

Strategic Agility Determinants: Achieving Organisational Goals in the E-Commerce Business, Thailand

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ABSTRACT

The key study question is how strategic agility determinants do influence organisational goals. And the objective of this study is to investigate the relationship of strategic agility determinants (operational agility, customer alertness agility, competitor awareness agility, and strategic business relationship agility) and goal achievement. This study employs dynamic capability and contingency theories to draw the conceptual model. The data from 401 e-Commerce businesses are analysed by regression analysis to assess the variable validity, reliability and test the posited hypotheses. The results found that all determinants of organisational strategic agility including operational agility, customer alertness agility, competitor awareness agility and strategic business relationship agility positively influence goal achievement. The study suggests organisations should practice organisational strategic agility to encourage the achievement of goals and objectives by combining all detected data to better understand the unpredictable in customers' needs or preferences and environmental turbulences. Future research can examine the analysis model in different cultural target or country contexts to validate the results of a broader business types.

Keywords: Organisational strategic agility, Goal achievement, e-Commerce Business

INTRODUCTION

Rising of innovative technology makes a massive challenge to organizations of changing the traditional business models, strategic capabilities to assist organisations respond to unanticipated environmental opportunities and obstacles (Verhoef et al., 2021). Moreover, the internet and the powerful digital technology transform and blend people's lifestyles into the virtual world that become the digital society (Nambisan, Wright & Feldman, 2019). The massive expanding growth number of the digital society on the internet and the development of innovative technology influences business organisations to integrate digital technology is an element in which business digitization and electronic commerce (e-Commerce) (Izadi, Dong & Esfidani, 2021). This is called emerging digital economy of the business world, and the potential of e-Commerce has encouraged several businesses and improved the economy of the countries (Wingreen et al., 2019).

It is not only the essential role of new innovative technology, the recent a corona virus disease 2019 (COVID-19) pandemic also has clearly shown how e-Commerce initiatives are critical for several organisations, regions, and worldwide (Lin et al., 2020). A corona virus basis minor illness and certain types of viruses can infect the lower airway, and beginning terrible illnesses such as, bronchitis, pneumonia and human infected with this virus can contagions are serious (Bhatti, Akram & Khan, 2020). As a result of Covid-19 impact, huge demands of customers turn to e-Commerce, organisations

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need to develop their capabilities which facilitate between organisations and customers (Lin et al., 2020; Tran, 2021).

Thailand, where an e-Commerce is a business rising star nowadays; this proved by the 2020 report from the Department of Business Development about 24,797 million incomes and the number of e-Commerce organisations in every business sector approximately increase to 13,000 business organisations (Department of Business Development, 2021). The number of that internet users in 2020 is almost close to 70 percent of Thais or 47.5 million internet users in Thailand; this makes e-Commerce in Thailand involved new business competitors to get into the e-Market places and cause to speed up in advance level by providing more rapidly activities to attract potential customers with immersive shopping experiences beyond competitors (Electronic Transactions Development Agency, 2021). Businesses utilized those opportunities to become more popular across the world because convenience technology brings more opportunities to e-Commerce businesses to connect with enormous online customers around the world (Irfan, Wang & Akhtar, 2019). On the other hand, opportunities provide the potential doors for competitors across the world may get involved in the e-Commerce battles simply. The booming of digital transformation and the strong use of new technologies force organisations to develop strategies and management practices that cause practitioners and scholars to recommend businesses provide organisational strategic agility for managing those disruptive factors for organizations (Felipe et al., 2019). The agility concept first emerged in the early 1990s as a management topic in the manufacturing industry, which is mainly referring to manufacturer that is able to act rapidly to customer need and market forces (Yusuf, Sarhadi & Gunasekaran, 1999). Various different aspects of agility have attracted practitioners and academics in many disciplines such as management, marketing, and human capital management (Doz, 2020). The organisational agility is a wide range of capabilities via speedy allocating resources from inside and outside organisations to successfully administer unpredictable factors, is which flip changes as opportunities to grow and succeed in organisational goal achievement (Baškarada & Koronios, 2018). Moreover, goal achievement is the right agility matrices to agile attributes, agile capability, agile enablers and improvement paths that are the line with organizational strategic agility (Nejatian et al., 2018).

An e-Commerce is disrupted by innovative technology which brings a great challenge for businesses to deal with environmental instability such as the uncertainty of hyper-competition, customers' demand and unpredictable business environment (Ahammad, Glaister & Gomes, 2020; Wingreen et al., 2019). Cloud computing is the most novel innovative cloud in the information technology (IT) that it is a technology-enabling platform where software and hardware services are delivered on-demand to customers across networks in self-service modes, freedom of location, and customers' device (Ali, Warren & Mathiassen, 2017). The cloud computing supports organizations overcome their limitation of IT capabilities in hardware and software framework inflexibility or integration that is characterized in traditional IT architecture. Thus, cloud computing capabilities support organizational strategic agility by increasing capabilities (Palasak, Boonlua & Jirawuttinunt, 2021).

Further, a recent research trend speculates the need to go more through supporting role of organisational and contextual factors that can affect organisational strategic agility from a cultural perspective (Felipe, Roldán & Leal-Rodríguez, 2016). The organisational culture can strengthen its organisational strategic agility with regard to the uncertain environment and previous research found that organisations, where are providing a strong agile culture, are expected to have excellent agile capabilities to make modifications in accordance with the needs of the environmental turbulence and using advanced technology (Arokodare, Asikhia & Makinde, 2019).

