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Strategy Development Which Influences the Success of Digital Mastery Implementation for the Ceramics Industry in Thailand

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ABSTRACT

Industry 4.0 has presented new challenges for the traditional ceramics industry in Thailand. Digital transformation is at the core of developing the ceramics business, and digital mastery is a key to achieve the digital advantage. The objectives of the present work are to identify a set of critical impact factors that affect digital mastery implementation, including both the digital capability and leadership capability dimensions in the ceramics industry of Thailand and to identify the relationship between the strategy factors which influence successful implementation of digital mastery in order to develop strategic guidelines that can drive the industry to achieve digital mastery implementation in the ceramics industry of Thailand. The methodology of this study is based on a questionnaire, a field survey of 222 companies, of which 145 companies in the ceramics industry in Thailand responded. The findings from the survey suggest that there are 24 critical factors, which have been categorized into six groups of strategies. The findings also indicate that the relationships between six critical strategy factors are highly significant (sig.= 0.000) for successful digital mastery implementation. And finally, digital technology for conducting market research and understanding customers' requirements helps a business begin to build a knowledge base and a process for redesigning digital mastery functions around customers' needs.

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INTRODUCTION

The impact of the digital transformation is particularly relevant in small and medium sized enterprises (SMEs) (Fitzgerald et al., 2013). The ceramics industry is a fundamental industry that is important to the Thai economy. This is especially true due to the use of mostly raw materials in the country along with the large number of workers in the production process. Most factories are located in provincial areas; therefore, the ceramics industry helps distribute income to the countryside as well. From statistics in 2016, the total export volume of ceramic products was US $ 764.64 million per year. The major ceramics export markets were Japan, USA, Hong Kong, Germany, China, Denmark, and ASEAN countries. Exports of ceramics in 2015 were valued at $823.46 million US$, a decrease of 2.66% in line with a slowing of the global economy. Although, overall exports of ceramics decreased, the product expanded in ASEAN markets, including floor tiles and wall tiles, sanitary ware products, and other ceramic products (Office of Industrial Economics, Ministry of Industry, 2017).

Figure 1 presents the import and export values of Thai ceramic products from 2011 to 2017 in U.S. dollars.

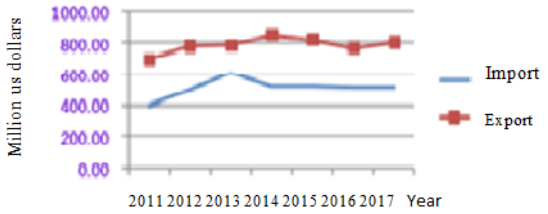

Figure 1 Import and Export values of ceramic products

Overall ceramics production in 2015 was affected by the slowdown of the domestic economy, and the government's infrastructure investment projects were still in beginning stages. As a result, the private sector slowed investment in the real estate business to wait for clarity of the building projects. The production of floor tiles and wall tiles, and sanitary ware decreased 0.72% and 2.55%, respectively.

Also, the manufacture of ceramic products is a complex interaction of raw materials, technological process, skilled labor, and economic investment. The complexity of the production process depends on market demand while the complexity of the production process is diverse and is affected by changes in market demand (Barata et al., 2019). Therefore, an adaptive approach is necessary for survival and competitiveness of ceramics in Thailand. In addition to the usual practices, for example, it is necessary to reduce cost s by using renewable energy and reduce product loss by upgrading the industry to digital mastery in production and marketing to increase sales along with upgrading product standards and supporting new product research and development to penetrate the high-end market (Office of Industrial Economics, Ministry of Industry, 2017). So, the mastery of digital technology is important for business management practices in understanding the current position of a firm and potential need for action. Digital mastery means the industries' use of digital technologies to work differently (Pagoropoulos el al., 2017). Therefore, this research aims to study the factors that affect the development of digital mastery in the ceramics industry in Thailand and identify the relatio nship of factors that affect the development of the digital mastery to develop a strategy for the ceramics industry in Thailand. Today, the industry has started to develop and upgrade digital mastery within the organization in accordance with the appropriate business fundamentals.

