AN ANALYTICAL STUDY OF FACTORS AFFECTING INNOVATIVE CAPABILITY AND ADAPTATION STRATEGIES OF THAI NEWSPAPER ORGANIZATIONS IN THE DIGITAL AGE

Worawudh Phakdiburut

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Worawudh Phakdiburut
The Graduate School of Communication Arts and Management Innovation

.... Major Advisor
(Associate Professor Jitraporn Sudhivaraseth, Ph.D.)

The Examining Committee Approved This Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Communication Arts and Innovation).

.... Committee Chairperson
(Associate Professor Asawin Nedpogaeo, Ph.D.)

.... Committee
(Associate Professor Malee Boonsiripunth)

.... Committee
(Professor Srisurang Poolthupya)

.... Committee
(Associate Professor Chaiyuth Chinokul, Ph.D.)

.... Committee
(Associate Professor Jitraporn Sudhivaraseth, Ph.D.)

.... Dean
(Professor Yubol Benjarongkij, Ph.D.)

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ABSTRACT

Title of Dissertation	AN ANALYTICAL STUDY OF FACTORS AFFECTING INNOVATIVE CAPABILITY AND ADAPTATION STRATEGIES OF THAI NEWSPAPER ORGANIZATIONS IN THE DIGITAL AGE
Author	Worawudh Phakdiburut
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This research aims to 1) examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age, and 2) investigate the adaptation strategies of Thai newspaper organizations in the digital age. A mixed-method research, quantitative and qualitative approaches, was employed. For the quantitative approach, a survey was administered via questionnaires. The sample consisted of 400 personnel in Thai newspaper organizations, selected by multi-stage sampling technique. Statistical data analysis was conducted by descriptive statistics, the Pearson's product moment correlation coefficient, and multiple regression analysis. For the qualitative approach, an in-depth interview was used to collect data from 25 key informants who were the executives, editors, assistant editors, and reporters as "journalists". Qualitative data were analyzed by categorizing systematically and using the analytical induction technique. The results were as follows.

The factors including leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs, had a positive correlation with the innovative capability of Thai newspaper organizations at the moderate level, with a statistical significance at the .01 level (p = .000). All predictor variables could jointly predict the variance of the innovative capability of Thai newspaper organizations at 51.60%. The best predictor was "leadership competency" with the beta weight (β) of .25, followed by effective operation, professional training and development, organizational culture, capital and organizational resources, and responding to the audience's needs with the beta weight (β) of .23,.20,.18,.16, and .14 respectively. There were ten adaptation

strategies of Thai newspaper organizations in the digital age categorized into three levels: corporate level strategy, business level strategy, and functional level strategy. Corporate level strategy: (1) growth strategy by changing the organization's direction into the digital age and building business alliance, and (2) retrenchment strategy by organizational restructuring and downsizing. Business level strategy: cost leadership strategy by reducing costs and increasing revenue from other businesses. Functional level strategy: (1) work process improvement, (2) content services provider, (3) using social media and digital technology, (4) responding to the audience's needs and behaviors, and (5) journalistic professional training and development.

The recommendations indicate that Thai newspaper organizations should strengthen an innovative capability to gain a competitive advantage as well as shape adaptation strategies in accordance with the changing Thai socio-cultural context. They should develop digital communication systems, promote a digital corporate culture, and emphasize the response to audience's needs and behaviors. Digital journalistic training and development should be given to reporters to enhance their ability to become multi-skilled journalists as a mechanism to support the survival and growth of Thai newspaper organizations in the digital age.

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CHAPTER 1

INTRODUCTION

1.1 Background and the Significance of the Problem

The 21st century has brought along with an advanced technology, particularly digital technology, including the rise of the internet and social media. The current society has existed the digital age which starts from digital revolution related to the development of technology from mechanical devices and analog electronics to the digital electronics (Kovarik, 2011, p. 134). Digital technologies are playing a significant role in all sectors of societies and people's way of life. This phenomenon also causes a widespread change in information and communication systems and leads to a crucial shift in media structures and organizations (Lindgren., 2017).

Digital transformations are a major determinant in contemporary realities of society, and the speed and multiplicity of them, as well as the extent of their reach into all aspects of sociocultural and political economic existence (Youngs, 2013, p. 1). At present, digital technological innovation does not only affect a global society but also Thailand, which becomes a driving force behind Thai economic growth and an integral part of Thai people's lives. As Thailand 4.0 model of the economic propulsion, Thai government has consistently adopted digital technologies and is promoting a digital economy in order to enhance the competitiveness of the country and to prepare Thailand for transforming from the traditional economy into an innovation-driven economy (Thailand Board of Investment, 2017).

In the private sector, Thai business organizations also face a digital disruption or a transformation caused by emerging digital technologies and business models (Oxford College of Marketing, 2018). Moreover, in the media and communication industry, the media landscape has changed dramatically. The emergence of digital media innovation makes traditional media organizations adapt their operations or

change their organization to keep pace with changes to survive the competition and enables them to reach the audience who have the power to choose a more variety of channels (Jensen, 2010).

Although digital technology innovations develop unceasingly to execute human interactions and facilitate organizational functioning, they bring changes and uncertainty at every level of personal, organizations, and public. Therefore, all sectors must prepare and adapt themselves to change, including being aware of the risks that can occur all the time as Schmidt and Cohen (2014, p. 6) wrote in their book entitled "The New Digital Age",

> As global connectivity continues its unprecedented advance, many old institutions and hierarchies will have to adapt or risk becoming obsolete, irrelevant to modern society. The struggles we see today in many businesses, large and small, are examples of the dramatic shift in a society that lies ahead. Communication technologies will continue to change our institutions from within and without.

In the digital disruption phenomenon and the global competitive environment, a newspaper organization is a print media business organization being exposed to pressures from various effects inevitably. Moreover, Thai newspaper must compete with one another. Consequently, newspaper organizations have had to adapt to changing circumstances in order to survive and expand their market shares as many as possible. Therefore, an organizational adaptatability in each business model is an important strategy for the survival of an organization in the age of digitalization (Rachinger, 2018). Successful organizations must be able to adapt to environmental changes and to handle their impact on the operation of the firms, their competitors, and their customers appropriately. Many firms need an innovation and competitive advantages over their competitors when their profitability is greater than the average profitability of all companies in their industry. (Hill & Jones, 2008) Moreover, it is an important challenge for a business to find a way of achieving a sustainable competitive advantage over other products and firms in a market. However, if a newspaper organization does not adjust itself to change; it may face business

problems and cannot survive the competition and the effects of changes in the new media environment, both inside and outside the organization. This condition causes a recession in the organization, which is called an organizational decline (Daft, Murphy, & Willmott, 2017).

Newspapers industry around the world began to face various problems. For instance, in the USA, the problem of the newspaper business became apparent during the 1990s and intensified as the new decade progressed (Dominick, 2011). In Thailand, Thai newspaper organizations also have constantly confronted with many problems since 1997, or after Thailand faced an economic crisis. The impact caused many changes on the operation of the newspaper business such as a shutdown of a newspaper, no hiring of additional staff, or downsizing an organization by dismissing employees (Ratchadumnern Booklet Editorial Board, 2016). There have been many changes in Thai newspaper organizations up to present. For example, Banmuang Newspaper of Navakit Co., Ltd announced the end of the newspaper production and laid off their employees, effective January 1, 2017. Apparently, the newspaper business is affected by economic, social, and technological changes, including a change in consumers' behaviors, especially their exposure to news, information, and entertainment from more convenient platforms such as websites, social media, and mobile applications, etc.

The popularity of news exposure through newspaper among Thai readers is decreasing. Accordingly, the main source of the newspaper organizations' income from advertising also decreases. From a survey conducted by the Digital Advertising Association (Thailand) (DAAT) in 2017, although the country's GDP grew by 3.9 %, the overall media exposure was -4 %. Classifying by types of media, the exposure to television (digital TV, cable TV, and satellite TV) is -7 %, radio -16 %, newspapers -19 %, and magazines - 33 %, respectively. On the contrary, there was an increased exposure to media-in-store + 35 percent, transit media + 10 percent, cinema + 27 percent, and the internet + 24 percent respectively. (Digital Advertising Association (Thailand) (DAAT), 2017).

Regarding the performance of the central newspaper organizations, from the income survey of major Thai newspaper companies, it is found that many companies have suffered losses such as Post Publishing Plc or POST, the owner of Bangkok Post,

Post Today, and M2F, and many leading magazines such as Cleo, Elle, Forbes Thailand, etc. The loss of the first nine-month performance in 2015 was Baht 204.64 million. Matichon Plc (Matichon), and Nation Multimedia Group (The Nation, Krungthep Turakij, and Kom Chad Luek), the profits from the first nine months of 2015 was 81.38 million baht with a decrease of net profit. The turnover of Thai newspaper organizations is illustrated in Table 1.1

Table 1.1 The Turnover of Thai Newspaper Organizations in 2016

Company	Newspaper	Total Receipts	Profit (Lost)
1. Vacharaphol Co., Ltd	Thairath	Baht 3,904 million Baht (compared to last year total revenue = 12.3% decrease)	Net profit of Baht 1,456 million (compared to last year) Net profit decreased 11.6%)
2. Siam Sports Syndicate Plc	Sports and entertainment include 7 edition	Baht 1,783 million (13% decrease)	Net loss of Baht 51 million (net loss decrease 57.1%)
3. Post Publishing Plc	Bangkok Post, Post Today and M2F	Baht 1,757 million (4.7% decrease)	Net loss of Baht 253 million (net loss 75.2 % increase)
4. Si Phraya Printing Co., Ltd	Daily News	Baht 1,347 million (18% decrease)	Net profit of Baht 32 million (net profit 49.9% decrease).
5. Matichon Plc	Matichon, Khaosod, Prachachat Turakij	Baht 789 million (18.2% decrease)	Net loss of Baht 87million (net loss 319.4% increase)
6. Krungthep Media Co., Ltd and Nation News Network Co., Ltd	Krungthep Turakij, The Nation	Bath 660 million (4.3% decrease)	Net profit of Baht 51 million (net profit 12% decrease)

Company	Newspaper	Total Receipts	Profit (Lost)
7. Kom Chad Luek Media Co., Ltd	Kom Chad Luek	Baht 398 million (20% decrease)	Net profit of Baht 5 million (net profit 140.8 % increase)
8. Khao Sod Co., Ltd	Khao Sod	Baht 280 million (11.8 % decrease)	Net loss of Baht 3 million (net loss 88 % decrease)
9. Nation News Network Co., Ltd	The Nation	Baht 229 million (1.9% decrease)	Net profit of Baht 1 million (net profit 108.6 % increase)
10. ASTV Manager Co., Ltd	360 Manager	Baht 117 million (15.6% decrease)	Net loss of Baht 4 million (net loss 181.4% increase)
11. Siamrath Co., Ltd	Siamrath	Baht 123 million (4.8 % decrease)	Net loss of Baht 25 million (net loss 17.9% increase)
12. Naewna Newspaper Co., Ltd	Naewna	Baht 92 million (19.1 % decrease)	Net loss of Baht 5 million (net loss 573.9 % increase)
13. Sarn Soo Anacote Co., Ltd	Thai Post	Baht 74 million (11.9 % decrease)	Net profit of Baht 3 million (net profit 33.9% decrease)
14. Burapa Tasna (1999) Co., Ltd	Kaohoon or Daily Stock News	Baht 54 million (14.1 increase)	Net profit of Baht 2 million (net profit 39.6% increase)

Source: Ratchadumnern Booklet Editorial Board, 2016.

As shown in Table 1.1, the overall turnover of Thai newspaper industry has significantly decreased. It indicates that Thai newspaper industry is facing business problems, such as a decline of a newspaper exposure. This causes a negative effect on a newspaper production and distribution of Thai newspaper. As a result, the advertising revenue in newspapers decreases enormously as well.

It is recognized that today's Thai newspaper industry has clearly been affected heavily by technological innovation as well as by the change in the readers' behavior. All these external factors drive newspaper organizations to adjust themselves towards those changes through the application of modern technology in news reporting. Digital technology and social media are highly powerful tools that can influence and shape people's lifestyles. Social media has been playing a vital role in news reporting as they facilitate audience to receive information and news without relying on newspapers or media with complicated equipment. Moreover, online social media suit the new generation's reception behaviors, which need media to which they can expose in a short time without time and place limit. They also can choose to interact, share and exchange their ideas and information immediately (Dominick, 2011; Schmidt & Cohen, 2014; Youngs, 2013).

Due to such condition, since the mainstream media cannot report news or information from anywhere immediately, it causes a change in the audience's loyalty to mainstream media and influences them to seek for more immediate news reporting or a better channel for more immediate methods of information delivery. Every future generation will be able to produce and consume more information than the previous one, and people will have little patience or use for media that cannot keep up (Schmidt & Cohen, 2014, p. 48).

Nevertheless, a news reporting through the mainstream media, such as newspapers, have an advantage over new media in terms of its credibility owing to their double social statuses, namely as a public institution, and as a business organization. Therefore, media owners must try to balance these two statuses properly in order to be accepted by people in a society. As a public institution, a newspaper must present useful facts to the public and perform its duties as a decent media, complying with professional ethics and codes of conduct. As a business organization, it needs to concern about a profitable business operation that can grow (Campbell, Martin, & Fabos, 2014). Therefore, newspaper organizations continue to play an important role in society in spite of changing economic and social condition. According to Schmidt and Cohen (2014, pp. 48-49), news organizations will remain an important and integral part of a society in a number of ways, but many of them cannot survive under their traditional business operation. Only those that have

adjusted their goals, working process, and organizational structure, to meet the changing demands of the new global public can survive.

Owing to the emergence of new media and digital technology, Thai newspaper organizations have to disseminate their news through various new channels and platforms. They need to change their work processes through the communication innovation. Particularly, in competitive environment, innovation and innovative capability are major forces for driving the organizations' operations Kaplan and Norton (2004, p. 135) state that sustaining competitive advantage requires that organizations continually innovate to create new product, service, and process. Innovation is a key to making significant changes to organizations, both in public and private sectors. It also creates a new value and growth for an organization, especially to increase the competitive advantage (Luhman & Cunliffe, 2013, p. 22). Therefore, it will be useful to examine the innovative capability of Thai newspaper organizations in the digital age by focusing on the factors affecting an organization's innovative capability. Moreover, the study of the adaptation strategies of Thai newspaper organizations in the digital age will be explored.

From reviewing the previous studies, a number of studies on an innovation and an organization are found. To illustrate this, Jutathip Intraruengsri (2006) studied "An innovation organization indicators of nursing department regional hospital and medical centers", Kanpidcha Pinkaew (2011) studied "Innovative Public Sector Organizations: A Case Study of the Secretariat of the Cabinet", Woratham Phongsichomphu (2012) studied an "Effects of state enterprises' information technology utilization on being a learning organization and an innovative organization", Nattpee Na Witayanan (2012) studied "Framework of creating business model innovation : case study of Thai business organizations", and Wannapa Wichitchanya (2015) studied "Human resource management evaluation system for organizational innovative capability indication", etc. However, none has conducted a research about success factors of newspaper organizations in the digital age by applying theories of innovation and innovative capability as a framework of the study. Therefore, the first research question for this study is: What are the factors affecting the innovative capability of Thai newspaper organizations in the digital age?

Furthermore, regarding the adaptation of newspaper organizations, from reviewing the previous studies, some studies are found. Examples of these studies are "Business Adaption of Nation Multimedia Group in the Digital Media Era" of Asina Pornvasin (2009) "Adaptation Strategies of Media Organization to Convergence media: A case study of the Nation Group, Daily News and The Manager Media Group plc" of Asina Pornvasin and Sakulsri Srisarakarm (2013), "The adaptation of medium sized newspapers in Thailand under technological change. A case study of Siamrath, Banmuang, Naewna, and Thaipost newspaper" of Sukulya Kongpradit (2014) as well as "The digitalized newspaper organization: An identity crisis in the midst of the challenges of being early adopters of converged digital services" of Hultin and Skog (2011). However, most previous studies are a qualitative research, which is a case study. There has been a lack of the mixed-method research combining quantitative and qualitative approaches. Thus, this leads to the second research question: What are the adaptation strategies of Thai newspaper organizations in the digital age?

With the significance of the research problem, it leads to conduct a dissertation entitled "An Analytical Study of Factors Affecting Innovative Capability and Adaptation Strategies of Thai Newspaper Organizations in the Digital Age" in order to identify answers to the research questions. The theoretical concepts on innovation and innovative capability in combination with theories of media and communication studies as well as organization and management theories are used as a theoretical foundation. This research aims to fulfill the gap of knowledge on the digital journalism in Thai socio-cultural context and the results of this study can be applied for developing and supporting Thai newspaper organizations towards a further growth and an efficient operation in the digital age.

1.2 Research Questions

The research questions are as follows:

1) What are the factors affecting the innovative capability of Thai newspaper organizations in the digital age?

2) What are the adaptation strategies of Thai newspaper organizations in the digital age?

1.3 Research Objectives

In order to respond to the above research questions, the following research objectives are addressed:

1) To examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age.

2) To investigate the adaptation strategies of Thai newspaper organizations in the digital age.

1.4 Research Hypotheses

1.4.1 The research hypotheses are in accordance with the research objective one as follows:

Hypothesis 1 (H_1) Leadership competency and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 2 (H_2) Effective operation and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 3 (H_3) Capital and organizational resources, and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 4 (H_4) Organization culture and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 5 (H_5) Professional training and development, and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 6 (H_6) Responding to audience's needs and the innovative capability of Thai newspaper organizations in the digital age have a positive correlation.

Hypothesis 7 (H_7) Leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to audience's needs can jointly predict the innovative capability of Thai newspaper organizations in the digital age.

1.4.2 The research hypothesis for the research objective two:

Newspaper organizations have the adaptation strategies at the corporate level, business level, and functional level in response to changes affecting organizations' operation and growth in the digital age.

1.5 Scope of the Study

To conduct the research and achieve the research objectives effectively, the researcher defines the scope of the research as follows:

1) Scope of Content

This research explores the factor affecting the innovative capability and adaptation strategies of Thai newspaper organizations in the digital age.

2) Scope of Target Group

The target group of both quantitative and qualitative study is executives, editors, assistant editors, and reporters as "journalists" in the central newspaper organizations. They are considered as a "sender" in communication process.

3) Scope of Area

The study selects only the central newspaper organizations located in Bangkok area.

4) Scope of Time

This study is conducted from August 1, 2016 to December 31, 2017.

1.6 Definition of Terms

In this study, the researcher defines key terms used in the research based on the related concepts and theories as follows:

1) Innovation means a new idea, method, process, or product. Innovation takes place through the provision of more effective products, processes, services, technologies, or business models that are made available to organizations, markets, and the society. In newspaper organizations, an innovation means a process of creating new values, methods, and products for an organization to stimulate the markets, make more profits, and enhance a growth for the organization.

2) Innovative capability means an organization's ability and potential to create something new. An innovative capability involves a deliberate application of information, creativity, and initiative in deriving greater or different values from resources, and includes all processes by which new ideas are generated and converted into useful products. In newspaper organizations, an innovative capability drives the competitive advantages and the advancement of the organization.

3) Strategy means a method or plan of action chosen to bring about the desired future, such as an achievement of a goal or a solution to a problem. A strategy must be well matched to organization strengths, weaknesses, and competitive capabilities. A strategy may operate at different levels of an organization - corporate level, business level, and functional level. A strategy is varied depending on the levels of strategy.

4) Organizational adaptation means an organization's ability to adjust to its environment and to improve its performance by modifying or improving its structure, processes, technology, culture, reward systems, attitude, and behavior. In this study, it emphasizes groups of daily newspaper organizations rather than a specific newspaper organization. Newspaper organizational adaptation is the ability of all sectors of the organization to modify its behaviors and actions in order to cope with change in its environment.

5) Adaptation strategy means a method or plan that serves to move an organization from the present condition to the desired state in achieving evolutionary success under conditions of uncertainty. In this study, it means the adaptation

strategies of Thai newspaper organizations in response to internal factors and external factors, which affect the operation of their organizations, to achieve their business goals or to yield a solution to a problem.

6) Newspaper organization means a news agency that is a registered institution or legal institution of journalism organized in a systematic structure and responsible for delivering information regarding current news to the public. The departmental structure and staffing of a newspaper, consisting of three main departments: the editorial, management, and production vary with its size. In this study, it focuses on group of daily newspaper organizations rather than a specific newspaper organization.

7) Digital age means the period characterized by technology that increases the speed and breadth of knowledge turnover within the socioeconomic system and enables people to access information and knowledge easily. The digital age is also called, the information age, which began around the 1970s and is still going on nowadays. The digital age starts with the digital revolution from analog electronic and mechanical devices to the digital technology available today.

1.7 Contribution of the Study

1.7.1 Academic Contribution

1) This research will provide useful information concerning the factors affecting the innovative capability of Thai newspaper organizations in the digital age.

2) The study can enhance a better understanding of the adaptation strategies of Thai newspaper organizations in the digital age.

3) The results of this research will fulfill the gap of knowledge on digital journalism in Thai socio-cultural context.

1.7.2 Applied Contribution

1) The results of this research can be used to plan the proper direction for Thai newspaper organizations in the digital age towards their future growth.

2) Thai newspaper organizations can apply adaptation strategies gained from this study to increase the innovative capability of their organizations in long term.

3) The findings of this study can be used to develop the effectiveness of news reporting of Thai newspaper organizations in accordance with the audience's needs and behaviors in the digital age.

1.8 Organization of the Study

This study is divided into five chapters. The summary details in each chapters are as follows:

1) Chapter one: Introduction. This chapter addresses the need for the research problems. It consists of eight parts including background and the significance of the problem, research questions, research objectives, research hypotheses, scope of the study, definition of terms, contribution of the study, and organization of the study.

2) Chapter two: Literature Review. This chapter is concerned with reviewing concepts, theories and related research on innovation and innovative capability, organizational adaptation, organizational strategy, new media and digital technology, concept of the Balanced Scorecard (BSC). In addition, this chapter also presents the previous study which related to the research. Moreover, to propose the conceptual framework that is relevant to the research methods combining quantitative and qualitative approaches.

3) Chapter three: Research Methodology. This study is a mixed - method research combining quantitative and qualitative approaches in form of convergent parallel design, which conducts quantitative method alongside qualitative method. In this chapter, to present the research design, target group of the study, research instrument, development and validation the research instrument, data collection, and data analysis.

4) Chapter four: Results. The results of this research presented correspond to two research objectives. They are divided into two main parts. Part 1 is an analysis of quantitative results on the factors affecting innovative capability of Thai newspaper organizations in the digital age, and Part 2 is an analysis of qualitative results on the

adaptation strategies of Thai newspaper organizations in the digital age. In an analysis of quantitative results is composed of descriptive statistics and inferential statistics in hypotheses testing. In addition, an analysis of qualitative results is composed of the results of in-depth interviews with key informants.

5) Chapter five: Conclusion, Discussion, and Recommendations. This chapter deals with the overall findings on the factors affecting innovative capability and adaptation strategies of Thai newspaper organizations in the digital age, including the discussion of the research results as well as the recommendations for practical implementation, and for the future research.
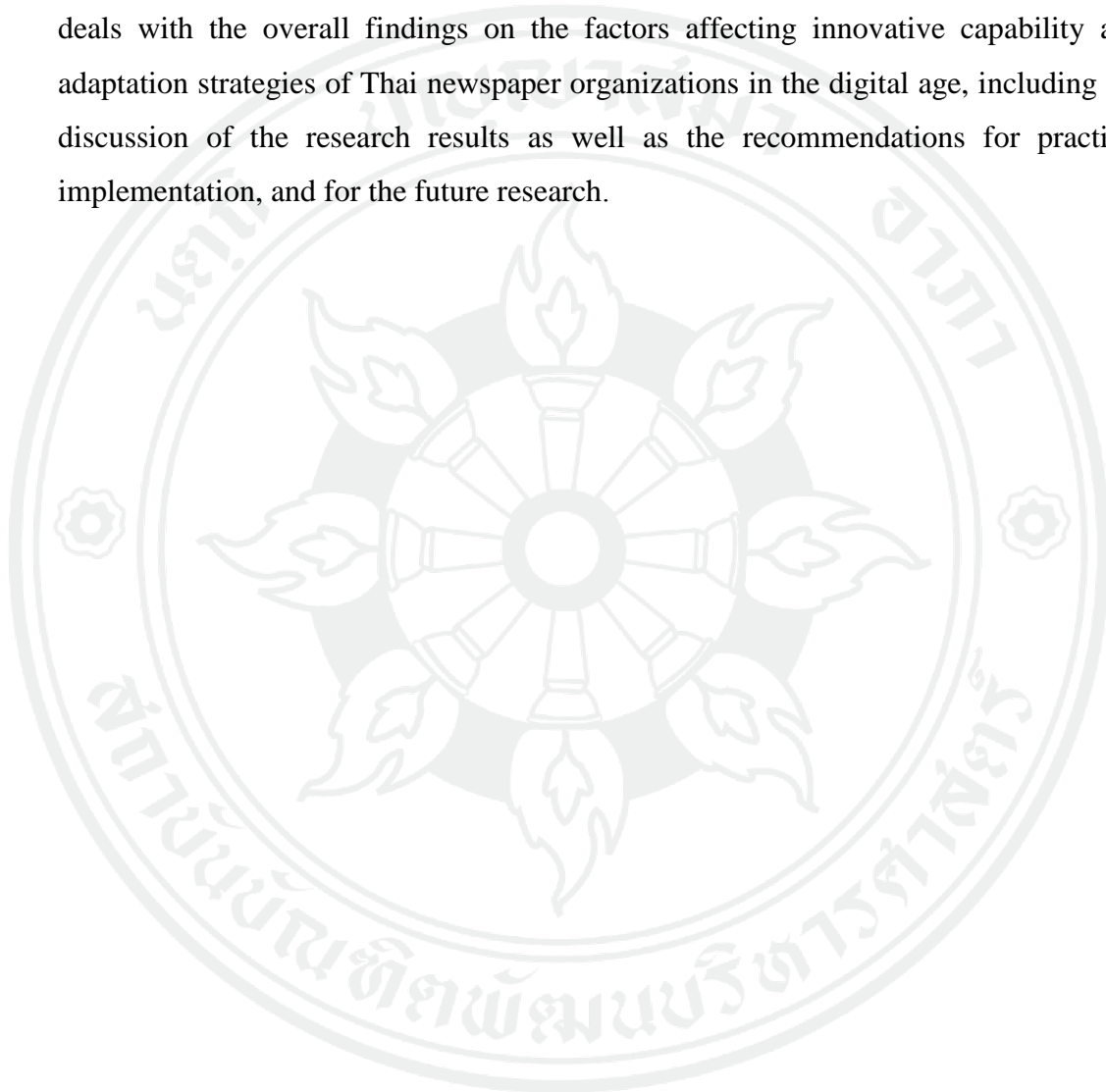
CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of the literature relevant to the research topic. The purpose of this chapter is to propose a theoretical foundation for this study. Therefore, a number of concepts, theories, and previous studies are reviewed to provide background and insights into the area of the research. The main content of this chapter is divided into two parts: theoretical concepts and previous studies. In the part of theoretical concepts, theories are categorized into three groups: innovation and organizational innovation, media and communication studies as well as organization and management. For the part of previous studies, they are divided into two groups: previous studies on organizational innovation and innovative capability, and on adaptation of newspaper organizations. Finally, a conceptual framework related to the study is proposed. The details are as follow.

1. Concepts and theories of innovation and organizational innovation
    1.1 Innovation and innovative capability
2. Concepts and theories on media and communication studies
    2.1 Newspaper organization in the digital age
    2.2 New media and digital media innovation
3. Concepts and theories on organization and management
    3.1 Organizational adaptation theory
    3.2 Organizational strategy
    3.3 The Balanced Scorecard (BSC)
4. Previous studies
    4.1 Previous studies on organizational innovation and innovative capability
    4.2 Previous studies on adaptation of newspaper organizations
5. Conceptual framework

2.1 Innovation and Innovative Capability

The concepts and theories of innovation and innovative capability are very important as the main theoretical foundation for this study. Innovation can be studied at many levels: individual, community, organizational, societal and national. However, this research focuses on the organizational level only, thus, concepts and theories of innovation and innovative capability in organizational level will be reviewed.

2.1.1 Definition of Innovation

Innovation means "something new" including ideas, objects, devices, and methods. However, innovation is often viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. The important scholars give the meaning of innovation as follows.

Cunliffe (2008) defines innovation as the development of new products, services, technology, work processes, and markets.

Griffin (2016) points out that innovation is the managed effort of an organization to develop new products or services or new uses for existing products or services.

Hitt, Ireland, and Hoskisson (2015) point out that innovation is a process used to create a commercial product from an invention.

Robbins and Coulter (2018) state that innovation means taking creative ideas and turning them into useful products or work methods.

Schilling (2016) defines that innovation is the practical implementation of an idea into a new device or process.

Besides the meaning of innovation, Gershon (2017) also indicates that a successful innovation must have essential features or elements that include novel principles, systematic processes and methods, and ongoing commitment. Many successful organizations are driven by an innovation. Examples of successful innovations are shown in Table 2.1

Table 2.1 Examples of Successful Innovations

Successful Innovation	Examples
An innovation is based on novel principles that challenge management orthodoxy.	HBO: Developed the principle of premium TV entertainment. Google: Greatly advanced information gathering on the internet through a key-word search. Amazon.com: Established the world's first and preeminent EC business model.
An innovation is the systematic processes and methods, that is, it involves a range of processes and methods.	Amazon.com: EC product display and online ordering system, warehouse inventory management, shipping, and distribution, direct-to-home sales delivery. Netflix: Online video rental, global inventory management, and TV/film video streaming.
An innovation is a part of an ongoing commitment to developing new and enhanced products and services.	Apple: iPod > iTunes > iPhone > iPad

Source: Gershon, 2017.

2.1.2 Type of Innovation

There are three types of innovation identified by Gopalakrishnan and Damanpour (1997): products versus processes, radical versus incremental, and technical versus managerial. Due to each creative idea that an organization develops poses a different challenge for the innovation process, therefore, innovations can be derived into radical or incremental, technical or managerial, and product or process innovation. (Griffin, 2016)

2.1.2.1 Radical VS Incremental Innovation

Radical innovations are new products, services or new technologies developed by an organization that completely replace the existing products, services, or technologies. In other words, innovations are new products, services, or processes that modify the existing ones. Organizations implementing a radical innovation will shift the fundamental nature of their organization to confront a competition so they will change their fundamental nature to interact with the changing environment. On the other hand, organizations implementing an incremental innovation will not change their traditional nature or elements but may alter or adjust something within the organization due to a competition in an industry.

2.1.2.2 Technical VS Managerial Innovations

Technical innovations are changes in the physical appearance or performance of a product, a service or a physical process through which a product or service is manufactured. Many of the most important innovations over these 50 years have been technical. For example, the serial replacement of the vacuum tube with the transistor, the transistor with the integrated circuit, and the integrated circuit with the microchip have greatly enhanced the power, ease of use, and speed of operation of a wide variety of electronic products. However, not all innovations developed by organizations are technical. Managerial innovations are changes in the management process by which products and services are conceived, built, and delivered to customers. They do not necessarily affect the physical appearance or performance of products or services directly.

2.1.2.3 Product VS Process Innovations

Perhaps the two most important types of technical innovations are product innovations and process innovations. Product innovations are changes in the physical characteristics or performance of the existing product or service or the creation of brand-new products or services. Process innovations are changes in the way products or services are manufactured, created, or distributed. Whereas managerial innovations generally affect the broader context of development, process innovations directly affect manufacturing.

2.1.3 The Organizational Innovation Process

In the organizational innovation process, most of the important sources of innovation always start from the creative ideas of an individual or a group. Robbins and DeCenzo (2004) indicate that innovation is a collaborative process by which organizations abandon old paradigms and make significant advances. Innovative ideas may come from various sources, including unreasonable demands or goals and time pressures. Nonetheless, an innovative idea is not useful for an organization unless it is examined and implemented. The effective solution is sometimes there; as a vision, a thought, or an imagination must be generated and developed to the reality.

The organizational innovation process consists of developing, applying, launching, growing, and managing the maturity and decline of creative ideas. This process is shown in Figure 2.1

Development Organization evaluates, modifies, and improves	→	**Application** Organization uses developed idea in	→	**Launch** Organization introduces new products or services
Decline Demand for an innovation Decreases,	←	**Maturity** Most competing organizations have	←	**Growth** Demand for new products or services
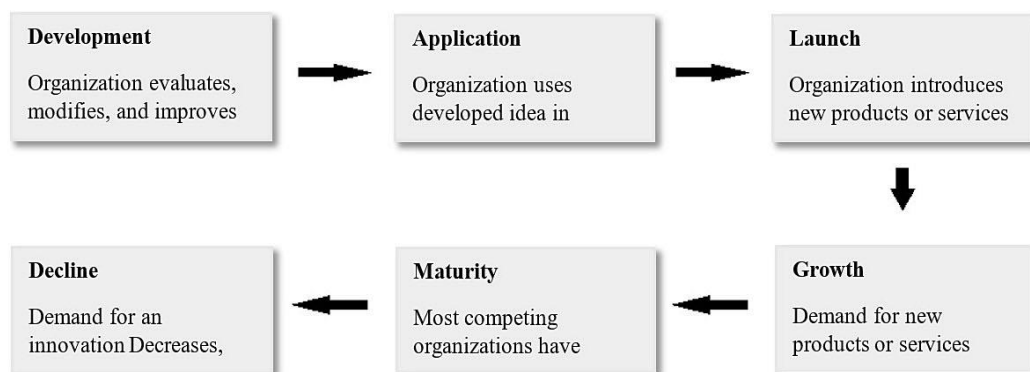
Figure 2.1 The Organizational Innovation Process
Source: Griffin, 2016.

2.1.3.1 Innovation Development. Innovation Development involves the evaluation, modification, and improvement of creative ideas. It can transform a product or service with only modest potential into a product or service with significant potential. Parker Brother, for example, decided during innovation development not to market an indoor volleyball game but instead to sell separately the appealing little foam ball designed for the game. The firm will never know how well the volleyball game would have sold, but the Nerf ball and numerous related products generated millions of dollars in revenues.

2.1.3.2 Innovation Application. Innovation Application is the stage in which an organization takes a developed idea and uses it in the design, manufacturing, or delivery of new products, services, or processes. At this point, the innovation emerges from the laboratory and is transformed into tangible goods or services. Business incubators and similar concepts are often used to facilitate innovation application.

2.1.3.3 Application Launch. Application launch is the stage at which an organization introduces new products or services to the marketplace. The important question is not "Does the innovation work?" but "Will customers want to purchase the innovative product and service?" History is full of creative ideas that did not generate enough interest among customers to be successful. Some notable innovation failures include a portable seat warmer from Sony, "New" Coke, the revival of the Ford Thunderbird, and the Flip video recorder. Thus, despite development and application, new products and services can still fail at the launch phase.

2.1.3.4 Application Growth. Once an innovation has been successfully launched, it then enters the stage of application because demand for the product or service is often greater than supply. Organizations that fail to anticipate this stage may unintentionally limit their growth, as Apple did by not anticipating demand for the first iPhones. At the same time, overestimating demand for a new product can be just as detrimental to performance. Unsold products can sit in warehouses for years.

2.1.3.5 Innovation Maturity. After a period of growing demand, an innovative product or service often enters a period of maturity. Innovation maturity is the stage at which most organizations in an industry have access to an innovation and apply it in approximately the same way. During this stage of the innovation process, it can be very sophisticated. Since most firms have access to the innovation; consequently, they can choose either to develop the innovation on their own or to copy the innovation from others. Still, it does not provide competitive advantages to any one of them. The time that elapses between innovation development and innovation maturity varies notably depending on the particular product or service. Whenever an innovation involves the use of complex skills, the moving from the growth phase to the maturity phase will take longer time. In addition, if the skills needed to implement these innovations are rare and difficult to imitate, the strategic

imitation may be delayed, and the organization may enjoy a period of sustained competitive advantage.

        2.1.3.6 Innovation Decline. Every successful innovation bears its own seeds of decline. Since an organization does not gain a competitive advantage from an innovation at maturity, it must encourage its creative scientists, engineers, and managers to begin looking for additional innovations. This continued search for competitive advantages usually leads to new products and services to move from the creative process through innovation maturity, and finally to innovation decline. Innovation decline is the stage during which demand for an innovation decreases and substitute innovations are developed and applied (Griffin, 2016).

2.1.4 Innovative Capability

The organization's innovative capabilities are important in providing and sustaining its competitive advantage, and in the implementation of the entire strategy. According to Barney (1991), in order for an asset to be a source of a competitive advantage for a firm, it has to be: 1) valuable; 2) rare; 3) difficult to imitate; and 4) difficult to substitute.

A capability is defined as an integration of these various kinds of special assets possessed by the organization. Firms hold heterogeneous resource portfolios and interior capabilities. The heterogeneity is responsible for the observed variability in the financial returns across the firms (Peteraf, 1993). These superior special resources and interior capabilities will constitute the base of competitive advantages if matched with an external environment. Moreover, Hitt et al. (2015) stated that capability is the capacity for a set of resources to perform a task or an activity in an integrative manner.

An innovative capability is a special asset of an organization. It is tacit and non-modifiable. Besides, it is correlated closely with interior experiences and experimental acquirement. The ability to introduce new products and to adopt new processes quickly has become an important facet of a competition. Moreover, a wide variety of assets, resources, and capabilities are required to make such innovation successful (Sen & Egelhoff, 2000). Because innovation is becoming exceedingly complex, therefore, an innovative capability should be defined in wide disperse

scopes and levels in order to accord with the requirements of firm strategy and accommodate to special conditions and competitive environment.

Adler and Shenbar (1990) define innovative capabilities as: 1) the capacity of developing new products satisfying market needs; 2) the capacity of applying appropriate process technologies to produce these new products; 3) the capacity of developing and adopting new product and processing technologies to satisfy the future needs; and 4) the capacity of responding to accidental technology activities and unexpected opportunities created by competitors. Christensen (1995) classifies innovative assets into 1) scientific research assets; 2) process innovative assets; 3) product innovative assets; and 4) aesthetic design assets. He argues that while most firms usually emphasize one of these assets, an innovation requires the combination of more than one of these assets to be successful.

Guan and Ma (2003) who studied an innovative capability and export performance of Chinese firms indicate that the innovative capabilities can classify into seven dimensions including learning capability, research & development (R&D) capability, manufacturing capability, marketing capability, organizational capability, resources exploiting capability, and strategic capability.

1) Learning capability is the capacity to identify, assimilate, and exploit new knowledge essential for a firm's competitive success.

2) R&D capability helps the firm to embrace many novel technologies and approaches when developing new technological assets.

3) Manufacturing capability refers to the ability to transform R&D results into products, which meet market needs, in accordance with a design request and can also be manufactured in batches.

4) Marketing capability indicates the capacity to publicize and sell the products based on the understanding of consumers' current and future needs, customers' access approaches, and competitors' knowledge.

