

Ph. D. Thesis

Mobile Instant Messaging (MIM) Application and Organization
Communication: A Study in Thailand Based on Managers'
Perspective

January 2019

Tanaporn Tarin Siratanapanta

supervisor Yoshio Ono
supervisor Akihiro Ogura
supervisor Chikako Hironaka

Graduate School of Economics
Risk Research in Economics and Management
(Doctor Course)
SHIGA UNIVERSITY

Abstract

This research investigates the increasing use of Mobile Instant Messaging (MIM) application in the workplace in Thailand from the manager's perspective using the qualitative interview method. It is found that most popular MIM application with the most active users in Thailand is LINE. Nowadays LINE has become another communication media used widely in business organizations. The study shows the use of LINE for work by fifteen managers in five different business organizations in Bangkok, Thailand. The findings suggest that MIM communication among the team members is useful for leaders. It has become a standard of communication in organization as it is adopted and used by the managers to send different kinds of messages for various managing purposes, despite some disadvantages.

Keywords: Leadership, Organizational Communication, Mobile Instant Messenger (MIM) application,

Acknowledgments

This thesis would not have been possible without the support from the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT). I am especially indebted to Shiga University and Prof. Hideki Oshima of Faculty of Education, who welcomed me as a research student under the Japanese MEXT scholarship in 2014 and has been supportive of my academic goals and career ever since.

I would like to express my sincere gratitude to my advisor Prof. Yoshio Ono for the continuous support of my Ph.D. study and related research, for his patience, motivation, enthusiasm, and endless encouragement. His guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my Ph.D. study.

I am deeply grateful to Prof. Akihiro Ogura and Prof. Chikako Hironaka for their dedication to the role as my secondary supervisor and the insightful comments and suggestions throughout my Ph.D. study.

I would also like to give special thanks to my thesis committee of the Graduate School of Economics and the faculty professors for their professional guidance and knowledge in teaching and researching. I am particularly grateful for the assistance given by all the staff members at the Graduate School of Economics for their tremendous support throughout the journey of my study.

Special mention to many people in both Thailand and Japan who so generously contributed to the work presented in this thesis. I am thankful to my informants whose

names cannot be disclosed, but I want to acknowledge and appreciate their help during my research. Without their support, this thesis would not have been possible. I owed my deepest gratitude to you all.

My heartfelt appreciation goes to my fellow Ph.D. colleagues, with whom I have shared many precious moments and memories, especially May and Li. Thank you for the loveliest friendship and support. I would not have survived the first year without you guys. It is such an honor for me to have met and studied with you.

Lastly, but not least, a very special word of thanks goes for my family; my parents, Chalorat and Teera Sirtanapanta, my loving aunt, my two sisters, my brother-in-law, and my fiancé, Jeeranat Mavichak for their encouragement, dedication, love, and support. To Mom, you have always been my confidant and the greatest source of strength. Thank you for always believing in me.

Table of Contents

| | |
|---|-----|
| Acknowledgments..... | iii |
| Chapter I Introduction..... | 8 |
| 1. Background of the Study | 8 |
| 1.1 MIM in Thailand..... | 11 |
| 1.2 LINE Adoption in Organizations..... | 17 |
| 1.3 Data-driven Economy and Social Change | 19 |
| 2. Research contribution | 22 |
| 3. Research Questions..... | 23 |
| Chapter II Literature Review | 24 |
| 1. Mobile Instant Messaging (MIM) Application:..... | 24 |
| 2. Previous Studies about MIM and Smartphones..... | 25 |
| 4. MRT and Culture | 30 |
| 5. MIM applications and organizational communication | 32 |
| 6. Organizational Communication and Leadership | 34 |
| 6.1 Task-Oriented Leadership..... | 34 |
| 6.2 Relationship-Oriented Leadership | 35 |
| 6.3 Supervisor Behaviors | 36 |
| Chapter III Research Methodology..... | 38 |
| 1. Research Method | 38 |
| 2. The Research Sites | 40 |
| 3. Research Framework | 45 |