One of the most commonly ignored variables that may affect organisational agility is organisational culture (Felipe et al., 2016; Gagel, 2017) because major researchers attribute characteristics of agility such as flexibility, quickness, competency, and responsiveness (Baškarada & Koronios, 2018; Tallon et al., 2019). Therefore, this study employs the view of contingency theory to understand agility of organisations and their structure in environmental turbulences conditions. The dynamic capability theory is to enhance organisational strategic agility which implies that the dynamic capability of the organisation to rapidly or inherently allocates resources in environmental turbulence conditions and achieve the organisational goals.

Objectives of the Study

The key study question is how strategic agility determinants do influence organisational goals. Thus, the objective of this study is to investigate the relationship of strategic agility determinants and organizational goals. The specific objective are as follows:

1. to examine the relationship among four determinants of strategic agility which are operational agility, customer alertness agility, competitor awareness agility and strategic business relationship agility and organisational goals,
2. to evaluate the strategic agility determinants and organizational goals.

LITERATURE REVIEW

Theoretical

Foundations

According to previous research on agility literature, this study employs the perspective of dynamic capability and contingency theories to identify the nature and relationships among the determinants of strategic agility and goal achievement. These theories have synergy to explain and examine all variables and the relationships which related to purpose in this study.

Dynamic

Capability

Theory

Dynamic capabilities' concepts are introduced by Teece, Pisano & Shuen in 1997. The concept extended the view of resource-based theory by organizations dynamic capability which defined as abilities of organization to generate, integrate, and construct internal and external competencies and resources to manage a quick dynamic changing environment. The organisations provide dynamic capabilities can reach sustainable competitive advantage that lead to ultimate performance as such a goal achievement of organisation more than other organisations in dynamic business environment (Teece, 2019).

Hence, organisations are suggested that they should qualify to dynamic environment and changes through an appropriation in integrating, creating, reconfigure, and modification in business actions, tangible and intangible resources (Teece, 2018). Later, Wang & Ahmed (2007) clarify dynamic capability concept as a constant behavioral orientation of organisation to reconfigure, integrating, and constructed organisation's capabilities and resources for responding to market dynamism that boost capability development to approach marketing and financial performances. Therefore, many organisations can develop dynamic capabilities in dynamic environment, and some researchers argue that whatever less dynamic business conditions or not, organisation still integrate, construct, and reconfigure its capabilities (Teece, 2018). There is consensus that dynamic capabilities have a significant role in competitive advantage (Argote & Ren, 2012).

Through various organisational categories, strategic literature demonstrates various dimensions and micro-foundation of its dynamic capability which it reflects a different strategic perspective (Teece, 2019). Teece (2007) proved three common dimensions which are (1) sensing capability, which occur from organizational processes and individuals' capacities are used to shape sensing capability for finding opportunities; (2) seizing capability reflect selecting and decision-making protocols for models of businesses or product architectures, organizational boundaries, and creating or encouraging of employees loyalty; (3) reconfiguration capability is organizational ability to recombine and reconfiguring of resources, structures to maintain growth or fight with changes and environmental dynamism.

The exponential environmental dynamism context needs dynamic capabilities that are complicated, experiential, uneven processes which depend on speedily build new insights to combine, transform, or renew of organizational resources and competencies into capabilities, thus necessary for market dynamism and changes. Baškarada & Koronios (2018) and Teece et al. (2016) found that agility encapsulates dimensions of dynamic capability including sensing, seizing (responsiveness) and reconfiguration by operating through suitably aligning resources, day-to-day activities, and production to positively respond market demands and winsome renewal of necessary processes and organizational activities. This implies that dynamic capability theory is a suitable perspective to draw agile framework.

Thus, this study develops the conceptual framework on the dynamic capabilities perspective which indicate strategic agility determinants of organisational is the key dynamic capability to successfully manage environmental uncertainty (Mandal, 2019; Tallon et al., 2019) and lead to achieve organisational objectives of overall goals with organisational strategic agility determinants through operational agility, customer alertness agility, competitor awareness agility and strategic business relationship for positively influencing organisational strategic dynamic agility. This study employs dynamic capabilities perspective to describe the relationship between organisational strategic agility determinants and organisational goal achievement.

Contingency Theory

Contingency theory is another significant role to manage literature. This is because researchers are responded to criticisms that the traditional theories advocated one finest way of managing and organising (Tosi & Slocum, 1984). The contingency approach was emerged by researchers who found the structure and functions of organizations rely on its interface with the external environment (Dill, 1958; Lawrence & Lorsch, 1967). The research of Dill (1958) indicated that executives operating associated with turbulent environments had more autonomy than those operating associated with constant environments and the research of Lawrence & Lorsch (1967) found that the formality the organisational structure effectiveness was associated with the degree of stability and certainty of the technological environment and market.

The contingency approaches is the proposition that performance is a consequence of the fit between several dimensions which are strategies, structures, culture, technology, and people (Tosi & Slocum, 1984). The conceptual root of the contingency perspective is that effectiveness at understanding proposed strategies significantly on a match among strategy, organisation, environment, and assumptions of contingency theory. First, it suggests that there is no best approach to operate organizations, but the optimal route of operation is contingent upon the internal and external situation which organizations face. Second, any way of organizing is not equally effective (McAdam, Miller & McSorley, 2019).

Contingency theory shows that organisations need to adapt structures depending on background, conditions, value of different physical and non-physical assents is partly determined by exogenous contextual (or contingency) variables, generally beyond the control of organisations (McAdam et al., 2019). Contingency theory has certainty in suitable characteristics of organisations would make successful results to organisations that reflect the current situation in various conditions require different approaches to conduct and work out the acquiring problems concerned (Darvishmotevali, Altinay & Köseoglu, 2020). The contingency theory explains the suitable structure and management styles of organisations are dependent on contingency aspects, and organisation should concern situations and the environment surrounding to suit organisational structure (Darvishmotevali et al., 2020).