This paper is organized as follows: section 2 provides a literature overview on concepts of digital transformation and digital mastery. Section 3 describes the method used in this survey. Section 4 presents the results from these analyses with a discussion. Section 5 presents the conclusions, and section 6 points out the studies limitations and potential avenues for future research.

BACKGROUND

Digital transformation is the integration of digital technology into all areas of a business. All industries must transform their business model, emerging potentially to adapt it to new digital technology, and the digital masters are the organizations using digital technologies to work differently (Gannon, 2013). The importance of digital mastery has been to combine digital capability and leadership capability to achieve a performance advantage (Westerman et al., 2014).

To begin with, there are three main elements to developing digital capabilities: the first is to focus on creating a compelling customer experience and how industries engage with their customers. The second is that when industries have better operations it leads to better production and improvement of operational performance; and the third is that competitive advantage can often only be attained through business model reinvention (Westerman et al., 2014). In addition, there are two keys for developing managerial improvisation with digital capabilities. First IT infrastructure flexibility; this is especially important when the timescale is tight and organizational leaders need to respond rapidly. Second is information management capability; this is most beneficial for discovery of managerial improvisations that require organizational leaders to act creatively to address highly uncertain events. Moreover, developing digital capabilities requires leadership commitment or leadership capability (Levallet and Chan, 2018, and Westerman et al., 2014).

The leadership capability dominions define the capabilities of top management to do the right things for the strategic success of digitalization for the industries. To achieve this will require six foundational changes: a different kind of business strategy, different kinds of business models, a different kind of humanized digital workplace, a different kind of enterprise platform integration, a different kind of people mindset and skill set, and a different kind of corporate IT function (Omar et al., 2016).

Successful organizations must leverage strategy, culture, and leadership to harness the potential of the digital transformation of business. The industries digital strategy goals are to improve customer experience, increase efficiency, improve innovation, improve decision making, and transform the business.

The biggest challenge in digital strategy development is the need to link the resource related to the process, i.e., inherently multi-functional resources across multiple organization processes (Bharadwaj et al., 2013). Therefore, the success of digital mastery strategy relies on finding the relationship between resources across process and linking resources to develop a strategy that is appropriate for the business model (Slater and Hult, 2005). Accordingly, this research aimed to identify a set of critical impact factors that affect digital mastery implementation, both in terms of digital capability and leadership capability dimensions in the ceramics industry of Thailand, and to identify the relationship between the strategy factors which affect digital mastery in order to develop strategic guidelines that can drive the Thai ceramics industry to achieve digital mastery implementation.

LITERATURE REVIEW

Digital mastery is the use digital technologies in organizations to work differently, to get closer to the customer's experience, and improve business processes (Westermann et al., 2014). The effectiveness of digital mastery can be measured in terms of cost reduction and operational efficiency (Omar et al., 2016; Schwertner, 2017; Levallet et al., 2018). Reducing costs by digitizing the processes of developing, testing, and producing new products is of paramount importance. Digital mastery is impacting organizations and most areas of employee activity. Exploiting the power of digital technology in operational processes leads to better productivity, higher efficiency, and greater customer experiences (Buvat et al., 2018).

Companies need to integrate digital technologies and their capabilities to transform their business model to digital. Basically, the capability of digital mastery means digital capability and leadership capability (Westermann et al., 2014). Digital capabilities show how the company executes digital technology to improve their product designs (Westermann et al., 2014), how to bring digital channels to encourage innovation to customers and provide a greater competitive advantage, or how the company is creating new sources of value for customers and matching knowledge to meet customers' requirements (Fenwick, 2016). The critical factors which reflect a company's increasing needs for digital capability are recognizing the use of technology to change the delivery service and experiences with customers which can increase customer loyalty and drive new sources

of revenue (Chesbrough and Spohrer, 2006; Fenwick, 2016). A company's digital technology utilities can be used to target unmet needs for existing or new customers. The company's rethinking value propositions or digital investments can creatively enhance the customer experience (Buvat et al., 2018; and Westermann et al., 2014).

