HOW DO EXTERNAL ENVIRONMENT AND INNOVATION MANAGEMENT AFFECT BUSINESS SURVIVAL?

Luedech Girdwichai
Suan Sunandha Rajabhat University
luedech.gi@ssru.ac.th

ABSTRACT

Business survival is crucial in today's landscape, given the rapidly changing business environment, whether in marketing style, business strategies, or technology. The objective of this study is to determine whether components of external environment and innovation management affect business survival – their ability to maintain their profitability and competitiveness – especially in the context where mobile resources are used and, for innovating organizations, where innovation is an important force that drives the business competitiveness. This study quantitatively examined factors affecting business survivability. It used questionnaires to collect data, surveying 200 business operators. Descriptive statistics and structural equation modeling were used to analyze the collected data. Results showed that factors constituting external environment, such as social conditions and changes in government policies, affected an organization's growth and survivability; and that factors constituting innovation could augment business development and competitiveness by differentiating an organization's business. Hence, for a business to survive, it should encourage its operators to be open to new ideas related to their expertise, adapt to suit changing market environment, and strife for a higher level of business competitiveness.

Keywords: External environment, Innovation management, Business survival, Structural Equation Model

Introduction

In a business world of rapid growth and constant change, whether in external environment or in intra-organization factors, executives must adapt to the changes in order for their organizations to survive. Without the ability to address the changes, the organizations may face operational problems. Therefore, organizations must adapt and increase their operational effectiveness and strengthen themselves to ensure their survival (Sadiq & Bala 2018). Innovations are one of the ways to gain competition advantages, and, at the same time, are strategies that lead to long-term success. Therefore, executives must understand and value innovations and create management systems that appropriately adapts to innovative changes. Not only would this yield them competitive advantages, but also ensure their organizations' survival (Zehir et al., 2015). In industries with a high degree of competition, businesses must therefore find ways to adapt to changing environment, changing their operational plans and procedures, as well as increasing target customers. Policies that address risks to increase the effectiveness of innovation management will increase business capability and lead to sustainability. Therefore, business should seek opportunities or ways to ensure their survival in the changing environment. In designing policies and operational plans of every level in an organization, executives should aim to fulfil their organizations' goals, ensure sustained growth, ensure their survival. An organization's survival implies its stability and reliability, demonstrating that it could grow in the face of a rapidly changing global economy. Therefore, organizational survival is an important objective of every organization that leads to its performance effectiveness, long-term success, and sustainability (Romanelli, 1989). A survivable organization must have certain attributes, including short- and long-term

profitability, a high degree of competitiveness, and marketing and management strategies that increase its competitiveness over its competitors in the market.

Objective
This report studies direct, indirect, and combined effects of different factors on organizational survival.

Literature Review
    Survival organization
    Romanelli (1989) suggested that structural factors and the interactions between them and the environment, namely business landscapes, strategies, technology, and the size of an organization, were very influential to the organization's survival. Sunday et al. (2014) studied the effects of leadership and strategies on organizational survival, and found that the latter was brought about by management of strategies and their implementations; that leadership affected an organization's survival through these implementations; and that high-level leaders of an organization could affect the latter's survival through their management skills. Furthermore, Alfrian & Riani (2018) studied effects of environment on change management of electric rail service providers in Jakarta, Indonesia. They found that intra-organizational environment and culture affected the workers' goals, motivations, engagement, team communication, cooperation, conflict management, approaches of change management, and their responds to management.
    External environment
    External environmental factors have an important role in whether an organization succeeds or fails. Managers should maintain harmony between their organizations and external environment. All organizations have internal and external environment. One of the important indicators on the quality of an organizations' responses to changes in its environments is its effectiveness. Constituents to an organization's effectiveness include the ability to procure appropriate resources and fulfill its goals, given the complexity associated with its operations and environment. Sadiq & Bala (2018) defined environment as everything outside an organization, both living and non-living, physical and non-physical, that could affect its operators. The environment constitutes a big picture, where the organization can be considered as one of its components. An organization cannot exist by itself, without interactions with its environment. External general environment consists of external sources of influence, such as government policies, economies, and societies. Bieliaieva et al. (2020) suggested five constituents of environment, namely, economy, technology, culture, politics, and legislation. Moradi et al. (2021) suggested that factors contributing to failures of Columbian businesses included financial and organizational problems, external environment, and markets, in line with Bordonaba-Juste (2011), who studied survival of franchises. The latter found that environmental factors, such as societies and changes in governments' policies affects the growth and survival of the organizations.
    Innovation management
    Innovating is one of many ways to gain a competitive advantage and long-term business success. The ability to innovate comes from introductions of new products into the market, combined with the focus on strategies, as well as behavioural and procedural innovations. Studies on innovation, such as Cheng and Krumwiede (2012), have focused on roles of innovation in the service sector on performance of new services, and found that innovations in service industries encompassed more than new services; it also encompassed provision of convenience and utilities to customers, and creation of new values in the market. Zehir et al., (2015) studied aspects of innovation that affected effectiveness of exports, and found that