The contingency aspects are known as typical contingencies or contingency variables such as strategy, culture and business environment and organisations should develop the set of contingency variables and process of fit is viewed as an continuing process that is needed in fast-moving business environments (McAdam et al., 2019). The turbulent business environments such as digital disruption and unpredictable on customers' demand, which create plenty of risks. Organisations need to provide dynamic capabilities for playing the key role to manage competitive advantage (Teece, 2018). The organisational agility as the critical dynamic capability which it also becomes valuable capability in environmental turbulences; organisational effectiveness is achieved by matching organisation characteristics of contingencies. The ability of contingency theory provides prior researches to predict the result of organisational effectiveness based on the fit factors such as organisational strategic agility, environmental turbulences, and other organizational related factors (Tallon et al., 2019).

Thus, the contingency theory in this study is used to clarify the relationship among the organisational strategic agility determinants which effects of agile culture influences the direction of relationship among organisational strategic agility determinants and organizational goal achievement.

Concept and Determinants of Organisational Strategic Agility

Previous section provides the fundamental background to understand the emergent of agility and the advantages for goal achievement, example research of agility in various disciplines, and the important of agility and the benefit to being an agile organization. Also researches that have studied the strategic management in technology to achieve with speedily changing business environments. This has moved the conceptualization of dynamic capabilities conceived in the strategic management in the direction of organisational agility (Park, Sawy & Fiss, 2017; Teece et al., 2016). Additional, strategic researchers have officially clear dynamic capability as an organisation's ability to figure, incorporate, and reconfigure both internal and external competences to address swiftly changing environment (Teece et al., 1997). This ultimately emphasizes an organisation's capabilities to efficiently and effectively manage and address business environmental changes for excellent organisational performance (Teece, 2018). Consequently, continuous business environmental changes require organizations to generate and practice dynamic capabilities that capacitate organisations to maintain and adapt existing (or creating new) organizational capabilities in various aspects for sustainable competitive advantage (Worley & Lawler, 2010).

The agility concept can have multi-dimensions, multidisciplinary that depend on the context of business or research objective, and agility research have been dominate studied in conceptual and empirical research into the field of manufacturing, supply chain, and information technology system (Baškarada & Koronios, 2018; Gunsberg et al., 2018; Wendler, 2014). The information technology field defines organizational agility as the ability of the organisation to adapt, respond, and integrate resources to changes and uncertainty (Tallon et al., 2019; Worley & Lawler, 2010; Satchawatee, Boonlua & Jantarajaturapath, 2021). The supply chain field defines organisational agility as organisation's capability to respond, in association with suppliers and important stakeholders, to market disruptions in a rapid method (Irfan et al., 2019b). Moreover, agile capabilities emphasizes on strategic objective for operation, customers, competitors, and business relationships of the organisation to use all diverse capabilities under unpredictable changes to maintains long-term success (Altay, Gunasekaran, Dubey & Childe, 2018; Nurcholis, 2019; Park et al., 2017). Thus, organisations that apply agility orientation at all levels of the organisation to allow organisations to properly adapt to various disruption in business environmental changes, achieve a goal and enjoy the maximum return (Najrani, 2016; Nold & Michel, 2016). Consistent with the dynamic capability theory, organisational strategic agility is the capability that demands an inventive capability to develop a system characterized by speed and flexibility more than only rearranging old products and services (Doz, 2020; Teece et al., 2016). Stemming from the dynamic capabilities' lens, agility can be constructed as unique capability of organization in various disruptive environments for organization where need to be the agile organization.

This study provides four determinants of organisational strategic agility by integrating from the previous agility research, the context of e-Commerce, and the dynamic capability perspective: four determinants including operational agility, customer alertness agility, competitor awareness agility and strategic business relationship agility.

Goal Achievement

The Covid-19 pandemic is a great challenge to e-Commerce industry since 2019, whether due to increasing of the trade war competition from local area and international competitors, unpredictable fickle demand, new regulation involve with Covid-19 (Bhatti et al., 2020). To achieve organization goals, major practitioners and e-Commerce research recommend that every organization should provide their own e-commerce platforms which it has become a key mechanism to support organizations' activities to provide channels for serving products and services during the Covid-19 pandemic (Bhatti et al., 2020; Tran, 2021). The goal is an endpoint toward those organisational activities, and goals are the detailed results organizations desire; in other words, goals are the reason for the existence of an organization. Organisational goals are the most important targets to be achieved in every organisation, and a goal framework gives organisations a direction to move towards the entire year (Izhar, Torabi, & Bhatti, 2017).

