubo 296 encuestas que fueron recolectadas y posteriormente se realiza un análisis de confiabilidad, análisis descriptivo, análisis de correlación de Pearson, análisis lineal múltiple y análisis de regresión jerárquica. Los resultados mostraron que el apoyo a las TIC presentó una relación positiva con el desempeño de las PYMEs al utilizar el análisis de regresión múltiple. Además, la capacidad organizativa se convirtió en mediadora de la relación entre el apoyo a las TIC y el desempeño de las PYMEs.

Palabras clave: Apoyo a las TIC, capacidad organizativa, desempeño de las PYME, Malasia.

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INTRODUCTION

SMEs seem to be considered as a catalyst to the Malaysia economy due to SMEs being an essential generator of the nation's economy. Malaysia's development in the future is expected to depend widely on the growth of SMEs to achieve the Shared Prosperity Vision 2030, and the new Malaysian government is expected to convert Malaysia into a competitive and developed country by 2030. Malaysia is also hoped to become a fully advanced, modernized, and industrialized-based nation. In addition, most of the countries have recognized the significance of SMEs in contributing to the countries' GDP and major economic activities. Today, the SMEs contribute about 38.3% of the nation's GDP and 66% of employment opportunities. All sectors especially services sector, manufacturing sector and agricultures sector have contributed to the SMEs' GDP growth.

However, the excellent performance rates amongst SMEs in Malaysia are still considered to be at a low level, and do not reach the target (Ridzwan et al.: 2017, pp.80-84). Moreover, SMEs has yet to demonstrate sufficient positive performance and have not fulfilled the projected importance for economic development. The percentage of business failure in Malaysia was reported to be about 60%, which requires significant concern from the relevant authorities. Besides that, the contribution of SMEs to the country's GDP was still considered lower if compared with non-SME (Department of Statistics Malaysia: 2019). The report demonstrated that SMEs only account for 38.3% of GDP, but non-SMEs contribute 61.7% to the country's GDP (Department of Statistics Malaysia: 2019). In addition, the productivity of the SMEs was still lower of which the annual growth rate was 3.7% if compared with large firms of which the annual growth rate was 5.1%.

Hence, SMEs need to focus on product and process enhancement, innovation, mechanization, automation, and digitalization which include e-commerce to boost efficiency. Indris and Primiana (2015) also listed several qualities that contributed to activities economy growth as illustrated by countries such as Singapore, Taiwan, and South Korea which were highly efficient performances and productivity, and a high level of competitiveness. In the present era of the rapid technologically changing environment and globalization of the economy, Information and Communication Technology (ICT) obtained to endure the business requirements, irrespective of the size of business is a significant condition to benefit from information technology. However, a lack of IT Support, lack of information and technology skills and lack of IT knowledge will lead the SMEs not to be able to perform well during the digital economy era.

The adoption of ICT will be able to expand their markets in an international context and support their customers all over the global. Kapurubandara and Lawson (2006) recommended organizations to embrace ICT to sustain a competitive edge in the current dynamic international market. Malaysia is now seeking to accelerate the country's pace as a digital economy and has announced several initiatives, including making the country a global testing base for innovations and emerging technologies (Rasid: 2019). However, Malaysia's overall digital technology adoption rates are high but relatively low for businesses (World Bank Group: 2018). Malaysia's national statistics indicate that SMEs' adoption and use of digital technology are just focused on a few sectors and states. Most businesses still do not have access to ICT, which leaves them at a disadvantage in the development of the digital economy (World Bank Group: 2018). The Industrial Revolution 4.0 (IR 4.0) age requires SMEs to boost and promote their automation and digitalization programmers in order to gain a competitive advantage.

To address the gaps in the literature, this study examined the mediating role of organizational capabilities between government support, financial capital support, entrepreneurial orientation support, ICT support and SMEs performance with the help of resource contingency theory and resource-based view theory. Organizational capabilities play an important role in increasing organizational performance (Rehman et al.: 2019, pp.1-23). According to the Resource Based View (RBV) theory, organizational capabilities enhance the relationship between resources and organizational performance.

