The Effectiveness of the Digital Business transformations of the Thai Small and Medium Enterprises

ประสิทธิภาพของการเปลี่ยนผ่านธุรกิจดิจิทัลของธุรกิจขนาดกลางและขนาดย่อม

Anupong Avirutha (อนุพงศ์ อวิรุทธา)*

Abstract

Due to the growths of the technology, especially the digital economy and the revolution of business processes have transformed a new interest in the digital business development and business strategy. The main objective of this study is to explore the effectiveness of the digital business transformations of the Thai small and medium enterprises. A total of 200 usable questionnaires are used. The data obtained were analyzed by Stepwise Multiple Regression. The study finds that the digital business transformations, including mobility, value of data, and social commerce effect are affected the digital business effectiveness of the Thai SMEs.

Keywords: Digital Business, Digital Business Transformations, Digital Economy, Small and Medium Enterprises

* Assistant Professor Dr. Anupong Avirutha, Head of Digital Business Management Department, Faculty of Business Administration, Sripatum University

ผู้ช่วยศาสตราจารย์ ดร.อนุพงศ์ อวิรุทธา หัวหน้าสาขาวิชาการจัดการธุรกิจดิจิทัล คณะบริหารธุรกิจ มหาวิทยาลัยศรีปทุม

บทคัดย่อ

จากการเติบโตของเทคโนโลยี โดยเฉพาะเศรษฐกิจดิจิทัลและการปฏิวัติทางด้านกระบวนการทางธุรกิจที่เปลี่ยนผ่านไปสู่การพัฒนาธุรกิจดิจิทัลและกลยุทธ์ทางธุรกิจ วัตถุประสงค์การศึกษาครั้งนี้เพื่อศึกษาประสิทธิภาพของการเปลี่ยนผ่านธุรกิจดิจิทัลของธุรกิจขนาดกลางและขนาดย่อมของไทย การศึกษาจากตัวอย่าง 200 ตัวอย่าง และใช้สถิติการวิเคราะห์สมการถดถอยพหุคูณแบบเป็นขั้นตอน โดยผลการศึกษาพบว่าเทคโนโลยีเคลื่อนที่ ความสำคัญของข้อมูล และธุรกิจสื่อสังคม มีผลต่อประสิทธิภาพของการเปลี่ยนผ่านธุรกิจดิจิทัลของไทย

คำสำคัญ: ธุรกิจดิจิทัล, การเปลี่ยนผ่านธุรกิจดิจิทัล, เศรษฐกิจดิจิทัล, ธุรกิจขนาดกลางและขนาดย่อม

Introduction

Over the last few years, the revolution of the Internet communication has been changing from static to dynamic platforms. It has fundamentally shifted from websites' owner-driven to user-driven technologies such as webboards, forums, blogs, social networks, and video-sharing platforms. The movement of these platforms allows individuals and organizations to overcome geographical and time constraints, which in turn allows consumers and businesses to connect around the world at any time. With rapid changes in the Internet, these online activities are now performed via a new form of communication technology known as Web 2.0 or social media. Furthermore, the world currently is surrounded by information. However, information technology today is a rapidly changing area. Therefore, a business that is able to choose the right successful system implementation can make significant improvement. Furthermore, the Internet is empowering people in a new and different way to create and share their ideas, giving rise to new content, entrepreneurs and markets. In order to achieve a competitive advantage, businesses have to develop and integrate the infrastructure of electronic petition used and required in various departments for using and applying them into working process. The digital economy rises to a number of new business models recently from traditional business to modern advances in technological involvement that have made it possible to conduct many types of business at outstanding greater scale and over longer distances than was previously. The digital economy allows the rapid development of new business models; it can also quickly cause existing businesses to become obsolete.

Background for the Study

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 (Harris & Rae, 2009). The growing of the digital economy in the business field has heightened demand for new big data being used for business intelligence. 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.

