Risk Management of Import Entrepreneurs in the Digital Era during the COVID-19 Crisis

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Abstract -

The COVID-19 epidemic has witnessed a decline in demand and employee health concerns that are causing the shutdown by disruption in the supply chain. Risk management helps organizations to prepare for the unexpected situation and to reduce risks and excess costs before the incident. The objectives of this research were to study the factors of the ability to apply digital technology in working processes related to risk management of importers in the digital age during the COVID-19 crisis. The population used in the research was small- and medium-sized enterprises engaged in export business in Pathum Thani province using a simple random sampling method. A total of 400 samples were obtained. The statistics used in the analysis of data were Independent Samples t–test, One-Way ANOVA, and Pearson's Product Moment Correlation Coefficient.

The results revealed that the ability to apply digital technology in working processes was related with risk management of importers in the digital era during the COVID-19 crisis, for example, the adoption of digital technology in their work processes. Innovative digital technology has been introduced into various work processes such as Cloud Computing, the organization's digital technology development to support the Internet of Things (IoT), the organization's digital technology development for online marketing development in order to use digital to optimize customer experience and the trend of using robotic technology or artificial intelligence to replace human labor.

Keywords: The Ability to Apply Digital Technology in Working Processes, Importers, Medium-Sized Enterprises, Risk Management

Introduction

Every business and organization faced with the risk of unpredictable events caused by the COVID-19 pandemic, which may cause organizations and companies to face business difficulties. Risk management helped organizations try to prepare for the unexpected. Attayaphan conducted a research study on the impact of the effectiveness of manage risks to the performance of SMEs in Bangkok which can be summarized as follows: risk management efficiency, risk identification, risk assessment, and monitoring and reporting have a relationship and positive impact on overall performance and customers [1]. Results of operations, internal processes performance learning and development can be concluded that companies or organizations should assess the situation in the future in order to manage risks that may occur inside and outside the organization which will have an impact that may occur on the operating results. This would enable the business to be able to compete in the market and be able to operate stably.

Risk management is the process of identifying, assessing, and controlling risks that may affect an entity's revenues and funds. These risks can come from many sources including financial instability because risk has become a company's top priority [2]. In order to reduce risks and excess costs before the incident, the agency must have a risk management plan. This includes identifying and controlling risk to assets and proprietary company

information and personally identifiable information of customers and intellectual property.

The situation of the outbreak of the COVID-19 virus is considered a natural disaster that cannot be predicted in advance. As a result, importers have to face with problems that arise above. This research aimed to study the relationship between the ability to apply digital technology to work processes and risk management of importers in the digital age during the COVID-19 crisis which can be used as a guideline for appropriate preventive operations of risk.

Research Objectives

1. To study the effect of demographic factors and risk management of importers in the digital age during the COVID-19 crisis.

2. To explore the relationship between the ability to use digital technology in working processes and risk management of importers in the digital age during the COVID-19 crisis.

Research Hypothesis

1. There is a significant difference among demographic factors mean and risk management of importers in the digital age during the COVID-19 crisis.

2. There is a relationship between ability to apply digital technology to work processes that affect the risk management of importers in the digital age during the COVID-19 crisis.

I. LITERATURE REVIEW

Jitwirat studied the factors of success in the transformation of digital organization Thailand 4.0 in the 21st century, which used the concept of ability to apply digital technology into the workflow by studying the parameters of the ability to apply digital technology in the workflow [3]. It can be concluded that all 14 variables have the highest component weight equal to 0.96, consisting of the following variables:

1. Immediately implement digital technology into the work process.

2. Innovative digital technology has been applied in various work processes.

3. Invest in cutting-edge technology.

4. Use digital technology to reduce costs.

5. Use digital technology to create innovations in products and services, new business innovations or process innovation

6. Digital technology is integrated into the process of organizations and businesses.

7. Change the traditional internal operations of the organization to a fully digital operation by introducing information technology systems to support business operations.

8. Determine the workload details of each job to be related to working skills with various digital technologies.

9. Technology and digital signals are used to link activities and cooperation to create changes to a faster workflow.

10. Communication technology is used throughout the organization to communicate and coordinate a variety of internal and external tasks more quickly.

11. Develop digital technology of organization for the Internet of Things (IoT).

12. Develop the organization's digital technology to develop online marketing.

13. Use digital systems to optimize the value of the customer experience; and

14. The trend of using robotic technology or artificial intelligence to replace human labor.

Anantapong has classified the types of risks into 2 groups [4]:

1. Risks from internal factors are divided into 3 types as follows:

1.1 Financial risk refers to the lack of liquidity of funds due to insufficient operating budget and other financial conditions or impropriety.