5) Organizational capability is the capacity to constitute a well-established organizational structure, to coordinate the work of all activities towards shared objectives, and to influence the speed of innovative processes through the infrastructure it creates for developmental projects.

6) Resources exploiting capability represents the firm's ability to mobilize and expand its technological, human, and financial resources.

7) Strategic capability is the capacity to adopt different types of strategies that can adapt to environmental changes for the excelling in the highly competitive environment.

2.1.5 Innovation Factors for Successful Organization

Innovation is considered as an essential part of change or development of every organization (Cunliffe, 2008). In a general concept at organizational level, innovation is a popular managerial phenomenon. It seems widely accepted that in a competitive business environment, in order to sustain high performance, firms must embrace innovation as one of the strategic keys to success. According to Read (2018) who conducts a study on "Determinants of Successful Organizational Innovation: A Review of Current Research", the following factors are found to lead to successful organizational innovations, ranking from the highest to lowest frequency as follows:

1) Management support for an innovative culture

2) Customer/market focus

3) Communication/networking

4) Human Resourse strategies that emphasize an innovation

5) Team structures

6) Knowledge management

7) Leadership, creative development, strategic posture, flexible structures, continuous improvement, and technology adoption

The most important determinant identified was management support for an innovation and an innovative culture. The encouragement of innovation is a management function and must be a 'top-down' effort. Innovation does not only affect the organization but also influences a lot of organizational concepts, i.e. job satisfaction, quality of products, performance, knowledge management, adoption of the information system, etc. Furthermore, the innovation measurement scale helps the managers to recognize the facilitative factors of learning and to evaluate the innovation in their organizations. Then, they can develop organizational innovation in

their companies. Organizational innovation is an important source of growth and a key determinant of competitive advantage for many organizations (Lam, 2018).

2.2 Newspaper Organization in the Digital Age

This research aims to explore Thai newspaper organizations confronting the technological change in the age of digitalization. Therefore, concepts of newspaper organizations in the digital age are reviewed since the newspaper industry has been affected heavily by new media and digital technologies (Jones & Saltar, 2012). As a result, newspaper organizations have adapted their traditional practices to accommodate the numerous possibilities towards a change. The printed newspaper is decreasing while its online newspaper continues to gain recognition (Hultin & Skog, 2011).

2.2.1 Definition of the Newspaper Organization

The term "newspaper organization" is a news agency that is a legally registered institution of journalism responsible for delivering information regarding current news to the public. In order to operate effectively, it must be organized in a systematic structure (Dominick, 2011).

The departmental structure and staffing of a newspaper vary with its size. Newspaper organizations often identify their organizational structure, taking into account the responsibilities of their main line of work. It consists of three main departments: the editorial, management, and production (Malee Boonsiriphan, 2013). The main function of newspaper organizations serves as gateways.

The early conceptualization of Newspaper organizational impact was made in terms of the idea of a "gatekeeper role". This refers to the giving or denying of access through the 'gates' of the media according to some principles of organizational 'policy' or subjective ideas of what would best sell to an audience, under conditions of competition. This role was most in evidence in relation to news, where editors continually select from a vast amount of available or incoming material in a very routinized and focused way. However, basically, the same model applies to the selection of books for publication, film scripts for filming, music for recording and so

on. Subsequently, during the era of critical media theory, the same kind of theoretical analysis was applied to account for some of the alleged 'bias' of major news media in favor of authorities or the established consensus. The distinction was made between an intentional ideology and propaganda. On the one hand, 'unwitting biases' arose from organizational factors that generally tended to work in favor of the status quo by applying conventional news values and procedures. These included applying market criteria, relying on official, authoritative neglecting minority, and alternative voices, and adopting the reigning consensus in the wider framing of issues. Tuchman's classic study of news journalism vividly illustrates the way in which the nature of 'news as a form of knowledge' is directly shaped by constraints of time and space (Dominick, 2011; Shoemaker, 2006).

2.2.2 Newspaper Organization and Digital Technology

In the digital age, newspaper organizations have adapted to the new environment. The application of digital technology in both operations and news production is very important. Since the organizations face various problems, i.e. their distribution decreased, advertising incomes decreased, etc. Consequently, newspaper organizations have to change to survive.

Print newspapers have adopted their online newspapers by reporting news via a digital platform. There are three main types of online newspaper websites: 1) news aggregators, 2) online websites associated with a local or national print newspaper, and 3) online-only sites.

News aggregators are sites that take information from many sources and meld it into a new presentation. Two of the best-known news aggregators are Yahoo! News and Google News. The sites typically carry headlines and maybe a lead sentence or two with a link that takes readers back to the original source. They generally have no editorial staff who selects the stories, depending instead on a formula calculated by a computer program that scans a list of news websites.

The vast majority of online newspapers are affiliated with traditional print newspapers, either dailies or weeklies. Their structure varies, with some sites having a stand-alone organization with personnel who work only for the online site. Other sites combine the print and online operations so that one person may work for both. Most

of these websites have a small number of employees, averaging about 5-10 people. The most popular newspaper websites are those that have a print counterpart (Dominick, 2011).

2.2.3 The Production of Print and Online Newspaper

2.2.3.1 Departments and Staff

The departmental structure and staffing of a newspaper vary with its size. At the most general level, all newspapers are divided into three departments: 1) business, 2) production, and 3) news-editorial. The business department is in charge of selling advertising space in both the print and online editions and building the paper's circulation and website traffic. As the title implies, the production department handles the physical and electronic tasks necessary to get the news printed on paper and available on the website.

The most complex department is news-editorial that has two functions: news and editorial. They are kept separate in both online and print versions. The editorial pages contain opinions while the news pages contain objective reporting.

In the past, newspapers maintained separate departments for the print and online versions. For some newspapers, the online staff are on a different floor or even in a different building. However, for the current trend, especially for small newspapers, it is toward merging the two. One recent survey noted that about 9 out of 10 small newspapers have newsrooms that combine the print and online operation. Bigger newspapers tend to be more likely to have a separate print and web operation with about 6 out of 10 papers using a converged model.

There are several arrangements for a combined newsroom. One traditional arrangement is a newsroom directed by a managing editor who oversees and coordinates the day-to-day operations of the department. A city editor supervises local coverage, assigns reporters to beats (such as city hall, police, and health), and directs general-assignment reporters to handle a variety of stories. A wire editor edits international and national news from the Associated Press and other major news services. Most newspapers also have one or more people who are responsible for preparing the editorial pages.

A newer arrangement uses four defined roles: 1) a news flow editor who manages the progress of a story through both the print and online version; 2) a story builder who combines print, audio, and video elements for a story; 3) a news resource who specializes in information, providing background, depth, and context to stories in both the print and online versions; and 4) "backpack" journalists who conduct interviews, take photographs, and record audio and video footage for dissemination in print and online formats.Other staffing arrangements will probably emerge as the industry becomes more comfortable with the converged system.

2.2.3.2 Prepublication Routine

Operational convergence is evident in the way that the print and online editions are prepared. The traditional print newsroom had one deadline when all stories had to be ready. Therefore, the modern converged newsroom has emerged as a combination of technologies, products, staff, and geography among the previously distinct provinces of print, broadcasting, and online media. This phenomenon might be analyzed at least from four perspectives: technological, managerial, communicative, and professional, which were intertwined in a media environment. (Lee & Jin, 2018)

There are two basic sources for news: local reporting and wire services. Early in the day, the wire editor scans the outputs from the wire services and flags possible stories for the print and online editions. At the same time, the city editor is assigning reporters to various stories that will appear in print and online, and the managing editor is gauging the available space, the news hole, that can be devoted to news in that day's print edition. The greater the number of print ads, the greater the number of pages that can be printed, and the larger the news hole. The online edition, of course, has no such limitations.

Convergence is also showing up at the individual level. As the day progresses, reporters file stories for both the print and online editions. Many reporters also shoot and edit video for the website or record audio for a podcast. Since the Web version is continuously updated, some online stories may be rewritten several times. However, this is not all that is expected of the current newspaper reporter. They may be expected to write a blog, participate in chat rooms, and respond to reader e-mail.

Editors for the print edition edit stories and design page makeup. Photos and graphics are added, and the finished pages are sent to a composing room. Eventually, the pages make their way to the pressroom, where they are printed and bundled together for delivery.

The mentioned above, certainly, does not apply to the online version. Web editors post and update stories when needed. They also decide what photos and video and audio clips will accompany the day's stories. Many papers have instituted "early teams", and editor and one or more reporters, who start work around daybreak and work into the early afternoon reporting, writing, and posting stories exclusively for the web site.

In the digital age, newspaper organizations attempt to create a business model for developing their business. An example of a newspaper organization's business model which consists of value proposition, customer relationship, infrastructure management, and financial aspects are illustrated as follows.

Table 2.2 Main Differences between Business Models of Digital Newspaper and Traditional Newspaper

Business Models	Digital Newspaper	Traditional Newspaper
Value proposition	- Live delivery	- (One day) late delivery
	- Customization	- Standardized
	- Unbundling	- Bundled
	- Social platform and online sharing	- Cutting out news articles for sharing
Customer relationship	- Younger audiences	- Older audiences
	- Website or application	- Paper
	- Automated services	
Infrastructure management	- Maintaining social platform	- Printing newspaper
	- Maintaining website, servers, and application	- Distributing newspaper

Business Models	Digital Newspaper	Traditional Newspaper
	- Maintaining online security	
	- Direct contact with readers	
Financial aspects	- No printing costs	- High printing costs
	- Little distribution costs	- High distribution costs
	- Costs for running website and application	- Higher income from advertising
	- Lower income from advertising	- Income from newsstand

Source: Spil and Suijkerbuijk, 2018.

2.2.4 Newspaper in the Digital Age

Newspaper in the digital age can be called 'digital journalism' also known as online journalism. This is a present form of a digital newspaper where editorial content is distributed via the internet as opposed to publishing via print or broadcast. What constitutes 'digital journalism' is debated by scholars. However, the primary product of newspaper, which is news and features on current affairs, is presented solely or in combination as text, audio, video, or some interactive forms like news games, and disseminated through digital media technology.

Digital news reporting is a combination of the computer tablet presenting both the problem and solution for the challenges now faced by today's newspaper industry. It can be noted that the news reporting process in the digital age has changed dramatically. An example of the digital distribution of content and accumulation of information is shown in the following diagram.
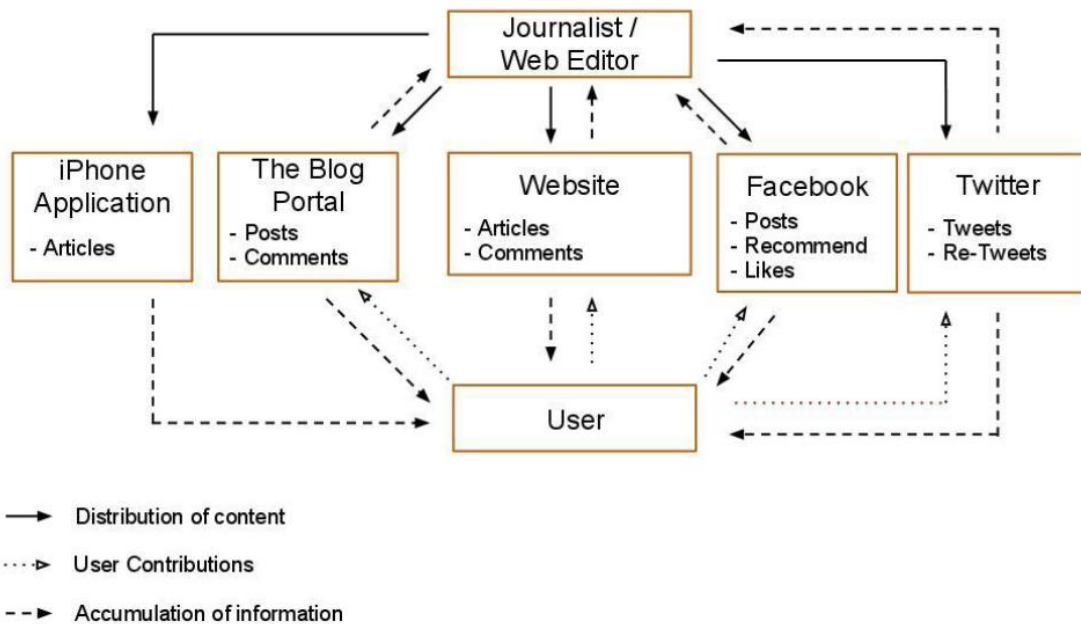
Figure 2.2 Digital Distribution of Content and Accumulation of Information
Source: Hultin and Skog, 2011.

The above model explains the use of digital channels when distributing content and getting feedback on articles and information for possible scoops. It describes how the journalist produces articles that the web editor reviews and adopts if it seems suitable for the web. The content is then adapted to shorter versions of the original article and distributed to the website or other digital services, as articles, posts or tweets where it is then consumed by users through digital artifacts as computers, or smart-phones. As users assimilate content through the digital channels that allow it, they interact with the material by writing blog posts regarding the content or reacting on it by commenting, recommending, liking or retweeting it. (Hultin & Skog, 2011)

Nowadays, since it appears that the future of the newspaper business is closely tied to its online efforts, this study will review a more detailed in online newspapers. Online newspapers have struggled to find lucrative business models over the years with varying results. Initially, the online newspapers had the freedom to experiment with the technology and to come up with additional services as the added benefits for the readers, but they failed to profit from this. Nonetheless, over the last few years, some of them have succeeded with payment services for additional content and

supplemental services such as weight loss programs. The banner sales have also grown over the years as the advertisers have recognized the media. It is fair to believe that the advertisers will follow to the e-newspaper once the readers have adopted the media. The advantages of the high readability and the mobility of the e-newspaper support the idea of possible lucrative services, such as mediated and location-based (Ihlström, 2018).

Online papers have certain advantages over traditional newspapers as follow (Dominick, 2011):

1) Print newspapers are limited by the news hole, the amount of news that can be printed in one edition. Online papers have no such limitations. The full text of lengthy speeches, transcripts of interviews, and extensive tables and graphs can be accommodated easily.

2) Online papers can be updated continuously; there are no edition deadlines.

3) Online papers are interactive. E-mail addresses, bulletin boards, and chat rooms allow readers to provide quick feedback to the paper. Many have searchable archives and links to other sites.

4) Online papers can provide photos and video and audio clips to accompany news stories and advertisements. Some even offer social networking web sites opportunities.

5) Online papers can feature user-generated content (UGC).

Newspaper in the digital age or an online newspaper is a newspaper in digital platforms, which can be searched comprehensively, quickly and reliably. Digital newspapers offer an effective channel to share and distribute news and interact directly with the customer. The choice between the traditional newspaper and digital newspaper is mostly determined by the perceived ease of use. This leads to older readers preferring the traditional print newspapers and younger readers preferring e-newspapers. Newspapers will need to pivot and employ a fresh approach to the channel they operate. Future business may be a significant departure from today's models, and except for a very few that offer premium content, most every newspaper will need to go to a digital-only model (Purdy, Wong, & Harris, 2017).

2.3 New Media and Digital Media Innovation

As this research aims to investigate adaptation strategies of Thai newspaper organizations that have adapted themselves by using new media and digital media innovation extensively, the concept of new media and digital media innovation are reviewed.

Nowadays, newspaper is a mainstream media or mass media that works in parallel to new media. For instance, newspapers have their online versions, as well as their own social networking sites producing a great deal of online content in relations to their print newspaper, etc. This dramatic change induces a great concern that new media and digital media innovation are growing at the expense of the mainstream media, which must evolve to survive.

2.3.1 Definition of New Media and Digital Media Innovation

New media technologies are referred to Web 2.0, which envelops a wide variety of web-related communication technologies, such as blogs, wikis, online social networking sites, virtual world, and other social media forms. New media, especially, social media is highly effective as a communication tool that can open up more opportunities to the public for sharing and creating content together. Moreover, it allows users to form communities with the potential to influence social changes in many forms. New media technologies blur the boundary between who produces the content, who invents the technologies, and who distributes the content (Lee & Jin, 2018, p. 260).

A number of scholars have given the definitions of new media in many ways as illustrated below:

Logan (2010) defines new media as digital media that incorporate two-way communication and involve some forms of computing," Moreover, new media is very easily processed, stored, transformed, retrieved, hyperlinked, and perhaps most radical of all, easily searched for and accessed.

In addition, each form of new media is highly interactive. Users of new media are active producers of information. They can create content such as pictures, videos, blogs posts, digital images, etc. and post them in online platforms (Gallegos, 2016).

Morover, Lievrouw and Livingstone (2002) describe new media by focusing on a message, technology, and the social context in which it is used. These three aspects of the new media show up repeatedly in the literature along with other more specific technologies and practices such as collaboration, digitization, interactivity, telecommunication, etc. Gitelman and Pingree (2003) take the temporal approach in coining the term "media in transition" to describe a period of time during which a medium is emergent as a sort of contrast to and a competitor to the old media. Manovich (2002) defines new media as cultural objects which use digital computer technology for distribution and exhibition.

Futhermore, Dominick (2011) describes that digital media technology is a system that encodes information, sound, text, data, graphics, video, etc., into a series of on-and-off pulses that are usually denoted as zeros and ones. Once digitized, the information can be duplicated easily and transported at extremely low costs.

Gershon (2017) explains that digital media is an innovation. It represents the artistic convergence of various kinds of hardware and software design elements to create entirely new forms of communication expression. Digital media is at the heart of today's communication revolution. People have entered the era of personalization, where smartphone users personalize their music listening experience and newspaper readers customize their news selection via their computer tablet.

2.3.2 Characteristics of New Media

As new media continues to grow and evolve, it is important to be able to understand the characteristics as they change and develop over time. There are many characteristics of new media which make it unique and very different from old media as follow (Dominick, 2011; Lievrouw & Livingstone, 2002; Manovich, 2002).

2.3.2.1 New media as one of the cyber culture. The term "cyber culture" is the study of various social phenomena associated with the internet and other new forms of network communication, such as online communities, cellphone usage in various communities and issues of gender and identity in internet usage.

2.3.2.2 New media as using computer technology as a distribution platform. New media uses digital computer technology for distribution. This definition must be revised every few years as computing technology advances.

2.3.2.3 New media as digital data controlled by software. This allows automation for media operations to produce multiple versions of the same object. For instance, a picture can be altered or generated automatically by running algorithms. Algorithms are unambiguous specifications of how to solve a class of problems. Algorithms can perform the task of calculation, data processing, and automated reasoning.

2.3.2.4 New media as the mix between existing cultural conventions and the conventions of software. Hollywood films keep computers out of key creative decisions, yet computer games use automation much more thoroughly, such as with 3-D character models and storyline events. New media becomes a combination of old data and new data; old data relies on visual reality and human reality, whereas new data relies on digital data.

2.3.2.5 New media as the aesthetics that accompanies the early stage of every modern media and communication technology. Instead of looking at how digital computers function as a media creation, media distribution and telecommunication devices, the focus can be on aesthetic techniques. For example, filmmakers in the mid-1990s used small, inexpensive digital cameras for films characterized by a documentary style so that they can focus on the authenticity of the actors' performances and a more intimate approach.

2.3.2.6 New media as the faster execution of algorithms previously executed manually or through other technologies. Digital computing can be thought of as a way to massively speed up manual techniques that already exist. Modern video games use an algorithm for a linear perspective.

2.3.2.7 New media as the encoding of the modernist avant-garde; new media as meta-media. New media represents the new avant-garde, which is no longer concerned with seeing or representing the world in new ways; rather, it seeks to access and use previously accumulated media. Thus, new media is post-media or meta-media.

2.3.2.8 New media as the articulation of similar ideas in post-WWII art and modern computing. New media further develops ideas contained in the new art of the 1960s, including active participation of the audience, artwork as a temporal process rather than a fixed object and artwork as an open system. In the 1960s,

computer art and minimalist art can be linked conceptually and historically to new media. It illustrates that algorithms, which are an essential part of new media, do not depend on technology but can be performed by humans.

2.3.3 Features of Digital Media Innovation

The advent of digital media innovation has resulted in major advances in storage, manipulation, and distribution of various audio and visual data. As a result, there are major advantages of digital media. In the past, media was stored in analog formats or on hard copies. Therefore, digital media has diminished all these previous disadvantages. It is a communication innovation as an intelligent network, which is not one network but a series of networks designed to enhance networking communication extensively for organizational and individual users. It is any method of storing, transmitting, receiving, and manipulating data in a digital form. Sound, images, text, and video are all available in digital format for use on a computer system, iPad or other similar digital devices. There are eight signature features of digital media innovation as shown in Table 2.3

Table 2.3 Digital Media Innovation and Eight Signature Features

Digital Media Innovation	Eight Signature Features
High-Definition Television (HDTV)	A television providing a high picture quality approaching that of 35 mm film. HDTV is considered the most significant development in television technology since color television because of its remarkably improved picture quality.
Video Streaming	The ability to distribute video information via the internet to one's television set, computer, or mobile device. This can include video clips (YouTube), movie HBO and Netflix), and social media (i.e. Facebook, etc.).
Wireless Mobile	A digital tool helping to increase the flexibility of

Digital Media Innovation	Eight Signature Features
	movement and access to the internet anytime and anywhere.
Video-on-Demand(VOD)	A category of pay television services that enables the cable, Internet Protocol TV (IPTV) or Direct Broadcast Satellite. (DBS) viewer to access feature films and concerts from a large selection of titles and program categories that are hosted on a remote server. In 2008, Netflix demonstrated that it would be a catalyst for change, opening the door for other services, including Hulu and HBO-GO.
MP3 File Sharing	A digital audio encoding format that utilizes compression technology. MP3 is designed to greatly reduce the amount of data necessary to provide a faithful reproduction of an original recording. The power of Internet-delivered music using MP3 file-sharing software has changed fundamentally the cost structure of music recording and distribution on a worldwide basis.
Digital Video Recording (DVR)	The ability to record selected television programs for late viewing. A DVR set-top box includes an on-screen guide of scheduled TV programs. The value proposition for the consumer is the ability to record one's favorite program as well as the ability to skip over commercial TV ads.
Cloud Computing	The storing of information and data on remote host site. Cloud computing provides both storages as well as the delivery of information services over a virtual platform using the networking capability of the internet. A user is able to access such a service on demand. Cloud computing comes in two general forms.

Digital Media Innovation	Eight Signature Features
	Public (Facebook and Google Calendar) versus private clouds (internal university or hospital networks).
Digital Video Compression (DVC)	The digitalizing and compressing of video pictures so that they may be processed, stored, and distributed with greater flexibility and ease. DVC has an important implication for diverse technologies and services such as 1) HDTV:2) increased channel capacity on cable, IPTV, and DBS:3) internet video streaming and 4) video games.

Source: Gershon, 2017.

2.3.4 Principals of Digital Communication

Digital communication is one of the modes of communication. It occurs when the information or the thought is encoded digitally as discreet signals and then is electronically transferred to the recipients (Melkonyan, 2018). In the past, older forms of communication and information technology, including mass media such as newspaper, radio, and television are considered as an analog form. An analog signal is a continuous signal that can be physically measured. One of the major problems associated with analog systems is their susceptibility to unwanted noise. Whereas, in an all-digital link, the signal is an exact replication of the original, thus eliminating any unwanted noise factors. The cut-and-paste function on a computer provides a simple illustration (Gershon, 2017).

All forms of digital communication are based on the principle of binary logic, which presumes that a signaling system is essentially in one of two states: open or closed. Binary logic uses the numbers 1 and 0 arranged in different sequences to exchange information. The numbers 1 and 0 are called bits from the word binary digit, which is the lowest possible unit of information that can be transferred or a byte is an eight-bit train: that is, one byte equals eight bits. A digital signal is made up of pulses of discrete duration, that is, a stream of bits that are either on or off. Digital signals are

sent as a sequence of pulses of fixed width and amplitude. Digital media can only be represented by a computer if it is in a language the computer understands. All computers use the binary system of representing data. The binary system is a digital method of representing data by using only two digits, the numbers 0 and 1. These numbers are identified by the computer as different types of information.

Moreover, there are seven important elements or functions of digital media: 1) Interactivity, 2) Virtual communication, 3) Information search, 4) Personalization, 5) Mobility, 6) Convergence, and 7) Artificial intelligence (AI). Accordingly, both social and technological consequences of digital media and intelligent networks on people and organization are considered (Gershon, 2017).

Table 2.4 Elements or Functions of Digital Media

Digital Media Function	Application and Sample
Interactivity	Human-Computer Interface Design
	Video on Demand (VOD): Netflix, YouTube, HBO GO
	Clued Computing
Virtual Communication	Private Virtual Networks
	Global Virtual Teams: Videoconferencing, Skype, Facetime
	Social Media: Facebook, Twitter, LinkedIn
	Querying the Internet
	Content Service Providers
	- Google, Yahoo,
	- Wikipedia, Trip Advisor
	- Web MD Vacation Rental by Owners
Personalization	Digital Video Recording: Cable, IPTV, DBS
	Personalized Music Playlist: iTunes, Pandora, Rhapsody
	Personalized Web Site: Facebook, LinkedIn, page

Digital Media Function	Application and Sample
Mobility	Laptop Computers
	Smartphone
	Google Calendar, Yahoo Weather
	Global Positioning Services (GPS)
	Google Maps and Navigation
Convergence	Digital Photography
	Filmmaking and Special Effect
	High Definition Television (HDTV)
Artificial Intelligence	Personalized Recommendation Software
	Robotics
	Virtual Reality

Source: Gershon, 2017.

The advancement of new media and digital communication technology plays an important role as an effective communication channel. The combination of the internet and social media has fundamentally changed the method and speed at which information is conveyed to the public and society. It has led to the new media environment (Press & Williams, 2010).

Digital media technology offers a comprehensive range of cost-effective image editing services and one-stop prepress solutions. This technology focuses on enabling technologies for digital media systems, including technologies for analyzing media, generating interactive media, processing, and coding, optimizing wired and wireless transfer, and distributing digital 3D contents. Nowadays, the development of the internet meant that computers could send digital information to all parts of the globe. All of a sudden, a new distribution medium was available that permanently changed the media environment. In short, digital technology and the internet triggered a revolution in the way information is stored and transmitted, as a result, the mainstream media found themselves in uncharted waters and had to figure out how to cope with this drastic development. Newspapers, for example, used to exist only on paper (atoms). Now they exist in both paper and digital form (bits) (Gershon, 2017).

In conclusion, according to the reviewing new media and digital media innovation are theoretical concepts to understanding these innovations for exploring how the mainstream media are adapting to the condition of the technological change. It is useful to investigate the adaptation strategies of Thai newspaper organizations in the digital age in which is one important purpose of this study.

2.4 Organizational Adaptation

Due to this research aims to investigate the adaptation strategies of Thai newspaper organizations, theoretical concepts of organizational adaptation are reviewed.

Organizational adaptation is an important theory based on the main theory of organization and change management. Organizational change is a process in which an organization modifies its strategies, operation, technologies, and culture, and to monitor the effect of such changes on the organization. Therefore, an organizational change is a substantive modification to some parts of the organization. This condition can occur when an organization transits from its current state to a desired future state. A change can involve virtually any aspect of an organization: work schedules, departmentalization, a span of management, machinery, organization design, human resource management, etc. It is vital to state that any change in an organization may have effects beyond the area where the change is implemented (Johnson & Scholes, 2009).

2.4.1 Factors Affecting Organizational Adaptation

There are many factors, both internal and external, affecting organizational adaptation. An organization can be triggered by internal or external factors. Therefore, any change in these factors necessitates changes in an organization. These important factors are as follows (Cox, 2014; Cunliffe, 2008; S.P. Robbins & Coulter, 2018):

2.4.1.1 External Forces

External factors for change may come from the business climate, which is influenced by a range of factors, identified from PEST analysis as follow (Johnson & Scholes, 2009):

1) Political: National and international priorities and policies can limit or facilitate business, such as a government's decision to increase fuel duty may affect the ability of an organization to compete internationally. This could lead to Bright Spark opening or closing stores to reduce transportation costs.

2) Economic: Financial indicators such as inflation, interest rates, currency rates, and unemployment affect the demand for an organization's products and its ability to compete in the marketplace. For example, Bright Spark may be unable to compete on price in certain countries due to exchange rates so it will need to change the basis of competition.

3) Socio-cultural: Socio-cultural triggers such as changes in demographics and standards of living will affect demand for particular types of products. For example, concerns for the environment increase demand for lighting products that are energy efficient and are manufactured from sustainable materials.

4) Technological: Speed, frequency, and uptake of development of new technologies relating to production techniques, including materials, and IT trigger changes in an organization. For example, the development of low-energy light bulbs has triggered changes in Bright Spark such as the need to source different light bulbs from new suppliers.

5) Environmental: Issues that affect natural environments such as energy consumption and waste disposal and will require an organization to change its production processes.

6) Legal: Legislation such as employment laws, health, and safety regulations, and the data protection acts can trigger changes to business processes as well.

2.4.1.2 Internal Forces

It is not only the changes caused by external factors, which induce organizational changes; any change in an organization's internal factors may also necessitate changes. Such a change is required because of two reasons: changes in managerial personnel and deficiency in existing organizational practices. The internal environment consists of many factors such as an organization's owners, the board of directors, employees, and organizational culture, etc.

1) Owners or investors are people who have invested in a company or an organization and have legitimate rights and claims on the organization. Owner(s) can be an individual or a group of persons who start the company; or who have a share in the company or in the shared market. They have the right to change a company's policy.

2) Board of Directors, the board of directors is the governing body of the company or the organization who are elected by stockholders, and they are given the responsibility for overseeing a firm's top managers such as general managers.

3) The management at all levels is an important people. They bring own ideas and way of working in an organization. Moreover, when their attitude changes, an organization can be affected and has to change accordingly.

4) Employee or the workforces are one of the most important people in an organization's internal environment, who perform the tasks of the administration or production. Individual employees and the labor unions they join are important parts of the internal environment. If managed properly, an organization can be changed in a positive way. However, with ill management of the workforce, it can lead to a catastrophic situation for a company or an organization.

5) Organizational culture is the collective behavior of members of an organization, including the values, beliefs, and habits that they attach to their actions. An organizational culture plays a major role in shaping its success because culture is an embedded structure of an organization's internal environment and an important determinant of how well an organization will perform. Therefore, it plays a significant role in shaping behaviors of personnel in an organization.

2.4.2 The Adaptive Cycle and its Features

Mile and Snow (2003) argue that although organizational adaptation is a complex and dynamic process, it can be broadly conceptualized as a cycle of adjustment potentially requiring the simultaneous solution of three major problems: entrepreneurial (domain definition), engineering (technology), and administrative (structure-process and innovation).

Important features of the adaptive cycle are as follows:

2.4.2.1 The adaptive cycle is a general physiology of organizational behaviors. By dealing with an organization as a whole, the adaptive cycle provides a means of conceptualizing the major elements of adaptation and of visualizing the relationships among them. Furthermore, it specifies the areas where prescriptions from basic disciplines such as economics, marketing, etc. are most relevant.

2.4.2.2 The three adaptive problems i.e. entrepreneurial, engineering, and administrative are intricately interwoven. In many cases of the problems, simply solving the most salient adaptive problem does not always ensure an effective adjustment. For example, American Electronics attempted to create a new line of products, which it hoped to sell to a different target market. However, the company did not conduct the required technological and administrative adjustments. The result was their four years of largely wasted effort and heavy financial losses.

2.4.2.3 An adaptation frequently occurs by moving sequentially through the entrepreneurial, engineering, and administrative phases but the cycle can be triggered at any one of these points or phases. To illustrate this, the process of adjustment at News Publishing Company was initiated by the development of a new technology for producing a college textbook, which in turn created an entrepreneurial opportunity while at Valley Community Hospital the adaptive process began with an administrative change. In both cases, however, only a portion of the organization's adaptive problems was solved. While an adaptation can be triggered at any point in the adaptive cycle, the most rapid and effective adjustments appear to be those that are preceded by appropriate administrative changes.

2.4.2.4 Adaptive decisions made today tend to harden and become aspects of tomorrow's structure. In an organization, the emergence of some patterns of adjustment tends to constrain the management's choices towards the next cycle of adaptation. Four of these adjustment patterns are briefly described in the next section.

According to Mile and Snow (2003), an organizational adaptation can be a change at both the strategic and the operational level. At the operational level, an organization is modeled as a collection of adaptive agents, each of whom occupies a particular organizational position and has the capability of learning, over time, the experience they gain from the task they perform. At the strategic level, an

organization can adapt strategically in response to changes in its performance by altering its design in a number of different ways including downsizing, expansion, and re-engineering. This strategic adaptation is modeled as a simulated annealing process.

The strategic-choice approach essentially argues that the effectiveness of organizational adaptation hinges on environmental conditions and on how an organization will cope with these conditions. As aforementioned, this complex and dynamic process can be broken apart into three major problems that top management must continually solve: entrepreneurial, engineering, and administrative problems. In a mature organization, each of these three problems typically occurs more or less simultaneously, but they can be sequential as well.

2.4.3 Types of Organizational Adaptation

An adaptation is the ability of an organization to modify its behaviors and actions in order to cope with change in its environment (Cross, 2013). In theoretical concept, Mile and Snow (2003) explained that there are four types of organizational adaptation: the Defender, the Reactor, the Analyzer, and the Prospector. The four types have the following general characteristic as follows:

2.4.3.1 Defenders are organizations that have narrow product-market domains. Top managers in this type of organization are highly expert in their organization's limited area of operation but do not tend to search something outside of their domains for new opportunities. As a result, because of this narrow focus, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Instead, they devote their primary attention to improving the efficiency of their existing operations.

2.4.3.2 Prospectors are organizations that almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends. Thus, these organizations often are the creators of change and uncertainty to which their competitors must respond. However, because of their strong concern for products and market innovation, these organizations usually are not completely efficient.

2.4.3.3 Analyzers are organizations that operate in two types of product-market domains, one relatively stable, and the other dynamic. In their stable domain,

these organizations operate routinely and efficiently through a use of formalized structures and processes. In their more changing domain, top managers watch their competitors closely for new ideas, and then they rapidly adopt those that appear to be the most promising.

        2.4.3.4 Reactors are organizations in which top managers frequently perceive change and uncertainty occurring in their organizational environments but are unable to respond effectively. Because this type of organization lacks a consistent strategy-structure relationship, it seldom makes an adjustment of any sort until forced to do so by environmental pressures.

     Mile and Snow (2003) argued that when organizations compete within a single industry, their patterns of behavior begin to emerge. At least, four types of organizational adaptation are identified as a strategic choice. Each of these types has its own strategy and goals for responding to the environment, and each has a particular configuration of technology, structure, and process that is consistent with its strategy. Mile and Snow's four organizational strategic typologies can be summarized as shown in Table 2.5 (Vudhi Leelakusolvong, 2009).

Table 2.5 Mile and Snow's Four Organizational Strategic Typologies

Strategy	Goals	Environment	Structural Characteristics	Implication Example
Defender	Stability and efficiency	Stable domain	Tight control: extensive division of labor: high degree of formalization: cauterized	- Limited product range: Competes through low cost : High quality, efficiency paramount
Analyzer	Stability and Flexibility, Hybrid	Changing, Hybrid	Moderately centralized control; tight control over current activities;	- Core of traditional product: Enter new market

Strategy	Goals	Environment	Structural Characteristics	Implication Example
			looser Controls for new undertakings, Matrix Structure	after viability established by prospects
Prospector	Flexibility	Dynamic, uncertain environment, turbulent domain	Loose structure; low division of labor; low degree of formalization; decentralized. Flexible Structure	- Always seeking new product/ market opportunity
Reactor	Unstable	Changing	Loose structure to fit strategy; Ineffective performance; unclear organization strategy	- Lack coherent strategy; pressures from auditors, inspectors in driving performance improvement

Source: Mile and Snow, 1978, as cited in Vudhi Leelakusolvong, 2009, p. 54.

2.4.4 An Adaptation Maturity Process

Successful transformation to a more adaptive organization is possible by pursuing continuous improvement through a phased approach. The Capability Maturity Model (CMM), a tool for assessing processes in organizations provides an actionable roadmap for organizations seeking to migrate from crisis-based reaction to a more anticipatory and success-focused approach to change. According to Crosby (1979), there are five levels of an "adaptation maturity".

Level 1: The ad hoc level is where many organizations find themselves. They may be currently successful within some market segments but they do not anticipate internal or external changes that threaten their ability to maintain their market share.

They often recognize the needs to change far too late and then react in a crisis mode to change. Often their ability to adapt comes too late and with negative consequences.

Level 2: Before an organization can become more adaptive, it must have a credible vision and strategy that guides and are supported by senior leadership. A critical initial step towards an adaptation is for senior leadership to articulate a vision and strategy for the organization that clearly communicates the goals of the organization and the means to achieve those goals. Clearly, an effective and a frequent communication is a key tool for achieving credibility and plausibility within the organization.

Level 3: As an organization becomes more adaptive, it seeks an alignment of work processes and personnel programs in alignment with the vision and strategy. This is a critical phase for successfully transforming to a more adaptive capability. Often middle management resists changing unless it recognizes exactly how its work affects the outcomes desired by the organization. Communication remains a vital element at this level. Employees at all levels are assigned more responsibility to take initiative to improve work processes and to express opinions about the ways work is done that is not directly tied to desired outcomes. Processes and related information is more transparent to all within the organization.

Level 4: At this level, all employees understand how their work is directly related to the desired outcomes of the organization. All employees begin to think more about how customers view the organization. Pride increases as employees see that their actions are valued and respected by management. By this time, the organizational culture and beliefs have changed so that everyone in the organization takes responsibility for achieving desired outcomes.

Level 5: After the vision, strategy, leadership, processes, training, and culture are aligned, innovative programs can be pursued without fear and with the full knowledge. Organizations find out that these new ways to improve products and processes are both expected and valued. Employees are encouraged to work in small teams to find better ways to achieve desired outcomes continuously.

Therefore, an investigation of the adaptation of Thai newspaper organizations from print media to new media or digital media as a communication channel is important, including how they change to accommodate changes. The importance of

every successful business thus often the result of an effective strategic planning, execution directly related to corporate culture, organizational strategic relationship, and time spent on all organizational resources, especially organizational innovation and organizational adaptability (Tikka, 2010).

2.5 Organizational Strategy

An organizational strategy is widely based on the main theory of the organization and management, particularly in strategic management theory which have been extensively studied by many scholars and researchers. These concepts will be used as the foundation of this study to understand the adaptation strategies of Thai newspaper organizations in the digital age.

2.5.1 Definition of Strategy

The concept of strategy has been used since early time in the military. Later, it also has been used extensively in the public administration and business management. In business, as in the military, a strategy bridges the gap between a policy and tactics. Thus, there are many scholars identified definitions of strategy as the following examples.

Cunliffe (2008) defines strategy as a plan, decision, and action necessary to be used for achieving organizational goals.

Hill, Schilling, and Jones (2009) stated that strategy is a set of related actions that managers take to increase their company's performance.