While each company is focused on how to improve the set of digital capabilities, those that successfully improvise rely on knowledge and information to improve operational process capabilities. The knowledge and information come from many places within and outside the company, including data from core information systems and information from experts about product and service developed processes (Kim, et al., 2011). The operational process capabilities can lead to better productivity, higher efficiency, and lower cost of performance. The critical factor which the company needs to reach step by step in operational process capabilities is how to learn about working with acquired resources that are valuable, rare, inimitable and difficult to substitute (Barney, 1991). Decision making focused on establishing processes and performance transparency can activate new communication channels. It is also necessary to learning about knowledge gaps or lack of company structures to support reflective actions (Pagoropoulos et al., 2017). Modifying the operation process should reflect advances in technology (e.g., analytics, artificial intelligence, automation, internet of things) and customer needs (e.g., co-creation, loyalty) (Buvat et al., 2018). However, the success in operational process capability depends on the company getting employees to collaborate and to be actively involved in the digital transformation program; the employees should understand the context and aim of the new strategy and successfully leverage company information and knowledge to improvise (Brinkschröder, 2014).

Most important for the success of digital marketing is implementing new technologies: digital masters combine digital capabilities, operational process capabilities, and leadership capabilities to achieve performance. Nigel Fenwick (p.15, 2016) stated "…that leaders were significantly more likely to place culture as critically important, suggesting these companies already understand how critical culture is to their success as a digital business." Leadership capabilities are about creating the necessary conditions required to drive the transformation (Buvat et al., 2018). The critical factor which reflects leadership capability is digital vision. Some leaders combine ideas around customer experience and operational processes while some are forced to re-envision their business models because of threats that hurt their chances for long-term survival (Westermann et al., 2014). Leaders need relationship building, technical and leadership skills, and the ability to engage sufficient investment in new opportunities to develop a digital culture that can envision further changes and be implemented continuously (Nigel, 2016; Westermann et al., 2014).

RESEARCH METHOD

The research method used in this research was a questionnaire. A pilot questionnaire was tested by academicians, managers in a small number of companies, and a practitioner, well-known to the researcher. After relatively few amendments, the final questionnaire was produced and sent to the ceramics companies.

Only one survey questionnaire was sent to each company, to be completed by the top or middle manager from the ceramics company. A total of 222 responses (65 percent, which was regarded as a good response to an online survey with follow up by the researcher) were received, of which 145 were from companies which had product development processes.

Research allowed for an analysis of the factors that influence the successful implementation process of digital mastery. Based on digital capability and leadership capability, research identified the key elements that influence reaching the desired goals set in strategies to achieve digital mastery.

Analysis

Data analysis in this research employed a number of statistical techniques: 1) frequency analysis was used to show a count of the number of occurrences that fall into each of the categories, 2) mean value was used to provide differences between items; 3) standard deviation was used to show the degree of consistency, and 4) factor analysis and regression analysis. While statistical data analysis allows defining the responses to each separate question, the factor analysis approach can determine the relationship of the factors in management strategies for successful digital mastery implementation in the ceramics company.

RESULTS

The main findings of the survey are presented as follows:

A set of critical impact factors that affect digital mastery implementation in three groups of capability dimensions in the ceramics industry of Thailand

Based on the descriptive statistics of the survey in the first part, customer experience, it can be concluded that 32.4% of all companies have a neutral level for implementation of digital technology for creating and delivering value from transforming the customer experience (Mean = 3.848). For 42.1% of the companies knowledge is developed to meet customers' requirements by digital technology (Mean = 3.7586) and 53.8% use digital channels to improve and encourage innovation for customers, providing a greater competitive advantage but very little is implemented (Mean =3.820). While 47.6% of all companies rely on data-driven insights, only 51.7% use digital technology for engaging customers to enhance customer satisfaction (Mean =3.7586). It was found that 46.9% all of companies are investing in digital technologies to encourage continual innovation (Mean =3.7448).