| | |
|---|----|
| Chapter IV Qualitative Analysis of the Managers' Use of MIM..... | 47 |
| 1. The Positioning of MIM in the Media Richness Theory | 47 |
| 2. The Interview Findings | 48 |
| 2.1 MIM (LINE) is an Effective Medium for Work..... | 49 |
| 2.2. Managers Use MIM for Various Managing Purposes. | 53 |
| 2.3 There are different purposes of MIM (LINE) used for work..... | 67 |
| 2.4 MIM (LINE) Positively Affects Team Members. | 68 |
| The Case Studies: A Manager's Perspective of MIM(LINE) for Work.... | 72 |
| 1. Company D Thailand (Mr. C.L. - Assistant Manager) | 72 |
| • Company D Manager Case Discussion | 76 |
| Company E Thailand (Ms. N.S. -Governance Team Manager) | 78 |
| • Company E Case Discussion..... | 83 |
| Chapter V Conclusion and suggestion..... | 86 |
| References..... | 91 |

Chapter I

Introduction

1. Background of the Study

Effective communication is a key factor in the success of any business organization or enterprise where groups of people work together. For decades, organizational communication researchers have been trying to answer the question of what is meant by 'Organization.' As stated by Mumby and Stohl (1996) the clearest way to distinguish organizational communication researchers from corporate, management, and business communication researchers, is that the only group of organizational communication researchers search for the meaning of 'organization' which is fundamental for them as scholars (Mumby & Stohl, 1996). However, these different groups of management scholars do share the same dominant conception of communication since it involves the linear transmission of information along relatively stable organizational channels. They also argued that, according to Weick's (1979) term, 'organization' is 'a precarious, ambiguous, uncertain process continually being made and remade' and can only be seen as stable, rational structures when viewed retrospectively. Therefore, communication is the substance of organizing through discursive practices when organization members engage in the construction of a complex and diverse system of meanings. Despite the difference between different areas of management scholars, they share a common concern with problematizing and explaining organizational phenomena regarding a communication framework. (Mumby & Stohl, 1996).

Generally, organizational communication scholars and researcher are interested in examining the formal and informal communication structures and processes within and among organizations. They have established the study approach to understanding how individuals create and exchange messages to enable action to achieve tasks and goals of the organization. These approaches in this field of organizational communication studies include, but not limited to leadership, organizational structures, interpersonal relationships, diversity at work. In the 21st Century, emergent technologies have transformed the way organizational members reached both individual and collective goals and helped facilitate organizational communication and socialization. Therefore, it is also important for organizational researchers to realize this change in order to understand the organizational communication in this new environment.

In the past few years, the use of Mobile Instant Messaging (MIM) applications in the workplace has become subject to study by many scholars (Deng, Lu, Wei, & Zhang, 2010; Church & de Oliveira, 2013; Karimiyazdi & Mokhber, 2015; Oghuma, et al., 2015) whose research are in the field of organizational behaviors and communication.

MIM is a synchronous communication tool that works on mobile devices such as PDAs and cell phones (Chigona, Chigona, & Mpofo, 2008). Unlike SMS, MIM uses internet protocol to exchange messages. MIMs function in a way similar to computer-based instant messages (e.g., Messenger and ICQ). MIM has become a global trend for millions of users.

The key features of MIM are that it allows two-way communication between sender and receiver to instantly send and receive messages including pictures, and audios and videos for free. MIM applications such as LINE, WhatsApp, WeChat, and KakaoTalk can

be operated on different mobile operating systems (e.g., Apple's iOS, Google's Android, and Microsoft's Windows) (Oguhuma et al., 2016). MIM has been rapidly introduced as messaging tools among the public and business organization because of its features which can offer more than the traditional way of communication such as text message, telephone, and e-mail.

Users of MIM applications can send and receive messages and other media anytime on their Internet-connected smartphones. This convenience makes communication via MIM applications different from other ways of communication not only for personal use but also for communication within a workplace as well. Some of the features of MIM applications that support the use of communication about work are:

Two-way communication: From senders to individual receivers, as well as a group of contacts, MIM applications enable users to send multimedia relating to work such as pictures, information, notices, or chat instantly with feedback (whether the message has already been 'read.')

Convenience: MIM applications can be used anytime, anywhere on users' smartphones and PCs whenever they are connected to the internet. They enable works to be accessible from any place, not limited to the workplace only.