Hitt et al. (2015) point out that strategy is an integrated and coordinated set of commitment and actions designed to exploit core competencies and gain a competitive advantage.

Griffin (2016) stated that strategy is a comprehensive plan for accomplishing an organization's goals.

Rothaermal (2017) indicated that strategy is a set of goal-directed actions a firm takes to gain and sustain superior performance relative to competitors.

To summarize, strategy refers to a method, plan, or a set of related actions that managers take to increase their organization's or company's performance for achieving organizational goals.

2.5.2 The Concept of the Mintzberg's 5Ps of Strategy

The concept of the 5 Ps of Strategy by Mintzberg (1987) is a practical guideline for an organization. Mintzberg provides five perspectives or five Ps: Plan, Ploy, Pattern, Position, and Perspective. This strategy concept can lead to an effective implementation. However, Mulder (2018) indicates that "strategy" has been used implicitly in different ways as follows.

2.5.2.1 Strategy as a Plan. A strategy is a plan for dealing with situations. A plan has to be made before possible actions are taken and it is important that the plan is followed consciously and effectively. Goals can only be achieved with a good plan.

2.5.2.2 Strategy as a Ploy. It is also a strategic choice to use a ploy. For instance, a strategy that a competitor does not expect. Organizations can make a surprise by implementing a plan that nobody ever sees it and putting it in competition with other potential providers of those services. It is a ploy to outsmart the competition.

2.5.2.3 Strategy as a Pattern. A strategy is a pattern, especially, a pattern in a stream of actions. A strategy needs a consistency in behaviors, whether intended or not. The definitions of strategy as a plan and a pattern can be quite independent of one another: plans may go unrealized, while patterns may appear without preconception.

2.5.2.4 Strategy as a Position. A strategy is also a position, especially, a means of locating an organization in its "environment". It is important to consider carefully in advance how an organization wants to position itself. Position is usefully identified with respect to competitors and customers.

2.5.2.5 Strategy as a Perspective. A strategy is more than the chosen position; it means the larger perspective. It is important to find out how different target groups perceive the organization so that they can use to make targeted strategic choices.

The Mintzberg's 5Ps of Strategy is a famous model used to explain strategy where each of the Ps is its own definition. A concept of the 5 Ps of Strategy can be summarized as follows (Jackson, 2013).

Table 2.6   Mintzberg's 5Ps of Strategy

Type of strategy	Explanation
Plan	A pre-determined, deliberate course of action, implementation and evaluation
Position	The means by which an organization is located
Perspective	An organization's ingrained, and collective, view of the world
Ploy	A means to outmanoeuvre competitors
Pattern	A series of actions which disply consistency in behaviour

Source: Jackson, 2013

In strategic management, the Mintzberg's 5 Ps of Strategy can be considered as parts of an organizational strategy but it should be wise to look at the 5 Ps as separate standpoints that all need to be considered for developing a strong and successful strategy. It is useful to employ the 5 Ps throughout the planning process. They provide relevant information necessary for the initial stages of strategy development. When implementing the strategy, the 5 Ps of Strategy can help with testing, evaluation and possibly with making adjustments.

2.5.3 Three Levels of Strategy

There are many levels of strategy in an organization: corporate level strategy, business level strategy, and functional level strategy (Hill et al., 2009; Hitt et al., 2015; Rothaermal, 2017). The levels of strategies are used in different ways.

Mitchell (2018) describes three aspects or levels of strategy formulation, each with a different focus, which need to be dealt with in the formulation phase of strategic management. At the corporate level, strategy is formulated for an

organization as a whole. Corporate level strategy deals with decisions related to various business areas in which the firm operates and competes. At the business unit level, strategy is formulated to convert the corporate vision into reality. At the functional level, strategy is formulated to realize the business unit level goals and objectives using the strengths and capabilities of an organization. The details of each level of strategy are as follow.

2.5.3.1 Corporate Level Strategy: Corporate level strategy is defined for the business areas in which a firm will operate. It deals with aligning the resource deployments across a diverse set of business areas, related or unrelated. Strategy formulation at this level involves integrating and managing the diverse businesses and realizing synergy at the corporate level. The top management team is responsible for formulating the corporate strategy. The corporate level strategy reflects the path toward attaining the vision of an organization.

2.5.3.2 Business Level Strategy (Competitive strategy): Business level strategies are formulated for specific strategic business units and relate to a distinct product-market area. It involves defining the competitive position of a strategic business unit. The business level strategy formulation is based on the generic strategies of overall cost leadership, differentiation, and focus.

2.5.3.3 Functional Level Strategy (Operational strategy): Functional level strategies relate to the different functional areas that a strategic business unit has, such as marketing, production, operations, finance, and human resources. These strategies are formulated by the functional heads along with their teams and are aligned with the business level strategies. The strategies at the functional-level involve setting up short-term functional objectives, the attainment of which will lead to the realization of the business level strategy.

2.5.4 Corporate Level Strategy

The top management must choose which way the organization should do: 1) maintaining its old business and operation by a business expansion or retrenchment, 2) maintaining its old business and operation but expanding to other kinds of business, and 3) expanding or moving to other kinds of business. The expansion can occur at an intra-organizational level or at an external level.

In general, there are four types of corporate-level strategy: Growth strategy, Stability strategy, Retrenchment strategy, and Mixed or Combination strategies (Hill et al., 2009; Hitt et al., 2015).

2.5.4.1 Growth strategies are strategies used, after data analysis, when the organization is found to be firm and ready to be leveled up towards its expansion. Growth strategies can be implemented in various forms:

1) Expertise-Concentrated Growth Strategy. It is a kind of growth strategy emphasizing only one area in one same market and it may be called, "a market penetration". For example, a highly standardized hospital emphasizes the expertise on a particular illness or disease, etc. The expertise-concentrated strategy can be divided into two sub-strategies.

(1) Vertical integration growth strategy. It involves a growth of buying raw materials or establishing a distribution center, which is called, "Backward integration", i.e., a hospital makes a merger with a pharmaceutical company or factory. In this case, an organization establishes its own distribution channel for consumers directly, it is called, "Forward integration".

(2) Horizontal integration growth strategy. This is an expansion of the organization by buying or merging with other organizations of the same line to increase a market share and to increase distribution channels for its customers, i.e. a small-sized hospital is merged by a larger-sized one, etc.

2) Diversification growth strategy. This is a strategy of expanding or dispersing into other lines of the organization or company to create a diversity and differentiation of the organizational operations, which may relate or not relate with the existing products or services. Diversification can be divided into two sub-strategies:

(1) Concentric diversification. This is an expansion by creating or relating new products with the old customers and a technology different from the old product line. This strategy is proper for an organization with a strong competition and can make more profits than a conglomerate diversification.

(2) Conglomerate diversification. It is an expansion not related to the old products or product lines but a look for other business with higher potentials when the growth of the old or the existing business is decreasing.

2.5.4.2 Stability strategies are considered as the strategy for keeping the organization's operation in the same way without any or not many major changes. It is a conservative approach and will be used only when an organization perceives no impact in future or under economic recessions. There are three sub-strategies of stability approach.

1) Pause or proceed with caution strategy is the strategy used after the growth strategies by adding more business units. This causes a shortage of resources or an environmental change that affects the operation of an organization.

2) No change strategy is the strategy that follows the same old strategies since they yield satisfactory outcomes without changing the organizational environment.

3) Profit strategy is the strategy used to cut down some expenses to increase profits. Shareholders' dividends may be increased in a short-term but the organizational growth will be stuck.

2.5.4.3 Retrenchment strategy is considered as a defensive strategy which the top management uses to decrease or slow down the organization's operation owing to some financial complicities, a perceived threat from competitors, or a drastic environmental change. Under retrenchment strategies, executives can choose either of these sub-strategies:

1) Turnaround is the strategy used by the top management to turn around the situation from bad to good in order to make profits again. By this strategy, executives will cut down salaries and welfare of workers, hold some non-profitable products and services, increase customers' satisfaction, or revise prices to gain more profit margins.

2) Harvest is the strategy used under a severe situation by implementing a policy aimed for the least investment but the most income in cash with a long-term plan towards selling out or discontinuing the business. Executives may increase the prices for maximal profits while decreasing advertising and other marketing costs.

3) Divestiture Executives may not invest in any business that is not congruent with the organizational operation or any business that will bring about no positive effect for an organization in a long term.

4) Liquidation is the strategy used under a financial crisis or under the circumstance in which no good future of an organization can be anticipated. Therefore, business abolishment is one of the strategies often used.

2.5.4.4 Mixed or Combination Strategy is the most common strategy used by applying a variety of methods and guidelines in a business operation. However, before implementing this strategy, business environmental factors need to be reviewed thoroughly, i.e. the use of growth strategy in combination with retrenchment strategy, etc. The reasons why an organization decides to implement their plans by mixed or combination strategies are many folded. For instance, a business comprises different kinds of networks that require different kinds of business strategies. There are four sub-strategies of mixed or combination strategies:

1) Sub-contracting is the strategy of a business expansion by letting a partner or other share investor run the business or operate the organization in the form of sub-contractors, mostly in concession business.

2) Cross-licensing is the strategy of sharing some rights, i.e. shared license, etc., to reduce the expenses and strengthen a business expansion.An organization often uses this strategy due to its reliance on a high-technology competency of its business partner.

3) Consortium is the strategy used by sharing some risks in business operations. What is often found in present time is a request of a financial institution to another financial institution to jointly give huge lump-sum loans to some customers.

4) Joint-venture is the strategy for a business expansion by attracting some investors from joining the organization or the company in various kinds of investment, i.e. "spiderweb strategy", a joint venture among small-sized businesses to compete with a large-sized business, "Go together-split strategy", a joint investment only at the initial stage. After each company can stand by itself, they will separate and run their business on their own, etc.

2.5.5 Business Level Strategy

A business level strategy is a strategic action plan by utilizing distinguished or outstanding resources or competency to create competitive advantages over competitors in the same industry. If an organization has only one kind of business, it will require related business strategies. However, if it expands into several kinds of business, each kind of business will require distinctively business strategies to compete in each line of business (Hill et al., 2009; Hitt et al., 2015; Rothaermal, 2017).

A business level strategy was firstly studied by Michael E. Porter. To settle some business-level strategies is to reply a question, "how or by which method can an organization create its competitive advantages over its competitors?" Firstly, an organization must know which kind of business it belongs so that it can determine its clear market shares. In most companies, Strategic Business Unit (SBU) will be responsible for implementing all strategic plans and activities. In general, business level strategies will rely on six major factors:

1) Competitor: An organization must know who its competitors are in order to select appropriate and sharp strategies to overcome its competitors.

2) Price: Prices of products and services should be the same or be in the same direction.

3) Customer: An organization must know who their customers are, including their needs and consumption behaviors.

4) Quality: It is a very important to distinguish the quality of an organization's products.

5) Relations: Although each organization may have many business strategies, all these strategies must be related in accordance with the organization- or corporate-level strategies.

6) Divestment or Liquidation: It is an implementation of plans based on available resources or factors in an organization. If products or services of any business unit cannot survive, such unit should be abolished.

Business level strategies aimed towards improving a profitability and business growth can be analyzed by SWOT Matrix or by "Competitive Strategy" of Michael E.

Porter comprising three sub-strategies: Cost Leadership, Differentiation, and Focus Strategy.

2.5.5.1 Cost Leadership is the strategy used by an organization with wide target markets by enhancing the effectiveness of business operations but, on the other hand, emphasizing lower prices with lower costs under a severe competition. Therefore, this strategy avoids any operation encountering additional costs, i.e. research and development, wasteful sales promotion, and advertising, etc.

2.5.5.2 Differentiation is the strategy that offers a better product or service for customers by creating some different or unique attributes from those of competitors. Mostly, a differentiation is in product design, facilities, service quality, image and reputation, innovation and technology, etc. In spite of higher prices, these differentiations can often satisfy customers since they trust on the quality and value they receive.

2.5.5.3 Focus is the strategy used for penetrating a market of specific groups of customers or niche market. An organization aims to design its product and service that suits each target to maximize their satisfaction over its competitors. However, an organization choosing to implement this strategy should not try to use it in too many markets.

2.5.6 Functional Level Strategy

Functional strategy or operational strategy is the strategy used for supporting business level strategies. Functional strategies involve sub-units in an organization and are implemented by those units to support their determined business strategies. The main principle of this strategy is to employ organizational resources towards the utmost benefits. In other words, a functional strategy determines strategies at a unit level, i.e. marketing, finance, research and development (R&D), human resource management, etc. All of these must be connected congruently with the least conflicts to achieve the same goal (Hill et al., 2009; Hitt et al., 2015; Rothaermal, 2017).

2.5.6.1 Product and operation strategy. Two aspects will be considered:

1) A system design. The top management must determine the product or operation strategy since the starting point before designing a production or

service system to respond to customers' needs with the lowest costs of production procedures and facilities.

2) An operation planning and monitoring in order to produce quality products or to provide an effective service to respond to customers' behaviors and genuine needs.

2.5.6.2 Marketing strategy: This strategy helps to determine how to distribute the products or service to a market, which responded to the needs of both old and new customers.

2.5.6.3 Financial strategy: In implementing this strategy, an organization needs to analyze its financial statement to know the outcome of the organization, including the weaknesses and strengths. Factors affecting the implementation of a financial strategy are:

1) Terms and conditions: credit grant, payment terms, the investment in bonds, stocks, bank deposits, inventory, etc.

2) Use of financial resources in relation to a long-term outcome or profit of each project, including the operation with costs, with the proceeding or under-adjusting financial statements.

3) An operation affecting loans givers and shareholders by considering how to pay back the occurred benefits to them and an appropriate timeline for giving credits to customers or buyers.

4) Financial collection by establishing an efficient accounting system that helps to indicate the overall financial status of an organization, including identifying whether each group of business gains profits. Besides, it can determine the proper time for submitting a report of the operational outcome of each unit at all levels.

2.5.6.4 Human resource management strategy: Human resource is an important asset of an organization. The principles of managing human resources are to develop employee towards utmost benefits, to enhance them to be ready and have necessary competence or skills in correspondence with an organization's needs, to motivate employee to perform with their full capacity and to increase their morale and motivation.

2.5.6.5 Research and development strategy: Due to technological and environmental changes, this strategy will help obsolete products and service with no competitive capacity to be updated and to respond to the needs of customers and markets.

In conclusion, strategy may operate at different levels of an organization-corporate level, business level, and functional level. The strategy changes based on the levels of strategy. Corporate level strategy: in this aspect of strategy, organizations are concerned with broad decisions about the total organization's scope and direction. Basically, we consider what changes should be made in our growth objective and strategy for achieving it, the lines of business we are in, and how these lines of business fit together. It is useful to think of three components of corporate level strategy: (a) growth or directional strategy (what should be our growth objective, ranging from retrenchment through stability to varying degrees of growth - and how do we accomplish this), (b) portfolio strategy (what should be our portfolio of lines of business, which implicitly requires reconsidering how much concentration or diversification we should have), and (c) parenting strategy (how we allocate resources and manage capabilities and activities across the portfolio -- where do we put special emphasis, and how much do we integrate our various lines of business). For business level strategy: this involves deciding how the company will compete within each line of business (LOB) or strategic business unit (SBU). In functional strategy: these more localized and shorter-horizon strategies deal with how each functional area and unit will carry out its functional activities to be effective and maximize resource productivity (Mitchell, 2018).

In an organizations'competitive environment, it can be stated that a good strategy needs to start with a clear and critical diagnosis of the competitive challenge by organization's management team for achieving organizational goals. A good business strategy presents a specific action plan to overcome a defined challenge. Moreover, good strategy involves multiple analyses and the painstaking development of thoughtful, expertly implemented policies, designed to surmount obstacles and move the firm profitably ahead (Griffin, 2016; Rothaermal, 2017).

2.6 The Balanced Scorecard (BSC)

At present, organization and management theorists have tried to search for academic principles to measure the effectiveness of the organization, especially in the managerial functions to ensure that an organization's goal is accomplished. One of the organizational measurement and control system concepts is the "Balanced Scorecard" (BSC), which is reviewed and used as one concept of this study.

The Balanced Scorecard is widely known as a strategic measurement system. This management tool was first presented by Robert Kaplan and David Norton in 1992. Nowadays, the Balanced Scorecard is one of the most important performance measurement and management control system used in various organizations. It is a tool to implement strategies and continuously monitor strategic performance and enables organizations to clarify their vision and strategies, including translating them into action. It provides feedback about internal business processes and external outcomes in order to improve strategic performance and results continually.

2.6.1 Definition of Balanced Scorecard

Kaplan and Norton (1996) defined "The Balanced Scorecard" (BSC) as "a system of linked objectives, measures, targets and initiatives that collectively describe the strategy of an organization and how the strategy can be achieved. It can take something as complicated and frequently nebulous as strategy and translate it into something that is specific and can be understood".

This tool supports the need to use a performance measuring system based both on financial and non-financial indices. According to Kaplan and Norton, the BSC preserves the traditional financial indices, which provide information on past events, but which are inadequate when it comes to guiding companies towards value creation by investing in the relations with their customers, suppliers, employees, as well as in technology and innovation.

The preset goal of BSC implementation is turning the company mission or strategy into objectives as concrete as possible for the company's current business, so that the contribution of each person involved becomes as clear and transparent as possible. Balanced Scorecard implementation is aimed at (Beţianu & Briciu, 2005):

1) getting the support of the strategic management;

2) achieving the consensus as concerns terminology and notations;

3) establishing the assessment criteria for the most important objectives;

4) implementing the management processes;

5) periodically assessing the performance;

6) evaluating the performance improvement opportunities

They further stated, "The Balanced Scorecard translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system". This strategic management system measures organizational performance in four 'balanced' perspectives:

Financial Perspective. This perspective is often renamed "Stewardship" or other more appropriate names in the public sectors. This perspective focuses on organizational financial performance and the use of financial resources.

Customer Perspective. This perspective views an organizational performance from the point of view of customers or other key stakeholders that the organization is designed to serve.

Internal Process Perspective. This perspective views an organizational performance by focusing on the quality and efficiency related to its products or services or other key business processes.

Learning & Growth Perspective. This perspective views an organizational performance in terms of human capital, infrastructure, technology, culture and other capacities that are key elements to break through a performance (Knapp, 2001).

To create the BSC, an organization's management team translates the mission, vision, and strategy of the organization or company into a scorecard. The scorecard measures must represent both a long-term and short-term success in the execution of the strategy. The measures are arranged in the four perspectives. Besides, the scorecard should contain both outcome measures that indicate an excellent prior performance, along with the performance-drivers that create a successful future performance (Knapp, 2001).

2.6.2 An important Elements of the Balanced Scorecard

2.6.2.1 Perspectives

Kaplan and Norton's Balanced Scorecard proposes strategies and performance management from multiple perspectives. The classical Balanced Scorecard has four perspectives:

Table 2.7 Four Perspectives of the Classical Balanced Scorecard

Perspective	Key Question
Financial	To succeed financially, how should we act toward our stakeholders?
Customer	To achieve our vision, how should we act toward our customers?
Internal Process	To satisfy our customers and shareholders, through what business processes should we be excel?
Learning and Growth	To achieve our vision, how will we foster our potentials and ability to change and improve?

Source: Bloomfield, 2002.

From Table 2.7, each perspective can be explained by a key question with which it is associated. The answers to each key question become the objectives associated with that perspective, and performance is then judged by the progress to achieving these objectives. There is an explicit causal relationship between the perspectives: good performance in the Learning and Growth objectives generally drives improvements in the Internal Business Process objectives, which should improve the organization in the eyes of the customers, which ultimately leads to improved financial results.

Though there are four basic perspectives proposed, it is important to understand that these perspectives reflect a unique organizational strategy. Therefore, the perspectives and key questions should be amended and supplemented, if

necessary, to capture that strategy. For example, a non-profit or governmental organization should not have the same perspectives as profit organizations.

2.6.2.2 Objectives and Measures

Objectives are the desired outcomes. The progress toward attaining an objective is gauged by one or more measures. Similar to perspectives, there are causal relationships between objectives. In fact, the causal relationship is defined by dependencies among objectives. Accordingly, it is crucial to set measurable, strategically relevant, consistent, time-delineated objectives.

Measures are the indicators of how a business is performing relative to its strategic objectives. Measures, or metrics, are quantifiable performance statements. As such, they must be:

1) Relevant to the objective and strategy.

2) Placed in the context of a target to be reached in an identified period.

3) Capable of being trended.

4) Owned by a designated person or group who has the ability to affect those measures.

An organization is likely to have a variety of types of measures. Some will be calculated from the underlying data. Others will be aggregated index measures that assign different weights to multiple contributing measures. Some are frequently measured and others may only be measured on a quarterly or annual basis.

It is important to balance lagging indicators, which include most financial measures, with leading indicators, areas where the good performance will lead to improved results in the future. It is also important to balance internal measures, such as cost reduction, injury incident rates, and training programs, with external measures like market share, supplier performance, and customer satisfaction.

2.6.2.3 Initiatives

An initiative is a change process or activity designed to achieve one or more objectives. The initiative is what will move a measure toward its target value. Initiatives may be large or small in scope. They generally are owned by a person or group, and are managed like projects (Bloomfield, 2002).

2.6.3 The BSC Indicators

The BSC indicators are generally delineated depending on a manager's priorities, into four categories corresponding to four dimensions of the classical model as mentioned earlier (Beţianu & Briciu, 2005).

2.6.3.1 The financial perspective generally approaches aspects regarding profitability, turnover, value added, new products, new customers, etc. The profitability strategy considers the costs structure designed to reduce expenses and to ensure a more efficient assets use.

2.6.3.2 The customer perspective includes indicators that should answer at least two questions: "Who are the target customers?" and "What is the value that the entity offers to its customers?" Entities generally choose one of the following three directions: operational excellence (small prices and high quality), product leader (providing the best product) or customer familiarity (interest in a long-term cooperation instead of short-term relations). This perspective actually tackles the connection between internal processes and customer relations, and it is aimed at determining indicators like the number of goods returned by the customers, the market share held, etc.

2.6.3.3 The internal processes perspective identifies the critical activities and considers the indicators assigned to the company's key processes. These key processes need to be subjected to a continual surveillance and improvement in order to add value to the services for the customers, such as the delivery service, development, reporting, innovation and development of new products designed to penetrate new markets or to attract new customers, product quality, production duration, faulty goods percentage, etc.

2.6.3.4 The learning and growth perspective comprises indicators on the employees' degree of satisfaction, availability, information dissemination extent, etc.

Within each of these categories (financial performance, in-house processes, customer relations and innovation), the entity must accurately define the following components: 1) *objectives*, more precisely the strategies that have to be fulfilled at the strategic level; 2) *measures,* the actual progress assessment for a

particular objective; 3) *targets,* the value estimates for each action; and 4) *Initiatives,* the actions that will be taken to facilitate the fulfillment of the proposed goals.
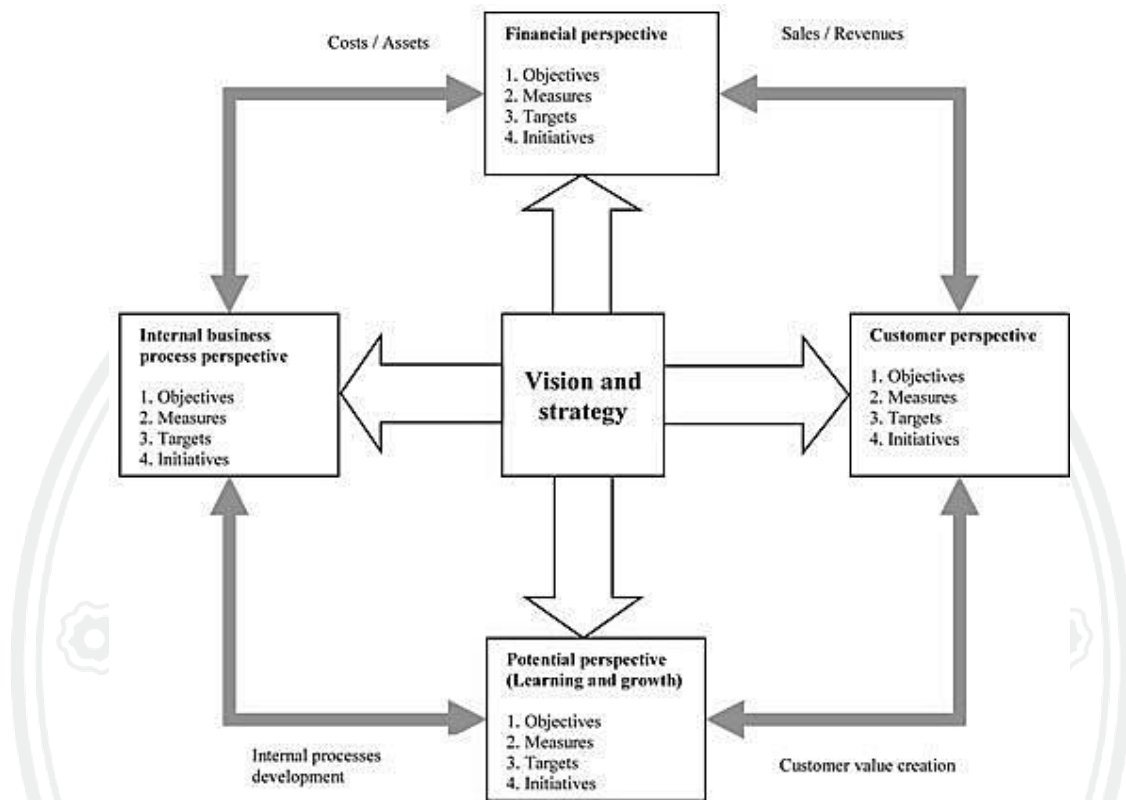
Figure 2.3 The Balanced Scorecard Framework Based on Kaplan and Norton (1996)
Source: Zizlavsky, 2014.

The BSC concept can be summarized that it is a strategic control system that has the merit of balance between financial and non-financial metrics and between internal and external factors affecting business (innovation) strategy. It links strategic objectives (long-term orientation) with annual budgets (short-term orientation), clarifies and gains consensus about strategic goals, tracks individual and collective performances, and defines and communicates company goals to its internal and external stakeholders. The BSC and organizational strategy have a relationship. Successful organizations use the BSC to create a culture of continual focus on strategy formulation, measurement, and revision. They create what Kaplan and Norton call a strategy focused organization (Bloomfield, 2002).

In conclusion, the aforementioned review of the concepts and theories: Innovation and innovative capability, media and communication: newspaper organization in digital age, new media and digital media innovation, organization and management: organizational adaptation organizational strategy, and the Balanced Scorecard, are used as the theoretical foundation in the study on "An Anlytical study of Factors Affecting Innovative Capability and Adaptation Strategies of Thai Newspaper Organizations in the Digital Age".

2.7 Previous Studies

According to a reviewing of relevant and related studies conducted by scholars and researchers, it was found that only few studies in the area of factors affecting organization's innovative capability and adaptation strategies of Thai newspaper organizations. However, the researcher has reviewed and categorized only the studies that are important and specifically relevant to this study. The previous studies were divided into two groups: 1) previous studies on organizational innovation and innovative capability, and 2) previous studies on the adaptation of newspaper organizations.

2.7.1 Previous Studies on Organizational Innovation and Innovative Capability

Jutathip Intraruengsri (2006) studied, "Innovative Organizational Indicators of Nursing Department, Regional Hospital and Medical Centers" to examine the innovative organizational indicators of nursing department, regional hospital and medical centers. The research findings reveal that the innovative organizational indicators of nursing department, regional hospital and medical centers composed of six components. The components were consisted of indicators as follows: a) Organizing: seven indicators b) Human resource: three indicators c) Market plan: three indicators d) Customer: five indictors e) Process: five indicators f) Good Human resource management evaluation system for organizational innovative capability indications/Service: five indicators.

Wannapa Wichitchanya (2015) studied, "Human resource management evaluation system for organizational innovative capability indication" The findings showed that most companies were large joint venture companies, and had been in operation existed from 11 to 15 years. The companies set innovation strategies and staff activities that promoted creativity. Meanwhile, the companies not set the department unit that responsible for organizational innovation, but assigned key individuals that were responsible for innovation. The companies had established cross-functional teams and external networking with distributors and users. Nonetheless, the companies established unclear innovation criteria for assessing individual performance. The relationship between corporate management and human resource management was positive, and the factors that could predict financial innovation performance were competency fit, empowerment, the incentive system, and career management. Assessment development used exploratory factor analysis and confirmatory factor analysis. The final assessments consisted of 32 items and the opinion survey of system implementing revealed that the users were satisfied.

Guan and Ma (2003) studied, "Innovative capability and export performance of Chinese firms". This study considered the role of the seven innovation capability dimensions (learning, research and development (R&D), manufacturing, marketing, organizational, resource allocating, and strategy planning) and the three firm characteristics (domestic market share, size, and productivity growth rate) in determining the export performances for a sample of 213 Chinese industrial firms. The empirical analysis of this research reveals the findings were 1) export growth is closely related to the total improvement of innovation capability dimensions, except for the manufacturing capability, 2) while domestic market share has no significant impact on export performances, productivity growth rate significantly increases or promotes export performances rates. Furthermore, while the larger firms demonstrate stronger export competitiveness, there has been no finding of an inverted U-shaped relationship between export and firm size, and 3) the core innovation assets (a set of R&D, manufacturing and marketing) alone cannot lead to sustainable export growth. On the contrary, the supplementary innovation assets (a set of four other dimensions) not only enable a firm's technology assets to permeate into the entire competency

integration, but also make it possible for a firm to acquire sustainable international competitiveness.

Read (2018) conducted a study on "Determinants of Successful organizational innovation: A review of current research" and found that research in this area is in its infancy. Most researchers agree on a definition of innovation and, though research is fragmented from different perspectives, efforts are being made towards a cumulative body of research and a general theory. Systems theory provides a convenient and popular theoretical framework, however, new approaches to theory such as chaos theory and the fractal paradigm are providing new insights. With the twenty research articles reviewed, most focused on organizational innovation and the manufacturing sector and used the method of surveys and interviews. In addition, only two of the studies focused on Australian firms. A number of common innovation determinants were identified from the research at a macro organizational level. The three main ones were management support for an innovative corporate culture, a customer/market focused, and a high level of internal and external communication and networking. The identified determinants are important factors that all managers need to address, but the importance of each factor will be weighted according to the context of the organization and its unique contingency variables. Organizational innovation is a management process and its development must come from the top down.

Woratham Phongsichomphu (2012) studied, Effects of state enterprises' information technology utilization on being a learning organization and an innovative organization. The result indicated that 1) state enterprise personnel rated level of a learning organization, an innovative organization, leadership, organizational culture and knowledge management practice in moderate level, while information technology utilization was in low level. 2) The adjusted model was consistent with empirical data. Model validation of a good fitted model provided $\chi^2 = 43.91$, df = 73, p = 1.00, χ^2 /df = 0.60, GFI = 1.00, AGFI = 0.98, RMR = 0.01, RMSEA = 0.00, and LSR = 1.98. The variables in the model accounted for 66 and 82 percent of the total variance of a learning organization and an innovative organization. Information technology utilization has a direct effect on an innovative organization and indirect effect through organizational culture. Informational technology utilization has an indirect effect on a

learning organization through leadership, organizational culture and knowledge management practice.

2.7.2 Previous Studies on Adaptation of Newspaper Organizations

Asina Pornvasin (2009) studied, "A Business Adaptation of Nation Multimedia Group in the Digital Era" to explore the business adaptation and marketing communication strategies of Nation Multimedia Group in the digital age, conducted by an in-depth interview with the executives of Nation Multimedia Group and by documentary analysis. It is found that the business adaptation of the Nation Group is to expand their media business based on paper newspaper incomes to broadcasting business based on television and radio income and to the new media business. Besides, their business adapts from being a new organization producing news content to an organization producing diverse information or from news business to non-news business increasingly. Furthermore, they adapt themselves from being a content producer for media owner or a content provider for other program owners to a media owner. The adaptation includes a change of their focus on the presentation of hard news to the soft news. In general, the Nation Group adapts themselves into three parts: an adaptation of business strategies, an adjustment of business structure, and an improvement in working processes within the organizations.

Asina Pornvasin and Sakulsri Srisarakarm (2013) studied, "Adaptation Strategies of Media Organizations towards Convergence Editorial Board: A Case Study of the Nation, Daily News, and the Manager". From this study, some commonalities of strategic positioning and of the search for appropriate convergence patterns for each organization are as follow: 1) Technical convergence strategy in establishing infrastructure for centralizing all information so that all sectors can use it, which facilitates information exchanges and sharing and maximize the effectiveness of the use of news and information. 2) The strategy of structural and organizational convergence of each organization to find an appropriate pattern. Most studied organizations chose to renovate their structure by developing their human resource from traditional media to be equipped with more skills. New teams with specialized competence and multi-skills are added into teamwork. This is to enhance a convergence of ideas and attitudinal changes. Besides, personnel chosen from

traditional media who can adapt themselves rapidly to technology and owns multi-skills can perform as a connector between the old or traditional media and the new or newly converged media for working together. 3) Production convergence strategy needed increasingly for full capacity working processes of teamwork on every media and platform, which is important for a decision making and policy planning. It is found that all three media organizations have a clear working frame and select versatile journalists who can perform several functions. In addition, more than one kind of media in a news process is supported. Morover, cooperative working with converged media and cross-media production are also supported. 4) All abovementioned strategies are what media organizations want to use towards being "Convergence Newsroom". Thus, these findings are expected to be used as a framework for setting a policy appropriate for each organization and for illustrating the distinctive pattern of convergence suitable for each particular organization.

Sukulya Kongpradit (2014) studied, "The adaptation of medium sized newspapers in Thailand under technological change: A case study of Siamrath, Banmuang, Naewna and Thaipost newspapers" and found that medium-sized newspapers converge their news operation in three patterns 1) Newsroom convergence: both newspaper and online editorial boards have a co-space working area without any distinctive separation of rooms. This convergence enables their consistent communication and induces their news-resources sharing. Nevertheless, both editorial boards produce news and disseminate it by their own channel. Newspaper editorial board is still responsible for producing news through its usual channel but also responsible for posting news to be presented on the website. 2) News gathering convergence: field journalists, news editors, and one photographer can gather news and editorial or illustrative images and disseminate through various channels. Most field journalists are equipped with a smartphone and tablet for gathering news and images and send their news to the editorial board for checking and verifying the content and sources before publicizing in the newspaper or on the website. Therefore, a journalist is responsible for multitasks. 3) Content convergence: the content on the website of a medium-sized newspaper is integrated with stories, illustrative images, clip video, and graphics, which is different from the old method of presenting only content.

Hultin and Skog (2011) studied, "The Digitalized Newspaper Organization: An Identity Crisis in the Midst of the Challenges of Being Early Adopters of Converged Digital Services". It is found that the newspaper industry has clearly been affected thoroughly by digital technology, and as a result has adapted its traditional practices to accommodate for the numerous possibilities this change presents. The printed paper is becoming less viable each day, while its online counterpart continues to gain recognition. Qualitative interviews are conducted as part of the case study, providing us with valuable insight into both how the organization works and makes decisions as well as the perspectives of individuals. The results are analyzed through applying a theoretical framework, building on previous research regarding digitalization and convergence. This study reveals that post-digitalization technological practices and investment decisions are heavily influenced by a pre-digitalization mindset on many organizational levels, leading to a utilization of new technological services in a manner which leaves much to be desired. Still, the organization competes very well on their market as the printed issue is able to carry its own weight and more.

Everett (2011) studied, "Transformation of Newspapers in the Technology Era" This study attempted to investigate how newspapers were adapting to technology and how well the changes were keeping up with altering consumer demands. This research examined what prominent technology newspapers were using to deliver news and whether adjusting to current technology was keeping readers satisfied. Using a triangular research approach by conducting interviews, secondary research, and survey, this research tackled questions from various perspectives to reach a multi-faceted conclusion. Despite the decline of print newspaper subscriptions, this research explained why newspapers might not be a dying business. To remain competitive news sources, newspapers were implementing new technologies, such as web sites, blogging and text/instant messaging, to deliver information. By optimizing advertising dollars and promoting consumer participation, these changes suggested a positive future for the newspaper industry.

Spil and Suijkerbuijk (2018) studied, "Digitalization in the newspaper industry: A business model for the e-newspaper from a customer perspective" and found that an e-newspaper is a newspaper in digital formats, which can be searched

comprehensively, quickly and reliably. E-newspapers have the form of a webpage or mobile application and can be accessed with personal computers and mobile devices like a tablet, phone or e-reader. Newspapers are read to search information, get updated news, for leisure reasons, and as a habit. The interviews show that newspapers are also read to socialize and be educated. On top of what a printed newspaper offers, the e-newspaper allows for live news coverage, although correctness is valued more. E-newspapers offer channel to share and distribute news, and interact directly with the customer. The choice between the traditional newspaper and e-newspaper is mostly determined by the perceived ease of use. This leads to older readers preferring the traditional newspapers and younger readers the most likely customer segment at this time.

To summarize, from the previous studies reviewed above, none has been conducted researches on the key success factors concerning newspaper organizations by applying theories of innovation and innovative capability as a framework of the study. This leads to the research on an analytical study of factors affecting innovative capability and adaptation strategies of Thai newspaper organizations in the digital age.