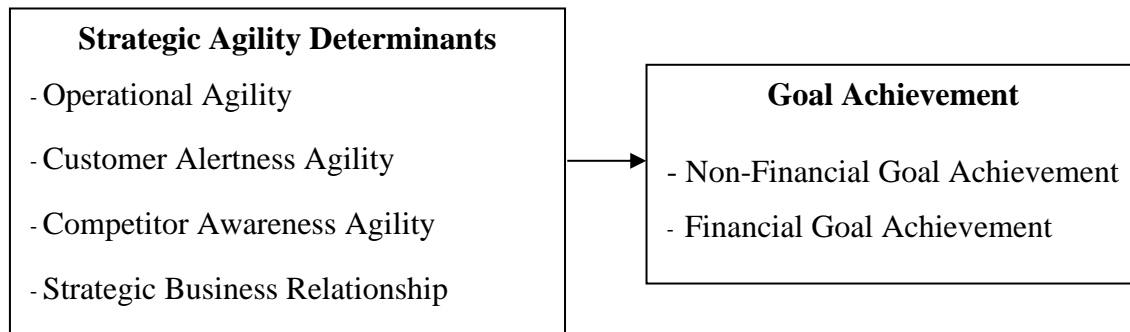


Figure 1 Study Framework

Organisations, which are strategically agile, are learning to operate speedy turnarounds and are able to reorganize and renew their organisation without losing momentum and can encourage greatly organizational goal achievement that because organizations set goals by being an agile organization that is what the image of organizations' expect to be in the future (Doz, 2020; Petrosyan, 2019). Agility literatures point out that organizational goals are the challenges leading to organisational values; it is an outcome of using organisational capabilities, from which this study treats organisational strategic agility as multi-dimension capabilities of organisations. This study provides goal achievement to analyze the strategic objectives to improve the organisations' strengths and reduce the weakness. The achievement of organisations indicate that has advantages on both financial and non-financial aspects. The developed conceptual model of organisational strategic agility determinants and goal achievement are shown on Figure 1.

According to the complex nature of organisational performance in organizational goal literature and consequences of organizational strategic agility that leads this study provides multi-dimension of organizational goal achievement to represent the goal achievement of organisations where utilized agility as a strategic orientation. Thus, the organisational goal achievement refers to vital outcome and accomplishing of organisational strategic agility which the agile organization wants to achieve goals. Thus, the hypotheses are proposed as follows:

Hypothesis 1: Operational agility positively influences goal achievement.

Hypothesis 2: Customer alertness agility positively influences goal achievement.

Hypothesis 3: Competitor awareness agility positively influences goal achievement.

Hypothesis 4: Strategic business relationship positively influences goal achievement.

METHODOLOGY

Sample Selection and Data Collection

Population and Sample

Most of the agile researches have investigated agility as a strongly manufacturing-biased sector, thus there is less knowledge and empirical investigation on other business sectors (Aburub, 2015). But this study examines the e-Commerce context where the Department of Business Development reports the rising number of e-Commerce business of all business sectors are more than 13,000 in 2019 such as food, clothing, furniture, stationary, beauty, computer, IT gaged, and software etc. around Thailand. All business sectors provide massive income more than 24,797 million; that may come from the number of internet users rise close to 50 million in Thailand (Department of Business Development, 2021). Moreover, the e-Commerce business is in the star stage in recent year and attract massive customers' demand that make e-Commerce business in Thailand must scale up to a higher level by providing more creative activities to attract potential customers with immersive shopping experiences (Electronic Transactions Development Agency, 2021). Moreover, the coming of Chinese online merchants causes the new online war because products from China are also becoming popular in the e-market places,

especially online games, technology gadgets, and telecommunications (Li, Xin, Pucik & Wei, 2019). Thus, e-Commerce businesses in Thailand face with rising numbers of competitors; and they may have to put up more attempts for creative ideas on unique products and services to attract the niche market, avoid the mass market, something that could not be found in general product catalogs on the Internet. The information from Department of Business Development data base is displayed on the website: www.dbd.go.th. There are 2,134 e-Commerce businesses in computer, IT gaged, and software (as of May 2021). The sample size for this study calculated to the formula suggested by Yamane (1967) which is as bellows.

$$n = N / (1 + Ne^2)$$

where,

n = size of the sample

N = population

e² = probability of error

Therefore, the sample size is:

$$n = 2,134 / [1 + 2,134(0.05)^2]$$

with N = 2,134, e = 0.05 (at the 5% level of significance)

thus, the sample size is 337.

Data Collection

This study uses the mail-questionnaire as the instrument for collecting data because the large-scale data collection in academic literature is extensively-uses questionnaires for data collection (Jahanshahi, Zhang & Brem, 2013). The advantage of questionnaires by attentive planning can yield high-quality usable data and achieve good response rates. Questionnaire can provide anonymity, encourage more truthful and forthright answers than interviews, and this can help to reduce bias (Marshall, 2005). The nature of e-Commerce businesses, they use the internet for communication and information. Thus, this study uses traditional and electronic questionnaires and there are two forms of sending questionnaires (Jahanshahi et al., 2013). The first part of questionnaires directly distributes to key information by mail (each package of the sent letter comprised a cover letter containing an explanation of the study, a questionnaire, and a postage-prepaid return envelope). The second part is electronic mails are sent via the internet, and QR code via line application (depend on the requirement of the key information).

The total number of questionnaires sent was 1,574 mailed (businesses preferred) and 111 electronic mails in early January 2021. In the first stage, the researcher received complete questionnaires in the first two weeks. In the second stage after three weeks, to increase the response rate, the researcher has follow-up through the chat box function on website and electronic mails of e-Commerce businesses that have not yet replied to checked and remind them to complete the questionnaire. The 455 questionnaires were returned, 401 were usable, and 54 were uncompleted and unusable. Therefore, the effective response rate was approximately 23.80% which is acceptable as the sample size (Nulty, 2008).