Customized features: MIM applications users can customize their use according to their preference. Contacts can be grouped based on work-related relationship. However, users can choose to ignore or accept the chat room or group if they wish to do so.

Combined means of communication: Not only MIM applications users can send and receive text-based messages, but they also can make a call and video call through the application just like the traditional phone call.

1.1 MIM in Thailand

The Ministry of Digital Economy and Society (MDES) of Thailand was established in 2016 to replace the Ministry of Information and Communications Technology (MICT) with the aim to encourage all sectors to use digital technology to drive the country's economy and society within 5 years (Ministry of Digital Economy and Society's vision, <http://www.mdes.go.th>)

According to the data from the National Statistical Office of Thailand, an office under MDES (the former MICT) released in 2017, from 62.8 million of the Thai population aged 6 years and over, there were 51.1 million mobile phone users or 81.4%, while the number of smartphone users rose to 50.5% as demonstrated in Fig.1. The Information and Communication Technology survey in Household has been conducted annually since 2003 in order to know the number of computer users, the number of internet and mobile phone users, the behaviors of users, the number of households with information and communication technology devices.

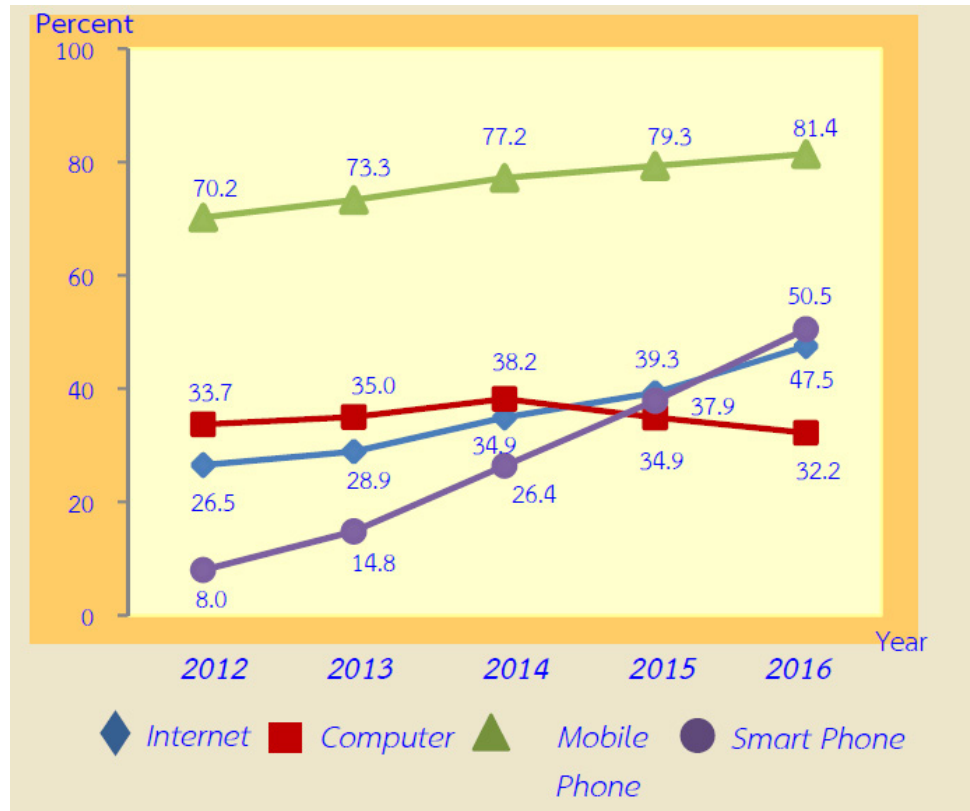


Figure. 1. Percentage of Thai population aged six years and over who used information and communication technology in 2012-2016.

Note: 'Mobile phone' includes feature phone and smart phone (Source: National Statistical Office of Thailand, <http://web.nso.go.th>)

It was also reported that the highest proportion of devices to access the internet was smartphone at 90.4% and the internet activities mostly used were for the social networks such as Facebook, Twitter, Google Plus, LINE, and Instagram at 91.5%. ("The 2015 Establishment Survey on the use of Information and Communication Technology," 2017)

In countries like Thailand and Japan, one of the most popular MIM applications is LINE. LINE messenger is an application developed by LINE Corporation based in Japan.