small and medium-sized enterprises (SMEs) could gain competitive advantage by innovating technology that produces new goods.

Method

200 samples were selected from a population using simple random sampling. The sample size was appropriate (Schumacker & Lomax, 2012; Hair et al., 2010). We used questionnaires, consisted of 5-level rating scales (Likert, 1972), to collect quantitative information. Criteria to assess satisfaction levels were established (Best, 1998). We then assessed the scale using Cronbach's alpha coefficient, and achieved a coefficient value of 0.947. Therefore, the questionnaires were relevant (Cronbach, 1990).

Descriptive statistics were used to analyze the data, using a software. Standard regression weights must be statistically significant ($| t | \geq 1.96$), or have a critical ratio (CR) and R^2 value of at least 0.2 (Lauro & Vinzi, 2004). Structural equation modelling using the maxmum likelihood (ML) parameter and goodness of fit measures were made according to standard criteria (Hair et al., 2010).

Structural equation modelling results

This study examined relationship between external environment, innovation management, and organization survival and examined the standard regression weights, which were statistically significant ($| t | \geq 1.96$), or have a critical ratio (CR) and R^2 value of at least 0.2 (Lauro & Vinzi, 2004). The results are shown in Figure 1 and Table 1. Assessment of the goodness of fit of the model and empirical data showed that the model fitted with the empirical data, having a chi-square (χ^2) value of 26.758, df = 21, CMIN/DF (χ^2/df)= 1.274, p=.179, GFI=.983, CFI=.998, AGFI=.964, NFI=.990, RMSEA= .028. The goodness of fit measures are shown in Table 2. The results were in accordance with the specified criteria (Hair et al. 2010; Lomax & Schumacker, 2012; Kline, 2015).
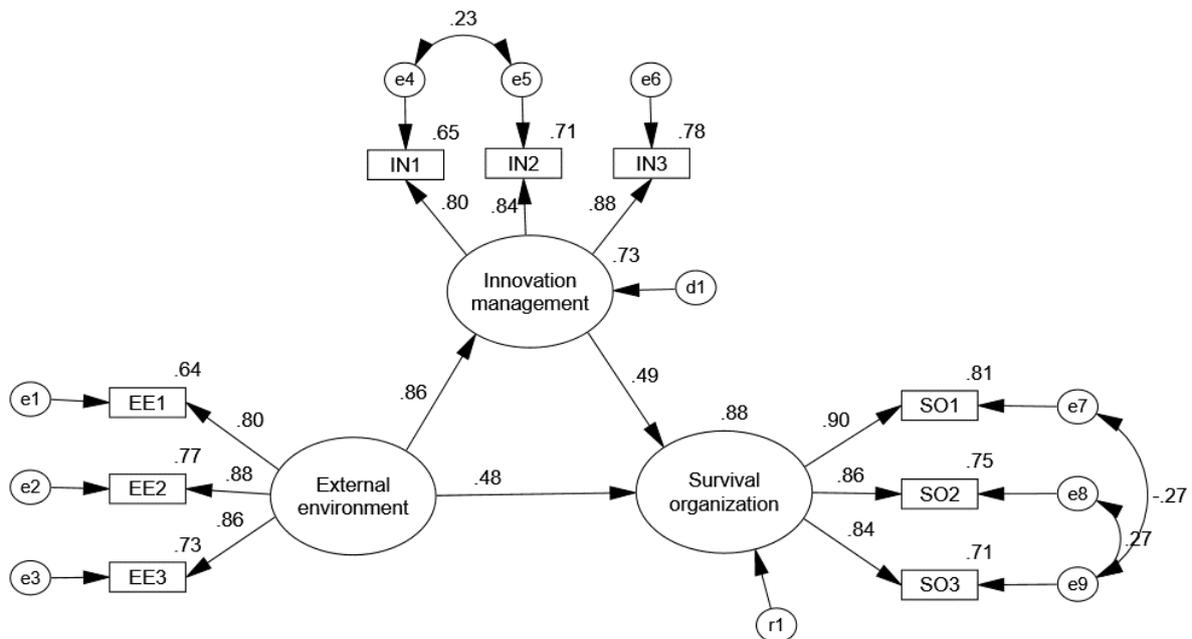
Chi-square (χ^2) = 26.758, df = 21, CMIN/DF (χ^2/df)= 1.274, p=.179, GFI=.983, CFI=.998, AGFI=.964, NFI=.990, RMSEA= .028
Figure 1 Final Model