LITERATURE REVIEW

Small and Medium Enterprises' Performance

There is no consensus on an appropriate measure of business performance. Business performance can also be evaluated by two aspects which consist of (a) objective performance measures and (b) subjective performance measures. Anggadwita and Mustafid (2014) indicated that organizational performance could be measured based on quantitative and qualitative variables. Quantitative performance measures are typically performed by large companies which encompass such as financial results (ROE, ROA, ROI), production (number of goods sold, operating expense ratio), marketing (customer loyalty), and efficiency. On the other hand, qualitative performance measures encompass goal achievement, leadership perceptions, discipline levels, organizational culture, personal behavior, and effectiveness in the organisation.

According to Rhodes and Butler (2004), entrepreneurial performance has been defined in two main perspectives, namely, the objective (financial) and subjective (non-financial). John (2009) also found that performance can be assessed in two dimensions, including non-financial approaches and financial approaches. The non-financial approach means that the entrepreneur has achieved goals that had been identified earlier. On the other hand, financial performance measurement can become one of the biggest challenges for all types of businesses, especially focusing on the area of corporate survival. Previous research studies showed that both financial and non-financial measures had been used to evaluate organisational performance. Thus, this study examined the performance dimension which include both financial and non-financial measure. For instance, financial measurements which include sales revenue, ROA, ROS, ROI, and ROE are commonly used to assess organisational performance. On the other hand, the following non-financial measures have been adopted which consist of market share, output or productivity, efficiency, quality, and the attitudinal and behavioural measures such as the intention to quit, commitment, satisfaction, and loyalty.

ICT Support

The utilisation of ICTs has transformed and revolutionised the way that a business is conducted and E-commerce provides firms with tremendous opportunities to improve their business performances. As mentioned by Clark (1999), countries with high degrees of technological growth tend to experience high levels of entrepreneurial development. The advancements of technology in E-commerce have especially accelerated the process of change in business activities. Moreover, the effectiveness and strength of the communication platform between the company and its customers as well as the supplier and its business partners have significantly increased. Furthermore, SMEs promote and facilitate the benefits of ICT which consist of reduced transaction cost, and increased efficiency and market transparency cost savings, improved effective communication, and enhanced market performance; product diversification improved company image, time savings, convenience, flexible business practices, reduced operational and marketing costs, and improvement in customer services through the E-commerce and operational performance improvement and market expansion. Thus, SMEs have increased efficiency, degree of competition, and value chain by applying these technologies intensively. Adopting appropriate ICT systems enables organizations to develop and sustain their efficiency, enhance performance, and ensure that their competitive advantage is maintained. Therefore, this study examined the ICT support dimension which were adopted by Setiowati, Hartoyo, Daryanto, and Arifin (2015). According to Setiowati et al. (2015), ICT support has offered new ways for organisations to store, process, disseminate, and exchange data with their stakeholders as well as within the organisations.

Organisational Capability

Bhatt and Grover (2005) addressed that organisational capability refers to all tangible or intangible firm assets which represent the firms' ability of coordination and deployment of resources. This includes

managerial expertise, cultural context perceptions, and functional skills impacting innovation, and management of change. Previous studies indicated that business performance was related to organisational capabilities and corresponds to a variety of tools. Lin and Ho (2008) identified that organisational, environmental, and technological factors have significant effects while some research revealed that organisational learning capability is an important element to be considered. Developing and cultivating organisational capabilities can help small business owners attain competitive advantages in a business environment in which the organisational capabilities must be unique, special, and an ability for the organisation in order to prevent it from being imitated by competitors (Kelchner: 2017). Furthermore, organisational capability permits business entities to create, build, coordinate, and integrate varied resources to achieve somewhat long-term superb performance (Ahmad & Sahar: 2019, pp. 1540-1543; Eisenhardt & Martin: 2000, pp.1105–1121). According to Akgün, Ince, Imamoglu, Keskin and Kocoglu (2013), organisational learning capability integrates systems and business perspective view, acknowledging the importance of bridging organisational members to jointly promote a mutual language, shared knowledge, joint activity, perceptions and beliefs. This results recognised that organisational capability is able to increase effort in accomplishing organisational objectives. In this study, organisational capability plays an essential role as a mediator between the ICT support and SMEs performance which were adopted from Cabarcos, Monteiro, and Rodriquez (2015). Cabarcos, Monteiro, and Rodriquez (2015) stress that it is crucial to understand the success of a given organisation and how resources and capabilities contribute to the process.