The digitalization of a growing number of new business opportunities, including new types of products and services goods is huge access to crowd-sourced. The economic in many local markets are quickly disappearing and giving huge advantages to the best product, service or process in the market. Competition in markets is typically based on innovation rather than price, resulting in high opportunities in the market; with serving quickly being displaced by more successful innovators. Kanokwan and Thirawat (2016) pointed out that customers prefer to make an online transaction such as booking hotel and buying online product because they believe that the online channel provides them extra benefits. The increasing of the digital economy has an impact which is the need of having some physical establishment in a country where business is done. However, operating in the digital economy which is based on electronic services as final products means that they do not any longer need physical establishment in the foreign countries where they are active. Therefore, businesses are operating digital business models as their ultimate effect that they essentially run their business over the internet which essentially is a borderless world.

Statement of Problems

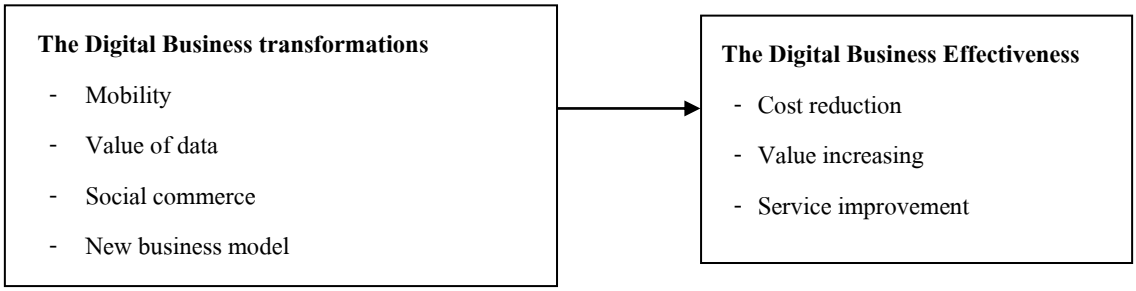
The world is changing fast; hence, businesses must respond quickly to new digital opportunities. It is crucial to focus on digital economy since the world of business is smaller than ever before and competitive environment, businesses must constantly explore new technologies, innovations, and services in order to respond to evolving markets, technology and economic conditions. Moreover, the growths of the technology, especially the digital economy and the revolution of business processes have transformed a new interest in the digital business development and business strategy. It is important to rethink how the business can thrive will be key to the business capability. Digital technology will also challenge traditional methods of delivering higher performance. As a result, the transformation from

traditional business to digital business is creating a potential value and a substantial driver for growth.

Objectives

1. To explore the digital transformation of the Thai SMEs.
2. To explore the digital business effectiveness of the Thai SMEs.
3. To identify the influence of the digital transformation affected the digital business effectiveness of the Thai SMEs.

Research Framework



Literature Reviews

The Importance of the Digital Economy

Digital economy has been addressed for a significant method to transform a new way of doing business. Digital economy is generally defined as being the use of digital technologies to transform business operations in order to improve effectiveness, efficiency, productivity, and service delivery (Easley and Kleinberg, 2010). Thai government has established the DE policy to offer citizens and businesses the opportunity to complete a vast array of related transactions through many channels; i.e., Electronic-Procurement (e-Procurement), Electronic-Auction (e-Auction), and Electronic-Taxation system (e-Taxation).

Typically, the digital economy involves with five parts, including hardware infrastructure, software infrastructure, service infrastructure, promotion and innovation, and society and knowledge (Boonnoon, 2014). Hardware infrastructure refers to information-technology infrastructure that is used to support a digital economy such as high speed broadband Internet, and digital gateways. Software infrastructure refers to online channels, online transactions such as verification systems to identify individuals online and cyber-security in order to boost up e-Commerce transactions. Service infrastructure would create a platform to support the private sector, while the promotion and innovation part is the developing the

digital skills of entrepreneurs to improve their productivity and workflow process efficiency through the supply chain, which will utilize digital tools and go along with banking system, services and manufacturing. Society and knowledge refers to the universal access ability, which allows people various online channels with an affordable price. The integration of activities at various levels generates the value that make specific business models profitable (Boonnoon, 2014).