Table 1 ANALYSIS RESULTS OF STRUCTURAL EQUATION MODEL

RELATIONSHIPS AMONG VARIABLES			Estimate	S.E.	R^2	C.R.	P
Innovation management	<---	External environment	.855	.056	.731	16.940	***
Survival organization	<---	External environment	.484	.085	.882	6.115	***
Survival organization	<---	Innovation management	.492	.078		6.183	***
SO1	<---	Survival organization	.902		.813		
SO2	<---	Survival organization	.864	.043	.746	22.444	***
SO3	<---	Survival organization	.842	.053	.709	18.873	***
EE1	<---	External environment	.797	.048	.636	18.530	***
EE2	<---	External environment	.875		.776		
EE3	<---	External environment	.855	.048	.732	20.876	***
IN1	<---	Innovation management	.805	.051	.648	18.459	***
IN2	<---	Innovation management	.842	.047	.708	19.989	***
IN3	<---	Innovation management	.883		.780		

Remark: The level of statistical significance *** p < .001

Table 2 DETERMINATION OF SAMPLE SIZE PROPORTIONS

Fit index	Symbols	Criteria	result	Fit index
Chi-square	χ^2	Ns. (p > .05)	26.758(p=179)	Pass
Relative Chi-square	χ^2/df	$\chi^2/df < 3.00$	1.274	Pass
Goodness of Fit Index	GFI	>.90	.983	Pass
Comparative Fit Index	CFI	>.95	.998	Pass
Normal Fit Index	NFI	>.90	.990	Pass
Adjusted Goodness of Fit Index	AGFI	>.90	.964	Pass
Root Mean Square Error of Approximation	RMSEA	<.08	.028	Pass

ที่มา: Joreskog & sorbom (1989); Hair et al. (2010); Lomax & Schumacker, 2012; Kline (2015)

Hypothesis Testing

T-tests were used to test a series of hypotheses. The critical p-value was set at 0.05. The relationships between different predictive or independent and dependent variable pairs were determined using the ML parameter. Results showed regression coefficients of every path model specified according to the hypotheses. Statistical significance from t-tests were found for every hypotheses (Table 3).

Table 3 HYPOTHESIS TESTING

Hypothesis	coef.	t-test	TE	DE	IE	Test Results
H1: Innovation management<--- External environment	.855	16.940	.855	.855	000	Supported
H2: Survival organization<- - - External environment	.484	6.115	.904	.484	.420	Supported
H3: Survival organization<- - - Innovation management	.492	6.183	.492	.492	000	Supported

Hypothesis 1: External environment affected innovation management. Statistical significance was found (p < 0.001) and the hypothesis was accepted. The regression coefficient was 0.855.

Hypothesis 2: External environment affected organizations' survival. Statistical significance was found (p < 0.001) and the hypothesis was accepted. The regression coefficient was 0.484.

Hypothesis 3: Innovation management affected organizations' survival. Statistical significance was found (p < 0.001) and the hypothesis was accepted. The regression coefficient was 0.492.