2.8 Conceptual Framework

After reviewing the related literature, the researcher applies and synthesizes aforesaid concepts and theories to propose the conceptual framework. There are sub-models of conceptual framework as illustrated in Figure 2.4
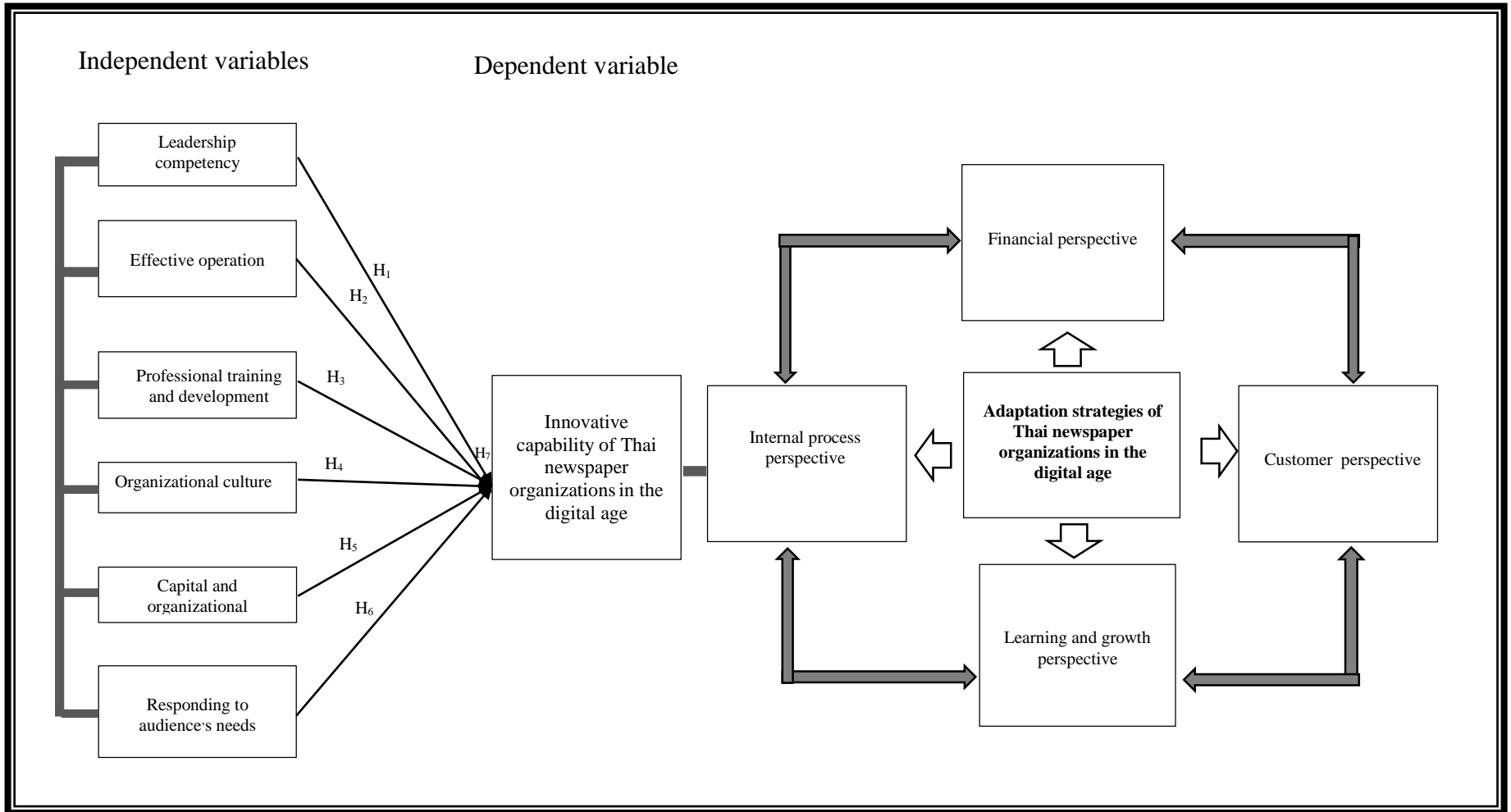
Figure 2.3 Conceptual Framwork

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the research methodology employed in this study, including research design, target group of the study, research instrument, development and validation of the research instrument, data collection, and data analysis.To accomplish the research objectives: 1) to examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age, and 2) to investigate the adaptation strategies of Thai newspaper organizations in the digital age, a mixed methods research is used both quantitative and qualitative approaches. These research approaches are integrated to provide a better answers and deeper understanding to the research problems.

It contains six main sections. The first section illustrates the research design and the research process. The second section describes target group of the study. The third section is the research instruments, including questionnaire and semi-structured interview guide. The fourth section explains the development and validation of the research instruments. The fifth section deals with the data collection process of both qualitative and quantitative approaches. The last section is the data analysis divided into the analysis of quantitative and qualitative data from survey questionnaires and in-depth interviews.

In order to achieve a clear understanding of the research methodology in a systematic way, the details of all the aforementioned sections are discussed as follow.

3.1 Research Design

This research was designed to respond to the research questions and achieve the research objectives. To design a mixed-method study, the researcher carefully considers each dimension of a mixed-method research. This research consisted of quantitative and qualitative approaches in form of convergent parallel design

(Creswell, 2013). The quantitative and qualitative methods, data, and analyses were integrated in the research process. Finally, the researcher gathered the results together. The research approaches were as follows.

3.1.1 Quantitative Approach

In conducting quantitative research, a one-shot descriptive study was used by survey technique for responding to the first research question: what are the factors affecting the innovative capability of Thai newspaper organizations in the digital age?

3.1.2 Qualitative Approach

A field study was conducted by an in-depth interview technique with key informants to identify an answer to the second research question: what are the adaptation strategies of Thai newspaper organizations in the digital age?

The research process was taken as shown in the Figure 3.1.
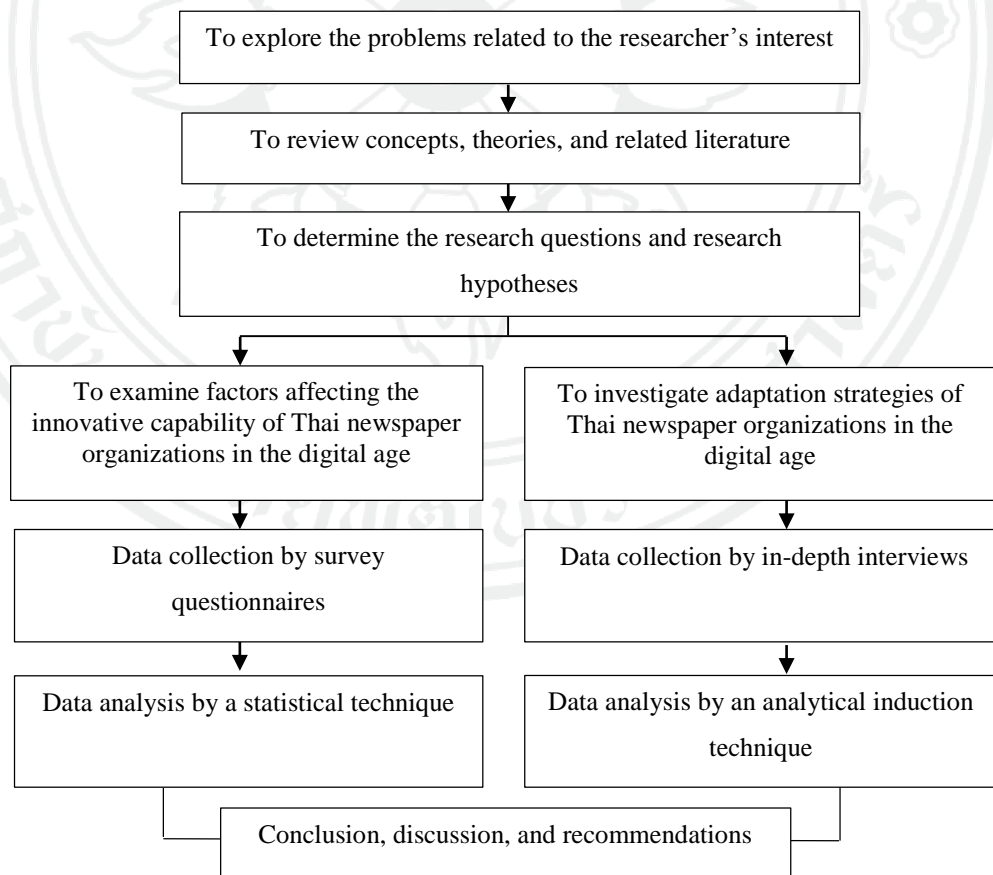
Figure 3.1 The Research Process

3.2 Target Group of the Study

As this research focuses on Thai newspaper organizations, the target group of the study was personnel who perform in Thai newspaper organizations. They were "representatives" of the organizational resources (Garavan, McGuire, & O'Donnell, 2004).

3.2.1 Population and Sample in the Quantitative Approach

3.2.1.1 Population

The population was executives, editors, assistant editors, and reporters in central Thai newspaper organizations in Bangkok.

3.2.1.2 Sample

1) Sample size

The sample of this study was obtained from the whole population. Due to unavailable data on the total number of the population, the W.G. Cochran formula was used to calculate a sample size. The level of confidence was at 95 %, with a tolerance of no less than 5 %, or at a statistically significant level of 0.05. The formula is as follows (Cochran, 1977):

$$n = \frac{P(1 - P)Z^2}{E^2}$$

Where   n refers to the sample size.

P refers to the proportion of the population at random .50.

Z refers to the confidence level. Z is 1.96.

 Confidence level is 95% (.05 significant level).

E refers to the error of sampling (.05).

Substitute n $= \dfrac{(.05)(1 - .5)(1.96)^2}{(.05)^2}$

$=$ 384.16

Therefore, at least 384.16 samples were required for this study to achieve the error of no more than 5% of the confidence level at 95%. The researcher determined the total number of the sample size to be 400 samples.

2) Sampling Procedure

From the total number of 400 samples, they were selected by a multi-stage sampling technique. The procedure was as follows:

Stage 1: The sixteen affiliated Thai newspaper organizations located in Bangkok were identified as shown in Table 3.1(Thai Journalist Association, 2015; The National Press Council of Thailand, 2015). The classification of the size of the organization was based on the number of newspaper prints and circulation: 1) Large size = more than 200,000 copies, 2) Medium size = 80,000 – 200,000 copies, and 3) Small size = less than 80,000 copies (Ubonrat Siriyuwasak, 2002).

Table 3.1 List of Newspaper Organizations

Name of Newspaper Organizations	Name of Newspapers
1. Vacharaphol Co., Ltd	Thairath
2. Siam Sports Syndicate Plc	Siamsport
3. Post Publishing Plc	Bangkok Post, Post Today, and M2F
4. Si Phraya Co., Ltd	Daily News
5. Matichon Plc	Matichon, Prachachat Turukij
6. Krungthep Turakij Media Co.,Ltd	Krungthep Turakij
7. Kom Chad Luek Media Co.,Ltd	Kom Chad Luek
8. Khaosod Co., Ltd	Khaosod
9. Nation News Network Co., Ltd	The nation
10. ASTV Manager Co., Ltd	360 Manager
11. Siam Rath Co., Ltd	Siamrath
12. Naewna Newspaper Co., Ltd	Naewna
13. Sarn Soo Anacote Co., Ltd	Thai Post
14. Burapa Tasna (1999) Co., Ltd	Kaohoon or Daily Stock News
15. Thunhoon Co., Ltd	Thunhoon
16. Daily World Today Co., Ltd	Daily World Today

Source: Thai Journalist Association, 2015; The National Press Council of Thailand, 2015.

Stage 2: From the sixteen newspaper organizations as aforementioned, they were categorized into three groups (sizes) and selected by a simple random sampling technique. There are eight organizations as follows.

1) The large-size organizations - five organizations: Nation Multi-Media Groups Plc and its subsidiaries (The Nation and Kom Chad Luek Newspaper), Matichon Plc (Matichon and Prachachat Thurakij Newspaper), Post Publising Plc. (Bangkok Post and Post Today Nespaper), Vacharaphol Co., Ltd (Thai rath Newspaper), and Si Phraya Printing Co., Ltd (Daily News Newspaper).

2) The medium-size organizations - two organizations: Siamrath Co., Ltd (Siamrath Newspaper), and Naewna Newspaper Co., Ltd (Naewna Newspaper).

3) The small-size organizations - one organization: Sarn Soo Anacote Co., Ltd (Thai Post Newspaper).

Stage 3: In this stage, the samples were selected by a quota simple random sampling. To reduce a bias caused by the size of an organization, the researcher determined 50 samples of each organization. The total numbers of the samples were 400 personnel.

Stage 4: After determining the total number of the samples in newspaper organization by the number specified or 50 each of eight newspaper organizations, the researcher selected the samples who work in eight newspaper organization by purposive sampling.

3.2.2 Participants and Selection in the Qualitative Approach

The participants and selection in the qualitative approach were conducted as follow:

3.2.2.1 The participants were obtained from personnel in Thai newspaper organization as mentioned above.

3.2.2.2 The organization samples were the same as those of the quantitative approach, which was selected from 16 Thai newspaper organizations in Bangkok area from three groups (sizes) of newspaper circulation.

3.2.2.3 The 25 key informants were selected from eight newspaper organizations by a purposive sampling. The list of key informants' names was shown in Table 3.2.

Table 3.2 List of Key Informants' Names

Newspaper Organizations	Name of Key Informants	Positions
1. Nation Multi-Media Groups Plc, Nation News Network Co., Ltd, and Kom Chad Luek Media Co., Ltd	1. Mr. Thepchai Yong*	Vice President of Nation Multi Media Groups Plc
	2. Mrs. Somruethai Subsomboon	Chief of Kom Chad Luek Website
	3. Ms. Jintana Punya-Awut	Executive Editor
	4. Ms. Asina Pornwasin	Online Content Editor
2. Matichon Plc	1. Mr. Thakoon Bunpan	Managing Director
	2. Dr. Ruangchai Sapnirund	Vice Chairman
	3. Mrs. Sakuna Prayoonsuk	Executive Editor
	4. Mrs. Chalatip Thirasunthrakul	Assistant Editor
3. Post Publising Plc	1. Mr. Wut Nontarit	Editor
	2. Mr. Pichet Chooruk	Vice Editor
	3. Dr. Anucha Charoenpho	Vice Editor (general news)
4. Vacharaphol Co., Ltd and Trend VG 3 Co., Ltd	1. Mr. Chavarong Limpattamapanee	Chief of Thairath Information Center and Consulting Editor of online news of Trend VG3 Co., Ltd (Thairath Online) and President of the National Press Council
	2. Mr. Pramed Lekpetch	President of Thai Journalists Association and Senior Reporter of Thairath Newspaper
	3. Mr. Karn Hemsamiti	Subcommittee of the National Press Council and Senior Reporter of Thairath Newspaper
	4. Miss Warunrat Kattamat	Online reporter of Lifestyle Table, Trend VG 3 Co., Ltd

Newspaper Organizations	Name of Key Informants	Positions
5. Si Phraya Printing Co., Ltd	1. Mr. Apichai Rungruangkul	Editor
	2. Mr. Sankom Buapuangnam	Reporter
	3. Dr. Leuphop Sorat	Sports News Chief
6. Siamrath Co., Ltd	1. Miss Jintana Junpaiboon	News Editor
	2. Mr. Wichai Sornruang	Social Network Chief
7. Naewna Newspaper Co., Ltd	1. Mr. Chaloemchai Yodmalai	Scoop and Online Editor
	2. Miss Yaowaluck Somjitsakul	Economic News Chief
	3. Mr. Athipong Loychuen	Online Editor
8. Sarn Soo Anacote Co., Ltd	1. Mr. Chatchai Nantapee	News Editor
	2. Mr. Prachyachai Dachthuyawatra	Political News Chief

Note: *During the data collection in 2017, Mr. Thepchai Yong was a Vice President of Nation Multi Media Groups Plc. At present, he has already resigned from this company.

3.3 Research Instruments

The research instruments were questionnaire and semi-structured interview guide as follows.

3.3.1 Questionnaire

The questionnaire was designed based on the related conceptual and theoretical approaches, consisting of four parts as follows:

Part 1:   Seven questions on personal information of respondents: gender, age, level of education, major of the study, current position, average monthly income, and length of time working in the organization.

Part 2:   Six closed-ended questions on the characteristics and working environment of the respondent's organization.

Part 3:   Ten questions for each seven factors to measure level of the respondent's opinion toward the following seven factors.

Factor 1: Leadership competency

Factor 2: Effective operation

Factor 3: Capital and organizational resources

Factor 4: Organizational culture

Factor 5: Professional training and development

Factor 6: Responding to audience's needs

Factor 7: Innovative capability of Thai newspaper organizations

The Likert scales with five levels: strongly agree, agree, neutral, disagree, and strongly disagree, were used to measure the respondent's opinions, either positive or negative response, to each statement in the questionnaire. The score for each level was shown in Table 3.3

Table 3.3 Scoring Criteria

Opinion/Opinion Level	Level of Score
Strong agree (Highest)	5
Agree (High)	4
Neutral (Medium)	3
Disagree (Low)	2
Strong disagree (Lowest)	1

Part 4:   The questions of this part were open-ended questions for respondents to provide more information and suggestions.

3.3.2 Semi-Structured Interview Guide

This instrument was designed and used for a qualitative approach, consisting of open-ended questions to draw the participants' views and opinions. (Creswell, 2013) The guide questions for in-depth interview were as follow:

1) What are the causes towards an adaptation of Thai newspaper organizations?

2) How does your organization realize the changes in newspaper work?

3) What are your organization's adaptation strategies in the digital age?

4) How does your organization prepare for changes in the digital age?

5) What kind of innovation does your organization implement to improve an internal working process?

6) What are your organization's development works toward the changes?

7) What kind of methods does your organization use?

8) How do executives and employees adapt themselves towards the changes?

9) How does your organization re-structure for the changes?

10) How does your organization improve its management?

11) How does your organization use new technologies to report the news?

12) Which problems does your organization face with adaptation to the changes?

13) Does your organization have any solutions to the problems faced in the digital age?

14) How does your organization reduce or expand its operations?

15) How does your organization prepare for the future operations?

However, by the nature of in-depth interview, it is flexible for the researcher to improve, adjust, or add questions depending on the actual context during the interview situation.

3.4 Development and Validation of the Research Instruments

The research instruments used in data collection were developed and validated as follows.

3.4.1 Development and Validation of the Questionnaire

1) Steps of the Questionnaire Development

(1) Before constructing a questionnaire, the researcher studied the concepts, theories, and previous research related to the research topic and the objectives as discussed in Chapter 2.

(2) The variables were identified as follow:

Independent Variables

Leadership competency

Effective operation

Capital and organizational resources

Organizational culture

Professional training and development

Responding to audience's needs

Dependent Variable

Innovative Capability of Thai Newspaper Organizations

(3) Questions were formulated based on the research questions.

(4) The formulated questionnaire was revised for a correct structure and language, i.e. words and sentences, etc., for clear and accurate content.

(5) The revised questionnaire was submitted to advisor and communication scholars for a content validity. Subsequently, the researcher corrected it in accordance with their recommendations.

(6) The questionnaire was tested before using it to collect data with the samples. Then, its reliability was tested.

(7) The researcher corrected some received shortcomings and revised the questionnaire to ensure its good quality and readiness to be used for further exploration.

2) Validation of the Questionnaire

(1) For a validity testing, the researcher presented the questionnaire to three research experts for certifying its accuracy with appropriate content and language, including the clarity of the questions in the questionnaire.

This study used the method called, "the index of item-objective congruence (IOC)", developed by Rovinelli and Hambleton (1977), for testing the validity.

The evaluation, using the index of item-objective congruence, is a process by which content experts rate individual items based on the degree to which they measure specific objectives listed by the test developer. More specifically, a content expert will evaluate each item by rating each item with one of three values:

+ 1 (or 1) = For clearly measuring or the rater is confident that the question can be measured towards the research objective.

0 = The degree to which it measures the content area is unclear or the rater is not confident that the question can be measured towards the research objective.

-1 = Clearly not measuring or the rater is confident that the question cannot be measured towards the research objective.

To remain independent evaluators, the experts are not told which constructs the individual items are intended to measure (Rovinelli & Hambleton, 1977).

The formula for determining the content validity by considering the index of item-objective congruence is as follows.

$$IOC = \frac{\sum R}{N}$$

Where IOC is the index of item-objective congruence

$\sum R$ is the total score of experts' rate in individual items.

The criterion for the index of item-objective congruence is equal to or greater than 0.5, indicating that it is appropriate. If any questions have an IOC of less than 0.5, the researcher will improve it before testing it with the sample. In calculating the consistency index, it was found that the IOC value was .66 - 1.00.

(2) In the reliability test, the researcher selected only those that had a statistic significance and have been updated to cover the content that needs to be measured. The internal consistency assay was tested by the alpha coefficient in accordance with the formula of Cronbach's Alpha Coefficient for the reliability of the questionnaire (Kurtz & Mayo, 1979).

$$\alpha \quad = \quad \frac{n}{n-1} \left[1 - \frac{\sum S_1^2}{S_1^2} \right]$$

Where   α   refers to   Confidence coefficient of the questionnaire.

           n   refers to   Number of questions

           S_1^2 refers to   Variance of questionnaire scores.

        Cronbach's alpha is a measure used to assess the reliability, or internal consistency, of a set of scale or test items. In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept, and Cronbach's alpha is one way of measuring the strength of that consistency.

        The resulting α coefficient of reliability ranges from 0 to 1 in providing this overall assessment of a measure's reliability. If all of the scale items are entirely independent of one another (i.e., are not correlated or share no covariance), then α = 0; and, if all of the items have high covariance, the α will approach 1 as the number of items in the scale approaches infinity. In other words, the higher α coefficient is, the more the items have shared covariance and probably measure the same underlying concept.

        For the internal consistency tested by Cronbach's Alpha Coefficient, the reliability of the following variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and innovative capability of Thai newspaper organizations were tested. The reliability of questionnaire was .86, .87, .85, 89, .91, and .90 respectively.

3.4.2 Development and Validation a Semi-Structured Interview Guide

In developing and validating a semi-structured interview guide, the following steps were conducted:

1) In the first step, the researcher reviewed theoretical concepts and relevant research as a guideline to formulate a semi-structured interview guide to respond to the research objectives.

2) In the validity and reliability test, according to Lincoln and Guba (1985), the validity and reliability of qualitative research was established to support its trustworthiness. The researcher presented the semi-structured interview to content experts for checking the content validity. Moreover, in the reliability test, the reliability of the semi-structured interview guide was tested by a pilot interview with non-sample participants. The reliability of the semi-structured interview was the results gained from many-time interviews which must be stable and reliable.

3) The quality of the semi-structured interview guide was inspected and rechecked to ensure that the instrument could be used for in-depth interviews.

3.5 Data Collection

In the process of data collection, both quantitative and qualitative data were collected by the researcher. The steps were as follows:

3.5.1 Quantitative Data Collection

1) The survey questionnaires were prepared for the samples in eight Thai news organizations: 1) Nation Multimedia Group plc and its subsidiaries (Nation News Network Co., Ltd and Kom Chad Luek Media Co., Ltd), 2) Matichon plc, 3) Post Publishing Plc, 4) Vacharaphol Co., Ltd and Trend VG 3 Co., Ltd, 5) Si-Phraya Publishing Co., Ltd, 6) Naewna Newspaper Co., Ltd.; 7) Siamrath Co., Ltd, and 8) Sarn Soo Anacote Co., Ltd.

2) The researcher clarified the objectives of this research to the samples. Subsequently, the survey questionnaires were administered to 400 samples.

3) After gathering the survey data from the samples, the researcher checked the completeness of the responses and numbers of questionnaires obtained. The total number of the questionnaires was 400 or 100%.

3.5.2 Qualitative Data Collection

For a qualitative data collection, the data was gathered from in-depth interviews with 25 key informants who were executives, editors, assistant editors, and reporters in Thai newspaper organizations. The in-depth interviews were used in each newspaper organization.

The following data collection was conducted:

1) The researcher studied basic and background information about eight Thai news organizations, such as the location, the corporate background, an organizational chart, board of directors, etc.

2) After studying some information on each organization, the researcher went to each selected newspaper organization for interviews with key informants, through a prior appointment.

3) Before an interview, the researcher assured the key informants that any data gathered in this interview would be kept strictly confidential. Besides, the data would be summarized and some direct quotations would be presented with the interviewees' name and their organization names.

4) During an interview with the key informants, the researcher allowed the interviewee to record their interviewing. The data will be transcribed after the interview.

3.6 Data Analysis

Data analysis is the process of systematically applying statistical and/or logical techniques to describe, illustrate, condense, recap, and evaluate data. The quantitative and qualitative data were analyzed in sequence as follows.

3.6.1 Quantitative Data Analysis

In the quantitative data analysis, the researcher used a computerized program for data processing and analysis. Statistical data analysis was conducted both descriptive and inferential statistics as follows.

1) Descriptive Statistical Analysis

(1) To analyze the samples' demographic characteristics and the characteristics and working environment of their organizations by frequency and percentage.

(2) To analyze the samples' opinions toward six independent variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs, and one dependent variable: the innovative capability of Thai newspaper organizations by mean and standard deviation.

The measuring range was divided into five rating scales. The average score range based on maximum value - minimum value and divided by level; level = $(5-1)/5 = 0.8$. The criteria for interpreting mean values by the range of scores was as follows (Mann, 2011).

Table 3.4 The Five-Point Likert Scale

Rating Scale	Range	Interpretation
5	4.21 – 5.00	highest
4	3.41 – 4.20	high
3	2.61 – 3.40	moderate
2	1.81 – 2.60	low
1	1.00 – 1.80	lowest

Source: Mann, 2011.

2) Inferential Statistical Analysis

(1) The Pearson's product-moment correlation coefficient is used to measure the strength and direction of the linear relationship between two variables

on a scatterplot that is defined as the covariance. This analysis was to test the hypotheses 1-6 of the quantitative approach.

The correlation coefficient can range in value from -1 to $+1$.

The larger the absolute value of the coefficient, the stronger the relationship between the variables. The interpretation of the correlation coefficient was shown in Table 3.5 (Rumsey, 2009, p. 314).

Table 3.5 Interpretation of Correlation Coefficient (r)

Correlation Coefficient (r)	Interpretation
Exactly -1.	A perfect linear relationship
-0.70. (About .70 - .90)	A high linear relationship
-0.50. (About .30 - .70)	A moderate relationship
-0.30. (About .30 - Below)	A low linear relationship
0.00	No linear relationship

Source: Rumsey, 2009, p. 314.

(2) The multiple regression analysis was used to analyze the regression coefficient value of predictor variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs, affecting innovative capability of Thai newspaper organizations. This analysis was to test the hypothesis 7 of the quantitative approach.

3.6.2 Qualitative Data Analysis

The researcher transcribed the complete raw data obtained from the in-depth interviews, based on research objectives and theoretical concepts reviewed as a conceptual framework for a systematic analysis

In qualitative data analysis, the primary data from the interview was analyzed to discover answers responding to the research question. The data analysis based on the guidelines of Miles and Huberman (1994) and conducted with the following steps:

Step 1 Coding: The data was extracted from the interview transcription, the coding and formatting made it more convenient and easier to revise. The number for each line was assigned to allow a preliminary analysis of the data. The codes were labels for assigning units of meaning to the data compiled during the study. All codes formed the in-depth interview process needed to be assigned with meaningful titles.

Step 2 Identifying themes, patterns, and relationships: The researcher read the raw data to identify common themes, patterns, and relationships from the responses of each key informant in relation to the codes that were specified in the previous stage.

Step 3 Grouping data: The researcher classified the codes. The data gained from in-depth interviews were grouped systematically.

Step 4 Interpreting and finding information: The data was interpreted by applying the relevant concepts and theories to find out answers on the adaptation strategies of Thai newspaper organizations in the digital age.

Step 5 Summarizing data: In this last stage, the researcher linked the findings to the research question. An Analytical induction technique was used to summarize the overall results.

In conclusion, the intention of this chapter is to describe the research methodology applied in the research process, particularly in data collection and analysis. The data analysis was based on the concepts, theories, and a conceptual framework which were reviewed in Chapter 2. The analysis of survey questionnaires and in-depth interviews obtained from the target groups were conducted using the mentioned conceptual framework. The results of the qualitative and quantitative approaches will be presented respectively in the next chapter.

CHAPTER 4

RESULTS

This chapter presents the results in response to the two main research objectives: 1) to examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age, and 2) to investigate the adaptation strategies of Thai newspaper organizations in the digital age. The results are presented based on the research methodology. It consists of an analysis of the quantitative and qualitative approaches as follows.

Part I: Analysis of Quantitative Approach on the Factors Affecting the Innovative Capability of Thai Newspaper Organizations in the Digital Age.

Part II: Analysis of Qualitative Approach on the Adaptation Strategies of Thai Newspaper Organizations in the Digital Age.

4.1 Part I: Analysis of Quantitative Approach on the Factors Affecting Innovative Capability of Thai Newspaper Organizations in the Digital Age

Quantitative data from the survey questionnaires were statistically analyzed to determine the factors affecting innovative capability of Thai newspaper organizations in the digital age. The following procedures were conducted.

4.1.1 Symbols and Abbreviations Used in Data Analysis

4.1.2 Sequence of the Presentation of Data Analysis Results

4.1.3 Analysis of the Quantitative Results

4.1.1 Symbols and Abbreviations Used in Data Analysis

The following symbols and abbreviations are used to describe the results of data analysis as follows:

X_1	refers to	Leadership competency
X_2	refers to	Effective operation
X_3	refers to	Capital and organizational resources
X_4	refers to	Organizational culture
X_5	refers to	Professional training and development
X_6	refers to	Responding to the audience's needs
Y	refers to	Innovative capability of Thai newspaper organizations
n	refers to	Samples
M	refers to	Mean $(\bar{x})$
SD	refers to	Standard Deviation
r	refers to	Correlation coefficient
df	refers to	Degrees of freedom
SS	refers to	Sum of Squares
MS	refers to	Mean Squares
R	refers to	Multiple correlation coefficient.
R^2	refers to	Coefficient of determination
R^2_{adj}	refers to	Adjusted coefficient of determination
b	refers to	Score Weight
β	refers to	Beta Weight
SE_b	refers to	Standard errors of regression coefficients of predictor variables
F	refers to	F-distribution
t	refers to	t-distribution
p	refers to	Significant
**	refers to	Significant at .01 level

4.1.2 Sequence of the Presentation of Data Analysis Results

The sequence of the presentation of research results is as follows:

4.1.2.1 General information of the sample: 1) demographic characteristics of the sample, 2) characteristics and working environment of the samples' organization, and 3) levels of opinions on leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs and the innovative capability of Thai newspaper organizations. These research results are presented with a frequency, percentage, mean, and standard deviation.

4.1.2.2 Results of hypothesis testing show:

The correlation coefficient between the following factors: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and the innovative capability of Thai newspaper organizations

The value of multiple regression coefficients between predictor variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and the innovative capability of Thai newspaper organizations.

4.1.3 Analysis of Quantitative Results

4.1.3.1 Demographic Characteristics of the Sample

The general characteristics of the samples include gender, age, level of education, major area of study, current job, and monthly income. The total sample size is 400. The data are presented by frequency and percentage as shown in Table 4.1

Table 4.1 Frequency and Percentage of the Samples' Demographic Characteristics

(n = 400)

Demographic characteristics		Frequency	Percentage
Gender			
	Male	163	40.80
	Female	237	59.30
	Total	**400**	**100**
Age			
	Below 26 years	-	-
	26-35 years	185	46.25
	36-45 years	179	44.75
	46-55 years	33	8.25
	56-65 years	3	0.75
	Above 66 years	-	-
	Total	**400**	**100**
Educational level			
	Below Bachelor's degree	90	22.50
	Bachelor's degree	266	66.50
	Master's Degree	43	10.75
	Above Master's Degree	1	0.25
	Total	**400**	**100**
Major area of study	Journalism/Newspaper	128	32.00
	Communication Arts/		
	Mass Communication	151	37.75
	Others	121	30.25
	Total	**400**	**100**

Demographic characteristics		Frequency	Percentage
Current job position	Staff / Operational Level	289	72.25
	Supervisors/First management	96	24.00
	Director / Middle management	13	3.25
	Top management	2	0.50
	Total	**400**	**100**
Average monthly income	Below 25,000 Baht	260	65.0
	25,000 - 35,000 Baht	100	25.0
	35,001 - 45,000 Baht	22	5.5
	45,001 - 55,000 Baht	12	3.0
	Above 55,000 Baht	6	1.5
	Total	**400**	**100**
Length of time working in current organization	Below 1-5 years	47	11.75
	6-10 years	203	50.75
	11-15 years	104	26.0
	16-20 years	25	6.25
	21-25 years	16	4.0
	26-30 years	5	1.25
	Above 30 years	-	-
	Total	**400**	**100**

The results from Table 4.1 reveal that most of the samples are female (59.30%), and male (40.80%), with an age of 26-35 years the most (46.25%), followed by 36-45 years (44.75%), and 46-55 years (8.25%), respectively.

With regard to educational level, most of the samples hold a bachelor's degree (66.50%), followed by below a bachelor's degree (22.50%), and a master's degree (10.75%), respectively. Most major in Communication Arts/Mass Communication (37.37%), followed by journalism / newspapers (32.0%), and others (30.25%), respectively.

As for current job position, most of the samples are staff / operational level (72.25 %), followed by supervisors or first management (24%), and director / middle management (3.25%), respectively.

Regarding average monthly income, most of the sample earn an average monthly income of below 25,000 baht (65%), followed by 25,000-35,000 baht (25%), and 35,001-45,000 baht (5.5%), respectively.

As for the length of time working in current organization, most of the sample have worked in the organization for 6-10 years (50.75%), followed by 11-15 years (26%), and below 5 years (11.75%), respectively.

4.1.3.2 Characteristics and Working Environment of the Samples' Organizations

The results of the characteristics and working environment of the organizations of the samples are presented by frequency and percentage as shown in Table 4.2.

Table 4.2 Frequency and Percentage of the Characteristics and Working Environment
of the Sample's Organizations

Characteristics and working environment of the organizations	Frequency	Percentage
Management style		
Clear command line	195	48.8
Unclear command line	61	15.3
A quite flexible command line	77	19.3
Flexible command line	67	16.8
Total	**400**	**100**
Organizational climate		
Fixed/ closed	153	38.3
Rather fixed/ closed	80	20.0
Conductive to change (rather open)	100	25.0
Promoting a change (open)	67	16.8
Total	**400**	**100**
Administrative power		
Centralized power	121	30.25
Rather centralized power	128	32.0
Rather decentralized power	95	23.75
Decentralized power	56	14.0
Total	**400**	**100**
Organizational functions		
Clear division of functions	158	39.5
Rather clear division of functions	115	28.75
Rather working as, a team	71	17.75
Teamwork	56	14.0
Total	**400**	**100**

Characteristics and working environment of the organizations	Frequency	Percentage
Working style		
Very formal	109	27.25
Rather formal	155	38.75
Rather informal	97	24.25
Informal	39	9.75
Total	**400**	**100**
Control of work		
High regulatory-focus	88	22
Moderate regulatory-focus	81	20.25
Moderate achievement-focus	136	34.0
High achievement-focus	95	23.75
Total	**400**	**100**

As shown in Table 4.2, the characteristics and working environment of the organizations of the samples are as follows:

For the management style of the organization, most organizations have a clear command line (48.8%), followed by having a rather flexible command line (19.3%), and having a flexible command line (16.8 %), respectively.

The organizational climate is a rather fixed or closed climate (38.3%), followed by an open climate (25%), and a fixed climate (20%), respectively.

Regarding administrative power, most organizations administer with rather centralized power (32%), followed by centralized power (30.25%) and rather decentralized power (23.75%), respectively

As for organizational functions, organizations function with a clear division of functions (39.5%), followed by with a rather clear division of functions (28.75%), and rather working as a team (17.75 %), respectively.

Regarding working style, most organizations have a rather formal (38.75%), followed by a very formal (27.25%), and a rather informal (24.25%), respectively.

As for the control of work, most organizations are moderate achievement-focus (34%), follow by high achievement-focus (23.75%), and high regulatory-focus (22%), respectively.

4.1.3.3 Level of opinions on the factors affecting innovative capability of Thai newspaper organizations in the digital age

The results of the analysis of the level of opinions on the factors affecting innovative capability of Thai newspaper organizations in the digital age are as follows.

Table 4.3   Frequency and Percentage of the Level of the Samples' Opinions on Leadership Competency

Item	M	SD	Interpretation
1. Executives have a good leadership.	3.89	.75	High
2. Executives have effective management skills.	3.85	.70	High
3. Executives provide a support in promoting the creation of new things in the organization.	3.84	.73	High
4. Executives have a broad vision.	3.78	.71	High
5. Executives accept different opinions.	3.83	.71	High
6. Executives have an effective psychology to motivate employees.	3.41	.75	High
7. Executives are flexible persons.	3.82	.71	High
8. Executives dare to create something new.	3.80	.72	High
9. Executives have a creative idea.	3.61	.74	High
10. Executives encourage the teamwork.	3.40	.73	High
Total	**3.79**	**.65**	**High**

As shown in Table 4.3, the overall mean of the level of the samples' opinions is at a high level (M= 3.79, SD = .65). When considering the mean of each item, it is found that item 1. "Executives have a good leadership" has the highest mean (M =

3.89, SD = .75). The next highest means are item 2. "Executives have effective management skills" (M = 3.85, SD = .70), and item 3. "Executives provide support in promoting the creation of new things in the organization" (M = 3.84, SD = .73), respectively.

Table 4.4 Frequency and Percentage of the Level of the Samples' Opinions on Effective Operation

Item	M	SD	Interpretation
1. Your organization has an improved operational efficiency.	3.77	.74	High
2. Your organization supports new learning.	3.62	.75	High
3. Your organization is always developing its quality.	3.65	.81	High
4. Your organization has supported a learning exchange.	3.59	.78	High
5. Your organization has developed an effective working system.	3.39	.78	High
6. Your organization is using new techniques and skills to run the news reporting.	3.66	.71	High
7. Your organization can access information without difficulty.	3.35	.76	Moderate
8. Your organization has modern technologies to facilitate the working process.	3.74	.79	High
9. Your organization has developed an information management system.	3.56	.75	High
10. Your organization focuses on a systematic database.	3.60	.82	High
Total	**3.62**	**.69**	**High**

As shown in Table 4.4, the overall mean of the levels of the samples' opinions is at a high level (M = 3.62, SD = .69). When considering the mean of each item, it is found that item 1. "Your organization has improved an operational efficiency" has the highest mean (M = 3.77, SD = .74). The next highest means are item 8. "Your organization has modern technologies to facilitate the working process" (M = 3.74, SD = .79), and item 6. "Your organization is using new techniques and skills to run the news reporting" (M = 3.66, SD = .71), respectively.

Table 4.5 Frequency and Percentage of the Level of the Samples' Opinions on
Capital and Organizational Resources

Items	M	SD	Interpretation
1. Your organization applies new technologies to its operations.	3.68	.80	High
2. Your organization has adequate operational support equipment.	3.62	.82	High
3. Your organization reports news through online media.	3.59	.72	High
4. Your organization applies new media to the news working.	3.63	.73	High
5. Your organization has sufficient working capital.	3.50	.86	High
6. Your organization has technologies to help you distribute the information.	3.39	.78	High
7. Your organization has good knowledge and technical capital for working.	3.67	.81	High

Items	M	SD	Interpretation
8. Your organization supports facilitating working tools.	3.58	.85	High
9. Your organization focuses on new media rather than traditional media.	3.66	.74	High
10. Your organization has expanded an investment in digital technology to make more work effective.	3.34	.72	Moderate
Total	**3.59**	**.67**	**High**

As shown in Table 4.5, the overall mean of the levels of the samples' opinions is at a high level (M = 3.59, SD = .67). When considering the mean of each item, it is found that item 1. "Your organization applies new technologies to its operations" has the highest mean (M = 3.68, SD = .80). The next highest means are item 7. "Your organization has good knowledge and technical capital for working" (M = 3.67, SD = .81), and item 9. "Your organization focuses on new media rather than traditional media" (M = 3.66, SD = .71), respectively.