Instrument

The study instrument is the questionnaire that adapts from reviewing the related literature, definitions, and instruments used in many previous researches. The questionnaire consists of four parts. The first part is the choices through closed-ended questions because its questions are easy for respondents to answer, and easier to code and statistically analyze. Moreover, seven questions of personal information questions are asked about: gender, age, educational level, working experience, average revenues per month, and working position. The second part is asked about the information and details of the organisations including the type of business person, type of e-Commerce business, type of e-Commerce by business objective, number of employees, the period of time in operating business, authorized capitals, the total assets of the firm, and average revenues per year. The third part is included 24 questions to measure each construct in the study model. Moreover, all items are adapted from previous relevance literature which congruence with definition of each variable. There are designed as a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) for strategic agility

determinants and a seven-point Likert scale, ranging from 1(very strongly disagree) to 7 (very strongly agree) for goal achievement. The last part is the recommendations and suggestions in organisational strategic agility and others.

Validity

Validity is the level that demonstrates the measurement which is used in the questionnaire could correctly and appropriately measure constructs that researchers require (Kimberlin & Winterstein, 2008).

Table 1 shows AVE values are between .504 - .704 of all constructs in this research. Fornell & Larcker (1981) indicate that an AVE value of 0.50 or higher shows an adequate degree of convergent validity. This means that the latent variable or constructs can explain more than half of its indicator’s variance. However, the cut-off value of AVE 0.40 is acceptable in case CR value is higher than 0.6, the convergent validity of the construct is still adequate. Therefore, the AVE of all constructs indicates adequate convergent validity.

Table 1 The Average Variance Extracted (AVE) and Construct Reliability (CR) of all constructs

Constructs	AVE	CR
Operational Agility (OA)	0.611	0.863
Customer Alertness Agility (AA)	0.644	0.879
Competitor Awareness Agility (CA)	0.504	0.801
Strategic Business Relationship Agility (RA)	0.704	0.905
Goal Achievement (GA)	0.647	0.761

Reliability

Reliability refers to level of measurement in the survey, which is true and observed variables do not have any errors that select the degree of internal consistency between the various variables and its method of reliability test is very important to verify the data collection and used instruments (Heale & Twycross, 2015). Moreover, reliability is the degree of steadiness which the instrument measures the attribute it is intended to measure. The differences in results arise from differences in respondents, not differences in how the questionnaire was understood. The internal consistency is a practice of reliability, referring to the degree to which subparts of the research instrument (Marshall, 2005). This study employs Cronbach’s alpha coefficient and composite reliability to asset the reliability of variables. Cronbach’s alpha coefficient method is one of the most commonly used coefficient methods to assess the reliability of variables and it measures the reliability of the subjects’ answers concerning all items of questionnaires (Tavakol & Dennick, 2011). The cut-off value of Cronbach’s alpha is .60 while a value of .80 is considered to be good, and internal consistency is proved in the case of the items larger than .07 (Tavakol & Dennick, 2011).

Table 2 Reliability Value

Variables	Items	Cronbach’s alpha (α)
Operational Agility (OA)	4	.918
Customer Alertness Agility (AA)	4	.927
Competitor Awareness Agility (CA)	4	.883
Strategic Business Relationship Agility (RA)	4	.942
Goal Achievement (FA)	8	.936

The Cronbach’s alpha coefficients of all variables are shown in Table 2 that range from .883 to .942 which are higher than 0.70 as and it proves the internal consistency of the entire items exists in this study.

RESULTS AND DISCUSSIONS

Demographic Profile of Respondents

The key respondent is the administrative position of e-Commerce business in the computer, IT gagged, software, and e-Marketplace because they have the most extensive knowledge about capabilities, strategies, culture, leadership, environmental surrounding, and goal achievement of their organisations. Most of respondents are females of older age and with a reasonably good educational background, and more than half of respondents owned e-Commerce businesses with experience. They preferred to clarify and understand the information in the questionnaire about strategic agility determinants of organisations and goal achievement. The respondent profile of administrators of the tax e-Commerce businesses are from 401 organisations in Thailand. The results presented the demographic profile of respondents that there are more female (65.59%) than male (34.41%), age of respondents is in the range between 30 to 40 years old (44.49%), holders of a bachelor’s degree (56.36%), working experiences (54.11%) between one to five years, and income per month in the range between 25,000 - 50,000 bath (31.92%), while own their e-Commerce businesses (59.35%).

Correlation Analysis, Variance Inflation Factors (VIF’s), and Tolerance

The Pearson correlation for bivariate analysis of each variable is showed in this research that correlation analysis results illustrate a multicollinearity problem and examine the relationship among variables. Thus, the correlation matrix illustrates the correlations among 5 variables which present the relative strength and direction of a linear relationship among constructs in a correlation matrix. This research tests VIF and tolerance values which represents the proportion of variance in predictor variables that are not shared or related to the other variables and a number of criteria have been mentioned to indicate when VIF values or tolerance values are considered to be very high to the extent that it may bias the regression results (Lavery et al., 2019). The correlation matrix of variables and VIF are shown in Table 3.

Table 3 Correlation Matrix of All Constructs

Variables	OA	AA	CA	RA	GA
OA	1.000				
AA	.733*	1.000			
CA	.708*	.700*	1.000		
RA	.714*	.740*	.698*	1.000	
GA	.664*	.682*	.627*	.669*	1.000
VIFs	2.774	2.900	2.511	2.767	-

Note: * Correlation is significant at the .01 level (2-tailed)

From Table 3, the correlation is subject to a two-tailed test and provides the significance at the .01 level ($p < .01$). In this study, the correlation matrix displays the relationship between the two variables ($r = .627$ to $.740$, $p < .01$), which each pair of relations is lower than .70 (Hair et al., 2014). That is a multicollinearity is not a problem in this study.