Hypotheses Development And Proposed Framework

ICT Support and SMEs Performance

Olo-Lopez and Aramendia-Muneta (2012) stated that ICT adoption seems to leave a significant positive impact on productivity, directly as well as indirectly, depending on the sectors and possess an outstanding potential to underpin sustainable growth. Matei and Savulescu (2012) concluded that ICT investment leads to more than half of the economic growth. In addition, Tarutè and Gatautis (2014) noticed that business enterprises which had adopted ICT were able to improve productivity and sales growth. Matthews (2007) also identified that business organisations which employed ICT enjoyed improved profitability and outreach and were better able to position themselves for wholesale expansion. Studies have shown that the effects of ICT performance vary according to the type of technology being used and its degree of adoption. According to Stephen (2014), ICT adoption has a significant positive effect on the operations of business organisations and it is stated to be essential for the development and growth of nations' economies. Thus, the postulated hypothesis is as follows:

H1: *There is a significant Relationship between ICT support and SMEs performance.*

Organisational Capability and SMEs performance

For a firm which possesses a set of resources and capabilities that can create competitive advantages, it can also enhance business performance. In fact, organisational capability contributes to reconfiguring and modifying the firm's pool of resources, knowledge, operational routines, experiences, and competencies and then, in these practices, directly or indirectly influences business enterprise performance. Similarly, dynamic organisational capability also enables organisations to renew and rearrange their competencies and to strategically carry their resources and, at last, to enhance their business performance. Nevertheless, Eisenhardt and Martin (2000) have concluded that organisational capability may not contribute to a sustainable competitive advantage or outstanding business performance. But, such capabilities are actually capable of increasing the businesses' strategic flexibility and enterprises' elasticity. Therefore, the following hypothesis is postulated:

H2: *There is a significant relationship between organisational capability and SMEs performance*

ICT Support and Business Performance towards Organisational Capability as a mediating variable. The organisational resources must work together to initially develop organisational capabilities in order to attain competitive advantages, and then to be able to achieve superior business performance. Hence, it can be

interpreted that organisational capability has a direct or indirect linkage between the organisational resources and competitive performance. ICT tools such as computers, IT equipment, scanners, mobile phones, printers, e-commerce software, and many others are adopted by organisations to contribute to obtain competitive advantage and achieve superior organisational performance (Ainuddin et al.: 2007, pp.47–60). Hence, the following hypothesis is postulated:

H3: There is a Significant Relationship between ICT support and SMEs Performance which is mediated by Organisational Capability.

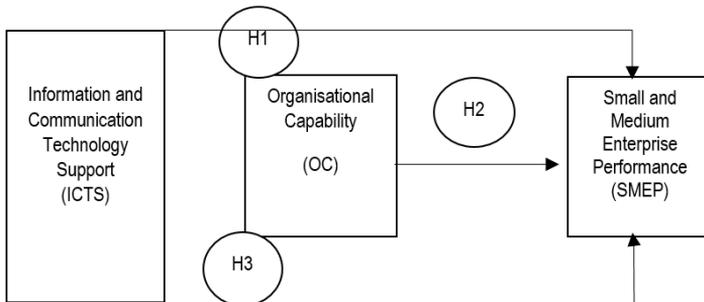


Figure 1. Proposed conceptual framework of the relationships amongst study variables