In the second part, operational process, it can be concluded that 43.3% of all companies are data-driven and focused on decision making in operations (Mean = 3.8966). It was found that 46.9% all of companies leveraged digital technology to improve product features (Mean = 3.8552). For 43.3%, the digital platforms allow the business discussions to be visible to all, which increases transparency and accountability (Mean = 3.8552). For 45.5%, digital technology led to better operation process efficiency and better productivity (Mean = 3.7310) while for 49.0% of all companies, data analysis revealed additional product and service improvements that could be implemented by digital technology (Mean = 3.8483). Results showed that 55.9% of all companies also make the awareness operational process experiential, using fact-based research to get employee support (Mean = 3.6690). Regarding knowledge, 43.4% of the companies were rethinking work from products and processes for the new digital environment and provided critical tools and resources (Mean = 3.7862). For 50.3% all of companies, they were able to find ways to overcome the digital knowledge gaps (Mean = 3.8207) while 51.2% use of digital technology makes possible better, faster communication which was more efficient in encouraging employees to share knowledge (Mean = 3.8552). It was found that 47.6% of all companies were crafting digital knowledge for rethinking operations strategy and re-envisioning the customer experience (Mean = 3.8207) while 47.6% merged customer knowledge, product knowledge, and technical knowledge (Mean = 3.8138). For 49.0% of the companies, they were able to build community knowledge sharing (Mean = 3.7655).

From the third part, leadership, it can be concluded that 46.2% of the executives identified strategy in the new digital business (Mean = 3.8069). For 47.6% of the executives, they encouraged momentum around digital transformation by framing the digital challenge (Mean = 3.8345) with 37.2% of the executives are creating a new digital business model (Mean = 3.9103) and 49.7% are helping drive the digital transformation inside the organization (Mean = 3.8276). It was found that 35.9% executives encourage building an awareness, involving senior leaders and employees to help drive the digital transformation (Mean = 3.9172), 43.4% of all executives defined a clear intent outcome and its measurability (Mean = 3.7862). The result of descriptive statistics of the 24-strategy factors is shown in Table 1.

Table 1 Mean and Standard Deviation of 24-critical strategy factors

Description of variable	N	Mean			Std. Deviation
	Statistic	Statistic	Std. Error	Percent	Statistic
• **Group of customer experience**					
1. Companies implement the digital technology to create and deliver value from transforming the customer experience.	145	3.8483	0.07665	32.40%	0.92294
2. Companies develop knowledge to meet customers' requirements by digital technology.	145	3.7586	0.07471	42.10%	0.89966
3. Companies use digital channels to improve and encourage innovation for customers, providing greater competitive advantage but very little is implemented.	145	3.8276	0.05479	53.80%	0.65981
4. Companies rely on data-driven insights.	145	3.8207	0.05845	47.60%	0.70385
5. Companies use digital technology for engaging customers to enhance customer satisfaction.	145	3.7586	0.05813	51.70%	0.69996
6. Companies are investing in digital technologies to encourage continual innovation.	145	3.7448	0.05688	46.90%	0.68495

Table 1 Cont.

Description of variable	N	Mean			Std. Deviation
	Statistic	Statistic	Std. Error	Percent	Statistic
• **Group of operational process**					
7. Companies are data-driven and decision making in operation.	145	3.8966	0.06545	43.30%	0.78814
8. Companies leveraged digital technology to improve product features.	145	3.8552	0.05952	46.90%	0.71666
9. Digital platforms allow the business discussions to be visible to all, which increases transparency and accountability.	145	3.8552	0.0649	43.30%	0.78155
10. Digital technology led to better operation process efficiency and better productivity.	145	3.731	0.05974	45.50%	0.71933
11. Data analysis revealed additional product and service improvements that could be implemented by digital technology.	145	3.8483	0.05817	49.00%	0.70051
12. Companies also make the awareness operational process experiential, using fact-based research to get employee support.	145	3.669	0.048	55.90%	0.57801
13. Companies were rethinking work from products and processes for the new digital environment and provide critical tools and resources.	145	3.7862	0.06357	43.40%	0.76545
14. Companies were able to find ways to overcome the digital knowledge gaps.	145	3.8207	0.05679	50.30%	0.68383
15. Digital technology makes possible better, faster communication, which is more efficient in encouraging employees to share knowledge.	145	3.8552	0.05705	51.20%	0.68698
16. Companies were crafting digital knowledge for re-thinking of operations strategy and re-envisioning the customer experience.	145	3.8207	0.05845	47.60%	0.70385
17. Companies merge customer and product knowledge and technical knowledge.	145	3.8138	0.06189	47.60%	0.74523
18. Companies were able to build community knowledge sharing.	145	3.7655	0.05623	49.00%	0.67714
• **Group of Leadership**					
19. Executives identified strategy in the new digital business.	145	3.8069	0.06135	46.20%	0.73877
20. Executives encouraged momentum around digital transformation by framing the digital challenge.	145	3.8345	0.05873	47.60%	0.70724
21. Executives are creating a new digital business model.	145	3.9103	0.07384	37.20%	0.88911
22. Executives are helping drive digital transformation inside the organization.	145	3.8276	0.05736	49.70%	0.69066
23. Executives encourage building awareness, involving senior leaders and employees to help drive the digital transformation.	145	3.9172	0.07357	35.90%	0.88587
24. Executives defined clear intent outcome and its measurability.	145	3.7862	0.06357	43.40%	0.76545