Table 4 represents the coefficients results of organisational strategic agility determinants of e-business in Thailand perform acceptably. There was 55.30% of adjusted R^2 for all estimates. The Durbin-Watson test shows no presence of autocorrelation (Shapiro, 2003). All independent and dependent variables have relatively explanatory power (R^2 and adjusted R^2). The F-test failed to accept the null hypothesis

that the estimated parameters are equal to zero. All variables are positive and significant at the 1% level of significance. This shows that the goal achievement of e-business in Thailand is significant and positively affected by operational agility, customer alertness agility, competitor awareness agility and strategic business relationship agility. Hence, increase in all determinants encourages more achievement for e-business organisations in Thailand.

The examining hypotheses results of main effect of study model are explained in detail as the following:

Table 4 The Results of the Regression Analysis for Organisational Strategic Agility Determinants and Goal Achievement

Independent Variables	coefficient
Constant	1.798* (0.185)
Operational Agility	0.249* (0.065)
Customer Alertness Agility	0.313* (0.068)
Competitor Awareness Agility	0.162* (0.065)
Strategic Business Relationship Agility	0.261* (0.063)
No. of respondents	401
R ²	0.557
R ² Adjusted	0.553
F-Statistic	124.665
Durbin-Watson	1.578

* represents statistical significance at 1% level
beta coefficients with standard errors in parentheses

Hypothesis 1, operational agility is likely to contribute non-financial and financial goal achievement. This means the operational agility positively influences goal achievement with a standardized coefficient ($\beta = 0.249$, $p < .01$). Thus, hypothesis 1 is supported. This consistent with Li et al. (2019) explain that organisation can allocate their resources via organisational agility to reach the goal achievement. Nurcholis (2019) also stated that an operational agility support organisation to make an appropriate decision and action plans to quickly integrate strategies and business plans which positively influence organisational goal setting. Thus, this means that operational agility provides organisational capabilities for seizing the excellent unbiased decision-making of transformational capabilities, strategies, and processes. Additional, e-Commerce businesses should have operational agility to shift effectively allocates capabilities and resources to react the unpredictable situation without delay.

Hypothesis 2, customer alertness agility is likely to contribute non-financial and financial goal achievement. Therefore, customer alertness agility positively influences goal achievement with a standardized coefficient ($\beta = 0.313$, $p < .01$). Thus, hypothesis 2 is supported. This consistent with Hosseini et al. (2011) suggest customer alertness agility makes organisations can rapidly respond to their demands. Also Felipe et al. (2019) recommended that to achieve both non-financial and financial goal achievement, the organisation should provide organisational strategic agility to support success within the dynamic business perspective. Organisations should take advantage of customer alertness agility as a competitive strategic capability to better respond to unpredictable customer demand or information consuming of customers that make satisfying for customers and lead to get more chance to offer products/services. This study found customer alertness agility provides organisations with the agile capability about sensing the opportunities and threats of their customers and markets. This signifies that organisations can get ready for new market plans and forecast demand and requirements.

The customer alertness agility aids organisations to get through to goal achievement such as attaining sales growth rate and market share.

Hypothesis 3, competitor awareness agility is likely to contribute non-financial and financial goal achievement. This means that competitor awareness agility positively influences goal achievement with a standardized coefficient ($\beta = 0.162$, $p < .01$). *Thus, hypothesis 3 is supported.* This shows a similar direction of the relationship between competitor awareness agility and organisational strategic agility which similar to Yang & Liu (2012) who found organisations respond immediately to the action of their competitors will rise ability to unpredictable competition in the market. On the other hand, Haryanti & Subriadi (2021) explain money burning phenomena are causes of decreasing non-financial and financial performance still not succeed until they win over competition. Corredera-Catalán, di Pietro & Trujillo-Ponce (2021) stated in the similar point as Haryanti & Subriadi (2021) which indicated that small and medium-sized businesses have been hit harder by the COVID-19 crisis than larger businesses, and that the financial difficulties have a consequence of different factors such as low capital diversification, low levels of capitalization (more sensitive to market volatility), unclear financial statements insufficient management capacity.

Hypothesis 4, strategic business relationship agility is likely to contribute non-financial and financial goal achievement. Therefore, strategic business relationship agility positively influences goal achievement with a standardized coefficient ($\beta = 0.261$, t - $p < .01$). *Thus, hypothesis 4 is supported.* The results are consistent with Nurcholis (2019) who suggested that organizations should use the business relationship as a strategy to take advantage such as sharing knowledge or customer information to increase competitive advantage in both non-financial and financial goal achievement. The organisations should use their relationship with others to create multiple channels for resource assessment to contribute their organisational capability. Moreover, Altay et al. (2018) also proved that business relationship agility is the key agile capability of organisations to reach their overall performance and goal setting. Especially, an e-Commerce business context should concern stakeholders' relationship as the key success determinant to support competitive opportunities (Palasak, Boonlua & Jirawuttinunt, 2021). Thus, this study results confirm that strategic business relationship agility supports organisations able to utilize their partnerships' capability and resources for supporting organisations to reach their goal achievement in both non-financial and financial goals.

CONTRIBUTION, LIMITATION AND SUGGESTION

This study provides contributions approach to be productive for e-Commerce businesses or any organisations where interesting to apply agile capabilities for their organisations as (1) this study shades the significance of organisational strategic agility in today's unpredictable business environment. By strengthening organisational strategic agility, the organisation could respond better to a dynamic business environment. Executives could synergize all detected information to further understand the unpredictable in customers' needs or preferences, environmental turbulences, and utilizing from providers outside organisations; (2) executives can utilize the operational agility is the capability to build the nonstop operation that leads an organisation seizing outstanding decision-making to implement or transform the organisational operation via rapid timing; (3) organisations can create strategic business relationship agility by making a network with partnerships, information, and partnership resources to support their own organization; (4) executives can apply customer alertness agility is the capability that makes organisations can sense customers' needs then respond to customers at the desired timing, (5) an e-Commerce market, which has grown to over 13,000 enterprises and generates a significant amount of revenue, thus e-Commerce companies must be able to quickly adapt and change in reaction to constantly changing external conditions, and organisational strategic agility is regarded as one of the most important competencies for long-term success and growth.