1.2 Operational risk from operating system administration including human resource management systems, such as subcontracting the establishment of discrete operating systems.

1.3 Policy/Strategic Risk (Policy/Strategic Risk) in the policy or risk management strategy, such as the management policy of various departments.

2. Risks from external factors are divided into 4 types as follows:

2.1 Competitive risk: The risks of technological advancement must therefore be developed to compete with technology.

2.2 Risk from the seller or service provider (supplier risk.

2. 3 Regulatory risks such as changes in laws and regulations or various matters specified by the Cabinet

2.4 Risks from economic or political conditions (Economic/Policy Risk).

According to the study by Innoppakhun and Yenyuek, it was found that strategic risks, financial risk, operational risk, legal and regulatory risks, and policy risks affected strategies and operations in the company [5] . Risk management was a process carried out by the executive committee which affected the success of risk management in various organizations. Also, the risk management process of every person in an organization helped formulate strategies and operations designed to objectively identify potential events or anticipate potential uncertainties. It was set as guidelines for minimizing potential damage in order to gain reasonable assurance to achieve the goals set by the organization. There was good corporate governance in working with transparency. This would benefit the surgery in order to make the organization as efficient and effective as possible.

II. METHODOLOGY

Population and Sample

The population used in the research was small- and medium-sized enterprises engaged in import business in Pathum Thani Province. There were a total of 4,227 SMEs [6].

Sampling Procedure

A simple random sampling method was used by using a list of entrepreneurs from the Office of Small and Medium Enterprises Promotion and randomly drawn using a random number table. The population was equally likely to be selected as a sample, which was 400 samples.

District	Number (SMEs)
Mueang Pathum Thani	58
Lam Luk Ka	57
Khlong Luang	57
Sam Khok	57
Nong Suea	57
Lat Lum Kaeo	57
Total	400

III. RESULTS

Hypothesis 1. 1 There is a significant difference among sex factors means affecting risk management of importers in the digital age during the COVID-19 crisis. The hypothesis was written as follows:

H_0: Different sex factors affect no difference in risk management of importers in the digital age during the COVID-19 crisis.

H_1: Sex differs significantly from the overall mean of the risk management of importers in the digital age during the COVID-19 crisis.

TABLE 1 AN ANALYSIS OF THE RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND RISK MANAGEMENT OF DIGITAL IMPORTERS DURING THE COVID-19 CRISIS IN TERMS OF SEX.

SEX	N	$\bar{x}$	S.D.	t	Sig.
Male	245	3.8987	.39580	168.522	.000*
Female	155	3.5115	1.02647		

*Statistically significant at .05 level

Table 1 showed the analysis of the relationship between demographic factors and risk management of importers in the digital era during the COVID-19 crisis. It was found that the Sig. = .000 indicating that the demographic factors, different sex affect risk management of importers in the digital age during the COVID-19 crisis at the statistical significance level of .05.

Hypothesis 1. 2 There is a significant difference among position factors means affecting risk management of importers in the digital age during the COVID-19 crisis. The hypothesis was written as follows:

H_0: Different position factors affect no difference in risk management of importers in the digital age during the COVID-19 crisis.

H_1: Position differs significantly from the overall mean of the risk management of importers in the digital age during the COVID-19 crisis.

TABLE 2 AN ANALYSIS OF THE RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND RISK MANAGEMENT OF DIGITAL IMPORTERS DURING THE COVID-19 CRISIS IN TERMS OF POSITION.

Position	N	$\bar{x}$	S.D.	t	Sig.
Business owner	213	3.8987	.48506	59.807	.000*
Manager	90	4.0403	.58175		
Supervisor	37	3.7203	.43600		
consultant	60	2.7958	1.01617		

*Statistically significant at .05 level

Table 2 showed the analysis of the relationship between demographic factors and risk management of importers in the digital age during the COVID - 19 crisis. It was found that the Sig. = .000 indicating that the demographic factors, different position affect risk management of importers in the digital age during the COVID-19 crisis at the statistical significance level of .05.

Hypothesis 1. 3 There is a significant difference among type of business factors means affecting risk management of importers in the digital age during the COVID- 19 crisis The hypothesis is written as follows:

H_0: Different type of business factors affect no difference in risk management of importers in the digital age during the COVID-19 crisis.

