

**THE DIGITAL LITERACY OF THE SMALL AND MEDIUM BUSINESS
WORKFORCES IN THAILAND**

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ABSTRACT

The problems and challenges faced on the road to becoming digital and analyses a new approach for business industries to initialize their digital transformation. Business owners or executives must consider about their business transforming to the digital era, crafting strategy for the purpose of achieving sustainable innovation in the face of the reshaping of the industry and the market and how companies can overcome these obstacles and become digital. Digital literacy is another significant consideration focused on developing the human capital force. The findings reveal that the predictor variables of photovisual ($\beta = 0.174$, $t = 2.357$, $P = 0.000$), reproduction ($\beta = 0.211$, $t = 2.579$, $P = 0.000$), branching ($\beta = 0.243$, $t = 4.857$, $P = 0.000$), information ($\beta = 0.155$, $t = 4.582$, $P = 0.000$), and socioemotional ($\beta = 0.257$, $t = 2.248$, $P = 0.000$) are achieved significance at the 0.05 level.

Keywords: Digital Literacies, Digital Skills, Workforces

Introduction

The digitalization of a growing number of new business opportunities, including new types of products and services goods is huge access to crowd-sourced. These players are taking advantage of big data, powerful analytics, artificial intelligence, and other key innovations to drive growth. On the other hands, the industries are destined for technological disruption. Many businesses and industries are being disrupted by digital technology. While the revolution of digital technology is expected to impact the overall economic landscape, it is clear that these innovations are disrupting ecosystems in most of the industries. Developing countries like most countries

in South East Asia have the opportunity to transform its economy and to contribute to the development of the digital economy. Although these economies are characterized by high added value, faced with numerous obstacles, many developing countries cannot adequately respond to the demands of the digital economy.

The Digital Literacy Challenges Facing the Growth of Digital Economy

The problems and challenges faced on the road to becoming digital and analyses a new approach for business industries to initialize their digital transformation. Inadequate access to the latest technology, sophisticated telecommunications infrastructure, low computer literacy as well as numerous cultural and socio-economic factors are just some of the challenges that developing countries have to face. The threats for the industries in the business environment is the increasing competition in a dynamic environment where traditional boundaries are shifting. For example, telecommunications companies or land line telecom has been replaced by voice over internet protocol (VoIP) (Yovanof, and Hazapis, 2008), and many social messaging applications such as WhatApps, Line, and WeChat. Therefore, business owners or executives must consider about their business transforming to the digital era, crafting strategy for the purpose of achieving sustainable innovation in the face of the reshaping of the industry and the market. One of the main purposes of this research is to seek the answer that how companies can overcome these obstacles and become digital.

Digital Literacy

In the digital economic climate, most businesses try to maximize return on investments on multiple levels. Due to their versatility, digital technologies may be an important factor in reducing costs and at the same time increasing the value offered by information and communication technologies. Although most companies have realized the need to digitize, various challenges are inhibiting them from starting or benefitting from digital transformation, especially for the SMEs. Basically, the major barriers for SMEs are related to insufficient IT structures, lack of technical skills, inadequate business processes and high implementation risks and costs (Leipzig, Gamp, Manz, Schöttle, Ohlhausen, Oosthuizen, Palm, and Leipzig, 2017). Generally speaking, The efficiency, whereby ventures can utilize digital business through highly scalable infrastructures. Thus, the digital decade has seen businesses taking advantage of lower price/performance levels of computing (hardware and software) as well as global connectivity through standard protocols such as the Internet, mobile web, and application to adapt their business infrastructure to the new digital era. Therefore, digital transformation challenging for traditional businesses require hardware infrastructure, software infrastructure, and digital literacy (Boonnoon, 2014; Bharadwaj, El Sawy, Pavlou, and Venkatraman, 2013; Eshet-Alkalai, 2004; and Ziphorah, 2014).

Participating in the digital revolution requires change; acquiring new skills and knowledge; new systems and processes; new partnerships; new forms of collaboration and investment in new digital strategies, people skill, business procurement and digital tools. Furthermore, this has big implications for jobs as workers are finding themselves with outdated skills and struggle to match the demands of these changing business models. Change

on this scale can create uncertainty, doubt and many other real or perceived barriers to progress. The elements with the greatest influence on success are clear targets for organizations' key performance indicators and clear communication of the transformation's timeline. These categories suggest where and how companies can start to improve their chances of successfully making digital changes to their business.

Digital literacy is another significant consideration focused on developing the human capital force. In ASEAN, the citizens have the skills needed to thrive as digital disruption creates both risks and opportunities for workers. The workers are dedicated to re-skills and up-skills of all types of workers in the digital ecosystem. (Nguyen, 2020). The main objective to re-skill and up-skill is to convene group of like-minded organizations united in their new digital skill sets.

Since the change of technologies and widespread diffusion of the digital economy, it led to innovation in business models, which in turn allows consumers and businesses to connect around the world any time. The digital economy provides business an ability of the transformational effects of new way to use the data as in the fields of information and communication. It gives rise to certain form of new business models, which is important to the business to adapt in the new environments. Digital skill sets have been among the most popular expressions featuring in the curricula of the last few years (Dani, 2013; Jukes, McCain & Crockett, 2010). The information literacy concept has been adapted to include ICT. According to Huerta and Almazan (2007), the digital literacy is based on five skills, including photovisual, reproduction, branching, information, and socioemotional.

Photovisual

The photovisual skill refers to the ability to use graphical user interfaces. This skill also includes the user's ability to understand information delivered through different sensory channels. This skill is specific to the digital environment; it describes the ability to use computer and digital devices (Huerta and Almazan, 2007).