Limitation for this study is conducted during the COVID-19 pandemic which affected to return rate of questionnaires. Many respondents refuse to answer the traditional paper questionnaires but prefer QR codes or e-Mails. The data were collected a population as e-Commerce in Thailand. Therefore, future research can investigate the research model in other contexts of organisations, including can target different cultural or country contexts to validate the results of a broader business type.

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REFERENCES

Aburub, F. (2015). Impact of ERP systems usage on organizational agility: An empirical investigation in the banking sector. *Information Technology and People*, 28(3), 570–588.

Ahammad, M. F., Glaister, K. W. & Gomes, E. (2020). Strategic agility and human resource management. *Human Resource Management Review*, 30(1), 10070.

Ali, A., Warren, D. & Mathiassen, L. (2017). Cloud-based business services innovation: A risk management model. *International Journal of Information Management*, 37(6), 639-649.

Altay, N., Gunasekaran, A., Dubey, R. & Childe, S. J. (2018). Agility and resilience as antecedents of supply chain performance under moderating effects of organizational culture within the humanitarian setting: a dynamic capability view. *Production Planning and Control*, 29(14), 1158–1174.

Argote, L. & Ren, Y. (2012). Transactive Memory Systems: A Microfoundation of Dynamic Capabilities. *Journal of Management Studies*, 8(49), 1375–1382.

Arokodare, M. A., Asikhia, O. U. & Makinde, G. O. (2019). Strategic agility and firm performance: The moderating role of organisational culture. *Business Management Dynamics*, 9(3), 1-12.

Başkarada, S. & Koronios, A. (2018). The 5S organizational agility framework: a dynamic capabilities perspective. *International Journal of Organizational Analysis*, 26(2), 331-342.

Bhatti, A., Akram, H., Basit, H. M., Khan, A. U., Raza, S. M. & Naqvi, M. B. (2020). E-commerce trends during COVID-19 Pandemic. *International Journal of Future Generation Communication and Networking*, 13(2), 1449-1452.

Boonlua, S. (2019). Learning and Growth for Sustainable Development of Logistics Companies in Thailand. *Polish of Management Studies*, 20(1), 92-102.

Corredera-Catalán, F., di Pietro, F. & Trujillo-Ponce, A. (2021). Post-COVID-19 SME financing constraints and the credit guarantee scheme solution in Spain. *Journal of Banking Regulation*, 1-11.

Darvishmotevali, M., Altinay, L. & Köseoglu, M. A. (2020). The link between environmental uncertainty, organizational agility, and organizational creativity in the hotel industry. *International Journal of Hospitality Management*, 87(4), 40-45.

Department of Business Development. (2021, April). Retrieved April 1, 2021 from <https://www.dbd.go.th/>

Dill, W. R. (1958). Environment as an influence on managerial autonomy. *Administrative Science Quarterly*, 2(4), 409-443.

Doz, Y. (2020). Fostering strategic agility: How individual executives and human resource practices contribute. *Human Resource Management Review*, 30(1), 48-53.

Electronic Transactions Development Agency. (2021). Retrieved April 1, 2021 from <https://www.eta.or.th/th/>

Felipe, C. M., Leidner, D. E., Roldán, J. L. & Leal-Rodríguez, A. L. (2019). Impact of IS Capabilities on Firm Performance: The Roles of Organizational Agility and Industry Technology Intensity. *Decision Sciences*, 10(19), 1-45.

Felipe, C. M., Roldán, J. L. & Leal-Rodríguez, A. L. (2016). An explanatory and predictive model for

organizational agility. *Journal of Business Research*, 69(10), 4624–4631.

Fornell, C. & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 39-50.

Gagel, G. (2017). The Intersection of Organizational Agility and Transformational Leadership: A Literature Review. *Academy of Management Proceedings*, 2017(1), 10895. Briarcliff Manor, NY: Academy of Management.

Gunsberg, D., Callow, B., Ryan, B., Suthers, J., Baker, P. A. & Richardson, J. (2018). Applying an organisational agility maturity model. *Journal of Organizational Change Management*, 31(6), 1315–1343.

Haryanti, T. & Subriadi, A. P. (2021). E-commerce acceptance in the dimension of sustainability. *Journal of Modelling in Management*, 16(1), 1-31.

Heale, R. & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66-67.

Hosseini, S. H. K., Khoddami, S., Moshabaki, A. & Azar, A. (2011). Designing the model of customer agility and competitive activity. *African Journal of Business Management*, 5(33), 12915-12928.

Irfan, M., Wang, M. & Akhtar, N. (2019). Impact of IT capabilities on supply chain capabilities and organizational agility: a dynamic capability view. *Operations Management Research*, 12(3–4), 113–128.

Izadi, B., Dong, L. & Esfidani, M. R. (2021). Stay Home and Shop Together. *Journal of Electronic Commerce Research*, 22(1), 59.

Izhar, T. A. T., Torabi, T. & Bhatti, M. I. (2017). An ontology-based goal framework to evaluate the level of the organizational goals achievement. *International Journal of Organization Theory & Behavior*, 20(2), 193-236.