METHODS

Sample size

In this study, quantitative analysis was carried out. Therefore, the survey method evolved in this research project is questionnaire-based. Malaysian SMEs is the target population in this study. This research study explored the three key sectors which are the service, agriculture, and manufacturing sectors by concentrating on new and established firms, conventional, traditional, low-technology industries, and high-technology industries in accordance with literature for a wide diversity of the industry scope in the emerging economies. Furthermore, Azer, Hamzah, Mohamad, and Abdullah (2016) stated that the services, manufacturing, and agriculture industries are significant foundation in the development of a nation. According to Department of Statistics Malaysia (2019), from the perspective of SMEs GDP contribution by kind of economic activity, manufacturing sector (20.1%), service sector (62.4%), and agriculture sector (10.1%) recorded an increase in 2019 except for the construction sector (5.9%) and mining and quarrying sector (5.9%). Based on the Sekaran (1992), the target of sample size for this study comprises 384 respondents. The questionnaires are randomly distributed to respondent. Lastly, the researcher just successfully collected and gathered the totals of 296 questionnaires. This indicated that there are 77.08% of response rate from the respondents.

Measurement

In general, the measures employed in this study were adopted from previous researchers. There are 23 items were attached in questionnaire and the targeted respondents were asked to rate on a six-point Likert scale. The Cronbach's Alpha for ICT support, organizational capability and SMEs performance were 0.703, 0.720 and 0.716 respectively.

Data analysis technique

The main objective of this study is attempt to analysis and identifies the significant relationship between ICT support and organizational capability as the mediator then that influence on SMEs performance. In addition, this research was covered several of the data analysis process which includes descriptive analysis,

Pearson correlation analysis and multiple regression. Lastly, the mediation was tested by hierarchical regression analysis.

RESULTS

Analysis and Findings

Descriptive Analysis

According to previous studies, a mean value that is equal or more than 4 present a high agreement with a particular criterion. The mean value is considered low if located equal or less than 2 while a mean value of 3 was considered as a moderate agreement. For this research study, the mean value generally ranges from moderate to high. This analysis presents that the mean of the dependent variable which is SMEs performance is 4.32. Subsequently, organisational capability as the mediator variable scored 4.09 and followed by ICT support with 3.98. The standard deviation for the dependent variable, SMEs performance is 0.68. Next, the standard deviation for the mediator variable, organisational capability is 0.59. Lastly, the standard deviation for the independent variable, ICT support is 0.78. According to Table 1, SMEs performance as the dependent variable has a negative skew with -0.476. Organisational capability as a mediator demonstrated negative skew at -0.317. ICT support as the independent variable showed negative skews which is -0.993, respectively. The skewness for the independent variable, mediator variable, and dependent variables vary because the value is between +1 and -1. Therefore, this means that the value for skewness is close to normal (normal=0) or symmetrical and the tabulation is not too skewed. Based on Table 1, SMEs performance as the dependent variable showed a positive value in Kurtosis analysis which is 0.312. Then, the organisational capability as the mediator has a negative value of kurtosis which is -0.231. Besides that, ICT support as independent variable indicate positive values with 0.155. Therefore, the kurtosis for the independent variables, mediating variable, and dependent variable is good since the values are between +3 and -3. This means that the value for kurtosis is near to normal (normal=0) and the curve of kurtosis is not too high or not too sloping.

| | N | Mean | | Std. Deviation | Skewness | | Kurtosis | |
|------------------------------|-----|------------|------------|-------------------|-----------|------------|-----------|------------|
| | | Statistic | Std. Error | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| ICT Support | 296 | 3.979 2 | .0453 3 | .77983 | -.993 | .142 | .155 | .282 |
| Organisational Capability | 296 | 4.094 6 | .0341 6 | .58779 | -.317 | .142 | -.231 | .282 |
| SMEs Performance | 296 | 4.324 0 | .0398 0 | .68475 | -.476 | .142 | .312 | .282 |
| Valid N (listwise) | 296 | | | | | | | |