Table 4.6 Frequency and Percentage of the Level of the Samples' Opinions on
Organizational Culture

Items	M	SD	Interpretation
1. Your organization has a working model that supports the new developments.	3.61	.79	High
2. Your organization has the suitable practice for organizational development towards a positive change.	3.73	.78	High
3. Your organization encourages the concept of flexible working time and place.	3.54	.74	High
4. Your organization creates an environment conducive to an innovation in the organization.	3.61	.76	High
5. Your organization has clear guidelines for working.	3.41	.80	Moderate
6. Your organization has built up supportive behaviors.	3.66	.75	High
7. Your organization focuses on open-mindedness.	3.69	.71	High
8. Your organization promotes a sharing of information and knowledge.	3.65	.72	High
9. Your organization has a two-way communication method to exchange information between personnel within the organization.	3.67	.75	High
10. Your organization has a good working system.	3.52	.72	High
Total	**3.59**	**.62**	**High**

As shown in Table 4.6, the overall mean of the levels of the samples' opinions is at a high level (M = 3.59, SD = .62). When considering the mean of each item, it is found that item 2. "Your organization has the suitable practice for organizational development towards a positive change" has the highest mean (M = 3.73, SD = .78). The next highest means are item 7. "Your organization focuses on open-mindedness" (M = 3.69, SD = .71), and item 9. "Your organization has a two-way communication method to exchange information between personnel within the organization" (M = 3.67, SD = .75), respectively.

Table 4.7 Frequency and Percentage of the Level of the Samples' Opinions on Professional Training and Development

Items	M	SD	Interpretation
1. Your organization develops digital media skills for reporters.	3.78	.76	High
2. Your organization promotes creativity for reporters.	3.66	.74	High
3. Your organization promotes a positive attitude toward working under pressure.	3.60	.73	High
4. Your organization is promoting new knowledge learning in the organization.	3.61	.77	High
5. Your organization promotes team working skills.	3.64	.76	High
6. Your organization encourages reporters to have a continuous training.	3.75	.81	High
7. Your organization promotes reporters to have multi-skills.	3.69	.79	High
8. Your organization encourages effective decision-making skills.	3.67	.75	High

Items	M	SD	Interpretation
9. Your organization develops technical skills for reporters.	3.58	.74	High
10. Your organization promotes systematic problem-solving skills.	3.66	.72	High
Total	**3.67**	**.65**	**High**

As shown in Table 4.7, the overall mean of the levels of the samples' opinions is at a high level (M = 3.67, SD = .65). When considering the mean of each item, it is found that item 1. "Your organization develops digital media skills for journalists" has the highest mean (M = 3.78, SD = .76). The next highest means are item 6 "Your organization encourages reporters to have a continuous training" (M = 3.75, SD = .81), and item 7. "Your organization promotes repoters to have multi-skills" (M = 3.69, SD = .79), respectively.

Table 4.8 Frequency and Percentage of the Level of the Samples' Opinions on
Responding to Audience's Needs

Item	M	SD	Interpretation
1. Your organization focuses on a quick response to the audience's needs. perception of news and information.	3.67	.78	High
2. Your organization tries to increase the audience's satisfaction with the new technology used.	3.55	.81	High
3. Your organization concerns about how audience receive the news more conveniently.	3.65	.79	High
4. Your organization centers on online media to meet the audience's needs.	3.25	.73	Moderate
5. Your organization facilitates the audiences to receive news anywhere and anytime.	3.55	.76	High
6. Your organization attempts to report the news and information that attracts the audience's attention.	3.29	.89	Moderate
7. Your organization is receptive to the audience's feedback.	3.66	.76	High
8. Your organization pays attention to building good relationships with the audience.	3.40	.83	High
9. Your organization provides various services to serve the audience's needs.	3.46	.79	High
10. Your organization collects the audience's data as a database to be able to respond to their needs.	3.51	.80	High
Total	**3.47**	**71**	**High**

As shown in Table 4.8, the overall mean of the levels of the samples' opinions is at a high level (M = 3.47, SD = .71). When considering the mean of each item, it is found that item 1. "Your organization focuses on a quick response to the audience's perception of news and information" has the highest mean (M = 3.67, SD = .78). The next highest means are item 7. "Your organization is receptive to the audience's feedback" (M = 3.66, SD = .76), and item 3. "Your organization concerns about how audience receive the news more conveniently" (M = 3.65, SD = .76), respectively.

Table 4.9 Frequency and Percentage of the Level of the Samples' Opinions on the Innovative Capability of Thai Newspaper Organizations

Item	M	SD	Interpretation
1. Your organization tries to develop innovative capability.	3.51	.73	High
2. Your organization brings a communication innovation to use in working process.	3.43	.79	High
3. Your organization promotes creativity in news reporting.	3.45	.75	High
4. Your organization implements an innovative strategy for business.	3.01	.95	Moderate
5 .Your organization focuses on using innovative techniques.	3.23	.85	Moderate
6. Your organization develops a work process to keep up with changes.	3.41	.75	High
7. Your organization has innovative information management systems.	3.42	.73	High
8. Your organization is ready to adapt to the changing environment and to adopt new things to the organization.	3.62	.71	High

Item	M	SD	Interpretation
9. Your organization provides information services on new channels and platforms.	3.64	.73	High
10. Your organization is ready to change to a new type of organization, such as a digital organization, utilizing digital media in a work process.	3.35	.77	Moderate
Total	**3.40**	**.55**	**Moderate**

As shown in Table 4.9, the overall mean of the levels of the samples' opinions is at a moderate level (M = 3.40, SD = .55). When considering the mean of each item, it is found that item 9. "Your organization provides information services in new channels and platforms" has the highest mean (M = 3.64, SD = .73). The next highest means are item 8. "Your organization is ready to adapt to the changing environment and to adopt new things to the organization" (M = 3.62, SD = .71), and item 1. "Your organization tries to develop innovative capability" (M = 3.51, SD = .73), respectively.

4.1.3.4 Results of Hypothesis Testing

The results of hypothesis testing are presented incluing the correlation coefficient between the following factors: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and the innovative capability of Thai newspaper organizations.

Moreover, the value of multiple regression coefficients between predictor variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and the innovative capability of Thai newspaper organizations are also shown as follows.

Table 4.10 Correlation Coefficient between Independent Variables and the
Innovative Capability of Thai Newspaper Organizations

Independent variables	X_1	X_2	X_3	X_4	X_5	X_6	Y
Leadership competency (X_1)	1.00	.62**	.53**	.52**	.45**	.42**	.56**
Effective operation (X_2)		1.00	.56**	.53**	.52**	.48**	.53**
Capital and organizational resources (X_3)			1.00	.45**	.39**	.38**	.42**
Organizational culture (X_4)				1.00	.51**	.49**	.45**
Professional development and training (X_5)					1.00	.50**	.48**
Responding to the audience's needs (X_6)						1.00	.40**
Innovative capability of Thai newspaper organizations (Y)							1.00

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

As shown in table 4.10, all six independent variables have a positive correlation with the innovative capability of Thai newspaper organizations with a statistical significance at the .01 level (p = .000). Leadership competency (X_1) is the independent variable that is found to have the most significant positive correlation with the correlation coefficient (r) of .56 (highly significant). It is followed by effective operation (X_2), professional development and training (X_5), organizational culture (X_4), capital and organizational resources (X_3), and responding to the audience's needs (X_6) with the correlation coefficient (r) of .53, .48, .45, .42, and .40, respectively. Thus, the hypotheses 1, 2, 3, 4, 5, and 6 are accepted.

Due to the fact that the results of all independent variables are statistically significant at .01 level, thus the researcher need to diagnose the collinearity in multiple regression. The variance inflation factor (VIF) and tolerance are examined as an indicator of multi-collinearity. They are based on the R-squared value obtained by regressing a predictor on all of the other predictors in the analysis. Tolerance is the

reciprocal of VIF. The examination of the tolerance and the VIF is shown in Table 4.11.

Table 4.11 Examination of the Tolerance and Variance Inflation Factor (VIF)

Predictor Variables	Tolerance	VIF
Leadership competency (X_1)	.76	1.34
Effective operation (X_2)	.93	1.05
Capital and organizational resources (X_3)	.46	2.17
Organizational culture (X_4)	.48	2.12
Professional training and development (X_5)	.47	2.15
Responding to the audience's needs (X_6)	.61	1.65

As shown in Table 4.11, the tolerance value of the independent variables or predictor variables is between .46-.93, which is not close to zero. Thus, it shows that the predictor variables have a low correlation. When considering the VIF value, it is 1.05-2.17, which is not over 10. Hence, it shows that the predictor variables have a low correlation. The results of tolerance value and VIF value are consistent. To summarize, there are no problems with multi-collinearity. Therefore, the researcher can analyze the data in the next step.

Table 4.12 Value of the Multiple Correlation Coefficient between Predictor Variables
and the Innovative Capability of Thai Newspaper Organizations

Source of Variation	SS	df	MS	F	P
Regression	56.74	56.74	18.91	142.55**	.000
Residual	52.54	369	.13		
Total	109.28	399			
R = .719	**R² = .516**		**R²adj = .513**		

** Significant at the .01 level

As shown in Table 4.12, the value of multiple correlation coefficient between
predictor variables: leadership competency, effective operation, capital and
organizational resources, organizational culture, professional development and
training, and responding to the audience's needs, is .719 with a statistical significance
at the .01 level. Thus, all predictor variables can jointly predict the variance of the
innovative capability of Thai newspaper organizations by 51.60%.

Table 4.13 Beta Weight of Predictor Variables Affecting Innovative Capability
of Thai Newspaper Organizations

Variables	β	b	SEb	t	P
Leadership competency (X_1)	.25	22	.04	5.31**	.00
Effective operation (X_2)	.23	.36	.06	6.33**	.00
Capital and organizational Resources (X_3)	.16	.14	.07	3.49**	.00
Organizational culture (X_4)	.18	.54	.10	5.47**	.00
Professional development and training (X_5)	.20	.51	.09	5.64**	.00
Responding to audience's needs (X_6)	.14	.13	.04	3.10**	.00

** Significant at the .01 level

As shown in Table 4.13, the beta weight of predictor variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional development and training, and responding to audience's needs can jointly predict the innovative capability of Thai newspaper organizations with a statistical significance at the .01 level. The best predictor variable that can predict the variance of the innovative capability of Thai newspaper organizations is "leadership competency" with the beta weight (β) of .25. It is followed by effective operation (X_2), professional development and training (X_5), organizational culture (X_4), capital and organizational resources (X_3), and responding to the Audience's needs (X_6) with the beta weight (β) of of .23, .20, .18, .16, and .14, respectively. Thus, hypothesis 7 is accepted.

4.2 Part II: Analysis of Qualitative Approach on the Adaptation Strategies of Thai Newspaper Organizations in the Digital Age

In this part, the research findings based on the in-depth interview results with executives, editors, assistant editors, and reporters who work in eight Thai newspaper organizations in Bangkok, namely: 1) Nation Multimedia Group Plc., and its subsidiaries (Nation News Network Co., Ltd, and Kom Chad Luek Media Co., Ltd); 2) Matichon plc; 3) Post Publishing Plc; 4) Vacharaphol Co., Ltd and Trend VG3 Co., Ltd; 5) Si-Phya Publishing Co., Ltd; 6) Naewna Newspaper Co., Ltd; 7) Siamrath Co., Ltd; and 8) Sarn Soo Anacote Co., Ltd.

The newspaper organizations above operate in the form of limited companies and public limited companies or listed on the Stock Exchange of Thailand (SET). Thai newspaper organizations are national mass media organizations that have operated in Thailand for a considerable length of time. Moreover, Thai newspaper organizations have evolved or changed in accordance changes in the Thai socio-cultural context as a whole. They play a significant role as social institutions obligated to serve a social function based on the philosophy of freedom, which is the core of their profession. They also act as business organizations in a capitalist economic system where they must earn a profit. Nevertheless, the newspaper organizations

consist of special characteristics and must conduct business based on the philosophy of professional journalism where they can publish freely and fairly in compliance with their social function.

The qualitative data were systematically categorized and using an analytical induction technique. The research findings are as follows:

4.2.1 Results of the In-Depth Interviews with Key Informants in Thai Newspaper Organizations.

4.2.2 Analysis of Adaptation Strategies of Thai Newspaper Organizations in the Digital Age.

The details of the results of the in-depth interviews are as follows.

4.2.1 Results of the In-depth Interviews with Key Informants in Thai Newspaper Organizations

From the interviews with 25 key informants of newspaper organizations in the Bangkok area including executives, editors, assistant editors, and reporters, it was found that there are ten adaptation strategies of Thai newspaper organizations in the digital age as follows:

1. Changing an Organization's Direction into the Digital Age

2. Building Business Alliance

3. Organizational Restructuring

4. Organizational Downsizing

5. Reducing Costs and Increasing Revenue from other Businesses

6. Work Process Improvement in three ways: 1) Using convergence newsroom, 2) Improving news reporting, and 3) Focusing on accurate and insightful news

7. Content Services Provider

8. Using Social Media and Digital Technology in three functions: 1) As the tools to find sources of news, 2) As the news distribution channel, and 3) As a link to news details on the online newspaper's website

9. Responding to Audience's Needs and Behaviors

10. Journalistic Professional Training and Development

The details of the ten adaptation strategies mentioned above are as follows:

1. Changing an Organization's Direction into the Digital Age

The researcher found that even though the newspaper organizations have not yet fully digitalized, they have changed their direction toward the digital space. According to one senior executive, changes resulting from digital technology will inevitably lead to the organization's becoming increasingly geared toward the digital, with staff encouraged to develop their digital ability. Key informants stated that:

We have a clear concept to adapt ourselves. It was two years ago that we made clear that we will move forward by driving ourselves to become more of the digital organization. First, we did it in parallel within these two years. We worked with a pile of paper and began the online channel. Then, we became more digitalized as we established the digital division in our organization (Mr. Thakoon Bunpan, Matichon Plc).

We aimed to go to digital. The future of The Nation and its subsidiaries' media is moving forward with a business challenge. Still, we emphasize the continuity of our freedom and profession. The Nation and its subsidiaries are still the media organization with promising future. Although we must encounter challenges from several sources, we are confident in our potential as the media who provide the quality news. We manage to generate revenue from a variety of media's platform by adjusting ourselves into the digital age (Mr. Thepchai Yong, Nation Multimedia Group Plc).

Our organization realized the importance of digital technology. We have used the online channel to disseminate our news. We have digitalized the mindset of our reporters and have trained them something new envisioned by the executives who can foresee the ongoing change in digital media (Miss Jintana Junpaiboon, Siam Rath Co., Ltd).

2. Building Business Alliance

One of the most effective strategies to promote business is to build business or strategic alliances with other non-competitors that target the same market. Building business alliance is vital for business expansion. It also brings benefits to each party in both the short- and long-term. A business or strategic alliance is essentially a partnership in combination with efforts in projects ranging from receiving a better price for supplies by buying in bulk together, to building a product together with each party providing part of its production. The goal of alliances is to minimize risk while maximizing leverage and profit.

The study showed that newspaper organizations who seek business alliances allow their business to grow and expand. Most organizations choose to join digital profession alliances in order to adapt to digital production, as exemplified below:

The company has built a business alliance that helps improve the business such as the IT expert to enhance our operations in digital media and eventually improve our operations to move forwards (Mr. Thakoon Bunpan, Matichon Plc).

It is not only major organizations who build business alliances as a strategy for adaptation, minor organizations such as the Sarn Soo Anacote Co., Ltd, which publishes the Thai Post Newspaper, also seek business alliances, as stated below:

We are only a small organization. We invested a little at the beginning by purchasing the existing computer program, but it is impossible to fix the program when needed to. Now our executives have been looking for a business alliance that must be specialized in new technology. We are in the stage of the discussion with the expected alliance. We need to do this in order to survive in the digital age (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

3. Organizational Restructuring

Organizational restructuring is a strategic approach that is considered an effective way to change, improve and develop the structure and operational system of an organization. Successful organizational restructuring requires thorough preparation and planning that addresses the needs and supports achieving the organization's goals. Before restructuring, executives must identify what kind of issue the organization is encountering and how to operate the business to be consistent with fluctuations in the economy, changes in society, and advances in technology. Therefore, in the digital age, Thai newspaper organizations have organizational re-structuring strategies. The adaptation of the organizational structure will enable the organization to survive and grow. An executive said that:

The main purpose of newspaper is news production and distribution to general public. However, once the sale volume decreased in half, we must decrease our organization size as well. Our company has re-structured its organization to be ready to move forwards. This strategy allowed us to manage cost reduction (Mr. Thepchai Yong, Nation Multimedia Group Plc).

Organizational restructuring is conducted to comply with changing in business operations and to ensure that the structure supports the operational strategy and executive's direction.

In addition to the restructuring the managerial structure, newspaper organizations also re-structured their operational structure by reducing the number of divisions or departments to reduce operating expenses and streamlining business to

supports business growth. Examples of statements that explain the organizational restructuring are as follow:

The company has re-structured its organization. We have dissolved the printing department and the logistics department. We managed to transfer some of the work to Siam Sports Syndicate Plc. which was hired for the printing process and distribution. This will allow Siam Sport to reduce its printing cost and distribution per each book and magazine, and to earn from having more jobs. Meanwhile, our company, Matichon can save cost. However, this restructuring indeed eliminated some of our employees' position, but we managed to offer them higher compensation than stated in Laws (Mr. Thakoon Bunpan, Matichon Plc).

We have restructured the working process for news in order to enhance the operation of the organization (Miss Jintana Junpaiboon, Siamrath Co., Ltd).

We have adjusted ourselves to the change. Our company restructured itself to be more compact. We established the online media division and hired more people to take care of the online media. We have more divisions and more people to work. (Mr. Prachayachai Dachthuyawatra, Sarn Soo Anacote Co., Ltd).

Our Company has continued to restructure itself, not just now, but for a while in order to be flexible. So, when the time comes that we need to face the lower income or lower sale, we will not be affected much as we have prepared ourselves to the change and adjust ourselves all the time (Miss Jintana Junpaiboon, Siamrath Co., Ltd).

4. Organizational Downsizing

From in-depth interviews, it was found that newspaper organizations have organizational downsizing strategies. Downsizing is one of strategies used by executives in an effort to survive and compete against competitors. It is a reduction in size and operating costs implemented by management in order to improve efficiency and productivity.

In the digital age, organizational downsizing is considered an appropriate method to reduce operational expenses a time when newspaper production is decreasing and gradually being replaced by digital media. Downsizing is necessary to comply with the current business scenario of the newspaper business, as pointed out below:

In the past, we managed to divide some of the news units, dissolve some, and integrate some. For example, we dissolved the IT and the Reception unit and combined them under business news unit.

Until it is already part of the business news. We also established a new unit, the "Online unit" with 3-4 staff. The staff will have to do both online platform and printed platform according to the KPI that indicates the priority. If the priority is the printed, then they are required to do the printed first, and then do the online platform later. In the same way, if the priority is online, then they are required to do the online first, then the printed. Either way, they need to do both of the platforms. (Mrs. Somruethai Subsomboon, Nation Multimedia Group Plc).

We have tried to make our company more compact. We are a small company, we made an adjustment all the time, not just now which is why we

survive because we are small organization. (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

We have survived from the downsizing, we knew that it was for the operational flow to cope with the change such as lower income, lower sale so that there won't be much effect because we have prepared and adjust our process all the time (Miss Jintana Junpaiboon, Siamrath Co., Ltd).

5. Reducing Costs and Increasing Revenue from Other Businesses

From in-depth interviews, it was found that newspaper organizations are adapting to survive in the digital age. Every organization is attempting to reduce operating costs and increase revenues from other businesses. Moreover, many newspaper organizations are searching for new businesses to increase their income.

5.1 Reducing Costs

The newspaper organizations have attempted to find many methods to maintain business during this period of transformation. One popular way is cost reduction. There are several methods to manage cost reduction such as reducing internal expenses and production expenses, etc. As stated in the interviews below:

We cut off some of the expenses such as the payment for a special column in the newspaper. It was not much of the expense, but we decide not to do it anymore. If any of the position is vacant, we will have the HR to manage the workload within the organization first, unless the position is truly necessary, then we will consider the new hiring (Mr. Thepchai Yong, Nation Multimedia Group Plc).

The Company has asked for a collaboration to save the expenses such as the car expenses. It would be a saver if staff can share a car (carpool) when they are heading in the same direction. Another expense is the printing by making sure that whoever truly needs to print is required to sign the name for

each printing, and by submitting online leave form via computer instead of paper (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

The Company must reduce the operating expense. We made a campaign for staff to help save the water and electricity, and the traveling expenses. We also have our accounting checked and verified to make sure that the expense for the working shift is accurate. According to the 2016 performance, we incurred loss since the first quarter, resulting in the cutting off for the half-year bonus instead of paying twice as in the past.

Matichon has tried to decrease its production cost by transferring the printing process and distribution process to Siam Sport to reduce the cost incurred for each printing and helped Siam Sport to have more income. Matichon can save some cost and in the same time allowing its newspaper, Khaosod newspaper and the magazine of its subsidiaries to contribute more of their time and resources on the market expansion of digital media (Mr. Thakoon Bunpan, Matichon Plc).

The Company will reduce its production cost by decreasing the number of newspaper pages from 24 pages to 20 pages and will try to change the newspaper color tone to draw more attention. (Mr. Chaloemchai Yodmalai, Naewna Co., Ltd).

5.2 Increasing Revenue from Other Business

Apart from reducing total expenses, newspaper organizations will need to increase revenue from other sources to remain in business and create opportunities for growth. There are two methods for the aforementioned business strategy: 1) Expansion of the business online, and 2) Expansion into other businesses.

1) Expansion of the Business Online

When the readers' behavior has changed such as reading less through the newspaper, we added more new channels where we expanded ourselves to online services in various forms, such as information and services business. Recently we have launched the zogzag77 application (Mr. Thepchai Yong, Nation Multimedia Group Plc).

We have adapted to the use of online media due to its low production cost and can be easily accessible (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

Our company has developed our website to be modern and support the real-time news coverage in order to earn more revenue from online advertising, which is likely growing. (Mrs. Sakuna Prayoonsuk, Matichon Public Co., Ltd).

Hopefully, we can earn more revenue from online advertising by adjusting our Naewna News page online to attract more readers (Mr. Chaloemchai Yodmalai, Naewna Newspaper Co., Ltd).

2) Expansion into Other Businesses

Most the newspaper business has attempted to expand their boundaries to other types of mainstream media such as television and radio that will result in the newspaper business truly becoming a business-centered organization, as well as serving as an essential social institution. A successful example of this type of

expansion is Thairath Newspaper, which established their own television station "Thairath TV".

Thairath TV HD Channel 32 is formed based our enthusiasm as media to connect Thai people of all levels with the world of news. It was an add-up from our 60 years of existence as the highest accessible newspaper for all Thais. It was indeed an inspiration that drives us to operate the Thairath TV. Our objectives are to become the leader of news information together with the entertainment that enhances Thai society (Mr. Chavarong Limpattamapanee, Vacharaphol Co., Ltd).

For our subsidiaries, their trends also turn from print to online media including Facebook. We believe that the variety of media is very important. I hope that this new media, our subsidary, become no.1 online media within two years.

Meanwhile, we progressively managed to organize additional activities alongside with our TV business to generate more revenue such as events, tours, and activities at NOW@Siam studio (Mr. Thepchai Yong, Nation Multimedia Group Plc).

The company also expanded its business into other areas which are still related to newspaper such as Training Center for Matichon, Khaosod and Magazine in the subsidiaries. The key is to train them to be able to put more effort and resources into expanding more into the digital media market.

We have to adjust ourselves while we still can like doing the event business. It allows us to show off our profession as well as to have a new income (Mr. Thakoon Bunpan, Matichon Plc).

6. Work Process Improvement

From in-depth interviews, it was found that newspaper organizations have strategies to improve their work processes. To improve the quality of organizational operations consistently, it is necessary to improve the work process effectively at all

times. Work process improvement is a vital strategy for achieving organizational goals. Improving work processes will help when responding to problems, changing conditions, and the changes that occur within the organization. In business competition, process improvement is the proactive task of identifying, analyzing, and improving upon existing business processes within an organization for optimization.

In the operation process, Thai newspaper organizations must develop work processes or quality to survive. Work process improvement leads to quality improvements, service enhancements, cost reductions, and productivity increases of business activities or processes. Many Thai newspaper organizations embark on a program of process improvement in an effort to refine operational performance and drive competitive advantage in the marketplace and with competitors. Thai newspaper organizations have work process improvement for developing news production and reporting as well as driving competitive advantage in three ways: 1) using convergence newsroom, 2) improving news reporting, and 3) focusing on accurate and insightful news.

6.1 Using Convergence Newsroom

Nowadays, newsrooms are moving from a single media to multi media reporting. An integrated newsroom shares resources and manages multimedia as part of the news production process. For example, executives stated that:

Development of convergence newsroom has served as the center of all media in the organization. Adjusting the style of a convergence newsroom is an important step in the organization's ability to make the most of the human resources available to the media. The organization does not need to have more journalists as the media increases (Mrs. Somruethai Subsomboon, Kom Chad Luek Media Co., Ltd).

We adjusted ourselves. We tried converged the news process with the help of technology (Mrs. Chalatip Thirasunthrakul, Matichon Plc).

6.2 Improving News Reporting

The news reporting process in the digital age has been radically changed by the advances in technology. Consequently, newspaper organizations should improve their news reporting process by applying the most suitable technology. Today, reporting news via social media continues to grow, with mobile devices rapidly becoming one of the most common ways for the public to source news. Social media play an important role for improving news reporting. For example, executives stated that:

News reporting using social media in the digital age, makes field work more convenient and faster. Social media applications in news reporting help improve work process. It has been used for the whole process of news, ranging from searching, accessing resources, live news and news updates. (Tweeting news with news links or news video links), as well as interacting with people in different sectors. The ecosystem of news (News Ecosystem), whether consumers, news people from the growing new media, and the journalists have to change the method of working. Moreover, the reporter must improve and enhance the news working skills (Ms. Asina Pornwasin, Nation News Network Co., Ltd).

At present, we adjusted the reporting process by using Social Media as the key to reporting which enables the real-time reporting and error correction. In contrast to the newspaper that news must wait until printed out, now news can be reported right away (Miss Warunrat Kattamat, Trend VG 3 Co., Ltd).

Naewna Newspaper's field reporters also use social media by submitting news clips or other contents that may be beneficial for the website team (Miss Yaowaluck Somjitsakul, Naewna Co., Ltd).

6.3 Focusing on Accurate and Insightful News

In the digital age where society progresses concomitantly with digital media, many pieces of information are being published without sources. Many of these could be "fake" and thus unreliable. This can also confuse audiences who may believe the false information. This has led to the phase "Be sure before share" among social media users. Therefore, newspaper organizations who act as intermediaries must pay more attention and be more careful to ensure they provide accurate and reliable news. For example, executives stated that:

I believe that the accurate content of news should response to critical thinking nature of people curiosity. This is the reason why "the speed media" (online media) cannot do, but "newspaper media" can. Most importantly, we must understand that the speed is not the content; it is only the "content conductor" which we use them as just "tools". In particular, social media are considered as the "interactive media" with no accuracy, there is no screening "carefully" on the information like newspaper (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

Instead of just presenting the news on the web page or online media, the mainstream media should focus on a deep insight into the news. Each piece of the news should be thoroughly investigated at every point and aspect before reporting to a reader. Today, there are so many ways, many channels to present news, but the questions are "is it true?" or "is it just a dramatic story?" In the end, the society always demands the truth and that goes back to the point where media must tell the truth to the public in order to survive (Mr. Pramed Lekpetch, Vacharaphol Co., Ltd).

The solid information and the intensity of news are very important and need to be emphasized. Despite the new kind of media, the newspaper must focus on the accuracy of news contents and the distinctive presentation. It can be said that this is the major role of every newspaper organization (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

Reporting in this new era must rely on the insights which reporter must be more cautious, because any mistakes may occur (Dr. Ruangchai Sapnirund, Matichon Plc).

7. Content Services Provider

Content has become the most important component of online media production in the digital age. Media content plays an important role across a range of platforms. Content is what the end-user derives value from. Therefore, it is necessary for the newspaper organization should focus to be the content services provider.

The study showed that most of the large Thai newspaper organizations attempt to develop value or specific "content" that responds to the tastes of the audience and creates popularity among audience, as well as reaching a wide target audience. For example, executives stated that:

We focus on the body of content, in addition to the news. We have art and culture, history, archeology, literature, technology, folklore, etc. The point is to take this content out to sell, to interest people. Only the core is the content that must be presented to the reader (Mr. Thakoon Bunpan, Matichon Plc).

The rise of digital TV in the midst of the fall of printed media can be implied that it is time for the change. Our business, who has been in the newspaper business for a long time, eventually decide to enter the digital TV market and to become the content provider who is not only providing content, but also the advertorial to generate revenue for the corporation (Mr. Chavarong Limpattamapanee, Vacharaphol Co., Ltd).

We value the content. We focus on the content to offer to consumers, and we may sell overseas (Mr. Thepchai Yong, Nation Multimedia Group Plc).

Other newspaper organizations also pay close attention to improving content services provider with the intention of eventually increasing revenue. For example, key informants stated that:

Content services are an important strategy. Thus, the reporters must learn to adjust their work process. They need to pay attention to the keyword or tag and make sure that they are in the headline as well as appearing in the details. It is as if you must know how to divide each news topic and add the keyword to every topic in order for Google to reach you. That is how our content provider works and it is very important for this kind of job right now. (Mrs. Chalatip Thirasunthrakul, Matichon Plc).

Our newspaper focuses on political issues, so we mainly center on the insights of political content. This is our strong point, and we must be knowledgeable and accurate (Mr. Chatchai Namthaphi, Sarn Soo Anacote Co., Ltd).

We put a lot of effort into presenting the insight content. We may not be able to catch up with the evolving media and technology, so we must be strong in content (Miss Jintana Junpaiboon, Siamrath Co., Ltd).

8. Using Social Media and Digital Technology

In digital age, social media are used as interactive communication tools for various purposes. Social media are interactive computer-mediated technologies that facilitate the creation and sharing of information and other forms of expression via virtual communities and networks. Particularly, in Thai newspaper organizations, social media are playing an important role as news reporting platforms. For example, key informants stated that:

From the field reporter, twitter is used to report live political gatherings, combining with Twitter's use of country leaders. The media in Thailand jumped into social media, especially Twitter and Facebook. Until

now social media has become the main platform for coverage of the Thai media just like the mass media around the world (Ms. Asina Pornwasin, Nation News Network Co., Ltd).

Social media has become the major part of our news working process and has become the main supporting function in every newspaper organization (Mr. Prachayachai Dachthuyawatra, Sarn Soo Anacote Co., Ltd).

We cannot deny that in this digital age, the social media is required for news reporting. It has become the major rising and growing platform and may eventually replace any printed media in the future (Dr. Anucha Charoenpho, Post Publising Plc).

The newspaper organizations use social media and digital technology in three functions: 1) as the tools to find sources of news, 2) as the news distribution channel, and 3) as a link to news details on the online newspaper's website. Details are as follows:

1) As the Tools to Find Sources of News

Social Media are used for the news operations for the finding of news, stories, news sources, and for the gathering of news information. For example, editors and reporters use social media as a tool to find news. For example, key informants stated that:

In my point of view, I agree that it could be a source for news. There are Facebook Pages such as "Drama Addict", "Mam Pho Dam" (Spade Queen) or some of the organizations or even government organization page, who always update some story that we do not even know. Therefore, we did more investigation on that source and eventually became the news based on their stories (Miss Warunrat Kattamat, Trend VG 3 Co., Ltd).

The social media help us find news as well as spreading the news. Whatever stories are on trend; the reporter will make a quick investigation on that (Mrs. Chalatip Thirasunthrakul, Matichon Plc).

2) As the News Distribution Channel

Social media has become the key channel for news distribution. Facebook, Twitter, Line, and YouTube have come to play a major role in daily life. Not only do they provide convenience in communication, they also act as a key indicator of what is happening in society. As a result, social media have changed consumer behavior. Both traditional media and mainstream media have also put more effort into online news production and reduced the volume of printed media which is associated with the decrease in the demand, as stated below:

It opens up a channel available more to the public. We, Thairath, separated our editorial department between newspaper media and online media where we did it all by ourselves. Sometimes, we use some of the newspaper content but as an option not all of it. For publication purpose, I think that online media is faster than the newspaper. When we need to report some urgent matter, we can immediately make it through the online media. It indeed helps with the speed (Miss Warunrat Kattamat, Trend VG 3 Co., Ltd).

3) As a Link to News Detail in the Online Newspaper's Website

Apart from being the channel to distribute their news, social media can be used as the link directing readers to the online newspaper's website where the reader can access more detail. Sharing news on social media can be very fast and viral, but not provide in depth detail. Therefore, it is necessary for social media to be used as the link to an online newspaper's website. For example, key informants stated that:

In general, audiences will look at what their friends shared on Facebook. Sometimes people just subscribed to 7 or 8 newspaper pages, but that does not mean that they are going to read all of the pages. Facebook has its algorithm that runs in what people are interested and shared the most on the top of its timeline. That is what brings readers to more details in the news website afterward (Mrs. Chalatip Thirasunthrakul, Matichon Plc).

Social media can be referred to as the bridge that connects people with news. Our function in this social media is created for those who do not normally visit our website to get to see a bit of our content and may eventually appeal them to visit our website for more details. This is happening to every news website (Mr. Wichai Sornruang, Siamrath Co., Ltd).

Social media like Facebook, Line, and Twitter are the best news distribution channel to the public. It has become the lifestyle of people in this era to read news from this social media. They do not like reading directly from the news website, but they tend to read more if it is shared on Facebook or Twitter. They won't or never going to click the thairath's website directly, but they are willing to access us via a link that is shared on Facebook, Twitter or Line in the social media (Miss Warunrat Kattamat, Trend VG 3 Co., Ltd).

The results of this study show that all the newspaper organizations in this research applied social media to their news operations. All newspaper organizations in this research have their own social media platform as summarized in Table 4.14.

Table 4.14 Summary of Newspaper Organizations' Social Media Usage

Newspaper organizations and their newspapers	Facebook	Twitter	Instagram	Youtube	Line	Application
Nation Multi-Media Groups Plc, Nation News Network Co., Ltd, and Kom Chad Luek Media Co., Ltd						
1. Krungthep Turakij	✓	✓	✓	✓		✓
2. Kom Chad Luek	✓	✓				✓
3. The Nation	✓	✓	✓	✓		✓
Matichon Plc						
1. Matichon	✓	✓	✓	✓		
2. Prachachat Turukij	✓	✓		✓		✓
Post Publising Plc						
1. Bangkok Post	✓	✓	✓			✓
2. Post Today	✓	✓	✓			✓
3. M2F	✓	✓	✓			✓
Vatcharaphol Co., Ltd and Trend VG3 Co., Ltd						
1. Thairath	✓	✓	✓	✓	✓	✓
Si Phraya Printing Co., Ltd						
1. Daily News	✓	✓	✓		✓	✓
Naewna Co., Ltd						
1. Naewna	✓	✓	✓			✓
Siam Rath Co., Ltd						
1. Siam Rath	✓	✓		✓		

Newspaper organizations and their newspapers	Facebook	Twitter	Instagram	Youtube	Line	Application
Sarn Soo Anacote Co., Ltd						
1. Thai Post	✓	✓		✓		

Source: Own compilation

As shown in Table 4.14, newspaper organizations used social media technology as another platform in news reporting which becomes an interactive media between newspaper organizations and their audience.

Furthermore, there is a growing use of the Augmented Reality (AR) technology in media organizations. The special feature of this technology is the overlay of information and virtual objects on real-world scenes in real-time. It uses the existing environment and adds information to it to make a new artificial environment. Nowadays, many developers have created AR apps, and this has opened up the technology to many applications and a broader audience.

In Thailand, this technology is useful for news reporting of Thai newspaper. The Vacharaphol Co., Ltd and Trend VG3 Co., Ltd have applied AR technology to their newspaper production. Thairath newspaper, for instance, applied AR echnology in their newspaper for the special "100th day memorial, King Bhumibol" edition published on January 20, 2017 in honor of the late King's 100th day Memorial Service and another special edition series on the occasion of the Royal Cremation of His Majesty King Bhumibol Adulyadej during October 13-27, 2017.

The integration of AR technology and print media literally combines "traditional media" and "new media" together to create a new dimension of perception and become more attractive to the audience. For example, key informant stated that:

Thairath's corporation and executives have a plan to combine traditional media with new media. The traditional media refers to the newspaper, while the new media is the online media application. Both are combined by using the AR technology in presenting news and information (Miss Warunrat Kattamat, Trend VG 3 Co., Ltd).

AR is actually the combination of the real-world environment and the virtual world through computer software or devices. It alters the perception of the real-world environment with the virtual world by using graphics, videos, 3D, and text. AR is technology that creates a 3D graphics image of a virtual world on a real-world image. Generally, AR adds digital elements to a live view. It can be used to create 3D images over real images that can be seen through a camera on a smartphone.

There are two types of AR technology; Marker-Based AR and Location-Based AR. Technically, the Marker-Based AR uses "Marker" or the "AR Code" on software displayed on webcam. When the "Marker" appearing on the software, 3D images of whatever is input will pop up and can be seen in 360°.

In Thai newspaper industry, Thairath is the first Thai newspaper that used AR technology for the Thairath Newspaper Special Issue (Vacharaphol Co. Ltd, 2017) published on January 20, 2017, when AR technology is integrated into the newspaper as shown in Figure 4.1.

Figure 4.1 Thairath Newspaper Special Issue
Source: Vacharaphol Co., Ltd, 2017.

During October 13-27, 2017, Thairath newspaper also published the special edition series during the special occasion of the Royal Cremation of His Majesty King Bhumibol Adulyadej. Thairath Newspaper published 15 newspaper volumes in total, made from the work of 15 artists and lasted for 15 days under the project titled "Thais and Thairath Bid Farewell to The Beloved Father". Examples are shown in Figure 4.2.

Figure 4.2 Thairath Newspaper Special Issue

Source: Vacharaphol Co., Ltd, 2017.

It is simple to use Thairath Application by downloading the application "THAIRATH AR" in the App Store or Play Store. Once installed, open the "THAIRATH AR" application and click "Start", then begin scanning at the "AR marker" in the newspaper. Images and videos will then appear for readers to enjoy as shown in Figure 4.3.

Figure 4.3 Thairath Newspaper Special Issue
Source: Vacharaphol Co., Ltd, 2017.

Thairath newspaper created a 4D newspaper with the assistance of AR technology, showing virtual graphic images together with sound, color, video, galleries, and the latest function 360° point of view. This can be considered as "the Newspaper Innovation" created through collaboration between executives and editors of Thairath Newspaper and Ookbee Co., Ltd, an outstanding start-up company in Thailand focusing on developing an e-book/magazine and digital content platform.

Therefore, it can be shown that digital technology can also be applied to the production of newspapers in order for the newspaper organization to effectively adjust itself to the digital age. However, it was only during the special occasion that Thairath Newspaper made an effective adaptation in their newspaper; other editions remain traditional.