H_1: Type of business differs significantly from the overall mean of the risk management of importers in the digital age during the COVID-19 crisis.

TABLE 3 AN ANALYSIS OF THE RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND RISK MANAGEMENT OF DIGITAL IMPORTERS DURING THE COVID-19 CRISIS IN TERMS OF TYPE OF BUSINESS.

Type of Business	N	$\bar{x}$	S.D.	t	Sig.
Owner	124	3.3296	1.01415	68.549	.000*
Company	276	3.9369	.45394		

*Statistically significant at .05 level

Table 3 showed the analysis of the relationship between demographic factors and risk management of importers in the digital age during the COVID-19 crisis. It was found that the Sig. = .000 indicating that the demographic factors in terms of different type of business affect risk management of importers in the digital age during the COVID- 19 crisis at the statistical significance level of .05.

The second hypothesis testing analysis was based on the correlation coefficient test method to find the relationship between two variables whose second measure was measured between the ability to implement digital technology in the workflow and management. Risks of entrepreneurs importing goods in the digital age during the COVID-19 crisis. The details were as follows.

Hypothesis 2: There is a relationship between the ability to integrate digital technology into work processes and risk management of importers in the digital age during the COVID-19 crisis.

H_0: There is no relationship between the ability to integrate digital technology into work processes and risk management of importers in the digital age during the COVID-19 crisis.

H_1: There is a relationship between the ability to integrate digital technology into work processes and risk management of importers in the digital age during the COVID-19 crisis.

TABLE 4 THE RESULTS OF THE CORRELATION COEFFICIENT TEST ANALYSIS. FINDING THE RELATIONSHIP BETWEEN THE ABILITY TO INTEGRATE DIGITAL TECHNOLOGY INTO WORK PROCESSES AND RISK MANAGEMENT OF IMPORTERS IN THE DIGITAL AGE DURING THE COVID-19 CRISIS

Correlation Coefficient		The ability to incorporate digital technology into work processes.	Risk management of importers in the digital age during the COVID-19 crisis
The ability to incorporate digital technology into work processes	Pearson Correlation	1	.364
	Sig. (2-tailed)		.000**
	N	400	400
Risk management of importers in the digital age during the COVID-19 crisis	Pearson Correlation	.364	1
	Sig. (-2tailed)	.**000	
	N	400	400

**Statistically significant at the .01 level ($p < .01$).

Table 4 showed the results of the correlation coefficient test analysis. The relationship between the ability to use digital technology in the work process is related to the risk management of importers in the digital age during the COVID-19 crisis. It had a correlation coefficient (r) of 0.364, which was statistically correlated at a significance level of 0.01 (Sig. = .000).

IV. CONCLUSION

Summary and Discussion

The ability to apply digital technology in work processes is related to risk management of importers in the digital age during the COVID-19 crisis. The relationship with the risk management of importers in the digital age during the COVID-19 crisis showed that the variables of the ability to use digital technology in their work processes and the risk management variables of the importers in the digital age were related. The results revealed that digital in the time of the COVID-19 crisis has a statistical relationship with a significance level of 0.01, which was in line with the research of Jitwirat [3] who has conducted a research study on the adaptation model of business organizations affected by the destruction of digital technology in the century. In addition, the results of this research showed positive for innovation which was in line with the government's policy to transform Thailand into a digital economy, driving the economy with technology and innovation to step into the digital economy. The digital economy is not about using information technology to improve businesses, but it is about using digital technology to create innovative products and services including innovations in new business models and process innovation to drive the digital economy to be an innovative competitive economy. This is consistent with the research of Malisuwan who explained about using robots instead of human labor recently [7]. The results of the research showed that the adaptation to digital organization has a direct positive influence on the use of technology to replace human labor [8]. The introduction of various technologies used to achieve automated processes by components such as machine technology and robot technology, including artificial intelligence (AI), etc., which was in line with the data from the International Federation of Robotics (IFR), which analyzed that the wave of digital transformation in the 21st century is driving all industries and be ready to let the world use robots in abundance [9]. Therefore, the research result expected that the future trend started from 2018 will be the year when the number of robots is being used by leaps and bounds like never before.

SUGGESTION

SMEs should find technology that can systematize operational processes, such as artificial intelligence technology which could be used to replace the daily labor that is slowed down to enable organizations to reduce long-term costs. Furthermore, SMEs should prioritize the ability to bring digital technology into the operational process.

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