The increasing recognition of the role of digital economy, which is enable the interactions among consumers, and suppliers as an important co-value creation has derived the implications of these interactions in numerous settings, including online activities. Digital economy is growing rapidly and frequently features comments about brands and products. Moreover, consumers increasingly rely on and are interested in collaborations (Cheong & Morrison, 2008). New business models have emerged demonstrating common features – mobility, use of data to generate value and network effects.

An extension of Web 2.0, online technologies and mobile device capability, digital economy fills a basic desire for interaction and decision support. Digital economy specifically helps businesses mitigate the isolation inherent to most online data analysis activities. Furthermore, it is an online community-based e-commerce platform that brings together products from a vast array of stores into one digital platform. The types of business expand to several varieties of e-commerce, app stores, online advertising, cloud computing, participative networked platforms, high speed trading, and online payment services.

The Digital Business transformations

Van, et al (2014) pointed out that the direct impact that technology investment had on growth and having the indirect impact on both information technology and commerce in term of competitive advantage. The vast progress in digitalizing processes, allowing businesses in transmitting information to decentralize many functions in distant locations based on their advantages. Therefore, digital technologies increase competitive advantage for the economy; this is likely to be global in scale, given that geographical barriers are becoming increasingly irrelevant. Therefore, the businesses that are embracing the digital business trend to craft their transformation stages are required to focus and develop the key business transformations as a digital transformation strategy, which are mobility, value of data, social commerce effect, and new business model (Harvard Business Review Analytic Services, 2015).

1. Mobility - mobile is enabling new business scenarios (Harvard Business Review Analytic Services, 2015). The development of a core contributor to value creation and economic growth for companies in the digital economy. Businesses are increasingly able to carry on commercial activities remotely while traveling across borders, removing geographically from both the locations in which the operations are carried out and the locations in which their suppliers or customers are located. Furthermore, Harvard Business Review Analytic Services (2015) found that putting mobile functionality in the hands of employees is now a key requirement to increase productivity.

2. Value of Data – there is a report showing that there is over 2.5 Exabyte's (billions of gigabytes) of data every day (OECD, 2013). The big data effect is a crucial part on the value of the data-driven marketing economy and the revenues generated for the economy. Big data is helping companies innovate (Harvard Business Review Analytic Services, 2015). The business uses the big data to obtain and analyze data, and big data in particular, is increasingly well documented by market observers. Additionally, leading companies are not only integrating more data into their analyses, but they are using the results to develop new products and services (Harvard Business Review Analytic Services, 2015).

3. Social Commerce Effect - social shopping allows people browse through product specifically for them that are filled with products posted or made popular by other users. Social channels are transforming core business processes (Harvard Business Review Analytic Services, 2015). Social media is becoming a core aspect of modern digital marketing strategies, and they see potential for it to radically transform the marketing function. This helps to confirm and increase their purchase decisions. It is more likely to have friend collaborative buying experience. When shopping information or an experience is communicated to one's friends and acquaintances, the comments or opinions made by these significant others influence the consumer's consumption related self-confidence (Gordon, 2007).

4. New Business Models – data input and resources such as customer information, and customers' online behavior allows businesses gaining an asset in business models where the different sides of the market can be created then dynamically adapted based on evolving technology, the latest expression of consumer demand, and a firm's position on the market, resulting in innovative new business models, products, and services (Harvard Business Review Analytic Services, 2015). Uber, for example, uses power of tech innovation to create a new way calling a taxi.

The Digital Business Effectiveness

New technologies and the expectations of digitally savvy customers are having a profound impact on all aspects of business. The products and services companies offer, their business models, and even core operations and processes. Digital transformation is becoming a cultural norm as more digitally advanced companies seek new levels of competitive advantage (Harvard Business Review Analytic Services, 2014).

1. Cost - generally, the adoption of technology, providing decline in price and increase in performance, has contributed to the development of new activities in businesses. Furthermore, these technologies have expanded market reach and lowered costs, and have enabled the development of new products and services (OECD, 2014). Furthermore, many technologies are embraced to boost efficiency and cut the business costs. Harvard Business Review Analytic Services (2015) found that digital makes business flexible and cost effective. Many businesses expect cost-effective, innovative forms of information processing for enhanced insight and decision making.