Jahanshahi, A. A., Zhang, S. X. & Brem, A. (2013). E-commerce for SMEs: Empirical insights from three countries. *Journal of Small Business and Enterprise Development*, 20(4), 849–865.

Lavery, M. R., Acharya, P., Sivo, S. A. & Xu, L. (2019). Number of predictors and multicollinearity: What are their effects on error and bias in regression?. *Communications in Statistics-Simulation and Computation*, 48(1), 27-38.

Lawrence, P. R. & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12(1), 1- 47.

Li, L. Q., Xin, K., Pucik, V. & Wei, W. X. (2019). MNCs' R&D talent management in China: aligning practices with strategies. *Chinese Management Studies*, 13(4), 1086–1106.

Lin, J., Li, L., Luo, X. R. & Benitez, J. (2020). How do agribusinesses thrive through complexity? The pivotal role of e-commerce capability and business agility. *Decision Support Systems*, 135(2020), 113342.

Mandal, S. (2019). Exploring the influence of IT capabilities on agility and resilience in tourism: Moderating role of technology orientation. *Journal of Hospitality and Tourism Technology*, 10(3), 431–444.

Marshall, G. (2005). The purpose, design and administration of a questionnaire for data collection. *Radiography*, 2(11), 131–136.

McAdam, R., Miller, K. & McSorley, C. (2019). Towards a contingency theory perspective of quality management in enabling strategic alignment. *International Najrani*, M. (2016). The endless opportunity of organizational agility. *Strategic Direction*, 32(3), 37–38.

Nambisan, S., Wright, M. & Feldman, M. (2019). The Digital Transformation of Innovation and Entrepreneurship: Progress, Challenges and Key Themes. *Research Policy* 48(8), 1037–1073.

Nejatian, M., Zarei, M. H., Nejati, M. & Zanjirchi, S. M. (2018). A hybrid approach to achieve organizational agility: An empirical study of a food company. *Benchmarking*, 25(1), 201–234.

Nold, H. & Michel, L. (2016). The performance triangle: a model for corporate agility. *Leadership and Organization Development Journal*, 37(3), 341–356.

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done?. *Assessment & Evaluation in Higher Education*, 33(3), 301-314.

Nurcholis, L. (2019). The mediating effect of knowledge exploitability and organizational agility at relationship between marketing adaptation strategy and sustainable competitive advantage. *Contaduría y Administración*, 66(1), 1–30.

Palasak, S., Boonlua, S., & Jirawuttinunt, S. (2021). Organizational Strategic Agility And Goal Achievement: an Empirical Study In Electronic Commerce. *Natural Volatiles & Essential Oils*, 8(5), 8383-8409.

Park, Y., El Sawy, O. A. & Fiss, P. (2017). The role of business intelligence and communication technologies in organizational agility: a configurational approach. *Journal of the Association for Information Systems*, 18(9), 1-10.

Petrosyan, A. E. (2019). Whirling in between the personal and the impersonal: The quest for the marrow of organizational goals, and the lessons to be drawn thence. *Journal of Management History*, 25(2), 257-284.

Satchawatee, N., Boonlua, S. & Jantarajaturapath, P. (2021). Effects of technology transfer on sustainable competitiveness in Thailand. *International Journal of Nonlinear Analysis and Applications*, 12(Special), 1299-1309.

Shapiro, A. C. Multinational Financial Management, John Wiley&Sons, MA, USA, 2003.

Tallon, P. P., Queiroz, M., Coltman, T. & Sharma, R. (2019). Information technology and the search for organizational agility: A systematic review with future research possibilities. *The Journal of Strategic Information Systems*, 28(2), 218-237.

Tavakol, M. & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*. 2, 53–55.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

Teece, D. J. (2018). Profiting from innovation in the digital economy: Enabling technologies, standards, and licensing models in the wireless world. *Research Policy*, 47(8), 1367-1387.

Teece, D. J. (2019). A capability theory of the firm: an economics and (Strategic) management perspective. *New Zealand Economic Papers*, 53(1), 1–43.

Teece, D., Peteraf, M. & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13–35.

Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.

Tosi Jr, H. L. & Slocum Jr, J. W. (1984). Contingency theory: Some suggested directions. *Journal of Management*, 10(1), 9-26.

Tran, L. T. T. (2021). Managing the effectiveness of e-commerce platforms in a pandemic. *Journal of Retailing and Consumer Services*, 58(2021), 1-10.

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122(2021), 889-901.

Wang, C. L. & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 1(9), 31–51.

Wendler, R. (2014). Development of the organizational agility maturity model. In *2014 Federated Conference on Computer Science and Information Systems*, 91(2), 1197-1206.

Wingreen, S. C., Mazey, N. C., Baglione, S. L. & Storholm, G. R. (2019). Transfer of electronic commerce trust between physical and virtual environments: experimental effects of structural assurance and situational normality. *Electronic Commerce Research*, 19(2), 339-371.

Worley, C. G. & Lawler, E. E. (2010). Agility and Organization Design: A Diagnostic Framework. *Organizational Dynamics*, 39(2), 194–204.

Yamane, T. (1967). *Statistics: An Introductory Analysis* (2nd ed), New York: Harper and Row.

Yang, C. & Liu, H. M. (2012). Boosting firm performance via enterprise agility and network structure. *Management Decision*, 50(6), 1022–1044.

Yusuf, Y. Y., Sarhadi, M. & Gunasekaran, A. (1999). Agile manufacturing: The drivers, concepts and attributes. *International Journal of Production Economics*, 62(1-2), 33-43.