9. Responding to Audience's Needs and Behaviors

Newspaper audience or reader is one of the most important considerations for newspaper organizations. Newspaper organizations that have a wide target market will focus on a specific target audience for certain messages. Newspaper audience's behavior is about the way people consume or receive news in terms of both print and online or digital newspaper. Understanding newspaper audience's behavior can help an organization be more effective in news production, message design, new channel development, and other initiatives that may have an impact upon the target audience. Some key informants reflected:

Responding to audience's needs is very important in the digital age. Due to the diversity of media, which have been rapidly rising, and the change in consumer behavior, communicating with each target group has become more difficult. Therefore, newspaper organizations have put more effort into presenting the news that meets the needs of readers along with adding a variety of distribution channels. In particular, the use of social media to deliver the news is the quickest and easiest to access. In addition, surveys are periodically conducted to find out the need of readers or consumers (Ms. Asina Pornwasin, Nation News Network Co., Ltd).

Reader's behavior has changed in relation to the growth of IT. Newspaper readers also change just like how they change with their lifestyles, the way they select goods, the services they prefer. All of these changes are influenced by online media. Since people hardly read from the newspaper, then it is a must that the newspaper must adjust themselves to the online media to be able to immediately respond to the reader's need (Mrs. Chalatip Thirasunthrakul, Matichon Plc).

We can see that the numbers of newspaper website have increased and have become the people's trend. Indeed, the newspaper organizations are aware of the situation. Still, we would like to make our news creative with a high quality (Miss Jintana Junpaiboon, Siamrath Co., Ltd).

Soft news is also a necessary component of the website that helps attract a number of readers. Most of the online readers were once the newspaper readers, they only moved to this channel because newspapers have become uncommon and are hard to find in this day (Mr. Wichai Sornruang, Siamrath Co., Ltd).

Due to audience's engagement with social media, newspaper organizations must adapt to their behavior. Audiences have changed from being passive to being active leading to social media engagement. In terms of digital news measurement, audience's social media engagement is measured using public shares, likes, and comments for an online news item. Engagement has historically been a common metric for evaluating social media performance.

10. Journalistic Professional Training and Development

This study shows that journalistic professional training and development is a vital component for newspaper organizations management to focus on including both training employees for their current jobs and developing skills for their future roles and responsibilities. An executive pointed out that:

Reporters must improve themselves in present time. If you are in the social media team, then you must focus only on the social media. Some organization even put on the sign "have you tweeted today?" in the office. I really admire them doing that because they did have a vision about it. Readers today do not prefer to read anything that is too long, they just do not care how we put a lot of effort to make that news or not. What we do here is that each one of us must be able to do many things such as editing video clips. There are associations for mass media and the online media that regularly organize some training such as graphic design and video editing. Basically, reporters cannot just report new; they must be able to do everything that creates value for themselves (Mr. Thakoon Bunpan, Matichon Plc).

Reporters must always improve themselves. The Company provides a regular training; either at the company by inviting an expert or at the professional association like the Online News Provider Association (Mr. Pramed Lekpetch, Vacharaphol Co., Ltd).

They taught us how to post a news, they actually taught us everything like what is the SEO? Now we knew that SEO is about how to make our news appear on the front page of the Google site, and told us how to write the news to deserve the spot (Mr. Wichai Sornruang, Siam Rath Co., Ltd).

There is training regarding the work with an international organization that really develop intercultural capability and enhance our skills in that area. It also broadens our vision and experience into the international level which will definitely benefit the organization during this digital age (Ms. Jintana Punya-Awut, Nation New Network Co., Ltd).

The important professional training and development programs for reporters are as follows:

1. Legal Course or Computer-Related Act Course: For example, courses on the Computer Crime Act B.E. 2560. At present, information systems serve an integral function in the news process. If the information system cannot function due to being hacked, malfunction, or being used illegally to seek information, edit, damage other people's data or used to publish inaccurate information or expose the public to obscenity, will lead to damage to the economy, society, government security along with peace and morality of the people. As the result, training is provided to educate staff on the Computer Crime Act.

2. SEO Course: In the acronym for Search Engine Optimization (SEO), the letter "S" stands for "Search" which refers to "Online Searcher". When researching on the Internet, people often begin searching with the phrase, "Search for information". The letter "E" stands for "Engine" referring to the tools or programs, and the letter "O" stands for "Optimization" which refers to efficiency enhancement. This can be translated as the most efficient and suitable searching program. SEO is the improvement of website or web page to be interesting enough to receive the place on the first page of Google, reachable by only inputting a simple keyword. Then, the information will be available for those who would like to look for information or for customers who are interested in certain products from the website or web page. There are many steps and factors combined in terms of content and technical details. Therefore, SEO is literally the development of website content and site structures which allow the search engines such as Google, Yahoo, and Bing to access, read, and understand the information in order to be ranked and displayed in the search results.

3. Video Content Production Course: The growth of social media and consumer's behavior show that readers focus more on content. As a result, reporters must be able to understand how to produce video content to enhance their skills in media creation or news distribution channels. Video content can help shorten the duration in transmitting information to the target group and be more concise and relevant. Reporters can learn about video content from applying marketing knowledge where branding is presented in a creative manner such as in the concept that "A one-minute video is worth 1.8 million words."

4. Infographic Course: Infographic is an abbreviation for "Information Graphic" which refers to an image or graphic that indicates information such as text, statistics, knowledge, numbers, etc. An infographic takes a large amount of information in text or numerical form and then condenses it into a combination of images and text, allowing viewers to quickly grasp the essential insights the data contains. Infographics are not a product of the Web, but the internet has helped popularize their use as a content medium. It is convenient for people in the digital age who like to access complex information in a limited time (because people like to and recognize beautiful images rather than reading). Social media is growing rapidly today, thus presenting content in the form of infographic will be more engaging and will include key points concisely. Infographics play an important role in presenting news and information in the digital age.

5. Content Marketing Course: Content marketing is the marketing plan that focuses on the presentation of content. It is the knowledge for reporters to apply in this new marketing via digital media. Content marketing such as articles on various websites is a marketing technique which helps create and distribute the content that is "valuable" to the target group. The goal is to appeal to target groups to return and eventually generate income. The content must be creative and attractive enough for readers to recognize the brand or products. The content should also entertain readers whether it is being academic content or something else. Regardless, the entertainment element must be relevant to the content as well as be suitable for each target group categorized by the writer. Content must be consistent because most audience prefer consistency. The key to content marketing is creating "valuable" content. The greater the content is created, the greater it can be reached by the target group. Today, content marketing is a course that reporters should learn.

In conclusion, from in-depth interviews with key informants, namely the executives, editors, assistant editors, and reporters as "journalists" from eight Thai newspaper organizations in Bangkok area, the aforementioned ten strategies will now be divided into three levels and analyzed are follows.

4.2.2 Analysis of the Adaptation Strategies of Thai Newspaper Organizations in the Digital Age

According to the in-depth interviews with 25 key informants as journalists who perform in eight Thai newspaper organizations located in Bangkok area, the adaptation strategies of Thai newspaper organizations can be categorized into three levels: corporate level strategy, business level strategy, and functional level strategy as illustrated in Table 4.15.

Table 4.15   Level of Strategies and Adaptation Strategies of Thai Newspaper Organizations in the Digital Age

Level of Strategies	Adaptation Strategies

1) Corporate level strategy	1. Growth strategy:
	  1.1 Changing an Organization's Direction into the Digital Age,
	  1.2 Building business alliances
	2. Retreatment strategy:
	  2.1 Organizational restructuring
	  2.2 Organizational downsizing

2) Business level strategy	Cost-leadership strategy: Reducing costs and increasing revenues from other businesses
3) Functional level strategy	3.1 Work process improvement in three ways: 1) using convergence newsroom, 2) improving news reporting, and 3) focusing on accurate and insightful news 3.2 Content services provider 3.3 Using social media and digital technology in three functions: 1) As the tools to find sources of news, 2) As the news distribution channel, and 3) As a link to news details on the online newspaper's website

Level of Strategies	Adaptation Strategies
	3.4 Responding to audience's needs and behaviors
	3.5 Journalistic professional training and development

As shown in table 4.15, the adaptation strategies of Thai newspaper organizations in the digital age can be divided into three levels. The details of the aforementioned strategies are as follow.

1. Corporate Level Strategy

1.1 Growth Strategy

1.1.1 Changing an organization's direction into the digital age

As the current society has entered into the digital age, organizations must also change their direction into the digital age in order to be consistent with the evolving environment and enhance business competitiveness. The process must begin with change in thought, vision and confidence that will lead to the digital era and begin from the senior management down to staff at all levels. The executive must be able to convince the staff within the organization that the change is inevitable as well as providing an explicit model for working in the digital era. The executives whose vision will lead the organization toward change will concomitantly contribute to the further advancement and development of a digital socity.

Although, Thai newspaper organizations have not fully transformed into "digital organizations", they have begun to adjust to the digital age. As this study reveals, management are aware of the impact on their organizations of changes due to digital technology, and realize the importance of entering the digital era and taking advantage of advanced digital technology as a factor to transform their organization and survive. Furthermore, to be a "digital organization" requires an investment through appropriate budgeting and infrastructure building in order to keep pace with technological change and become a digital organization.

1.1.2 Building Business Alliances

Building business alliances is vital for business expansion and growth. It also brings benefits to each party over both the short- and long-term. It is necessary to have, to find and to build business alliances that will help an organization adjust and adapt to achieve its targets more effectively.

Building business alliances is an important strategy of today's business operations. It brings with it many advantages such as a swift increase in sales, effective cost reduction, competitive advantage, and market penetration, obtaining new technology, knowledge, ability to make the most of existing knowledge, and introducing innovation to the market. The business may seek business alliances from various sources. Once a business alliance is formed, each party can reduce expenses or resources and earn benefits from increased profit. Alliances can also be formed for mutual collaboration in developing or improving production that will eventually lead to cost reduction and increases in profit.

1.2 Retrenchment Strategy

This research reveals that newspaper organizations have applied a retrenchment strategy in organizational restructuring and downsizing, details are as follows:

1.2.1 Organizational Restructuring

Organizational restructuring is a method to change, improve and develop the management and operation system of an organization. Before restructuring, executives must identify what kind of issues the organization is encountering and how to operate the business to be consistent with fluctuation in the economy, society, and technology.

1.2.2 Organizational Downsizing

Organizational downsizing is an appropriate method to help reduce operational expenses during situations where newspaper production drops and is gradually replaced by digital media. Downsizing is necessary in order to cope with the current situation of the newspaper business.

2. Business Level Strategy

Cost leadership strategy: Cost leadership strategy is formulated to take a competitive advantage by reducing cost and increasing revenue from other businesses.

It is necessary for a business to seek revenues from conducting its business in order to earn maximum profits as a return for investment, growth, rewards to employee, and survival. Cost reduction is another strategy that can help increase profit. It also focuses on finding and solving weaknesses within the organization. The newspaper organizations have attempted a number of methods to reduce their production costs such as reducing expenses as follows:

2.1 Cost Reduction

The newspaper organizations have attempted to survive during the age of transformation. The one method is cost reduction. However, there are several methods to manage cost reduction such as saving internal expense, reducing production expense, etc.

2.2 Increasing Revenue from Business

Apart from reducing total expenses, newspaper organizations will need to increase revenue from other businesses in order to remain in business and have an opportunity for growth. There are two methods for the aforementioned business strategy: 1) expansion of online business, and 2) expansion into other businesses.

2.2.1 Expansion to online business

Newspaper organizations have gradually entered the online business. As the trend of printed media is likely to continue to decrease after 2017, the advertising revenue from printed media will likely decline. Entrepreneurs must learn to adjust to the changing technology and be aware of consumer behaviors that currently tend to read more on mobile phones. Therefore, it is necessary for newspapers to begin expansion toward online business.

2.2.2 Expansion to other businesses

Expansion to other businesses is the most important method to increase revenue at present. Most newspaper businesses have attempted to expand their boundaries to other media that will result in their newspaper business truly becoming a business organization apart from being a social institution.

3. Functional Level Strategy

3.1 Work Process Improvement

In order to improve the quality of organizational operations consistently, it is necessary to improve the work process effectively and efficiently. Process improvement is the most important method to encourage divisions within the organization to improve their work, to increase quality, to reduce operating costs, and improve the ability of the organization to deliver. Thus, improving the work process is the key method that promotes the organizational management and operations to drive business forward in a competitive environment or promote change within the organization.

Newspaper organizations have improved the work process in accordance with the sudden change in the society and technology due to the advent of the digital technology. As a result, work processes must be adjusted urgently to comply with the current changes by applying the methods as follows:

1) Using convergence newsroom

The advanced information and communication technology have converged as a main feature of the media. Therefore, reporters working in this new environment must be able to apply new media to their work processes to comply with the nature of these media. In the past, reporters reported the news in newspapers only, but now they must learn to report on the Internet known as "News Groups" in order to share their opinions with readers and other Internet users. Reporters can also make the news from information shared within news groups. In brief, the work process for news has changed to become what can be termed the convergence newsroom.

2) Improving news reporting

The news reporting process in the digital age has changed according to the advancements in technology. For instance, photos taken by digital camera can be used by downloading onto a computer notebook, and then transmitted as content via satellite which can be seen by audience within minutes. It is similar to TV reporters who transmit images and audio via Uplink-Downlink satellite services within a short time frame. Consequently, newspaper organizations should improve their news reporting process by applying the most suitable technology.

3) Focusing on accurate and insightful news

In the digital age which society is progressing with digital media, a large amount of information is being published without sources. Many of them could be fake and thus unreliable. This can also confuse the receivers who may believe in the false information. This had led to the phase "Be sure before share" among Social Media users. Therefore, newspaper organizations who act as the intermediary must pay attention and be careful to ensure they provide accurate and reliable news.

3.2 Content Services Provider

Content has become the most important component of online media production in today's technological era. The phrase "Content is king" indicates the value of creating quality content which will enhance the quality of newspaper organizations. Quality content is in-depth content that presents interesting topics on a website which includes the main topic, secondary topic and others topics with insights on each of the topics to appeal and satisfy readers.

3.3 Using Social Media and Digital Technology

Communication through new media has become more and more active whether through the use of digital devices or social media. New media is a channel that offers content that can be sent from sender to audience. At present, the change in technology is leading to the change and development of the media. Today's digital media technology is completely different from traditional media.

Social media is becoming the mainstream media of today's world due to its influence on people's behavior in many dimensions. Digital media acts as a social tool to communicate within the social network through websites and applications on media connected to the internet. Social media encourage users, both the senders and receivers, to produce their own contents, or user-generated content (UGC) collaboratively and creatively.

3.4 Journalistic Professional Training and Development

In newspaper organizations, personnel from across departments are the human resource vital to growth in the digital age. Technology is gradually changing work methods, communications, and other related matters. Personnel training and development for higher capability will help create a competitive advantage which all organizations must have. The more digital technology is applied; the more business differences will arise.

Journalistic professional training and development in Thai newspaper organizations today prepares personnel to rapidly and consistently adapt to change. "Digital Human Recourse" is where personnel, knowledge, idea innovation and digital technology are united within business workflow. Human resources training and development are part of human resource management in the newspaper organizations. Training and development must be related to both new staff and other staff to enhance their ability to work more effectively and be consistent with the change in the operations. In the work of the editorial department and reporters in particular, training and development should lead to the formulation of new ideas as well as the creativity for news process development.

These ten strategies can be analyzed by the Balanced Scorecard (BSC) framework, which helps provide an overview of the adaptation strategy of Thai digital newspapers. As a tool for measurement and management control system, the BSC is used to implement strategies and to translate them into action. When considering the aforesaid adaptation strategies of Thai newspapers organization in the digital age, it is found that they can be translated into action in the four perspectives of the BSC framework: financial perspective, customer perspective, internal process perspective, as well as learning and growth perspective, as categorized in Figure 4.4.
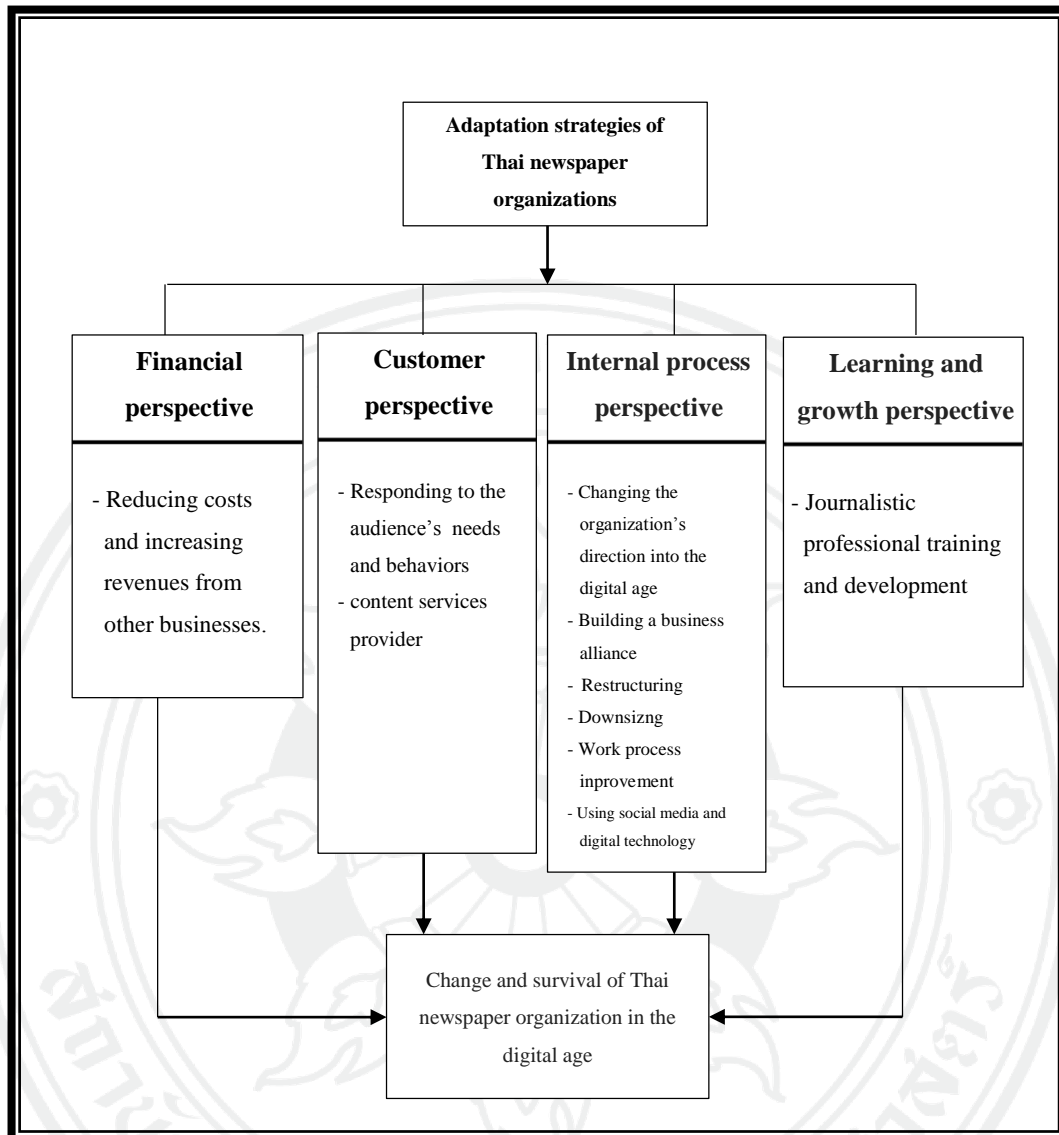
Figure 4.4 Adaptation Strategies of Thai Newspaper Organizations

As shown in Figure 4.4, Thai newspapers organizations have the adaptation strategies which correspond to the four perspectives of the BSC framework as follows:

1) Financial perspective: To reduce costs and increase revenue from other businesses.

2) Customer perspective: To respond to audience's needs and behaviors as well as content services provider.

3) Internal process perspective: To change the organizational direction toward the digital age by restructuring, downsizing, building business alliances, work process improvement, and using social media and digital technology.

4) Learning and growth perspective: Journalistic professional training and development.

There are several strategies or methods to adapt to become a digital newspaper organization. This has led to the change of the Thai newspaper organizations and their survival in the digital age. In particular, in terms of digital disruption and global competitive environment, newspaper organizations are print media organization inevitably being exposed to pressures from various impacts. Furthermore, toady's Thai newspaper organizations must compete with one another. Consequently, newspaper organizations have had to adapt to changing circumstances to survive and expand their market share as much as possible.

Based upon an analytical study on factors affecting innovative capability and adaptation strategies of Thai newspaper organizations in the digital age, it is shown that the factors affecting innovative capability are as follows: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs. When analyzing the value of multiple correlation coefficient between the six factors which affect the innovative capability, it indicated that all factors affect the innovative ability of Thai newspaper organizations. The beta weight of the six factors is listed in order of importance as follows: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to audience's needs, respectively.

Adaptation strategies are divided into three levels: corporate level strategies, business level strategies, and functional level strategies. First, Corporate level strategies consists of growth strategy and retreatment strategy. Growth strategy including changing the organization's direction into the digital age, and building business alliances; retreatment strategy including organizational restructuring, and organizational downsizing. Second, Business level strategies (competitive strategies) namely cost-leadership strategy: reducing costs and increasing revenues from other

businesses. Third, Functional level strategies (operational level strategies), which includes many methods as follows: 1) work process improvement; 2) content services provider; 3) using social media and digital technology; 4) Responding to audience's behavior and needs; and 5) Journalistic professional training and development.

In summary, the factors affecting innovative capability and adaptation strategies of Thai newspaper organizations in the digital age are shown in Figure 4.5.
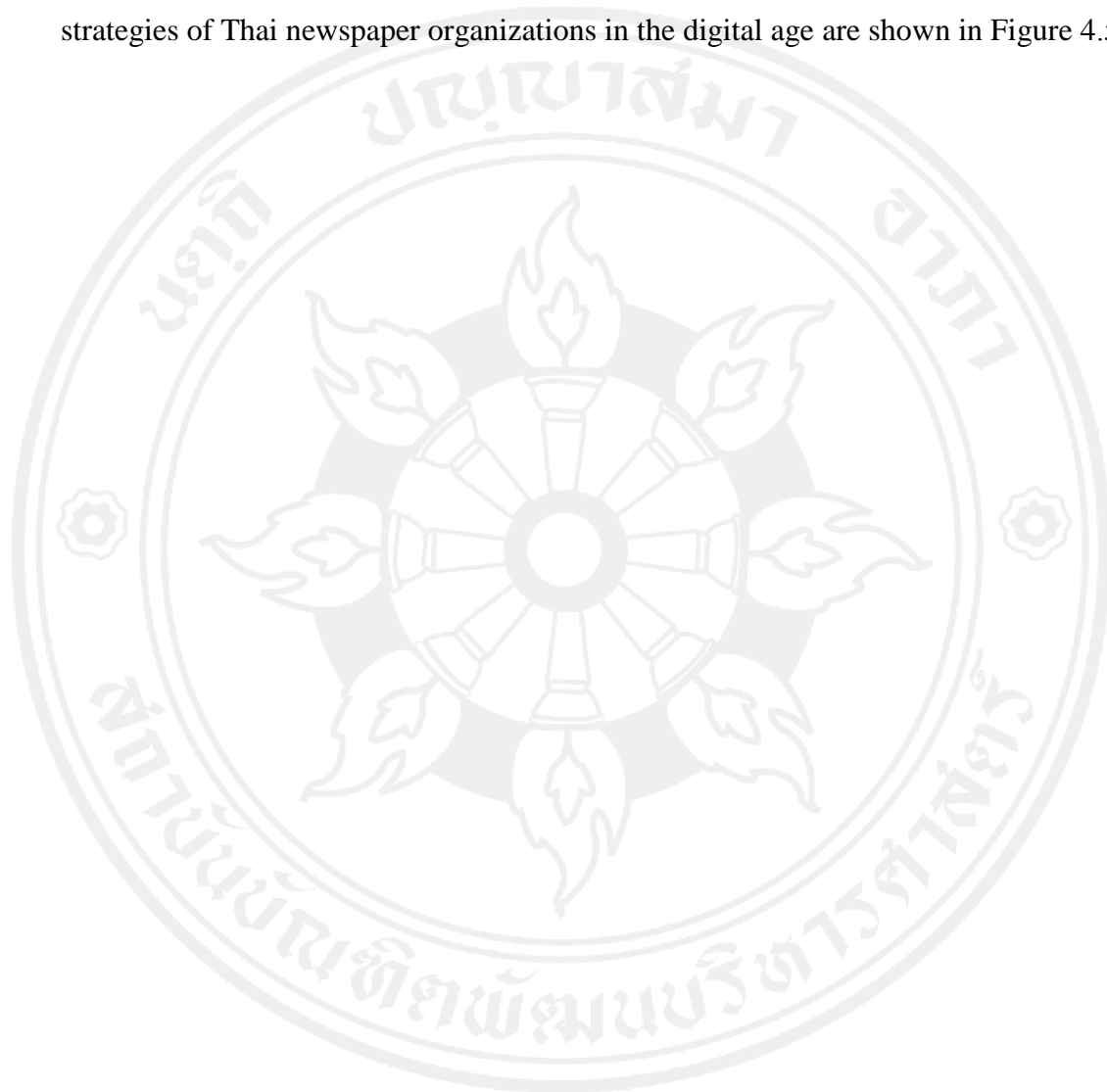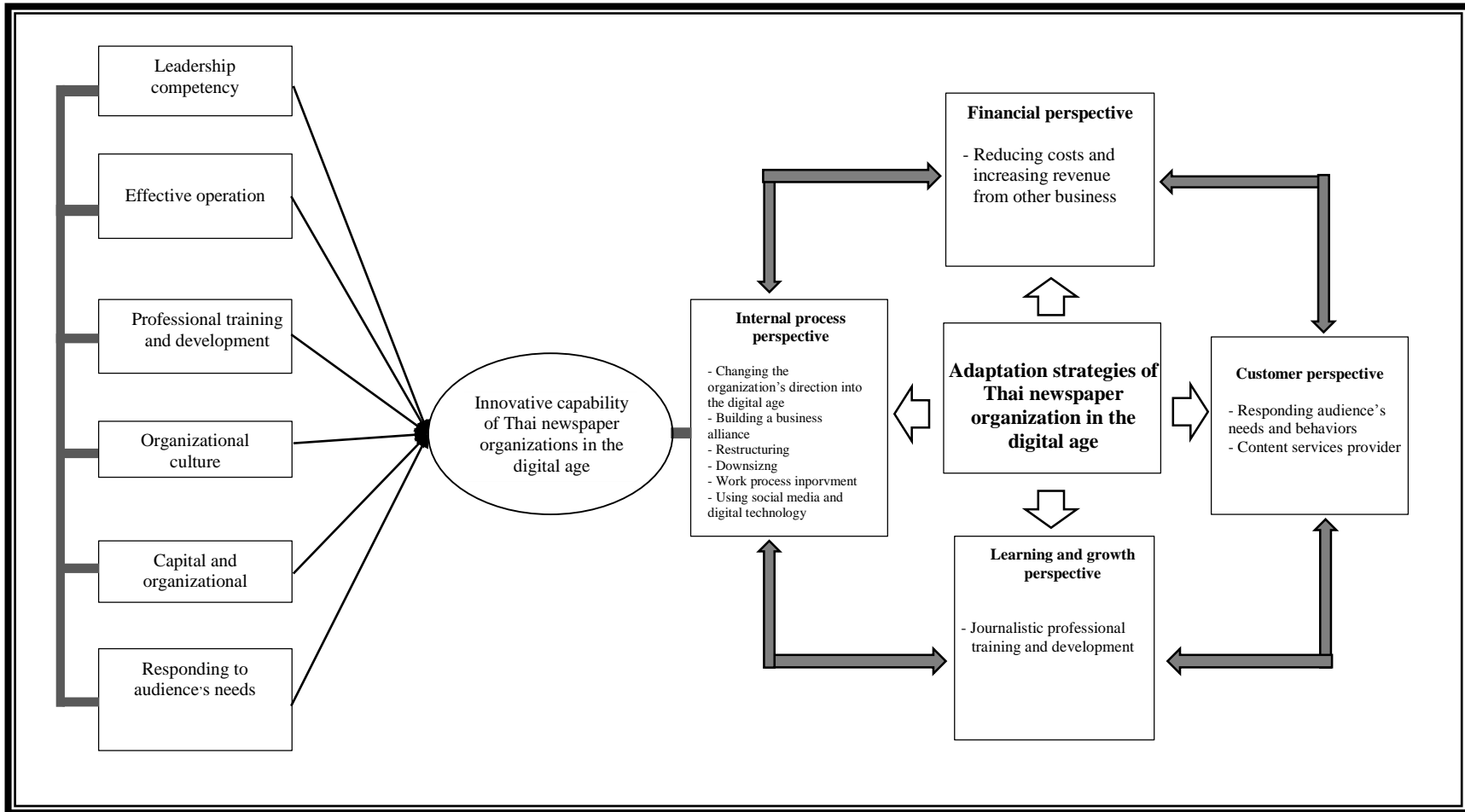
Figure 4.5 The Model of the Factors Affecting Innovative Capability and Adaptation Strategies of Thai Newspaper Organizations in the Digital Age

As showed in figure 4.5, the factors affecting innovative capability of Thai newspaper organizations in the digital age are as follows: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs. Moreover, from the analysis of multiple correlation coefficients, it indicates that all factors affect the innovative ability of Thai newspaper organizations. The best factor or predictor variable is "leadership competency".

There are three levels of adaptation strategies of Thai newspaper organization in the digital age. These strategies can be analyzed by the Balanced Scorecard (BSC) concept with four perspectives as follow: 1) Financial perspective: To reduce costs and increase revenue from other business; 2) Customer perspective: To respond to the audience' s needs, and content services provider; 3) Internal process perspective: To change the organization's direction into the digital age, building business alliance, organizational restructuring, organizational downsizing, work process improvement, and using social media and digital technology; and 4) Learning and growth perspective: Journalistic professional training and development.

CHAPTER 5

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

This last chapter consists of three sections: the conclusion which provides an overall summary of the research results, discussion of the research results, and recommendations for practical implementation and future research. The objectives of this research are: (1) to examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age, and (2) to investigate the adaptation strategies of Thai newspaper organizations in the digital age. Three sections in this chapter are as follows.

5.1 Conclusion

This research aims to study Thai newspaper organizations adaptation to the digital age. A mixed-method research was conducted, combining quantitative and qualitative approaches. For the quantitative approach, a survey was administered via questionnaires to collect quantitative data. The samples consist of 400 personnel in Thai newspaper organizations, selected by multi-stage sampling technique. Statistical data analysis was conducted by descriptive statistics, the Pearson's product moment correlation coefficient, and multiple regression analysis. For the qualitative approach, an in-depth interview was used to collect data from 25 key informants who were the executives, editors, assistant editors, and reporters as "journalists" in Thai newspaper organizations. Qualitative data were analyzed by categorizing systematically and using the analytical induction technique.

The results answer the two main research questions: (1) what are the factors affecting the innovative capability of Thai newspaper organizations in the digital age? and (2) what are the adaptation strategies of Thai newspaper organizations in the digital age? The results are presented in the following sections.

Part 1: Quantitative Results of the Factors Affecting the Innovative Capability of Thai Newspaper Organizations in the Digital Age.

Part 1.1 Results of the quantitative data analysis revealed the demographic characteristics of the samples, the characteristics and working environment of the samples' organizations, levels of the samples' opinions on leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs, and the innovative capability of Thai newspaper organizations.

Part 1.2 Hypothesis testing results showed that the following factors: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audiences' needs, have a positive correlation with the innovative capability of Thai newspaper organizations at the moderate level, with a statistical significance at the .01 level (p = .000). From the test, it is found that hypotheses 1, 2, 3, 4, 5, and 6 are accepted. In addition, from the analysis of multiple correlation coefficient, it concludes that all six predictor factors: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to audience's needs, can jointly predict the innovative ability of Thai newspaper organizations at 51.60%. The best predictor variable that can predict the variance of their innovative capability is "leadership competency". Thus, the hypothesis 7 is accepted.

Part 2: Qualitative Results of Adaptation Strategies of Thai Newspaper Organizations in the Digital Age.

The investigation of adaptation strategies of the Thai newspaper organizations is conducted with the following Thai newspaper organization: Nation Multimedia Group Plc, Nation News Network Co., Ltd, and Kom Chad Luek Media Co., Ltd; Matichon Plc, Post Publishing Plc; Vacharaphol Co., Ltd and Trend VG 3 Co., Ltd; Si Phraya Printing Co., Ltd; Siamrath Co., Ltd, Naewna Newspaper Co., Ltd; and Sarn-Soo Anacote Co., Ltd. The adaptation strategies are categorized into three levels: corporate level strategies, business level strategies, and functional level strategies. The results of the adaptation strategies are as follows:

1. Corporate level Strategies:

    1.1 Growth strategy:

        1.1.1 Changing the organization's direction toward the digital age and

        1.1.2 Building business alliances

    1.2 Retreatment strategy:

        1.2.1 Organizational restructuring and

        1.2.2 Organizational downsizing

2. Business level strategies (Competitive strategies):

    2.1 The cost leadership strategy: reducing costs and increasing revenues from other businesses.

3. Functional level strategies (Operational strategies):

    3.1 Work processes improvement in three ways: 1) Using convergence newsroom, 2) Improving news reporting improvement, and 3) Focusing on accurate and insightful news

    3.2 Content services provider.

    3.3 Using social media and digital technology in three functions: 1) As the tools to find sources of news, 2) As the news distribution channel, and 3) As a link to news details on the online newspaper's website

    3.4 Responding to audience's needs and behaviors.

    3.5 Journalistic professional training and development.

The three levels of strategy mentioned above are the adaptation strategies of the Thai newspaper organization in the digital age that lead to change and the business survival. These strategies can be analyzed by using the Balanced Scorecard (BSC) concept from four perspectives:

1) Financial perspective: To reduce costs and increase revenue from other business.

2) Customer perspective: To respond to audience needs, as well as content improvement.

3) Internal process perspective: To change the organization's direction into the digital age, building business alliances, organizational restructuring, organizational downsizing, work process improvment, and using social media and digital technology.

4) Learning and growth perspective: Journalistic training and development.

5.2 Discussion

This section is an interpretation of the research results to obtain an outcome for each research objective. The results will be linked to the literature review concerning concepts, theories, and related research, and will lead to a set of recommendations for both practical implementation and future research.

Objective 1. Examine the factors affecting the innovative capability of Thai newspaper organizations in the digital age. The hypotheses are as follows.

Hypothesis 1: **Leadership competency and the innovative capability of Thai newspaper organizations have a positive correlation.**

The research found that leadership competency and the innovative capability of Thai newspaper organizations have a positive correlation at the moderate level ($r = 0.56$), with the statistical significance at the .01 level ($p = .000$). Hypothesis 1 is thus accepted. It may be concluded that leadership competency is the major factor that affects or leads to the innovative capability of Thai newspaper organizations in the digital age. This conforms with the theoretical explanation that a type of leadership that leads to a change must be an adaptive leadership. Miller and Proctor (2016) mentioned this among other factors, i.e., uncertain environment, only adaptive leadership can lead to rapid management and wise problem-solving. Moreover, Hodges (2016) also explained that an adaptive leadership could help an organization seek new solutions and create innovative capability. This finding also accords with the idea of leadership of Prahalad and Krishnan (2008) who stated that leaders in the digital age should have an innovative vision that leads to the creation of organizational innovation.

Hypothesis 2: **Effective operation and the innovative capability of Thai newspaper organizations have a positive correlation.**

The research found that an effective operation and the innovative capability of Thai newspaper organizations have a positive correlation at the moderate level (r = 0.53), with a statistical significance at the .01 level (p = .000). Hypothesis 2 is thus accepted. It is clearly seen that an effective operation affects the innovative capability of the organizations. This result conforms with the concept of Prahalad and Krishnan (2008) who stated that organizational change in the digital age will lead to an organization becoming digitalized. In order to overcome all the difficulties organizations will encounter, they need to have an effective management model and procedure to help cope with the coming changes. An effective working process can enhance the adoption of innovation in an organization, which accords with concept of Tidd and Bessant (2013) who indicated that an effective operation in a business organization could successfully introduce innovative management. Allowing personnel in the organization to creatively contribute ideas for new products and services must be part of an organization's policy.

Hypothesis 3: Capital and organizational resources and the innovative capability of Thai newspaper organizations have a positive correlation.

The research found that capital and organizational resources and the innovative capability of Thai newspaper organizations have a positive correlation at the moderate level (r = 0.42), with a statistical significance at the .01 level (p = .000). Hypothesis 3 is thus accepted. The result corresponds with the resource-based view (RBV) of the managerial concept of Robbins and Coulter, which identifies that the organization's strategic resources can create a competitive advantage and lead to achieving organizational goal. These resources do not cover only the monetary capital but also internal organizational resources (Robbins and Coulter, 2018). Morover, Barney divided the internal organizational or business resources into three types: physical resources, human resources, and organizational resources. Organizational resources can strengthen an organizational competency and is important to create a competitive advantage.The organizational performance will be supported by internal organizational resources (Barney, 1991).

Hypothesis 4: Organizational culture and the innovative capability of Thai newspaper organizations have a positive correlation.

The research found that organizational culture and the innovative capability of Thai newspaper organizations have a positive correlation at the moderate level (r = 0.45), with a statistical significance at the .01 level (p = .000). Hypothesis 4 is thus accepted. The result corresponds with the study of Büschgens, Bausch, and Balkin (2013) who found that an organizational culture and organizational innovation were correlated. This result also corresponds to Asina Pornvasin and Sakulsri Srisarakarm (2013) who found that an organizational culture was important to eliminate the wall of differences such as opinions, working skills, personal capabilities, etc. In addition, the study indicated that it was important to convince co-workers to accept more responsibilities and adjust their attitude about new working procedures, including cooperative improvement to share information and work as a team. Nevertheless, organizations at the present time have joined the trend to change to digital technology and can eventually become digital organizations.

Based on the research results, in order to move to be a digital organization, it is necessary to apply a digital culture as an organizational culture to create an organizational innovation, which requires a connection, flexibility, convenience, and the ability to respond in timely fashion to all kinds of needs without constraints of time and space (Prahalad & Krishnan, 2008).

Hypothesis 5: Professional training and development and the innovative capability of Thai newspaper organizations have a positive correlation.

The research found that professional training and development and the innovative capability of the Thai newspaper organizations have a positive correlation at the moderate level (r = 0.48), with a statistical significance at the .01 level (p = .000). Hypothesis 5 is thus accepted. This finding corresponds with Sheehan, Garavan, and Carbery (2013) who investigated innovation and human resource development and found that professional training and development, i.e., a leadership development, critical thinking and problem solving, specialist skills development and the organization's innovation were correlated. Professional training and development, especially for reporters, is the development of the personnel's competency explained

by the concept of human resource development called "core competency," which means skills and qualifications needed for personnel in an organization (Cascio, 2016).