2. Business Value - along with the value, the business can use the data to improve products and services. Digitally maturing companies are in a position to recognize the benefits from collaboration (Kane *et al.,* 2015). The value of the ability to obtain and analyze data, and big data in digital economy environment is increasingly well documented by market researchers. Such data business can use it to analyze variability in performance and understand their consumers' behaviors, and to segment their market target in order to customize their products and service categories, to use as a supportive decision making with the automated algorithms (OECD, 2014).

3. Service - services are an important feature of many businesses in the digital economy. Digital business platforms create a new service offering that integrates social and mobile data with analytics to provide real time business intelligence (Kane *et al.,* 2015). New digital trends in service such as cloud computing, mobile web service, social media, eco-system, co-creation, and so forth, are thoroughly changing the way of doing business from traditional business models to digital business models (service innovation). For example, UBER, a car (taxi) ride service, uses mapping data and the global positioning system (GPS) to capitalize on drivers and customers to connect them to share the ride. This sample can be applied to other businesses since the important for digital economy is to build the platform or model rather than to build a product (McKenna, 2015).

Research Methodology

The research design is drawn from quantitative research methodology. The independent variables for this study is the digital transformation, including mobility, value of data, social commerce effect, and new business models. The dependent variables for this study are the digital business effectiveness, including cost, value, and service.

The sampling technique used in this study is the convenient sampling to ensure that each individual of the population has the same probability of being chosen. In this study, the target population of this study is the SMEs located in Bangkok and perimeter in Thailand. The total sample for this study consists of 200 samplings. The participants in this study are voluntary and anonymous. The survey is expected to be responded by top management level because they are most likely to be the one who involves in business planning, and makes the final decisions about implementation in the business.

The questionnaire for this study includes a five point Likert scale, multiple choice items, and rank-order assessment. Items on the survey are scored on a five-point Likert scale. The scale ranges from one through five, with a response of one meaning strongly disagree, two meaning disagree, three meaning neutral, four meaning agree, and five meaning strongly agree. The questionnaire is reviewed by experts in the area. Further, the previous research and recommendations and comments from research committees and faculty of business administration members from academic professionals are incorporated as modifications to the survey instrument to establish the content validity of the research. The questionnaire was subsequently conducted 30 samplings apart from the target population.

Descriptive, frequency, percentage distributions, means are used to describe and report the information collected affecting to individual variables and demographic information. Furthermore, the data obtained is analyzed by Stepwise Multiple Regression.

Results

A total of 200 usable questionnaires are obtained. Table 1 shows the distribution of usable responses by types of business; 18.5% of the businesses sampled are in manufacturing, 21.0% of the businesses sampled are in wholesale, 28.0% of the businesses sampled are in retail, 7.0% of the businesses sampled are in agriculture, 10% of the businesses sampled are in food and restaurant, 3% of the businesses sampled are in financial, 3.5% of the businesses sampled are in tourism, 6.5% of the businesses sampled are in construction, and 2.5% of the businesses sampled are in transportation.

The respondents report the company revenue per month, 78% report that the company revenue is less than 1 million baht; 36.5% report that the company revenue are between 1-5 million baht; 12.0% report the company revenue are between 5.01-10 million baht; 7.5% report that the company revenue are between 10.01-15 million baht; 1.5% report that the company revenue are between 15.01-20 million baht; and 3.5% report that that the company revenue are over 20 million baht.