The relationship between the strategy factors which influence successful implementation of the digital mastery

The results of the study based on the factor analysis statistics shown in Table 2 demonstrated that there is a significant relationship between the factors and digital mastery implementation. In additional, the factor analysis also showed that all remaining factors can be merged into 6 components (strategy-factors), which is 82.952% of total variance (see in Table 3).

Table 2 Correlation Coefficient between all pair of variable

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Cost Reduction
1. Reconfigure value delivery model	1	.508**	.285**	.033	.201*	.059	-.003	-.023	-.060	.304**	.125	.361**	.062	.122	.075	.022	-.011	.076	.048	-.028	.957**	.514**	.981**	.062	.353**
2.Substitution product and service		1	.397**	.107	.105	.036	.014	.075	.009	.629**	.360**	.379**	.066	.066	.338**	.096	.057	.066	.076	.028	.476**	.357**	.506**	.066	.368**
3. bring digital channels to improve and encourage innovation			1	.068	.135	.148	.072	.064	-.008	.224**	.093	.506**	.188*	.223**	.067	.038	.075	.142	.159	.072	.258**	.407**	.296**	.188*	.493**
4. Data - Driven insight				1	.193*	.236**	.462**	.939**	.432**	.220**	.212**	.143	.495**	.322**	.190*	.896**	.532**	.232**	.507**	.917**	.052	.093	-.013	.495**	.156
5. Creating Compelling Customer experience					1	.276**	.105	.179*	.177	.077	.038	.144	.072	.243**	-.001	.193*	.088	.246**	.070	.199*	.188*	.186*	.169*	.072	.136
6. digital Physical Investment						1	.375**	.250**	.125	.142	.092	-.075	.306**	.776**	.142	.236**	.314**	.978**	.327**	.271**	.076	-.050	.068	.308**	-.055
7. Data-Driven and Decision Making in operation							1	.527**	.224**	.073	.110	-.015	.828**	.481**	.165*	.492**	.877**	.384**	.836**	.542**	-.013	.005	-.002	.826**	-.004
8. Develop New Feature								1	.483**	.234**	.219**	.118	.462**	.329**	.197*	.939**	.547**	.244**	.458**	.880**	.034	.061	-.052	.462**	.115
9. Operational Transparency									1	.284**	.213**	.047	.168*	.133	.168*	.445**	.283**	.132	.168*	.497**	-.039	.043	-.078	.168*	.028
10. Work anywhere any time										1	.608**	.319**	.071	.141	.553**	.220**	.100	.183*	.085	.226**	.288**	.339**	.324**	.071	.298**
11. Performance improvement											1	.338**	.082	.059	.935**	.212**	.132	.116	.091	.215**	.112	.276**	.136	.082	.324**
12. fact-based research to get employee support.												1	.106	.007	.246**	.109	-.031	-.076	.061	.120	.320**	.813**	.384**	.108	.969**
13. Rethink employee in value Proposition													1	.510**	.139	.470**	.806**	.318**	.970**	.473**	.043	.087	.066	1.000**	.115
14. Closing knowledge gaps														1	.122	.322**	.425**	.748**	.486**	.340**	.133	.022	.136	.510**	.034
15. Boarder and Faster communication															1	.190*	.191*	.165*	.150	.193*	.058	.196*	.083	.139	.284**
16. Re-envision customer experience																1	.558**	.232**	.464**	.917**	.041	.065	-.024	.470**	.139
17. merge customer and product knowledge, technical knowledge																	1	.326**	.817**	.560**	-.015	.005	-.002	.808**	.008
18.Community knowledge sharing																		1	.339**	.266**	.092	-.028	.083	.318**	-.054
19. Identified strategy in the new digital business																			1	.470**	.026	.043	.050	.970**	.087
20. encourage momentum around digital transformation																				1	.031	.055	-.055	.473**	.115
21. Creating new digital business model																					1	.494**	.925**	.043	.313**
22. leaders to help drive digital transformation inside the organization																						1	.533**	.087	.785**
23. Building awareness																							1	.066	.389**
24. Defined clear intent outcome (is Measureable)																								1	.115
Cost Reduction																									1