Table 1. Descriptive Statistics

Pearson Correlation Analysis

According to Table 2, the correlation of ICT support as an independent variable is significant at 0.01 levels, two-tailed towards SMEs performance as the dependent variable. Table 4.12 presents that ICT support has a strong positive relationship with SMEs performance with 0.762**. Therefore, this indicates that there is a strong relationship between ICT support and SMEs performance. Thus, Hypothesis 1 is accepted. Besides that, the correlation of organisational capability as the mediating variables is significant at 0.01 levels, two-tailed towards SMEs performance as the dependent variable. The correlation coefficient between organisational capabilities as the mediator and SMEs performance as the dependent variable is positively related with 0.831** at 0.01 levels. Therefore, Table 2 presents that organisational capability has the highest

correlation coefficient and a strong positive relationship with SMEs performance. Thus, Hypothesis 2 is accepted.

| | | ICT Support | Organisational Capability | SMEs Performance |
|---------------------------|---------------------|-------------|---------------------------|------------------|
| ICT Support | Pearson Correlation | 1 | .754** | .762** |
| | Sig. (2-tailed) | | .000 | .000 |
| | N | 296 | 296 | 296 |
| Organisational Capability | Pearson Correlation | .754** | 1 | .831** |
| | Sig. (2-tailed) | .000 | | .000 |
| | N | 296 | 296 | 296 |
| SMEs Performance | Pearson Correlation | .762** | .831** | 1 |
| | Sig. (2-tailed) | .000 | .000 | |
| | N | 296 | 296 | 296 |

Table 2. Pearson Correlations

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Multiple Regression Analysis

Relationship between ICT Support and SMEs Performance

Hypothesis 1 examine the relationship significance between ICT support and SMEs performance. The ICT support dimensions which represent H1 describe that $\beta = 0.141$ and the t value was 3.899 which was more than 1.645 ($t > 1.645$). Then, the significant value was 0.000 which was less than 0.05 ($p < 0.05$). Hence, hypothesis 1 was accepted. Therefore, ICT support is able to influence SMEs performance.

| Model | Unstandardized Coefficients | | Standardised Coefficients | T | Sig. |
|--------------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 0.868 | 0.213 | | 4.078 | 0.000 |
| ICT Support | 0.141 | 0.036 | 0.174 | 3.899 | 0.000 |

Table 3. Summary of Coefficients^a (IV to DV)

a. Dependent Variable: SMEs Performance Mean

Relationship between Organisational Capability and SMEs Performance

Hypothesis 2 was tested in this analysis and demonstrated that the organisational capability dimension obtained $\beta = 0.700$ and then the t value is 25.609 which is more than 1.645 ($t > 1.645$). The significant value is 0.000 which is less than 0.05 ($p < 0.05$). Therefore, Hypothesis 2 is accepted. This indicates that organisational capability is able to influence and affect the business performance.

| Model | Unstandardised Coefficients | | Standardised Coefficients | T | Sig. |
|---------------------------|-----------------------------|------------|---------------------------|--------|-------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1.255 | 0.113 | | 11.100 | 0.000 |
| Organisational Capability | 0.700 | 0.027 | 0.831 | 25.609 | 0.000 |

Table 4. Summary of Coefficients^a (MV to DV)

a. Dependent Variable: Business Performance_Mean

Hierarchical Regression Analysis

There is a significant relationship between ICT support and business performance through the mediating role of organisational capability.

This hypothesis identified the mediating effect of organisational capability on the relationship between ICT support and SMEs performance. Table 5 presents the regression result for three variables which consist of ICT Support, organisational capability, and SMEs performance:

| | Standardised Regression Coefficient (β) |
|---|---|
| ICT Support \rightarrow Organisational Capability (Path a) | 0.306 |
| Organisational Capability \rightarrow Business Performance (Path b) | 0.831 |
| ICT Support \rightarrow SMEs Performance (Path c) | 0.174 |

Table 5. Regression results between ICT support, organisational capability and SMEs performance

The path analysis Table 5 can be visualised as in Figure 2. In this analysis, the researcher examines if ICT support (ICTS) directly or indirectly influences the SMEs performance (SMEP), by influencing organisational capability as a mediating variable (OC):