Table 1 Frequency Distribution of Respondents

Business Information		**Frequency**	**Percentage**
Types of Business	Manufacturer	37	18.5
	Wholesaler	42	21.0
	Retailer	56	28.0
	Agriculture	14	7.0
	Food and Restaurant	20	10.0
	Financial	6	3.0
	Tourism	7	3.5
	Construction	13	6.5
	Transportation	5	2.5
Company's Revenue	< 1 Million	78	39.0
	1-5 Millions	73	36.5
	5.01-10 Millions	24	12.0
	10.01-15 Millions	15	7.5
	15.01-20 Millions	3	1.5
	> 20 Millions	7	3.5
Budget for ICT/Month	< 1,000 Baht	12	6.0
	1,001-3,000 Baht	43	21.5
	3,001-5,000 Baht	49	24.5
	5,001-7,000 Baht	57	28.5
	7,001-10,000 Baht	30	15.0
	> 10,000 Baht	9	4.5

As the Table 1, it shows the budgets that the SMEs spend each month on ICT. 6% report that they spend less than 1,000 baht each month for ICT used for the business; 21.5% report that they spend 1,000-3,000 baht each month for ICT used for the business; 24.5% report that they spend 3,001-5,000 baht each month for ICT used for the business; 28.5% report that they spend 5,001-7,000 baht each month for ICT used for the business; 15% report that they spend 7,001-10,000 baht each month for ICT used for the business; and 4% report that they spend over 10,000 baht each month for ICT used for the business.

Table 2 shows the respondents are asked to the most common digital technologies used in their businesses. The most widely used digital technologies are using cloud computing (mean = 3.71), followed by mobile (mean = 3.55), social media (mean = 3.51), data analysis (mean = 3.47), enterprise resource planning (mean = 3.40), and website (mean = 3.30).

Table 2 The Most Common Digital Technologies Used in Business

Media/Tools	Mean	SD.	Median Response
Website	3.30	1.12	Often
Mobile	3.55	1.21	Often
Social media	3.51	1.22	Often
Data analysis	3.47	1.30	Often
Cloud computing	3.71	1.14	Often
Enterprise resource planning (ERP)	3.40	1.30	Often

The data in Table 3 reveals the digital transformation of the businesses. The data interpret the mean values, the most frequency endorsed responses is: value of data (mean = 4.20), followed by social commerce effect (mean = 4.11), mobility (mean = 3.75), and new business model (mean = 3.66).

Table 3 Digital Business transformations

Digital Business transformations	Mean	SD.	Ranking
Mobility	3.75	0.61	3
Value of data	4.20	0.51	1
Social commerce effect	4.11	0.45	2
New business model	3.66	0.61	4
Average	**3.93**	**0.40**	

Table 4 shows the respondents are asked to record their opinion about the perceived the effectiveness of digital business based on the aspects of perceived cost reduction, value increasing, and service improvement. Table 3 interpret the mean values, the most frequency endorsed responses is value increasing (mean = 4.16), followed by service improvement (mean = 4.04), and cost reduction (mean = 3.97).

Table 4 The Digital Business Effectiveness

The Digital Business Effectiveness	**Mean**	**SD.**	**Ranking**
Cost reduction	3.97	0.49	3
Value increasing	4.16	0.44	1
Service improvement	4.04	0.50	2
Average	**4.05**	**0.40**	

Table 5 shows the significance of each coefficient for each independent variable. It reveals that the predictor variables of mobility (β = 0.175, t = 3.456, P = 0.001), value of data (β = 0.308, t = 5.739, P = 0.000), and social commerce effect (β = 0.246, t = 4.721, P = 0.000) are achieved significance at the 0.05 level, while new business model (β = 0.033, t = 0.681, P = 0.496) does not reach the 0.05 significant level. Therefore, the regression equation for predicting the dependent variable from the independent variable is Effectiveness = 1.223 + 0.175(Mobility) + 0.308 (Value of data) + 0.246 (Social commerce effect)

Table 5 The Effectiveness from the Digital Business transformations

The Effectiveness from the Digital Business transformations	**Regression Coefficient (b)**	**Standardized Coefficient (β)**	**t**	**P**
Mobility	0.114	0.175	3.456	0.001*
Value of data	0.241	0.308	5.739	0.000*
Social commerce effect	0.216	0.246	4.721	0.000*
New business model	0.022	0.033	0.681	0.496
Constant (a)	1.223		6.897	0.000*
$R = 0.693, R^2 = 0.480, SSE = 0.290, F = 68.042, P = 0.000$*				

*P < 0.05

Discussions

The finding found that all digital transformation factors including mobility, value of data, social commerce effect, and new business model are significant to the business effectiveness. Kane *et al.* (2015) also found that digital business found that maturing digital businesses are focused on integrating digital technologies, such as social, mobile, analytics and cloud, in the service of transforming how their businesses work. Digital businesses are focused on solving discrete business problems with individual digital technologies. As the result, the data derived the characteristics of companies operating digital business models have as their ultimate effect that they essentially run their business over the digitalize which essentially is a borderless world to reduce their operational cost, to increase the business value, and to improve the service.