It is necessary for editors and reporters to have digital skills such as digital literacy, video-content creation, info graphic design, etc., which are important skills enabling newspaper organizations to succeed in the digital age. Moreover, this result is consistent with the concept of digital journalism of Luckie (2010) who indicated that new journalists must change to be multi-skillful or to be journalists who Hall and Lashmar (2014) called "a multimedia journalist" in order to produce the news in accordance with the competitive environment and technological change.

Hypothesis 6: Responding to the audiences' needs and the innovative capability of Thai newspaper organizations have a positive correlation.

The research found that responding to the audiences' needs and the innovative capability of Thai newspaper organization have a positive correlation at the moderate level (r = 0.40), with a statistical significance at the .01 level (p = .000). Hypothesis 6 is thus accepted. The finding shows that responding to the audiences' needs is important and supports the innovative capability of Thai newspaper organizations. Conversely, this highlights that a newspaper organization can have potential to respond to the audience's needs by using digital technology and new media innovation. In particular, audiences in the digital age have different reception behaviors through various kinds of media. This result also corresponds with the concept of Christensen, Duncan, Dillon, and Hall (1996) who explained that a news organization should give priority to audiences according to the "Jobs-to-Be-Done" approach that focuses on presenting necessary information rather than following the conventional style. This approach can be seen in some of the world's most respected companies and fast-growing startups such as Amazon, Uber, Airbnb, etc.

Hypothesis 7: Leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audiences' needs, are predictor variables that can predict the innovative capability of Thai newspaper organizations.

The research found that all six independent variables: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, and responding to the audience's needs, have a positive correlation with the innovative capability of Thai newspaper organizations with a statistical significance at the .01 level (p = .000). Hypothesis 7 is thus accepted. This indicates that the increasing innovative capability of Thai newspaper organizations in the digital age is essential. It involves several factors, i.e., a high leadership competency, effective operation, available and firm capital and organizational resources, an organizational culture that supports innovation, updated professional training and development, and the organization's ability to respond well and in timely fashion to the audience's needs.

From the hypothesis testing of the multiple regression analysis between these six predictor variables, the best predictor variable that can predict variance of the innovative capability of Thai newspaper organizations is "leadership competency". This research finding corresponds with the study of Liu and Phillips (2011) who found that a leader, whose role includes a facilitator, mentor, and innovator, would be able to bring about organizational innovation. Moreover, this result accords with the innovative leadership concept that a leader with said roles can manage the change and progress of the organization. According to Horth and Dan (2014) , change is unavoidable. In the current situation in particularly, change occurs very rapidly and may affect an organization enormously. However, a change can also create new opportunities for both an organization and personnel toward a better way. Consequently, to induce a change into an organization, the most important person is the executive, as the leader, who must have the qualification of possessing innovative leadership. This is significant and necessary for an organization in the digital age (Gershon, 2017).

Objective 2: Investigate the Adaptation Strategies of Thai Newspaper Organizations in the Digital Age.

1. The research found three levels of adaptation strategies of Thai newspaper organizations used in the digital age: corporate level strategy, business level strategy, and functional level strategy. The corporate strategy focuses on creating organizational growth by changing the direction of the organization toward the digital age, establishing business alliances, and employing a retrenchment strategy by restructuring and downsizing. Business strategy is the cost leadership strategy. In business strategy, cost leadership is the establishment of a competitive advantage by having the lowest cost of operation in the industry. Cost leading companies compete on price and are very effective at this form of competition, having a low-cost structure and management and increasing revenue from other business. The functional strategy comprises of work process improvement, content services provider, using social media and digital technology, responding to audience's needs and behaviors, and journalistic training and development.

The three-level strategies correspond with the concept of the strategy formulation of an organization explained in Hill and Jones (2008). These three-level strategy formulations are used by Thai newspaper organizations to adapt for survival in the digital age.

1.1 Corporate strategy at the corporate level is used to determine the direction upper management plans to take the organization, and to determine how to distribute appropriate organizational resources for each function. From the study, it is found that Thai newspaper organizations change their direction toward the digital age employing a "growth strategy", or the strategy that will lead an organization toward growth. Furthermore, newspaper organizations also establish business alliances to build cooperation by sharing resources and skills to create a competitive advantage. This conforms with the concept of Kotler (2003) who explained that when the business is competitive and consumer behavior is shifting, business alliances help to solve some issues and increase their adaptation in a competitive environment, which requires knowledge, capabilities, and new types of skills to drive business operations. Building business alliances in newspaper organizations helps to strengthen work

performance in the digital age. In addition, this conforms with the concept of Hitt et al. (2015) who placed high importance on business alliances or business cooperation toward business growth; for example, to promote business joint ventures by cooperating with other business alliances will be beneficial for both sides over the short and long term.

An organizational restructuring and downsizing strategy, e.g., by reducing some departments or divisions, corresponds with the concept of Prahalad and Krishnan (2008) who explained that digital technologies are affecting the adaptation of an organization to a new business model and the organizational competency development. Therefore, organizations in the digital age may have to adjust their structure to conform to the changes caused by advanced digital technology. This concept also corresponds with Schmidt and Cohen (2014) who pointed out that the old-style traditional media organization is dying, and only organizations that can adjust their organizational structure, objectives, and business models to respond to changes in the needs of the public, will survive.

Furthermore, organizational downsizing is another policy to increase efficiency by decreasing the number of employees. The action for this strategic adaptation of a newspaper organization is known as "retrenchment strategy", which is cost cutting to help the organization survive both at the present time as well as into the future. This result corresponds with the study of Pairoj Pataranarakul (2002) who studied management strategies and organizational adaptability during a crisis and found that government and private organizations implement downsizing policies to ensure the organization survives. This includes decreasing the numbers of employees and dissolving unnecessary functions.

1.2 Business strategy or competitive strategy is the strategy that newspaper organizations use to gain an advantage over other competitors using available resources and capability to achieve the direction plan according to the corporate strategy by focusing mainly on "marketing" and "products". The research found that the business strategy of newspaper organizations was to cut cost and increase revenues from other business. This finding corresponds with studies by both foreign and Thai scholars. According to Dominick (2011), newspaper organizations are adapting to survive in the digital age. This is a new business model that can reduce

operating costs and increase revenues from other business. At the same time, many newspaper organizations are searching for new ways to conduct business to increase revenues.

Moreover, as Mile and Snow's four organizational strategic typologies concept, this research found that newspaper organizations used the "Analyzer" strategy which is a type of adaptation strategy among others: the Defender, the Reactor, the Analyzer, and the Prospector. This strategy is a kind of defensive strategy to protect an organization and to solve problems in business, along with using an offensive strategy, which allows the organization to expand their existing business to other new business.

1.3 Hill and Jones (2008) explained that functional strategy or effective operation strategy was the strategy applied in each function to support the corporate strategy and business strategy to achieve the organization's goals. In this research, it is found that newspaper organizations adjusted several functional strategies to support corporate and business strategy. The functional strategies used are as follows:

1) Work process improvement in three ways: using convergence newsroom, improving news reporting, and focusing on accurate and insightful news.

This finding corresponds with the study of Prahalad and Krishnan (2008) who explained that the working process of an organization in the digital age seemed to change into a new look. Furthermore, it found that newspaper organizations share a converged newsroom. This corresponds with the research of Asina Pornvasin (2009) who studied on business adaptation of Nation Multimedia Group in the digital era and found that Nation Group improved its working process by using newsroom convergence to enhance work performance and make it more effective.

Furthermore, this research found that Nation Multimedia Group Plc adjusted its working process by using social networks as a tool to distribute news. This conforms with the research of Sakulsri Srisarakarm (2014) who found that social media help to report news faster. Morover, they are not only used to help news reporting in terms of the dimension of time, but also help to report precise and insightful news under an ethical framework.Sakulsri Srisarakarm (2014) also found that the role of a reporter who used a social network to report news must be responsible for filtering information and making decisions to choose what news

should be reported with knowledge and ethics. To report correct and precise insightful news is one of elements of the professional ethical codes of conduct of the National Press Council of Thailand, 2008, which specifies that newspapers must rely on the facts that are correct, precise, and complete. A newspaper must not distort facts (The National Press Council of Thailand, 2008). Schmidt and Cohen (2014) explained that a mass media organization in the digital age must play its role as an investigator and scrutinizer for more reliable news, apart from its responsibility for gathering information.

It is found in the current research that for a newspaper organization should become a content services provider, one of the functional strategies is to be keen on presenting "content" which is essential for news reporting in the digital age. This is because at present time there are various channels for news reporting and the audiences can be selective in their exposure to any media or platform, including being able to create their own messages or what is known as "user-generated content" (UGC) (Dominick, 2011). Therefore, they must strengthen their professional content presentation on several platforms. This finding corresponds with the concepts concerning content providers, including content marketing. These concepts view that media organizations need to provide essential and useful content to audiences, especially when communicating through an online social network, which is the fastest channel to reach audiences. Moreover, audiences have the power to select the message to which they are exposed. Therefore, the creation of the content must lead audiences to be engaged with the channel (Tuten & Solomon, 2013).

Another functional strategy of newspaper organizations is the use of social media and digital technology, which can be utilized in three functions: (1) as the tools to find sources of news, (2) as the news distribution channel, and (3) as a link to news details on the online newspaper's website. Accordingly, online social media and digital technology play a significant role in their working processes. Therefore, their role is not only to publicize news and information, but also to increasingly perform many more functions. This result further conforms to the concept of Schmidt and Cohen (2014) who found that media organizations use online social media and digital technology in news reporting, especially breaking news or hot news via online social media. The characteristics of online social media mean it

can disseminate news more widely than mainstream media of newspapers, radio, and television, etc., which cannot report news in real time throughout 24 hours a day.

The functions of online social media as a tool for gathering news and information, as a channel for news distribution, and as a link to detailed news on the online newspaper's websites are supported by the study of Sakulsri Srisarakam (2011) who remarked that online media can function as a link due to the limited space of the mainstream media, which inhibited the presentation of detailed messages.

The strategy of using online social media is not only useful for the news reporting process but also performs as a channel to access the audiences' opinions and perception and enhance the audience's engagement by allowing the audiences participate in and become involved in the channel, thus sharing in common experiences. In so doing, newspaper organizations can evaluate the audiences' interaction through online social media, such as numbers of comments, shares, and likes in Facebook or numbers of views on YouTube (Schmidt & Cohen, 2014). These advantages of online media usage in the news process and in evaluating the number of followers of the organizations' message can help organizations to develop content and present news to meet audience's interest and needs more effectively. Therefore, this indicates that online social media is an effective channel that causes an interactive communication between newspaper organizations and their audiences (Flew, 2014).

Besides, online social media, newspaper organizations also apply digital technology for news dissemination. Despite serving a specific purpose, this study shows that digital technology influences the news reporting of newspaper organizations. Consequently, they must adjust to respond to technological change and use digital technology to maximize effectiveness of its news reporting. Schmidt and Cohen (2014) stated that digital technology would increasingly come to operate on news reporting instead of the mainstream media. Hence, the mainstream media must know how to integrate with new media in presenting and distributing news.

Moreover, this research found another adaptation strategy of the newspaper organizations, namely the "responding to audiences' needs and behaviors", which places an importance on the audience, known by marketers as "news consumers". Therefore, the adaptation of Thai newspaper organizations needs to focus on the audiences as they affect the organizations' survival in the digital age. Currently,

audience's needs and behaviors relating to news has changed from the "passive audience" to "active audience" who have the capability to create messages or UGC (Dominick, 2011). Therefore, newspaper organizations must focus on the audience's needs and adjust its functional strategies to meet their needs and behaviors. Nielsen Company, USA (2018) calls audience in the digital age the "digital audience". Today, media organizations need to transmit information to reach a large number of people and online social media users overwhelmingly utilize digital media. Hence, it is essential for a newspaper organization to know who its audience is, how to determine their goals, and how to create specific content and channels for their audiences. The adaptation of such strategies can maximize the efficiency of their responsiveness to the audience's changing needs. Digital audience group is an important target audience in the digital age (Kibirev, 2018).

The last adaptation strategy of newspaper organizations found in this research is "digital journalistic professional training and development" aimed at increasing the potential of journalists in the digital age. Professional training and development is specialized training for developing multi skills for operational journalists or online news reporters. Hall and Lashmar (2014) called them "multi-media journalists", who are able to work effectively in congruence with the changes in news distribution today or the transformation toward "digital human resources" in which human resources, knowledge, innovative ideas, and digital technology are united to drive their news business and operation. Thus, journalistic professional training and development has an important role in the human resource management of newspaper organizations for both new and old journalists. Training can be used in the form of an in-house training and training by Thai Broadcast Journalists Association. This corresponds to Phayat Wuttirong (2009) who studied the impact of resource-based view and learning organization on the innovativeness of organizations in the Stock Exchange of Thailand (SET) toward human resource management and learning organizations on their innovation creativity and found that training and human resource development affect the organizations' innovation capability.

Furthermore, this result also corresponded to Jones and Saltar (2012) who stated that in the past, news coverage in traditional news media was limited by technical and equipment limitation. In the digital age, journalists must be trained in

many skills and developed in many areas in order to become multi-skilled journalists or "professional journalists" able to use their skills across platforms. Particularly, they have the professional skill of telling stories on many platforms such the Internet and social media or can manage a newsroom where journalists working in different media collaborate (Knight & Cook, 2013).

From interpreting the results of the quantitative approach in combination with the qualitative approach, it is found that the concept of an adaptation strategy and various factors affecting innovative capability of Thai newspaper organizations in the digital age correspond with the Balanced Scorecard (BSC) concept which consists of the organizational measurement and control system from four perspectives: financial, customer, internal process, learning and growth. Consequently, newspaper organizations can apply the Balance Scorecard tool to evaluate the effectiveness of the innovative performance system within their organizations, especially those focusing on task orientation. This finding is supported by Zizlavsky (2014) who found that the BSC can be used as a tool to evaluate the innovative efficiency and overall performance management of a company.

5.3 Recommendations

Based on the quantitative and qualitative results, the recommendations for practical implementation and further study are as follows:

5.3.1 Recommendations for Practical Implementation

5.3.1.1 From the findings of the quantitative approach, it is found that various factors: leadership competency, effective operation, capital and organizational resources, organizational culture, professional training and development, responding to the audience's needs and the innovative capability of Thai newspaper organizations have statistically significant positive correlations. Therefore, they should take into consideration these factors in developing their organization to achieve a high level of innovative capability.

5.3.1.2 From the hypothesis testing, it is found that "leadership competency" is the most significant factor that can predict the innovative capability of

Thai newspaper organizations in the digital age. Therefore, a particular focus on leadership competency and development of leadership and management at all levels to possess the appropriate managerial skills to lead the organization as it copes with change in a positive way for survival and future growth.

5.3.1.3 Three levels of adaptation strategies of Thai newspaper organizations in the digital age: corporate level, business level, and functional level strategy are found in this study. It is recommended that these strategies are used differently according to the situation and problems encountered. Moreover, they should adjust their operation using these strategies to cope with the changing environment consistently. The organizations also need to possess dynamic adjustment and be ready to face technological challenges and changing consumer behavior.

5.3.1.4 Although it is found in the research results that Thai newspaper organizations have been adjusting into digital organizations and have prepared for the increasing use of digital media, they should focus more on physical resources and preparation for their continued effective operation. Examples of these organizational resources and preparation are an investment in digital infrastructure and digital technological systems such as big data systems and analytics as well as the supporting the digital culture within an organization. All of these will lead Thai newspaper organizations toward digital innovative organization and can enhance their growth in the long term.

5.3.1.5 The results of the research noted that every newspaper organization uses the social media technology strategy in their news reporting. However, it should be used more effectively as a communication tool. Thai newspapers organizations should enhance the effectiveness of social media in news working process and use it as a portal for connecting with the public. Moreover, they should take advantage the features of social media to monitor and evaluate the behavior of their audience.

5.3.1.6 From this study, the proposed adaptation strategies of the Thai newspaper organizations in the digital age are both defensive and offensive strategies, which are adjusted in tandem to deal with the existing situation. All of these strategies call for a changing organizational direction by using digital media in news reporting and for an expansion into other possible businesses, including seeking business

alliances. However, they should not forget their roots or background and should take into consideration their past experiences.

5.3.1.7 From the research, it was found that an adaptation strategy of Thai newspaper organizations was to respond to the audience's needs. This strategy emphasized the importance of the audiences or news consumers. To understand the needs of the audience, they should explore the needs and behaviors of news consumers in order to report news and information that meets the real needs and responds to the changing behavior of today's audience.

5.3.1.8 The results of this research revealed that the adaptation strategy of Thai newspaper organizations was personnel training and development strategy. This strategy focused on human resources within organizations. Hence, they should emphasize the importance of journalistic training and development. In particular, they should develop multi-skills for journalists and prepare news staff in the future to possess digital technology skills as a part of the new production process, such as the production of video content, using social media to conduct investigative news, and developing their potential to have multi-skills in news reporting.

5.3.1.9 These results broaden the information base on the adaptation strategies of Thai newspaper organizations and the factors affecting their innovation ability in the digital age. Therefore, educational institutions that have programs on communication arts, journalism, and mass communication, can apply information from these findings to develop their curriculum on digital journalism in a Thai sociocultural context.

5.3.2 Recommendations for Future Research

5.3.2.1 This present study is to investigate only newspaper organizations in the digital age as the "media organization" or "sender" which is one element of the communication process. Therefore, to better understand other communication elements related to Thai newspaper organizations in the digital age, future research should examine other elements of communication process such as digital messages in Thai newspaper, Thailand's online newspapers, and cyber psychological characteristics of online Thai newspaper's audience.

5.3.2.2 This study focuses only on adaptation strategies of Thai newspaper organizations. However, in the digital age, there are other related issues to be investigated, such as the development of digital technology in Thai newspaper organizations, the digital infrastructure investment, or the digital strategies shaping their competitive advantage.

5.3.2.3 Further studies should explore advanced digital journalism. For example, research into the similarities and differences of the adaptation strategies between Thai and foreign newspaper organizations should be conducted. Their results will contribute to the continual development of Thai newspaper organizations in the digital age.
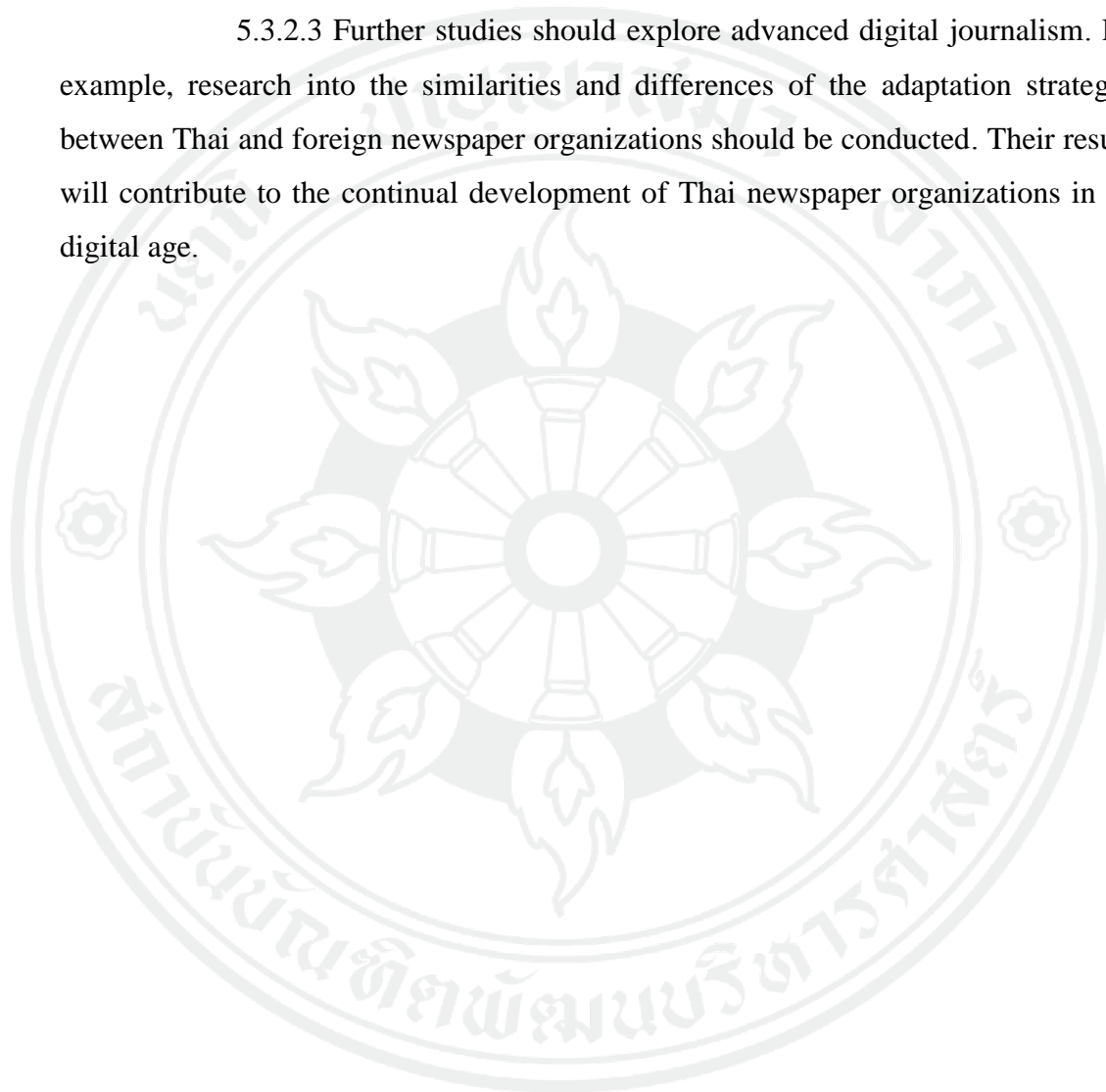
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APPENDICES

APPENDIX A

Questionnaire
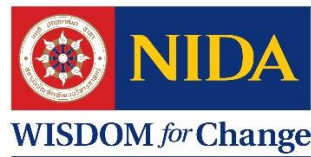
A questionnaire of the research entitled

"An Analytical Study of Factors Affecting Innovative Capability and Adaptation Strategies of Thai Newspaper Organizations in the Digital Age"

Statement: This questionnaire, the researcher would like you to cooperate in answering truthfully for the best academic benefit. Please be assured that your answer will be used only for the research purposes.

Instruction: Please answer the question by checking (✔) in the box of the desired option that corresponds to your truth.

Part I Respondents' Demographic Characteristics

1. **Gender**

   ❏ 1. Male   ❏ 2. Female

2. **Age**

   ❏ 1. Below26 years   ❏ 2. 26 - 35 years

   ❏ 3. 36 - 45 years   ❏ 4. 46 - 55 years

   ❏ 5. 56 - 65 years   ❏ 6. Above 66 years

3. **Educational Level**

   ❏ 1. Below Bachelor's degree ❏ 2. Bachelor's degree

   ❏ 3. Master's Degree   ❏ 4. Above Master's Degree

4. **Major**

   ❒ 1. Journalism   ❒ 2. Communication Arts/ Mass Communication

   ❒ 3. Others

5. **Present position**

   ❒ 1. Staff / Operational Level   ❒ 2. Supervisor/First management

   ❒ 3. Director / Middle management ❒ 4. Top management

6. **Average monthly income**

   ❒ 1. Below 10,000-25,000Baht   ❒ 2. 25,001 -35,000 Baht

   ❒ 3. 35,001 - 45,000Baht   ❒ 4. 45,001 -55,000 Baht

   ❒ 5. Above 50,001 Baht

7. **Length of time working in current organization**

   ❒ 1. Below1-5 years   ❒ 2. 6-10 years

   ❒ 3. 11-15 years   ❒ 4. 16 -20 years

   ❒ 5. 21-25 years   ❒ 6. 26- 30 years

   ❒ 7. Above 30 years

**Part II: The characteristics and working environment of the respondents'
organization**

1. **What is your organization's management style?**

   ❒ Clear command line   ❒ Unclear command line

   ❒ Rather flexible command line   ❒ Flexible command line

2. **What is your organizational climate?**

   ❒ Fixed   ❒ Rather fixed

   ❒ Conducive to change   ❒ Promoting a change

3. What is your organization's administrative power?

❑ Centralized power   ❑ Rather centralized power

❑ Rather decentralized   ❑ Decentralized power

4. What is your organizational functions?

❑ Clear division of functions   ❑ Rather clear division of functions

❑ Rather working as a team   ❑ Teamwork

5. What is your organization's working style?

❑ Very formal   ❑ Rather formal

❑ Rather informal   ❑ Informal

6. What is your organization's control of work?

❑ High regulatory - focus   ❑ Moderate regulatory - focus

❑ Moderate achievement - focus   ❑ High achievement - focus

Part III Respondents' opinion toward factors affecting innovative capability of Thai newspaper organizations in the digital age

Instruction: Please express your opinion by checking (✔) in the space of each following statement that corresponds to your truth.

Meaning of the Scale: 5 = Strongly agree, 4 = Agree, 3 = Neutral 2 = Disagree, 1 = Strongly disagree

3.1 Leadership competency

No	Items	Level of Opinion				
		5	4	3	2	1
1.	Executives have a good leadership.					
2.	Executives have effective management skills.					
3.	Executives provide a support in promoting the creation of new things in the organization.					
4.	Executives have a broad vision.					
5.	Executives accept different opinions.					
6.	Executives have an effective psychology to motivate employees.					
7.	Executives are flexible persons.					
8.	Executives dare to create something new.					
9.	Executives have an innovative idea.					
10.	Executives encourage the teamwork.					

3.2 Effective operation

No	Items	Level of opinion				
		5	4	3	2	1
11.	Your organization has an improved operational efficiency.					
12.	Your organization supports new learning.					
13.	Your organization is always developing its quality.					
14.	Your organization has supported a learning exchange.					
15.	Your organization has developed an effective working system.					
16.	Your organization is using new techniques and skills to run the news reporting.					
17.	Your organization can access information without difficulty.					
18.	Your organization has modern technologies to facilitate the working process.					
19.	Your organization has developed an information management system.					
20.	Your organization focus on systematic database.					

3.3 Capital and organizational resources

No	Items	Level of opinion				
		5	4	3	2	1
21.	Your organization applies new technology to its operations.					
22.	Your organization has adequate operational support equipment.					
23.	Your organization report news though online media.					
24.	Your organization applies new media to the news working.					
25.	Your organization has sufficient working capital.					
26.	Your organization has technologies to distribute information.					
27.	Your organization has good knowledge and technical capital for working.					
28.	Your organization supports facilitating working.					
29.	Your organization focuses on online media rather than traditional media.					
30.	Your organization has expanded an investment in digital technology to make more work effective.					

3.4 Organizational culture

No	Items	Level of opinion				
		5	4	3	2	1
31.	Your organization has a working model that supports the new developments.					
32.	Your organization has the suitable practice for organizational development towards a positive change.					
33.	Your organization encourages the process of flexible working time and place.					
34.	Your organization creates an environment conducive to innovation in the organization.					
35.	Your organization has clear guidelines for working.					
36.	Your organization has built up supportive behaviors.					
37.	Your organization focuses on open-mindedness.					
38.	Your organization promotes a sharing of information and knowledge.					
39.	Your organization has two-way communication to exchange information between personnel in the organization.					
40.	Your organization has a good working system.					

3.5 Professional training and development

No	Items	Level of opinion				
		5	4	3	2	1
41.	Your organization develops digital media skills to reporters.					
42.	Your organization promotes creativity to reporters.					
43.	Your organization promotes a positive attitude toward working under pressure.					
44.	Your organization is promoting new knowledge learning in the organization.					
45.	Your organization promotes team working skills.					
46.	Your organization encourages reporters to have a continuous training.					
47.	Your organization promotes reporters to have multi-skills.					
48.	Your organization is encouraged to have good decision-making skills.					
49.	Your organization develops technical skills to personnel.					
50.	Your organization promotes systematic problem-solving skills.					

3.6 Responding to the audience's needs

No	Items	Level of opinion				
		5	4	3	2	1
51.	Your organization focuses on a quick response to the audience's needs.					
52.	Your organization tries to increase the audience's satisfaction with the new technology used.					
53.	Your organization concerns about how audience receive the news more conveniently.					
54.	Your organization centers on online media to meet the audience's needs.					
55.	Your organization facilitates the audiences to receive news anywhere and anytime.					
56.	Your organization attempts to report the news and information that attracts the audience's attention.					
57.	Your organization is receptive to the audience's feedback.					
58.	Your organization pays attention to building good relationships with the audiences.					
59.	Your organization provides various services to serve the audience's needs.					
60.	Your organization collects the audience's data as a database to be able to respond to their needs.					

3.7 Innovative Capability of Thai Newspaper Organizations

No	Innovative Capability of Thai Newspaper Organizations	Level of opinion				
		5	4	3	2	1
61.	Your organization tries to develop innovative capability.					
62.	Your organization brings a communication innovation to use in working process.					
63.	Your organization promotes creativity in news reporting.					
64.	Your organization implements an innovative strategy for business.					
65.	Your organization focuses on using innovative techniques.					
66.	Your organization develops work process to keep up with change.					
67.	Your organization has innovative information management systems.					
68.	Your organization is ready to adapt to the changing environment and to adopt new things to the organization.					
69.	Your organization provides information services on new channels and platforms.					
70.	Your organization is ready to change to a new type of organization, such as a digital organization, utilizing digital media in a work process.					

4. Please give more information and suggestions.

Thank you very much for your kind corporation.

แบบสอบถามของการวิจัย

เรื่อง

"การศึกษาวิเคราะห์ปัจจัยที่ส่งผลต่อความสามารถทางนวัตกรรมและกลยุทธ์การปรับตัวของ

องค์กรหนังสือพิมพ์ไทยในยุคดิจิทัล"

คำชี้แจง: แบบสอบถามชุดนี้ ผู้วิจัยขอความร่วมมือจากท่านในการตอบคำถามตามความเป็นจริงเพื่อ
ประโยชน์สูงสุดทางวิชาการ และขอยืนยันว่าคำตอบของท่านจะใช้ในการดำเนินงานวิจัยเท่านั้น

คำแนะนำ: โปรดขีดเครื่องหมายถูก (✔) ลงในช่อง ☐ ตามความเป็นจริง

ส่วนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

1. **เพศ**

   ☐ 1. ชาย ☐ 2. หญิง

2. **อายุ**

   ☐ 1. ต่ำกว่า 26 ปี ☐ 2. 26 - 35 ปี

   ☐ 3. 36 – 45 ปี ☐ 4. 46 – 55 ปี

   ☐ 5. 56 – 65 ปี ☐ 5. 66 ปีขึ้นไป

3. **ระดับการศึกษาสูงสุด (รวมทั้งที่กำลังศึกษาอยู่)**

   ☐ 1. ต่ำกว่าปริญญาตรี ☐ 2. ปริญญาตรี

   ☐ 3. ปริญญาโท ☐ 4. สูงกว่าปริญญาโท

4. **สาขาวิชาที่ศึกษา**

   ☐ 1.วารสารศาสตร์/การหนังสือพิมพ์ ☐ 2. นิเทศศาสตร์/การสื่อสารมวลชน

   ☐ 3. อื่น ๆ

5. **ตำแหน่งงานปัจจุบัน**

☐ 1. พนักงาน / ระดับปฏิบัติการ   ☐ 2. หัวหน้างาน/ ผู้บริหารระดับต้น

☐ 3. ผู้อำนวยการ / ผู้บริหารระดับกลาง   ☐ 4. ผู้บริหารระดับสูง

6. **รายได้ต่อเดือน**

☐ 1. 15,000 - 25,000 บาท   ☐ 2. 25,001 - 35,000 บาท

☐ 3. 35,001 - 45,000 บาท   ☐ 4. 45,001 - 55,000 บาท

☐ 5. 50,001 บาท ขึ้นไป

7. **ระยะเวลาในการปฏิบัติงานในองค์กร**

☐ 1. ต่ำกว่า 1 - 5 ปี   ☐ 2. 6-10 ปี   ☐ 3. 11-15 ปี

☐ 4. 16 -20 ปี   ☐ 5. 21-25 ปี   ☐ 6. 26- 30 ปี

☐ 7. 30 ปีขึ้นไป

ส่วนที่ 2 :ลักษณะของรูปแบบและสภาพแวดล้อมของการทำงานในองค์กรของท่าน

1. **รูปแบบการบริหารงานขององค์กรของท่านเป็นอย่างไร**

☐ มีสายบังคับบัญชาชัดเจนมาก   ☐ ไม่มีสายบังคับบัญชาชัดเจน

☐ ค่อนข้างมีความยืดหยุ่น   ☐ มีความยืดหยุ่น

2. **บรรยากาศการทำงานภายในขององค์กรของท่านเป็นอย่างไร**

☐ กำหนดตายตัว   ☐ ค่อนข้างกำหนดตายตัว

☐ ค่อนข้างเอื้อต่อการเปลี่ยนแปลง   ☐ เอื้อให้เกิดการเปลี่ยนแปลง

3. **รูปแบบการให้อำนาจขององค์กรของท่านเป็นอย่างไร**

☐ รวมศูนย์อำนาจ   ☐ ค่อนข้างรวมศูนย์อำนาจ

☐ ค่อนข้างกระจายอำนาจ   ☐ กระจายอำนาจ

4. **ลักษณะของการกำหนดหน้าที่การทำงานในองค์กรของท่านเป็นอย่างไร**

☐ แบ่งหน้าที่ชัดเจน   ☐ ค่อนข้างแบ่งหน้าที่ชัดเจน

☐ ค่อนข้างทำงานเป็นทีม   ☐ ทำงานเป็นทีมมาก

5. ขั้นตอนการทำงานในองค์กรของท่านเป็นอย่างไร

☐ เป็นทางการมาก ☐ ค่อนข้างเป็นทางการ

☐ ค่อนข้างไม่เป็นทางการ ☐ ไม่เป็นทางการ

6. การควบคุมการทำงานในองค์กรของท่านเป็นอย่างไร

☐ เน้นกฎระเบียบ ☐ ค่อนข้างเน้นกฎระเบียบ

☐ ค่อนข้างเน้นผลงาน ☐ เน้นผลการทำงาน

ส่วนที่ 3 ความคิดเห็นที่มีต่อปัจจัยที่ส่งผลต่อความสามารถทางนวัตกรรมขององค์กรหนังสือพิมพ์ไทยในยุคดิจิทัล

คำแนะนำ: โปรดแสดงความคิดเห็นโดยการขีดเครื่องหมาย (✔) ลงในช่องว่างของแต่ละข้อความต่อไปนี้ตามความเป็นจริง

ความหมาย: 5 = เห็นด้วยอย่างยิ่ง, 4 = เห็นด้วย, 3 = เป็นกลาง

2 = ไม่เห็นด้วย, 1 = ไม่เห็นด้วยอย่างยิ่ง

3.1ภาวะผู้นำและการบริหาร

ข้อที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
1.	ผู้บริหารมีความเป็นผู้นำที่ดี					
2.	ผู้บริหารมีทักษะการบริหารที่มีประสิทธิภาพ					
3.	ผู้บริหารให้การสนับสนุนในการส่งเสริมการสร้างสิ่งใหม่ในองค์กร					
4.	ผู้บริหารเป็นบุคคลที่มองการณ์ไกล					
5.	ผู้บริหารยอมรับความคิดเห็นที่แตกต่าง					
6.	ผู้บริหารมีจิตวิทยาที่มีประสิทธิภาพในการจูงใจบุคลากร					
7.	ผู้บริหารมีความยืดหยุ่นสูง					
8.	ผู้บริหารเป็นกล้าสร้างสรรค์สิ่งใหม่ ๆ					
9.	ผู้บริหารมีแนวคิดเชิงนวัตกรรม					
10.	ผู้บริหารส่งเสริมการทำงานเป็นทีม					

3.2 การดำเนินงานที่มีประสิทธิภาพ

ข้อที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
11.	องค์กรของท่านมีการพัฒนาการดำเนินงานที่มีประสิทธิภาพ					
12.	องค์กรของท่านมีการสนับสนุนการเรียนรู้ใหม่ ๆ					
13.	องค์กรของท่านมีการพัฒนาคุณภาพอยู่เสมอ					
14.	องค์กรของท่านมีการส่งเสริมการแลกเปลี่ยนเรียนรู้					
15.	องค์กรของท่านมีการพัฒนาระบบการทำงานที่มีประสิทธิภาพ					
16.	องค์กรของท่านมีการใช้ความรู้และทักษะใหม่มาปฏิบัติงานข่าว					
17.	องค์กรของท่านมีการเข้าถึงข้อมูลต่าง ๆ ต่อการทำงาน					
18.	องค์กรของท่านมีเทคโนโลยีสมัยใหม่ช่วยอำนวยความสะดวกในกระบวนการทำงาน					
19.	องค์กรของท่านมีการพัฒนาระบบสารสนเทศเพื่อการจัดการ					
20.	องค์กรของท่านมีการจัดเก็บข้อมูลอย่างเป็นระบบ					

3.3 ทุนและทรัพยากรขององค์กร

ข้อที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
21.	องค์กรได้ใช้เทคโนโลยีสมัยใหม่มาใช้ในการดำเนินงาน					
22.	องค์กรของท่านมีอุปกรณ์สนับสนุนการดำเนินงานเพียงพอ					
23.	องค์กรของท่านนำเสนอข่าวสารผ่านสื่อออนไลน์					
24.	องค์กรของท่านมีการประยุกต์ใช้สื่อใหม่ในการทำงานข่าว					
25.	องค์กรของท่านมีเงินทุนสนับสนุนการทำงานที่เพียงพอ					
26.	องค์กรของท่านมีเทคโนโลยีที่ช่วยในการเผยแพร่ข้อมูลข่าวสาร					
27.	องค์กรของท่านมีทุนทางความรู้และเทคนิคที่ดีเพื่อการทำงาน					
28.	องค์กรของท่านมีการสนับสนุนด้านเครื่องมือในการทำงาน					
29.	องค์กรของท่านมุ่งเน้นสื่อออนไลน์มากกว่าสื่อดั้งเดิม					
30.	องค์กรของท่านมีขยายการลงทุนทางเทคโนโลยีดิจิทัลเพื่อการเพิ่มประสิทธิภาพการทำงาน					

3.4วัฒนธรรมองค์กร

ข้อที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
31.	องค์กรของท่านที่มีรูปแบบการทำงานที่สนับสนุนการพัฒนาสิ่งใหม่ ๆ					
32.	องค์กรของท่านมีการปฏิบัติที่เหมาะสมต่อในการพัฒนาองค์กรไปสู่การเปลี่ยนแปลงที่ดี					
33.	องค์กรของท่านมีการส่งเสริมกระบวนการทำงานได้ทุกที่และทุกเวลา					
34.	องค์กรของท่านสร้างบรรยากาศที่เอื้อต่อการเกิดนวัตกรรมในองค์กร					
35.	องค์กรของท่านมีการแบ่งสายการปฏิบัติงานที่ชัดเจน					
36.	องค์กรของท่านมีการสร้างค่านิยมการทำงานแบบการช่วยเหลือกัน					
37.	องค์กรของท่านเน้นการเปิดกว้างทางความคิด					
38.	องค์กรของท่านส่งเสริมการแบ่งปันข้อมูลข่าวสารและความรู้					
39.	องค์กรของท่านมีการสื่อสารสองทางเพื่อแลกเปลี่ยนข้อมูลระหว่างบุคลากรในองค์กร					
40.	องค์กรของท่านมีระบบการทำงานที่ดี					