Note: N = 145, ** Correlation is significant of the 0.01 level (2-tailed). * Correlation is significant of the 0.05 level (2-tailed)

Table 3 Number of total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.114	30.801	30.801	4.114	30.801	30.801	2.695	20.179	20.179
…									
6	.593	4.439	82.952	.593	4.439	82.952	1.042	7.800	82.952
7	.490	3.666	86.619						
..									
23	.004	.031	100.000						

A factor analysis was conducted on the data collected from the 24 strategy-factors. It is a process that groups items based on correlations (Hair et al., 2006). In this section, the procedure for the factor analysis followed in this study as well as the factor analysis results of the approach to the strategies will be presented.

Before the factor analysis, the diagnostic tests confirmed that the data were suitable for factor analysis, and this result also indicated that the data were suitable for factor extraction. As can be seen in Table 4, the factor analysis finally resulted in the identification of six meaningful factors that were found to have eigenvalues greater than 1.0, which is a common criterion for a factor to be useful. These six factors explain 82.952% of the total variance, which is greater than the acceptable level of 50% (Beavers et al., 2013; Field, 2000).

Table 4 Eigen values and total explained

component	Initial Eigen values			Extraction sum square loading			Rotation sum square Loading
	Total	%of Variance	Cumulative %	Total	%of Variance	Cumulative %	Total
1*	4.114	30.801	30.801	7.573	31.556	31.556	4.766
2*	3.015	22.568	53.369	4.390	18.291	49.847	4.098
3*	1.382	10.349	63.718	2.572	10.751	60.562	3.207
4*	1.013	7.586	71.304	1.983	8.261	68.823	2.761
5*	.963	4.439	78.513	1.924	8.017	76.840	2.679
6*	.593	3.666	82.953	1.321	5.502	82.343	2.250
7	.490	3.666	86.619				
8	.423	3.169	89.787				
9	.366	2.740	92.527				
10	.222	1.664	94.192				
11	.189	1.418	95.609				
12	.153	1.143	96.752				
13	.114	.851	97.603				
14	.082	.612	98.215				
15	.064	.478	98.693				
16	.055	.410	99.103				
17	.039	.289	99.393				
18	.025	.188	99.581				
19	.020	.148	99.729				
20	.016	.119	99.848				
21	.009	.064	99.922				
22	.008	.058	99.969				
23	.004	.031	100.000				
24	-3.669E-17	-2.747E-16	100.000				

Note: Extraction Method: Principle component Analysis

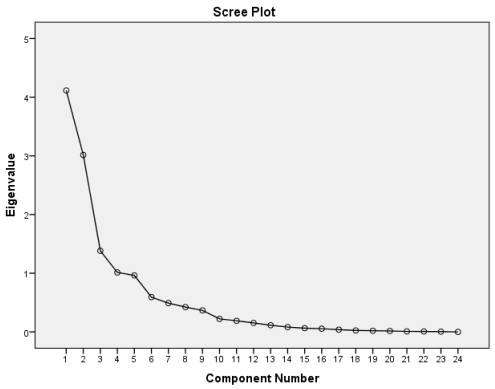

Figure 2 Visual examination of the scree plot

Visual examination of the scree plot (Figure 2) also showed that six strategy factors are located above the elbow of the curve and supported a six factor solution. Therefore, six factors were extracted. Together the six factors explain the construct of strategies for digital technology. Therefore, the characteristics of these six strategies are summarized below.