They tend to work more on the mobility, especially on cloud computing systems. Based on the results, many types of business agree that the mobility is important and may impact upon the digital business effectiveness. Harvard Business Review Analytic Services (2015) found that leading companies are using the rise of public and private mobile and cloud computing to create new business models and services in addition to taking advantage of the greater cost efficiencies and scalability features that the cloud provides. Furthermore, Harvard Business Review Analytic Services (2014) found that the flexible capacity of cloud-based solutions can enable dramatic increases in business performance.

According to Plum (2014) the economic impact is significant as the data growing. Additionally, data became a key asset. Big data is creating the business value chain, providing businesses drive more operational efficiencies from existing investments. Detwiler (2015) believe that big data analytics could "shift the competitive landscape" for their industry within the next year and 89% believe companies that fail to adopt a big data analytics strategy could lose both market share and momentum. The research result found that the value of the data is significantly important for the business. Big data is a critical part of their business effectiveness. According to the Harvard Business Review Analytic Services (2015), it found that the businesses have to have the ability to process and analyze large quantities of structured and unstructured data to generate business insight in real time. However, it is difficult to find workers who have big data practices. There is another research finding that some parts of the population are still excluded from media literacy in the digital environment even though the importance of data on the Internet is rapidly growth (Digital Agenda in the Europe 2020 strategy, 2015). Thus, it might possibly affect businesses in facing a crisis of a shortage of employees with digital skills.

The findings indicate that social commerce is positioned to have a broad impact. The business embraced social media anticipate its potential. The data shows that social commerce is crucial part to transform their business from traditional to digital. Harvard Business Review Analytic Services (2015) found that it is the best to incorporate social media into core business operations, enabling line of business transactions and being used beyond boosting marketing and the corporate branding. Furthermore, it also found that the social media improved the customer support experience and improve the support team's internal operations. As well as, Kane *et al.* (2015) believed that to transform the traditional business to digital business is to use social media and develop it into the business strategies and new business models in order to listen to and better understand customer sentiment about products, brands, and companies as a whole. Moreover, Wimmala and Leela (2016) believed that social media provides the opportunity to apply integrated advertising the marketing communication strategies with the cost saving.

Recommendations

1. For business transformations to digital business need to have a clear understanding of digital technologies, and organizational change in order to develop strategies to innovate new products and penetrate markets that can be accessed through digital technologies. Firstly, the researcher strongly recommends that whether the business already has a business transformation strategy, is developing one, or is just beginning to concern, the business should be able to adapt to the changes in the playing field and create new opportunities to maintain market dominance. Furthermore, once the plan is developed, the business should regularly review and update the plan to keep up with the business's performance and achievement of goals. Additionally, both digital strategy and business strategy should be aligned. The executives should innovate new strategies and business models in order for their business to thrive in the digital age.

2. Secondly, employees should be engaged with the executive and business's vision. It is importance to encourage employees to identify new practices and opportunities that will advance the vision. Along with the employee's perspective, the business should focus on employees' skill and capabilities; therefore, the business should build on a foundation of core skills and capabilities.

3. Thirdly, the employees should gain skills and cross-sector experience that complements your capabilities. Digital and technology skills should be considered complementary to proficiency and literacy. Digital literacy is an essential tool that supports

other subjects and their tasks and job activities. Furthermore, the businesses need to train their employees or hire the necessary talent (if needed) with skilled data analysts who understand both the statistical modeling and the business applications of big data.