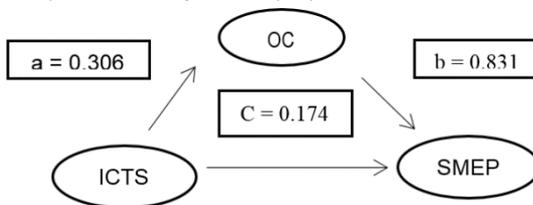


Figure 2. Path Analysis of Mediation Effect Organisational Capability of ICT Support and SMEs Performance

Based on Figure 2, the Beta (β) for path a was 0.306 which was the relationship between ICT support and organisational capability. Then, the Beta (β) value for path b was at 0.831 which was the relationship between organisational capability and SMEs performance. According to Baron and Kenny (1986), path c is one of the paths that is considered as a direct effect. In this analysis, the Beta value of the relationship between ICT support and SMEs performance was ($\beta = 0.174$). The calculation below shows the value of the indirect effect (C') for this relationship:

$$C' = a \cdot b$$

Whereby:

C' is indirect effect or the mediation effect (Baron and Kenny, 1986)

$a = \beta$ value for path a

$b = \beta$ value for path b

$C' = (0.306) (0.831)$

$C' = 0.254286$

According to the calculation, the value of indirect effect (C') was 0.2543, which is more than the direct effect on the value of $c = 0.066$. According to Baron and Kenny (1986), if $C' = 0$ or $C' > c$, it means that it is a full mediation, and if $C' < c$, it means that it is a partial mediation. Therefore, it can be addressed that organisational capability fully mediates the relationship ICT support and SMEs performance. Also, since the value of $C' > c$, is 0.2543 which was more than 0.174, Hypothesis 3 was accepted.

| Hypotheses | Result |
|---|----------|
| H1: There is a significant relationship between ICT Support and SMEs Performance | Accepted |
| H2: There is a significant relationship between Organisational Capability and SMEs Performance | Accepted |
| H3: There is a significant relationship between ICT Support and SMEs Performance through the Full Mediating Role of Organisational Capability | Accepted |

Table 6. Summary of Hypotheses (N=296)

DISCUSSION

This study identified and investigated the ICT support and organisational capability as the mediating variable that could influence performance among SMEs in Malaysia. The findings revealed that ICT support and organisational capability have a positive relationship with SMEs performance. In terms of mediation measurement, the result presented that there is a significant relationship ICT support (full mediation), and SMEs performance which was mediated by organisational capability.

The finding of the study can provide important insights for SMEs, especially in the service sector, manufacturing sector, and agricultural sector. SMEs are currently coupled with varied and challenging environments. It is my opinion that any SME firm, regardless of business nature has to obtained ICT support and organisational capability to ensure competitive advantage, meet clients expectations, and better firm performance. With the advancement of technology, it is now imperative that business owners realise the various benefits of these technologies toward an efficient, effective business operation and performance. Thus, adopting these technologies further spurs innovativeness that positive and significantly contribute towards greater SMEs performance.

Besides that, this study seeks to understand how organisational capability as a mediating factor that can affect ICT support, and performance of SMEs. This study found that the mediating effects of organisational capability very significant in the relationship between ICT support, and SMEs performance in Malaysia. Therefore, efforts focused on improving the quality of organisational structures and entrepreneurial competencies are vital. This is because these competencies and capabilities can be formed and developed. Similarly, the efforts of SME to be innovative and formally structured should be considered as the findings of this study have shown that this structure is also capable in affecting sustainable development and performance of SMEs.

CONCLUSION

This study equally presents additional empirical support for the research framework and contributes to RBV and contingency theory by showing empirical evidence to support the statement of the theory. RBV and contingency theory put forward that organizational performance is influenced by a firm's bundle of intangible and tangible resources and hierarchies of activities which are governed by routines and rules and that technological innovation and creative destruction are the basis of competitive advantage. It is hoped that this study will useful for new business owners, policymakers in government institutions and agencies, private sector, non-governmental organisations, societies, and other institutions.

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