Reproduction

The reproduction skill refers to the ability to synthesize and analyze the information gathered to create an original piece of work. The analytical skill is used to examine the big data, gathered from online and offline sources, by reproducing and manipulating preexisting digital text, visuals, and audio pieces (Huerta and Almazan, 2007).

Branching

The branching skill refers to the ability to navigate in a nonlinear environment to find the desired information. This skill is specific to the digital environment through knowledge domains, such as in the Internet and other hyper-media environments (Huerta and Almazan, 2007).

Information

The information skill refers to the ability to assess the quality of the information retrieved. The reproduction and information skills are not unique to the digital environment but they are increasingly relevant to this environment because of the great deal of information available. The skill is to consume information critically and sort out false and biased information (Huerta and Almazan, 2007).

Socioemotional

The socioemotional skill refers to the ability to interact with other people on the Internet. A user with socioemotional ability must be familiar with the rules of interaction on the Internet, being able to communicate effectively in online communication platforms such as discussion groups and chatrooms. The socioemotional skill reflects the fact that ICT access is not only used as a means for gathering information (Huerta and Almazan, 2007).

Research Methodology

The research design is used quantitative research methodology. The survey is used to establish a baseline on Almazan's the digital literacy on five skills. The total sample for this study consists of 400 samples who are working in SMEs, including staffs, supervisors, and managers. Descriptive, frequency, percentage distributions, means are used to describe and report the information collected. Furthermore, the data obtained is analyzed by Stepwise Multiple Regression.

Results

The result shows the distribution of usable responses by age; 32% report their age to be between 18 and 32; 24.25% report their age to be between 33 and 40; 26% report their age to be between 41 and 50; 5.75% report their age to be between 51 and 60; and 12% reports his/her age to be over 61. In terms of respondent's level of education, 15 (3.75%) reports high school as their highest level of education. 76 (19%) report having some college education, 228 (57%) indicated they have a bachelor's degrees and 81 (20.25%) reported having master's degrees or higher degrees.

Table 1 shows the respondents are asked their opinion regarding elements in digital literacy readiness based on five skills. Respondents agree that digital skill is challenges facing the growth of digital economy, which photovisual (mean = 4.12), reproduction (mean = 4.02), branching (mean = 4.11), information (mean = 4.01), socioemotional (mean = 4.09), and the average (mean = 4.07).

Table 1 The Mean for Digital Literacies and Skills

Digital Literacies and Skills	Mean	SD.	Ranking
Photovisual	4.12	1.43	1
Reproduction	4.02	1.72	4
Branching	4.11	0.55	2
Information	4.01	1.20	5
Socioemotional	4.09	0.93	3
Average	4.07	0.77	

Table 2 shows the significance of each coefficient for each independent variable. It reveals that the predictor variables of photovisual ($\beta = 0.174$, $t = 2.357$, $P = 0.000$), reproduction ($\beta = 0.211$, $t = 2.579$, $P = 0.000$), branching ($\beta = 0.243$, $t = 4.857$, $P = 0.000$), information ($\beta = 0.155$, $t = 4.582$, $P = 0.000$), and socioemotional ($\beta = 0.257$, $t = 2.248$, $P = 0.000$) are achieved significance at the 0.05 level. Therefore, the regression equation for predicting the dependent variable from the independent variable is

$$\text{Digital literacies and skill readiness} = 3.117 + 0.513 (\text{Photovisual}) + 0.322 (\text{Reproduction}) + 0.445 (\text{Branching}) + 0.545 (\text{Information}) + 0.310 (\text{Socioemotional})$$

Table 2 The Relationship between Marketing Mix and Customer Purchase Decision Making

The Relationship between Marketing Mix and Repurchase Intention	Regression Coefficient (b)	Standardized Coefficient (β)	t	P
Photovisual	0.513	0.174	2.357	0.000*
Reproduction	0.322	0.211	2.579	0.000*
Branching	0.445	0.243	4.857	0.000*
Information	0.545	0.155	4.582	0.000*
Socioemotional	0.310	0.257	2.248	
Constant (a)	3.117		6.734	0.000*

$R = 0.803$, $R^2 = 0.645$, $SEE = 0.343$, $F = 65.114$, $P = 0.000^*$

*P < 0.01

Discussions

To success in the change in digital economy is required digital transformation demands vision, leadership and process change alongside powering core operations with technology. Therefore, digital transformation requires a change at the most fundamental level, the way in which things get done everywhere in the organization. Digital transformation affects the company culture itself. Without addressing culture change digital transformation is bound to be a superficial attempt. According to Hemerling et.al (2018) nearly 80% of the companies that focused on culture sustained strong or breakthrough performance. Not one of the companies that neglected to focus on culture achieved such performance.

Policies are one of the key for strategy development, that help in building the foundations for the digitization. This includes policies that affect the broad enabling environment for the digital economy, as well as policies that foster accessible and affordable digital infrastructures and services. Strategy development should enable the effective use of digital technologies by people, firms and governments, and policies that foster the application of digital technologies in specific activities and policy areas. Furthermore, it can help all individuals, including citizens, workers and consumers, as well as society as a whole to adjust to the digital transformation,

including by ensuring that all people have the skills they need to adapt to and excel in an increasingly digital world. Moreover, it includes policies aimed at the use of digital tools to enhance well-being, including by providing more equitable access to public services. However, there is quite a challenge to co-ordination among ministries and other bodies at all levels of government, as well as actively involving all key stakeholders in the policymaking process to ensure that all policies are mutually reinforcing and aligned with one coherent and strategic national digital agenda. Moreover, collective action will be needed in several areas to seize the opportunities and tackle the evolving challenges of the digital economy (OECD, 2017).

Further Study

1. Future research may investigate about the background and scope of work in their businesses.
2. Future research may conduct a study with more respondents or diversifying the types of businesses, and compare among those businesses.

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