Discussion and Conclusion

External environmental factors, such as societal conditions and changes in government's policies, affected an organization's growth and survival; management of innovations could develop an organization and create competitive advantage on the basis of business differentiation. This was in accordance with Bordonaba-Juste's (2011) study on survival of franchises, which found that factors in external environment, such as societal conditions and changes in government's policies, affected organizations growth and survival. Therefore, in order for an organization to survive, it should prepare its workers with new ideas, so they could adapt to changes in the market and push for a competitive advantage. Alfrian & Riani (2018) studied effects of environment on change management and found that intra-organizational societies and cultures affected workers' motivation, commitment, communication, cooperation, conflict management, creation of changes, as well as adaptation to new management.

Recommendations

Businesses should be ready to support and appreciate external environment, allowing its workers can be creative and innovative, because the ability to innovate is key to organizations' survival in an unpredictable environment. Moreover, future studies should analyze other factors, such as corporate innovation, pressure, and competitive advantage, as well as compare data on and characteristics of different types of businesses, to determine whether or not their opinions on organizations' survival differ.

References

Alfrian, F. D., & Riani, R. (2018). The effect of task environment toward the commitment to change: Transformational leadership as a mediator. Russian Journal of Agricultural and Socio-Economic Sciences, 79(7), 85-97.

Bieliaieva, N., Krushelnytskyi, M., Voliak, L., Usata, N., & Sova, O. (2020). From survival to business prosperity: The financial aspect of managing an organization in a crisis. Independent Journal of Management & Production, 11(9), 2275-2290.

Bordonaba-Juste, V., Lucia-Palacios, L., & Polo-Redondo, Y. (2011). An analysis of franchisor failure risk: Evidence from Spain. Journal of Business & Industrial Marketing.

Best, J. W., & Kahn, J. V. (1998). Research in education. 8th ed. Boston: Allyn and Bacon.

Cheng, C. C., & Krumwiede, D. (2012). The role of service innovation in the market orientation—new service performance linkage. Technovation, 32(7-8), 487-497.

Cronbach, L. J. (1990). Essentials of psychological testing. 5th ed. New York: Harper Collins.

Sriviboon, C. (2022). Relationship between Human Capital Management and Organizational Commitment of Academic Employee. The 2022 International Academic Multidisciplines Research Conference in Geneva, 3-6 October 2022, 7-12.

Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). "The American customer satisfaction index: nature, purpose, and findings." Journal of marketing. 60(4), 7-18.

Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). New Jersey, USA: Prentice Hall.

Joreskog, K.G., & Sorbom D. (1989). LISREL 7: A Guide to the Program and Applications. Chicago: SPSS, Inc.

Kline, R. B. (2015). Principles and practice of structural equation modeling. Guilford publications. Fourth Ed. Guilford Publications, Inc. New York London.

Lauro, C., & Vinzi, V. E. (2004). Some contributions to PLS Path Modeling and a system for the European Customer Satisfaction. Dipartimento di Matematica e Statistica, Universita Federico II di Napoli, 201-210.

Likert, R. E. N. S. I. S. (1972). "Likert technique for attitude measurement." Social Psychology: Experimentation, Theory, Research, Sahakian, WS (Ed.). Intext Educational Publishers, Scranton, USA., ISBN-13: 9780700223879, 101-119.

Lomax, R. G., & Schumacker, R. E. (2012). A beginner's guide to structural equation modeling. New York, NY: Routledge Academic.

Lauro, C., & Vinzi, V. E. (2004). Some contributions to PLS Path Modeling and a system for the European Customer Satisfaction. Dipartimento di Matematica e Statistica, Universita Federico II di Napoli, 201-210.

Likert, R. E. N. S. I. S. (1972). "Likert technique for attitude measurement." Social Psychology: Experimentation, Theory, Research, Sahakian, WS (Ed.). Intext Educational Publishers, Scranton, USA., ISBN-13: 9780700223879, 101-119.

Lomax, R. G., & Schumacker, R. E. (2012). A beginner's guide to structural equation modeling. New York, NY: Routledge Academic.

Romanelli, E. (1989). Environments and strategies of organization start-up: Effects on early survival. Administrative science quarterly, 369-387.

Sadiq, S. A., & Bala, A. D. (2018). External Environment And Business Survival in Nigeria. GOUNI Journal of Management and Social Sciences, 4(1), 47-57.

Zehir, C., Köle, M., & Yıldız, H. (2015). The mediating role of innovation capability on market orientation and export performance: An implementation on SMEs in Turkey. Procedia-Social and Behavioral Sciences, 207, 700-708.