3.5 การพัฒนาทางวิชาชีพแก่บุคลากร / ผู้สื่อข่าว

ข้อ ที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
41.	องค์กรของท่านมีการพัฒนาทักษะทางดิจิทัลแก่ผู้สื่อข่าว					
42.	องค์กรของท่านส่งเสริมความคิดสร้างสรรค์แก่ผู้สื่อข่าว					
43.	องค์กรของท่านส่งเสริมการคิดเชิงบวกต่อการทำงานที่ กดดัน					
44.	องค์กรของท่านส่งเสริมการเรียนรู้สิ่งใหม่ในองค์กร					
45.	องค์กรของท่านส่งเสริมการทำงานประสานกันเป็นทีม					
46.	องค์กรของท่านมีการฝึกอบรมพัฒนาบุคลากรในด้านต่าง ๆ อย่างต่อเนื่อง					
47.	องค์กรของท่านมีการส่งเสริมนักข่าวให้มีทักษะที่ หลากหลาย					
48.	องค์กรของท่านส่งเสริมให้มีทักษะการตัดสินใจที่มี ประสิทธิภาพ					
49.	องค์กรของท่านมีการพัฒนาทักษะเชิงเทคนิคต่าง ๆ แก่ บุคลากร					
50.	องค์กรของท่านส่งเสริมการแก้ไขปัญหาอย่างเป็นระบบ					

3.6 การตอบสนองความต้องการของผู้อ่าน/ผู้รับสาร

ข้อ ที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
51.	องค์กรของท่านเน้นการตอบสนองการรับรู้ข่าวและสารสนเทศได้อย่างรวดเร็ว					
52.	องค์กรของท่านพยายามสร้างความพึงพอใจของผู้รับสารด้วยการนำเทคโนโลยีสมัยใหม่มาใช้					
53.	องค์กรของท่านให้ความสำคัญกับการทำให้ผู้รับสารสามารถรับรู้ข่าวสารได้สะดวกขึ้น					
54.	องค์กรของท่านเน้นสื่อออนไลน์ที่สามารถตอบสนองต่อความต้องการของผู้รับสาร					
55.	องค์กรของท่านให้ผู้รับสารสามารถรับรู้ข่าวสารได้ทุกที่และทุกเวลา					
56.	องค์กรของท่านพยายามรายงานข่าวและสารสนเทศซึ่งดึงดูดความสนใจของผู้รับสาร					
57.	องค์กรของท่านมีการรับฟังความคิดเห็นของผู้รับสาร					
58.	องค์กรของท่านให้ความสำคัญกับการสร้างความสัมพันธ์กับผู้รับสาร					
59.	องค์กรของท่านมีการให้บริการด้านต่างๆ ที่ผู้รับสารต้องการ					
60.	องค์กรของท่านมีการเก็บรวบรวมข้อมูลของผู้รับสารไว้เป็นฐานข้อมูลเพื่อสามารถตอบสนองต่อความต้องการ					

3.7ความสามารถทางนวัตกรรมขององค์กรหนังสือพิมพ์ของไทย

| ข้อ ที่	รายการ	ระดับความคิดเห็น				
		5	4	3	2	1
61.	องค์กรของท่านพยายามพัฒนาความสามารถทาง นวัตกรรม					
62.	องค์กรของท่านนำนวัตกรรมการสื่อสารมาใช้ใน กระบวนการทำงาน					
63.	องค์กรของท่านส่งเสริมความคิดสร้างสรรค์ในการรายงาน ข่าว					
64.	องค์กรของท่านมีการดำเนินกลยุทธ์เชิงนวัตกรรมในการ ประกอบธุรกิจ					
65.	องค์กรของท่านมุ่งเน้นเทคนิคเชิงนวัตกรรมในการ ดำเนินงาน					
66.	องค์กรของท่านพัฒนาการดำเนินงานให้ทันต่อการ เปลี่ยนแปลง					
67.	องค์กรของท่านมีระบบการจัดการสารสนเทศเชิง นวัตกรรม					
68.	องค์กรของท่านพร้อมปรับตัวต่อสภาพแวดล้อมที่ เปลี่ยนแปลงไปและรับเอาสิ่งใหม่ ๆ					
69.	องค์กรของท่านมีการให้บริการด้านข้อมูลข่าวสารใน รูปแบบและช่องทางใหม่ ๆ					
70.	องค์กรของท่านมีความพร้อมในการเปลี่ยนแปลงไปสู่ องค์กรรูปแบบใหม่ เช่น องค์กรด้านดิจิทัล การใช้สื่อดิจิทัล ในกระบวนการทำงาน เป็นต้น					

4. ข้อเสนอแนะเพิ่มเติม

ขอขอบคุณที่ให้ความร่วมมือในการตอบแบบสอบถาม

APPENDIX B

Semi-structured interview guide
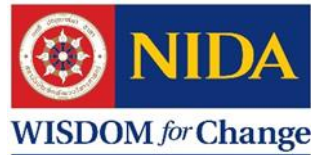
A semi-structured interview guide of
The research entitled
"An Analytical Study of Factors Affecting Innovative Capability and Adaptation
Strategies of Thai Newspaper Organizations in the Digital Age"

This semi-structured interview guide is the research instrument which designed and used to collect data from key informants in order to investigate the adaptation strategies of Thai newspaper organizations in the digital age. It consists of open-ended questions to draw the participants' views and opinions.
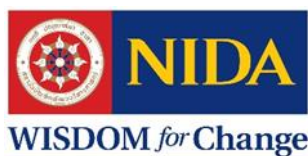
Before entering to the interview, the researcher will introduce himself and inform key informants that this in-depth interview is a part of the data collection for an academic investigation. The researcher is not revealing your data to others, thus you are not going to be subjected to any cases. Therefore, please kindly give true information which is compatible with your opinions. Your information is valuable for the research.

_____

Full name:……………………………………………Position:……..………………

Interview date (D/M/Y)…...……...………...…Tel/Email……………………………….

Interview time…………………… Place……………………Duration (hour)…..….…

The guide questions for in-depth interview are as follow:

1. What are the causes towards an adaptation of Thai newspaper organizations?

2. How does your organization realize the changes in newspaper work?

3. What are your organization's adaptation strategies in the digital age?

4. How does your organization prepare for changes in the digital age?

5. What kind of innovation does your organization implement to improve an internal working process?

6. What are your organization's development works toward the changes?

7. What kind of methods does your organization use?

8. How do executives and employees adapt themselves towards the changes?

9. How does your organization re-structure for the changes?

10. How does your organization improve its management?

11. How does your organization use new technologies to report the news?

12. Which problems does your organization face with adaptation to the changes?

13. Does your organization have any solutions to the problems faced in the digital age?

14. How does your organization reduce or expand its operations?

15. How does your organization prepare for the future operations?

WISDOM for Change / NIDA

แบบสัมภาษณ์แบบกึ่งโครงสร้างของการวิจัย

เรื่อง

"การศึกษาวิเคราะห์ปัจจัยที่ส่งผลต่อความสามารถทางนวัตกรรมและกลยุทธ์การปรับตัวของ

องค์กรหนังสือพิมพ์ไทยในยุคดิจิทัล"

แบบสัมภาษณ์แบบกึ่งโครงสร้างนี้เป็นเครื่องมือการวิจัยซึ่งได้ออกแบบและใช้ในการเก็บ
รวบรวมข้อมูลเพื่อศึกษากลยุทธ์การปรับตัวขององค์กรหนังสือพิมพ์ไทยในยุคดิจิทัลซึ่งประกอบด้วย
คำถามปลายเปิดในการสัมภาษณ์เพื่อให้ผู้ให้ข้อมูลหลักแสดงแนวความคิดและความคิดเห็นต่าง ๆ

ก่อนที่จะเข้าสัมภาษณ์ ผู้วิจัยจะแนะนำตัวเองและแจ้งให้ผู้ให้ข้อมูลหลักทราบว่า การ
สัมภาษณ์แบบเจาะลึกเป็นส่วนหนึ่งของการรวบรวมข้อมูลเพื่อประโยชน์ทางการวิจัย นักวิจัยไม่ได้
เปิดเผยข้อมูลของผู้ให้ข้อมูลหลักต่อผู้อื่น ดังนั้นโปรดให้ข้อมูลที่เป็นความจริงซึ่งสอดคล้องกับความ
คิดเห็นที่มีต่อข้อคำถามในประเด็นต่างๆ

_____

ชื่อ นามสกุล:...ตำแหน่ง:...

วัน /เดือน/ปีที่สัมภาษณ์................................โทร./อีเมล..

เวลา................................ สถานที่...ระยะเวลา....................................

แนวคำถามสำหรับการสัมภาษณ์เชิงลึกเกี่ยวกับกลยุทธ์การปรับตัวขององค์กรหนังสือพิมพ์
ของไทยในยุคดิจิทัลมีดังต่อไปนี้

1. การปรับตัวขององค์กรหนังสือมีความเป็นมาอย่างไรบ้าง

2. องค์กรของท่านตระหนักถึงการเปลี่ยนแปลงเกี่ยวกับงานหนังสือพิมพ์อย่างไรบ้าง

3. องค์กรของท่านมีกลยุทธ์การปรับตัวในยุคดิจิทัลอย่างไรบ้าง

4. องค์กรของท่านได้เตรียมความพร้อมต่อการเปลี่ยนแปลงในยุคดิจิทัลอย่างไร

5. องค์กรของท่านใช้นวัตกรรมใดบ้างในการเปลี่ยนแปลงทางเทคโนโลยี

6. การพัฒนาการดำเนินงานขององค์กรของท่านที่มีต่อการเปลี่ยนแปลงด้านต่าง ๆ กระทำอย่างไรบ้าง

7. องค์กรของท่านมีวิธีการปรับตัวอย่างไรบ้าง

8. ผู้บริหารและบุคลากรในองค์กรของท่านมีการปรับตัวต่อการเปลี่ยนแปลงอย่างไร

9. องค์กรของท่านมีการปรับโครงสร้างองค์กรอย่างไร

10. องค์กรของท่านมีพัฒนาการบริหารงานอย่างไรให้ทันต่อการเปลี่ยนแปลง

11. องค์กรของท่านมีการใช้เทคโนโลยีใหม่ ๆ อย่างไรในการนำเสนอข่าว

12. องค์กรท่านประสบปัญหาใดบ้างในการปรับตัวต่อการเปลี่ยนแปลงต่าง ๆ

13. องค์กรของท่านสามารถแก้ไขปัญหาที่เกิดจากการเปลี่ยนแปลงในการดำเนินงานหนังสือพิมพ์ในยุคดิจิทัลอย่างไรบ้าง

14. องค์กรของท่านมีการปรับลดหรือขยายการดำเนินงานอย่างไรบ้าง

15. องค์กรของท่านเตรียมพร้อมต่อการดำเนินงานในอนาคตอย่างไร
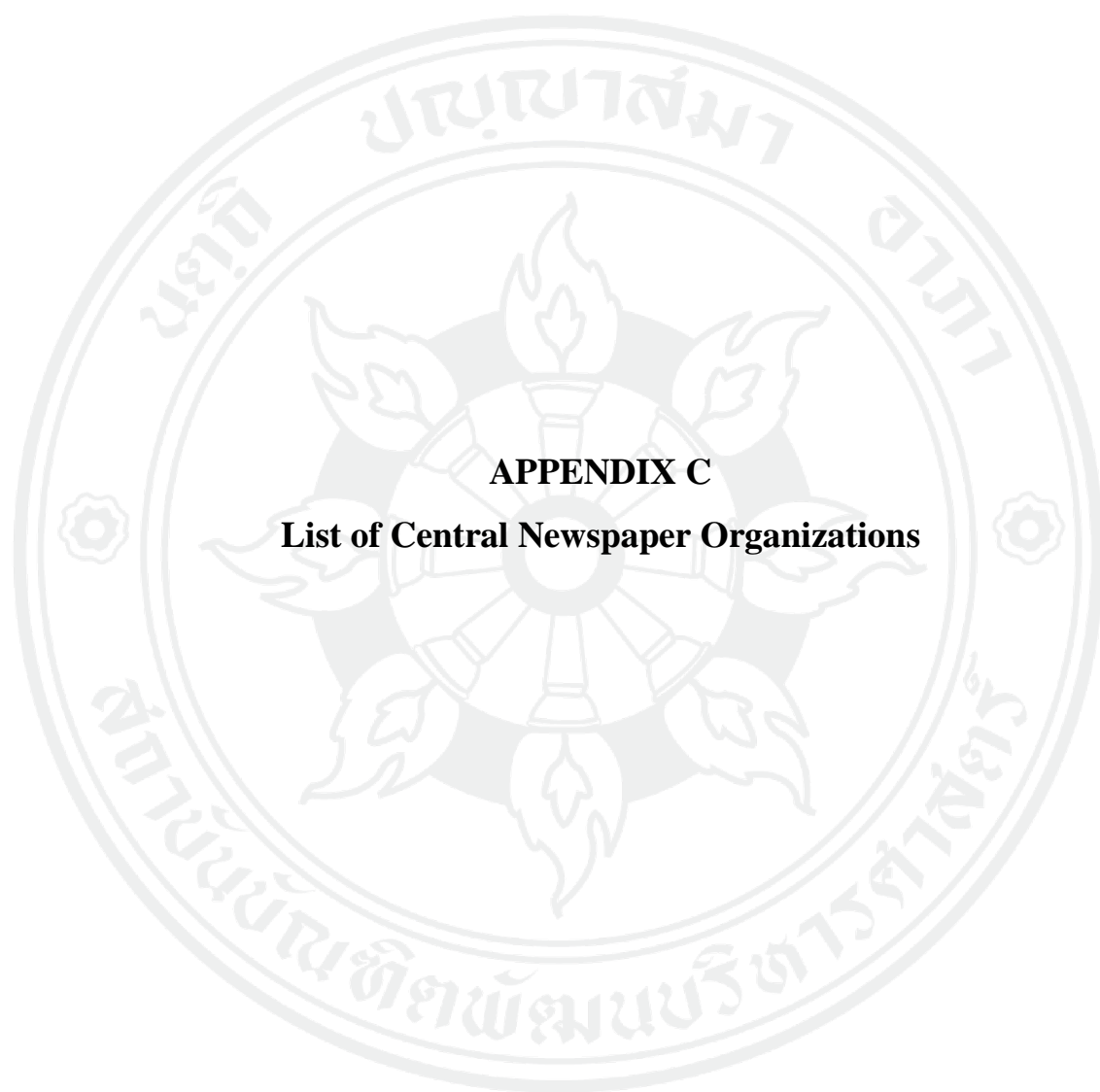
APPENDIX C

List of Central Newspaper Organizations

List of Central Newspaper Organizations

The central newspaper organizations of Thailand below are presented by their newspaper names and contacts as basic information. As a mass media company and business organization, these central newspaper organizations operate in the form of limited companies and public limited companies or listed on the Stock Exchange of Thailand (SET) organizations. The list of central newspaper organizations is as follows.

	1. กระแสหุ้น 1550 อาคารธนภูมิ ชั้น 6 ถ.เพชรบุรีตัดใหม่ แขวงมักกะสัน เขตราชเทวี กรุงเทพฯ 10400 โทร.02-652-8964 โทรสาร.02-654-7631-2 Number 1550 ,Thanaphoom Building, New Petchaburi Road, Makkasan,Ratchathewi,Bangkok,10440 Tel: 02-652-8964 Fax : 02-654-7631-2 URL: www.stockwave.in.th
	2. กรุงเทพธุรกิจ 1858/126 ชั้น 30 ถ.บางนา-ตราด แขวงบางนา เขตบางนา กรุงเทพฯ 10260 โทร.02-338-3386 โทรสาร.02-338-3947 Number 1858/125 Floor 30 Bangna-Trad road, Bangna, Bangna, Bangkok 10260 Tel : 02-338-3386 Fax : 02-338-3947 URL : http://www.bangkokbiznews.com E-mail : ktwebmaster@bangkokbiznews.com

	3. ข่าวสด 40/10 ถ.เทศบาลนิมิตใต้ หมู่บ้านประชานิเวศน์ 1 แขวงลาดยาว เขตจตุจักร กรุงเทพฯ 10900 โทร.02-954-4999 โทรสาร.02-954-3922 / 954-3994 Number 40/10 ThetsabanNimittai road, Prachaniwet village 1, Latyao, Chatuchak, Bangkok, 10900 Tel: 02-954-4999 Fax : 02-954-3922/ 954-3994. URL:www.khaowsod.co.th/
	4. ข่าวหุ้น 48/5 -6 ชั้น 2 ซ.รุ่งเรือง ถ.รัชดาภิเษก แขวงสามเสนนอก เขตห้วยขวาง กรุงเทพฯ 10320 โทร.02-693-4555 โทรสาร.02-693-4819 Number 48 / 5-6 2nd Floor,Soi Rungruang, Ratchadapisek Road, Samsennok Kwang, Bangkok 10320 Tel: 02-693-4555 Fax : 02-693-4819 URL: www.kaohoon.com
	5. คม ชัด ลึก 1854 ถ.บางนา-ตราด แขวงบางนา เขตบางนา กรุงเทพฯ 10260 โทร.02-338-3325 โทรสาร.02-338-3947 Number 1854 Bangna-Trad Road, Bangna, Bangna, Bangkok 10260 Tel: 02-338-3325 Fax : 02-338-3947 URL: http://www.komchadluek.net

	6. ฐานเศรษฐกิจ
	เลขที่ 89/169-170 ชั้น 7 อาคารจุฑามาศ
	ถ.วิภาวดีรังสิต แขวงตลาดบางเขน เขตหลักสี่
	กรุงเทพมหานคร 10210
	โทร. 0-2973-3888 โทรสาร. 0-2973-5254
	Number 89/169-170 floor 7, Juthamard
	Building, Vibhavadi-Rangsit Road,
	Talat Bang Khen, Lak si, Bangkok 10210
	Tel: 0-2973-3888 Fax. 0-2973-5254
	E-mail: editoronline@thannews.th.com
	URL: http://www.thannews.th.com
	7. เดลินิวส์
	1/4 ถ.วิภาวดีรังสิต แขวงบางเขน
	เขตบางเขน กรุงเทพมหานคร 10210
	โทร : 0-2561-1456 โทรสาร : 0-2579-9983
	Number 1/4 Vibhavadi-Rangsit Road,
	Bang khen, Bang khen , Bangkok 10210
	Tel: 0-2561-1456 Fax : 0-2579-9983
	URL: http://www.dailynews.co.th
	E-mail: webmaster@dailynews.co.th

|	
THE NATION	**8. เดอะเนชั่น** 1/4 ถ.วิภาวดีรังสิต แขวงบางเขน เขตบางเขน กรุงเทพมหานคร 10210 โทร.02-388-3000,388-3333 โทรสาร.02-388-3334,388-3958 Number 1/4 Vibhavadi-Rangsit Road, Bang khen, Bang khen, Bangkok 10210 Tel: 02-388-3000,388-3333 Fax: 02-388-3334,388-3958 URL: http://www.nationmultimedia.com E-mail: into@nationmultimedia.com
ไทยโพสต์	**9. ไทยโพสต์** 1852 ถ.เกษมราษฎร์ แขวงคลองเตย เขตจตุจักร กรุงเทพมหานคร 10110 โทร. 0-2240-2612 โทรสาร. 0-2249-4839 Number 1852 kasemrad Road, Klong Toey, Klong Toey, Bangkok 10110 Tel: 0-2240-2612 Fax : 0-2249-4839 URL: http://www.thaipost.net E-mail: reporter@thaipost.net
ไทยรัฐ	**10. ไทยรัฐ** 1 ถ.วิภาวดีรังสิต แขวงจอมพล เขตจตุจักร กรุงเทพมหานคร 10900 โทร. 0-2272-1325 โทรสาร.49-4830 Number 1 Vibhavadi-Rangsit Road, Chom Phon, jatuchak, Bangkok 10900 Tel: 0-2272-1325 Fax : 02-249-4830 URL: http://www.thairath.co.th E-mail: webmaster@thairath.co.th

	11. แนวหน้า
	96 ม.3 ถ.วิภาวดีรังสิต แขวงตลาดบางเขน เขตหลักสี่ กรุงเทพฯ 10900 Number 96, Moo 3, Vibhavadi-Rangsit Road, Bangkhen, laksi, Bangkok 10900 โทร.02-511-4290-9,02-973-4250 โทรสาร.02-552-3800 URL: http://www.naewna.com
	12. บากกอกโพสต์ 136 ถ. ณ ระนอง แขวงคลองเตย เขตพระโขนง กรุงเทพฯ 10110 โทร.02-616-4000 โทรสาร.02-240-3665 Number 136 Na-Ranong Road, Khlong Toei, Phra Khanong, Bangkok 10110 Tel: 02-616-4000 Fax : 02-240-3665 URL: www.bangkokpost.co.th E-mail: webmaster@bangkokpost.net
	13. ประชาคมท้องถิ่น 180 ซ.วิมลสรกิจ (จรัญสนิทวงศ์ 44) ถ.จรัญสนิทวงศ์ แขวงบางยี่ขัน เขตบางพลัด กรุงเทพฯ 10700 โทร.02-883-5813-4 โทรสาร.02-883-5814 Number 180 Soi Wimonbolit (Charansanitwong 44) Charansanitwong Road, Bangyakham, Bang Phlat, Bangkok 10700 Phone: 02-883-5813-4 Fax. 02-883-5814

	14. ประชาชาติธุรกิจ 12 ถ.เทศบาลนฤมาล แขวงลาดยาว เขตจตุจักร กรุงเทพฯ 10900 โทร.02-589-0020 ต่อ 1544 โทรสาร.02-589-2302 Number 12 Ratchadapisek Road, jatuchak, Bangkok 10900 Tel: 02-589-0020 ext. 1544 Fax: 02-589-2302. URL: http://www.prachachat.net
	15. เอเอสทีวี ผู้จัดการรายวัน 102/1 ถ.พระอาทิตย์ แขวงชนะสงคราม เขตพระนคร กรุงเทพฯ 10200 โทร.02-629-4488 โทรสาร.02-629-4470 / 629-4475 Number 102/1 Phra Arthit Road, Chancha Songkhram, Phra Nakhon, Bangkok 10200 Tel. 02-629-4488 Fax: 02-629-4470 / 629-4475 URL: http://www.manager.co.th
	16. พิมพ์ไทย 36 ซ.พัฒนาการ 20 แยก 4 แขวงสวนหลวง เขตสวนหลวง กรุงเทพฯ 10250 โทร.02-717-6630-1 โทรสาร.02-717-6632-3 Number 36 Soi Pattanakarn, separate 4, Suanluang, Suanluang District, Bangkok 10250 Tel. 02-717-6630-1 Fax 02-717-6632-3

	17. โพสต์ทูเดย์ 136 ถ. ณ ระนอง แขวงคลองเตย เขตพระโขนง กรุงเทพฯ 10110 โทร.02-616-4000 โทรสาร.0-2671-3132 Number 136 Na-Ranong Road, Khlong Toei, Phra Khanong, Bangkok 10110 Tel: 02-616-4000 Fax : 0-2671-3132 URL: http://www.posttoday.co.th E-mail: nhakanl@posttoday.com
	18. มติชน 12 ถ.เทศบาลนฤมาล แขวงลาดยาว เขตจตุจักร กรุงเทพฯ 10900 โทร.02-589-0020 โทรสาร.02-589-5674, 02-954-3171 Number 12,Thetsaban Naruman Road, Lat Yao, Chatuchak Bangkok 10900 Tel : 02-589-0020 Fax : 02-589-5674, 02-954-3171 URL: http://www.matichon.co.th
	19. โลกวันนี้ 71/30 ถ.บรมราชชนนี แขวงอรุณอัมรินทร์ เขตบางกอกน้อย กรุงเทพฯ 10700 โทร.02-884-5000, 02-422-8000 โทรสาร.02-884-9918-9 Number 71/30 ,Borom Ratchonani Road, Arunamarin, Bangkoknoi, Bangkok 10700 Tel: 02-884-5000, 02-422-8000 Fax: 02-884-9918-9 URL: http://www.watta.co.th

	20. สยามกีฬารายวัน
	459 ซ.พิบูลย์อุปถัมภ์ ลาดพร้าว 48
	แขวงสามเสนเขตห้วยขวาง กรุงเทพฯ 10310
	โทร.02-694-3010 โทรสาร.02-694-3040-41
	Number 459, Soi Phibun Uppatham,
	Ladprao 48, Samsennok, Huaykwang,
	Bangkok 10310
	Tel: 02-694-3010 Fax. 02-694-3040-41
	URL: http://www.siamsport.co.th
	21. สยามรัฐ
	12 อาคาร 6 ถ.ราชดำเนินกลาง แขวงพระนคร
	เขตพระนคร กรุงเทพมหานคร 10200
	โทร.02-662-1810 โทรสาร.02-224-1984
	Number 12 , Building 6, Ratchadamnoen
	Klang Road, Phranakhon, Phranakhon,
	Bangkok 10200
	Tel: 02-662-1810 Fax : 02-224-1984
	URL: http://www.siamrath.co.th
	E-mail: siamrath@siamrath.coth
	22. สายกลาง
	163/52 ถ.พระปิ่นเกล้า (ซ.สมเด็จพระปิ่นเกล้า 3)
	แขวงบางยี่ขัน เขตบางยี่ขัน กรุงเทพมหานคร 10700
	โทร.02-424-3942 โทรสาร.02-813-1411-2
	Number 163/52 Phra Pinklao Road
	(Soi Somdet Phra Pinklao 3), Bangyikhan,
	Bangyikhan, Bangkok 10700
	Tel: 02-424-3942 Fax : 02-813-1411-2
	URL: http://www.saiklangnews.com

	23. เส้นทางเศรษฐกิจ
	163/52 ถ.พระปิ่นเกล้า (ซอยสมเด็จพระปิ่นเกล้า 3) แขวงบางยี่ขัน เขตบางพลัด กรุงเทพฯ 10700 โทร.02-379-4490-8 โทรสาร.02-379-4498 Number 163/52, Phra Pin Klao Road. (Soi Somdet Phra Pinklao 3), Bangyakham, Bang Phlat, Bangkok 10700 Tel: 02-379-4490-8 Fax. 02-379-4498 URL: http://www.sentang.com
	24. อีคอนนิวส์ 44/30-31 ถ.งามวงศ์วาน แขวงลาดยาว เขตจตุจักร กรุงเทพฯ 10900 โทร.02-953-4502-6 โทรสาร.076-223-751 Number 44/30-31, Ngamwongwan Road, Lat Yao, Chatuchak , Bangkok 10900 Tel: 02-953-4502-6 Fax. 076-223-751 URL: http://www.econnews.org
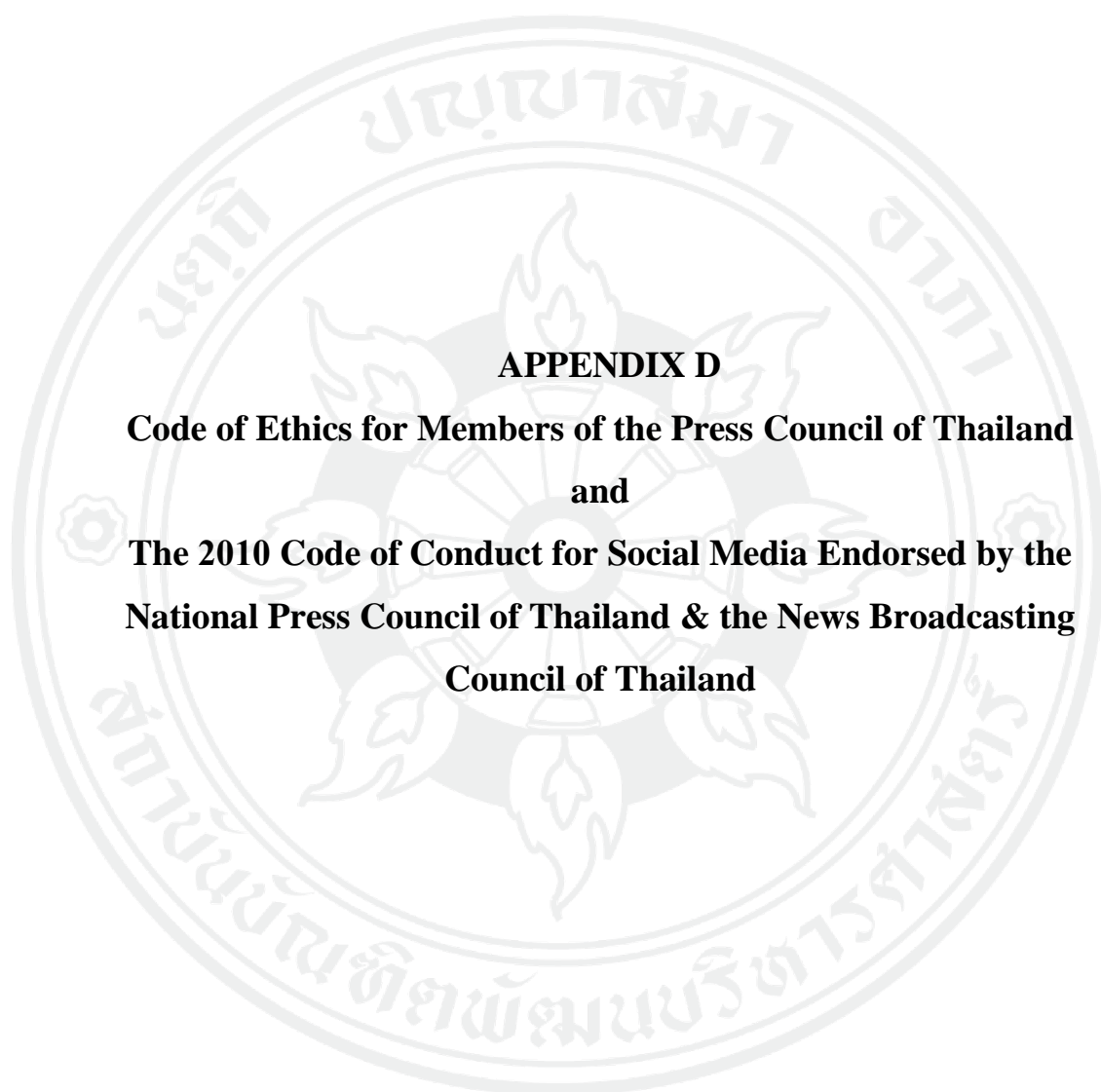
APPENDIX D

Code of Ethics for Members of the Press Council of Thailand

and

The 2010 Code of Conduct for Social Media Endorsed by the National Press Council of Thailand & the News Broadcasting Council of Thailand

Code of Ethics for Members of the Press Council of Thailand

The Press Council of Thailand, together with publishers, editors, and reporters from the country's independent media, deemed it necessary that the institution remains independent and self-regulated in line with democratic tradition and that a code of ethic is established to ensure professionalism, accountability, and responsibility. The Council supports freedom of expression and the idea that the public should be educated about the world in which they live through independent media. The Council holds the Institution of the Monarchy to be the highest social and political organ in the Kingdom.

The following code of conducts was established by the executive board of the Press Council Thailand B.E. 2540 (1997).

Section I
General

Item 1: The following guidelines will from this point on be referred to as the code of conduct for journalists, B.E. 2541 (1998)"

Item 2: That this code of conduct be put into effect on the day of the announcement.

Item 3: In this code of conduct, the word "news" refers to the printed text, headlines, photos and the caption that goes with the photos presented in the newspapers. "Newspaper" is defined by the Press Council of Thailand, B.E. 2540 (1997), Item 3.

Section II
Code of Ethnic and Guideline for Newspapers

Item 4: Newspapers must hold the truth to the be the highest

Item 5: Newspapers must present news taking into consideration the Benefit of the public, not of an individual.

Item 6: Newspapers must be fair to all parties mentioned in the news stories.

Item 7: Newspapers must not make up false stories.

Item 8: Newspaper must be neutral with its presentation with the understanding that bias reporting could results in a legal action taken against the party/parties mentioned in the article.

Item 9: Newspapers must refrain from putting the opinion of the Individual reporter in the news article.

Item 10: Newspapers must make references to the source regardless if the information is obtained from a printed text or an individual.

Item 11: When making references that could damage the reputation of an individual, newspapers must give that party the opportunity to state his case.

Item 12: In cases where an error has been committed, newspapers must Issue a correction as soon as possible.

Item 13: Newspaper must not present news in such a way that the source of the stories could be revealed.

Item 14: Newspapers must ensure that confidentiality of the source and take into the consideration that the well being of the source could be at stake if the identity of that source is revealed.

Item 15: Newspapers must take into consideration the humanitarian Principle and the dignity of an individual person when he or she is being presented in photo or mentioned in news story.

Item 16: Headlines must not be exaggerated to the point that it distorted the truth or the news story.

Item 17: Newspapers must use their judgment when presenting photograph that may be violence or pornographic in nature.

Item 18: Newspapers must be just when making references to any party in its editorial or analysis.

Item 19: Advertisements in the newspaper must present itself as a paid advertisement and not a news story.

Section III

Code of Ethic for Reporters

Item 20: Journalists must not violate the integrity of the institution of the independent media and the profession in which he or she works.

Item 21: Journalists must not abuse his position or make use of the profession in such ways that would result in obtaining favors.

Item 22: Journalists are prohibited from taking bribe or accepting valuable gifts or favors from sources because it could influence directly or indirectly the content of news reporting.

Section IV

Item 23: Journalists must not accept any privilege or position that will influence their professional performance in disseminating correct and comprehensive information.

Item 24: When presenting news report, newspapers must take into consideration the welfare and the benefit of the general public.

Item 25: Newspapers must obtain information in a dignified manner

Item 26: Newspapers must not have a hidden motive when expressing opinion or news analysis.

Item 27: Newspapers must take into consideration the rights of an individual and balances it with the public's right to know.

Item 28: Newspapers must not allow paid advertisements to violate established code of ethic of their industry and take into consideration the customs and values of the Kingdom.

Item 29: Newspapers must avoid paid advertisements that knowingly distribute false information to the public.

Item 30: Newspapers must not use profanity and avoid obscene gestures in its reporting.

The 2010 Code of Conduct for Social Media Endorsed by the National Press Council of Thailand & the News Broadcasting Council of Thailand

At present, social media has played a major role in disseminating information, expressing people's opinions and publicizing achievement of news organizations. With these outstanding qualifications, mass media outlets including newspaper, radio, and television and internet website have been attempting to make use of the social media in order that they will have access to different groups of social media users.

However, concerns have been raised that some mass media organizations would use the social media in an inappropriate way. To deal with the problem, the Mass Media Organizations assigned the Information Technology Press Club, the Thai Journalists Association, the News Broadcasting Council of Thailand, the Thai Broadcast Journalists Association, the Thai Webmaster Association, the Society Online News Providers, mass media academics and law and information technology experts held forums to gather public opinions on the code of conduct for social media in mass media organizations and drafted it.

The code of conduct for social media in mass media is as follows:

Chapter 1
General Introduction

1. Social media mean a communication channel through internet website and its programs such as twitter.com, facebook.com, youtube.com and weblog.

Mass media organization means all organization members under the National Press Council of Thailand and the News Broadcasting Council of Thailand.

Media operator means newspaper journalists certified by the 1997 Charter of the Press Council of Thailand and the 2009 News Broadcasting Council of Thailand.

Chapter 2
Code of Conduct for Social Media in Mass Media Outlets

2 . Mass media outlets that make use of the social media in disseminating their information and expressing their opinions must strictly respect code of ethics of the National Press Council of Thailand and the News Broadcasting Council of Thailand.

3 . Mass media outlets that report news through the social media should write references of their organizations as follows:

3.1 the name of the organization

3.2 the details, symbols, and abbreviation of the organization

3.3 the identity of the organization

4. Mass media outlets that disseminate information through the social media should abide by code of ethics, regulations and code of conduct of the media organizations stated in the first chapter. They must not create anger and hatred among people in society and must not incite violence that will lead to conflicts in the country.

5. Mass media outlets must respect and acknowledge information, message and pictures of other social media users.

Copying messages and remarks from the social media can be done if mass media outlets are allowed by the messages and remarks' owners.

In case that mass media outlets are necessary to publicize information and report news that they obtain from using the social media. They must make a reference of the source of news and information in order to express the respect of the rights of ownership and possession.

Chapter 3
Code of Conduct for Social Media of Media Operators

6. Media operators can disseminate information and express their opinions through the social media. It is divided as follows:

    6.1 Media operators who use name of media organizations as user account should strictly abide by code of media ethics particularly accuracy and balance as well as the use of proper language.

    6.2 Media operators who use name of themselves as user account should be careful in disseminating personal information and expressing their own opinions that could lead to media ethics violation.

7. Media operators should realize the difference between news writing and opinion pieces. They should be more careful about summarizing a text accurately without plagiarizing it and disseminating the same information repeatedly.

8. Media operators should realize strict time constraints when reporting the news.

9. Media operators should realize that social media does not mean personal media. Therefore, all reported information and messages will be recorded and be legally binding.

10. Media operators should be aware of violations of personal rights of others, particularly the rights of women and children in any news reporting and opinion expression concerning obscene and violent pictures of the abused victims.

11. Media operators should be careful about news-gathering process from the social media by examining the news sources and referring to them. If it is possible, they should directly refer to primary sources.

    If any media operators want to report news from a closed-door meeting through their social media, they must get permission from the meeting organizer.

12. If media operators make mistakes in their news reporting and commentary through the social media until they cause damages to others, the media operators must delete or correct that information from their files immediately and they must pose apology and remarks of the damaged persons on their social media.

The National Press Council of Thailand
The News Broadcasting Council of Thailand
9 November 2010

BIOGRAPHY

NAME	Worawudh Phakdiburut
ACADEMIC	- Bachelor of Education (Thai/Book Publishing)
BACKGROUND	Srinakarinwirot University, Bangkok, Thailand in 1996
	- Master's Degree in Communication Arts
	(Development Communication),
	Chulalongkorn University, Bangkok,Thailand in 2000
EXPERIENCES	- Lecturer and Chairperson, Communication Arts Program,
	Faculty of Management Science,
	Chandrakasem Rajabhat University, Bangkok
	- Executive committee, P.E.N. International Thailand-Center
	- Working: Academic officer, Thai Watana Panich Publishing
	Co., Ltd
	- Participating in the Kuala Lumpur Southeast Asian Writers
	meet 2001 in Kuala Lumpur, Malaysia
	- Participating in the ASEAN-Japan Friendship Youth
	Program in Japan in 2005
	- Teaching Thai language and culture for Thai-American
	Students at Wat Bhudharangsri, Miami, Florida State, USA
	in 2007