4. Lastly, whether to improve business performance and create business value or to reduce the operational cost down, the business need to pay close attention and analyze their current business process. Business process management is critical for digital business. Process agility is critical to giving businesses the agility that powers digital business. The use of modernized business process management platforms and methods such as applications, software and so forth to accelerate digital transformation. Therefore, the business should be able to design such applications and software, matching their tasks in order to access the data and information for planning and redesign/improving their business process.

Future Research

1. Future research would add an assessment of digital business maturity to measure and compare how maturing organizations differ from others.

2. Future research would be covered on the barriers of the digital transformation such as employees with digital skill, organizational culture, and risks.

3. Future research would be performing a mix model method by adding a qualitative research.

References

Boonnoon, J. (2014). “Govt Unveils Themes for Digital Economy Plan.” Retrieved September 29, 2015, from http://www.nationmultimedia.com/business/Govt-unveils-themes-for-digital-economy-plan-30247713.html

Building. B. (2014). Expert Group on Taxation of the Digital Economy. Brussels Conference.

Cheong, H. J., & Morrison, M. A. (2008). “Consumers' Reliance on Product Information and Recommendations found in UGC.” **Journal of Interactive Advertising**, 8, 2: 1-29.

Detwiler, B. (2015). “Big data is a competitive advantage companies can no longer ignore” Retrieved August 29, 2016, from http://www.zdnet.com/article/big-data-is-a-competitive-advantage-companies-can-no-longer-ignore/

Digital Agenda in the Europe 2020 Strategy. (2015). “Europe 2020 strategy” Retrieved March 31, 2016 from https://ec.europa.eu/digital-single-market/en/europe-2020-strategy

Easley. D, Kleinberg. J. (2010). “Networks, Clouds and Markets: Reasoning about a Highly Connected World.” Cambridge University Press, United Kingdom.

Gordon, K. T. (2007). "The Power of Social Shopping Networks." Retrieved September 29, 2014, from http://www.entrepreneur.com/marketing/onlinemarketing/article174746.html.

Harris, L., Rae. A. (2009). "Social Networks: the Future of Marketing for Small Business." **Journal of Business Strategy**, 30, 5: 24 – 31.

Harvard Business Review Analytic Services. (2014) "The Leadership Edge in Digital Transformation" **Harvard Business Publishing**.

Harvard Business Review Analytic Services. (2015) "The Digital Transformation of the Business" **Harvard Business Publishing**.

Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., and Buckley, N. (2015). "Strategy, Not Technology, Drives Digital Transformation" **MIT Sloan Management Review and Deloitte University Press**.

Kanokwan, S. and Thirawat, T. (2016). "Expectations Factors Affecting Behaviors in Using Website Online." **Veridian E-Journal, Silpakorn University**, 9, 2: 359-374.

McKenna, B. (2015). "Digital platform more than taxi service: Uber as app economy paradigm?" Retrieved March 31, 2016, from http://www.computerweekly.com/opinion/Digital-platform-more-than-taxi-service-Uber-as-app-economy-paradigm.

OECD. (2013). "Exploring Data-Driven Innovation as a New Source of Growth: Mapping the Policy Issues Raised by Big Data." Retrieved September 29, 2015, from http://dx.doi.org/10.1787/5k47zw3fcp43-en.

OECD (2014), "The digital economy, new business models and key features", in Addressing the Tax Challenges of the Digital Economy." Retrieved March 31, 2016, from http://dx.doi.org/10.1787/9789264218789- en.

Plum. C. (2014). The European App economy: Crating Jobs and Driving Growth. VisionMobile

Wimmala, P. and Leela, T. (2016). "The Influence of Integarted Avertising on the Brand Trust and Brand Loyalty of Smart IT Device Customers in Thaialnd: a Case of Corporate Facebook Media." **Veridian E-Journal, Silpakorn University Internatioal**, 9, 4: 81-101.

Van, A. B., Van, W. D., and Overmeer, W. (2014). "Unlocking the ICT growth potential in Europe: Enabling people and businesses Using Scenarios to Build a New Narrative for the Role of ICT in Growth in Europe", a study prepared for the European Commission (DG CNECT) by The Conference Board.