Strategy 1*: The executives are willing to transform business to a digital leader. This involves starting from strategy setting, planning to deployment, and getting employees to participate in goal setting on performance measurement that are specific, measurable, attainable, and relevant to the business goals.

Strategy 2*: Companies bring the power of digital technology to connect resources in the production process to respond to problem solving, creating customer value, and transforming the customer's experience. Digital technology can help the industry building and strengthening the core business and competencies.

Strategy 3*: Industries that build innovative recruitment methods and highlight "digital skills" showcase the keys to success of digital transformation. HR functions were actively involved in digital skills development in the ecosystem of the industry for core technology developments of digital skills.

Strategy 4*: The company should provide digital technology knowledge to employees and support technology investment by focusing on team building.

Strategy 5*: The company should use digital technology to affect productivity, to respond to a customer's requirements and to apply instantly.

Strategy 6*: The digital technology enables market research and a better understanding of customers' requirements. It helps a business begin to build a knowledge base and a process of redesigning functions around customers' needs.

Table 5 Model Summary

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	32.616	6	5,436	60.277.125	.000[b]
Residual	12.446	134	.386		
Total	45.062	144			

Note: b. Predictors: (Constant), Strategy 1, Strategy 2, Strategy 3, Strategy 4, Strategy 5, Strategy 6

Finally, the finding indicated in Table 5 that the relationship between the critical six strategy factors is highly significant (sig. = 0.000) for successful digital mastery implementation.

CONCLUSION AND DISCUSSION

The benefits of digital mastery are great but many industries struggle to adopt and use digital technology because they don't have a digital strategy (Westerman et al., 2014; Schwertner, 2017). The influence of a digital business strategy will increase with an understanding of how digital capabilities and leadership capabilities can increase customer loyalty and drive new sources of revenue. Even fewer industries have the necessary processes to execute a digital strategy. The finding in this study presents the critical strategic factors to succeed in the digital mastery implementation in the ceramics industry in Thailand. The practitioner and industry should note the following:

First: The executives must be willing to transform the business to be a digital leader, starting from strategy setting, planning, and getting employees to participate. The chief executives and senior management play an important role in the organisation's digital strategy development as the leading technology visionary in the organization. They must translate their vision into action. Digital masters first translate their visions into strategic goals that are relevant to business goals, specific, attainable and measurable (Schweitzer, 2017; Omar et al., 2016).

Second, the industries should provide digital technology knowledge to employees and support technological investment by focusing on team building. The executive needs to work closely with human resources to make the company attractive to top digital talent. The realignment of new investment in technology and business models can help in more effectively engaging digital customers at every touch point in the customer experience lifecycle (Valtakoski, 2016; Solis et al., 2014).

Third, the company should use digital technology to improve productivity and respond to customers' requirements, and it can be applied instantly. The digital technology can help industries improve and retain a competitive advantage, especially, in terms of productivity improvements and cost reductions in the operations process because performance of process design on operations impacts the business objective directly and the ability to meet the customer's requirements. (Ulaga, 2011; Lerch and Gotsch, 2015).

Four, digital technology can advance market research and understanding of customers' requirements. Customer engagement is the heart of the digital transformation; performance will be enhanced and the company changed. It helps a business begin to build a knowledge base and a process of redesigning functions around

customer needs. Digital masters understand that innovation comes from creatively bringing together multiple digital and physical channels to create new and improved customer experiences and encourage continual innovation. You will need research that gives you deep insights into the things in the organization (Tuli et al., 2007).

LIMITATION AND FUTURE RESEARCH

This research collected data from only one industry in Thailand, which has the same geographical and cultural context. The limitation of the research could restrict the generalizability of the findings for other contexts. Future research should study other industries from both of in Thailand and a different country. Moreover, the paper has provided beneficial insights about strategy; however, future research should be specific about the size of the industry to achieve the result of strategic development that is appropriate to the size, experience, and fundamentals of the digital development of the industry.

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