LINE is one of the fastest growing mobile messengers in the world where users can use it on their smartphones and personal computers. In January 2015, LINE Corporation revealed its fiscal year result that in 2014, The Monthly Active User (MAU) count for LINE was at 181 million, and in the Japan, Taiwan, and Thailand where LINE held the top share, the MAU was as high as 92 million. The number of new users and MAU had also continued to show strong growth for LINE as the total yearly revenue for LINE in 2014 was JPY 86.3 billion, a 114% increase compared to 2013.

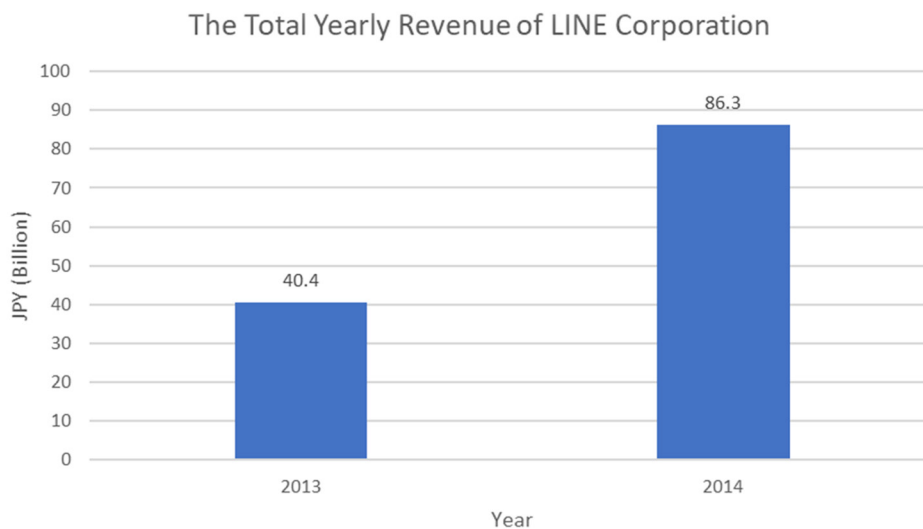


Figure. 2. The yearly revenue of LINE Corporation from 2013-2014.

Source: <https://linecorp.com/en/pr/news/en/2015/915>).

Thailand is the second-largest market for LINE after Japan, where the application was first created. It is estimated that the active users of LINE in 2017 is 33 million, representing more than 80% of smartphone users in Thailand (Phoosuphanusorn, 2017). Before LINE was available in Thailand, WhatsApp was the most used MIM application. However, there are many restrictions about WhatsApp which make users switch to LINE.

One of the reasons for the popularity of LINE over WhatsApp is the cuteness offered to the users in LINE. The application offers users personalized themes and stickers for showing emotions both free and paid. There are also other features that are different from WhatsApp and users deem as better. The following table show some examples of the differences between LINE and WhatsApp.

Table 1.

The Comparison of Features between LINE and WhatsApp Application

| LINE | WhatsApp |
|--|---|
| Stickers to show emotions | No stickers |
| Cute (personalized theme) | Plain user interface |
| Does not show the user's online time | Show user's online time |
| No need to add a telephone number, the user can add with ID | Need to have a telephone number |
| Can add more friends to one group chat (max 499) | Can add fewer friends in one group chat (max 256) |
| Additional services such as LINE Pay, LINE Man, LINE TV, and LINE mobile | No additional services in the Thai market |
| Used more in many organizations including many governmental organizations | Not used in the governmental organizations |
| Official accounts to follow actors/actresses/, TV channels, products or services | No Official accounts |
| Has other related application such as games and camera | Does not have the related applications |

As of the fourth quarter of 2016, 67 percent of the population in Thailand were active social media users. The most popular MIM application with the most active users

was LINE (53% of the population or approximately 33 million users), followed by Facebook Messenger (48%), WeChat (20%), and WhatsApp (18%) respectively as shown in Fig.3 (Statista, 2016).

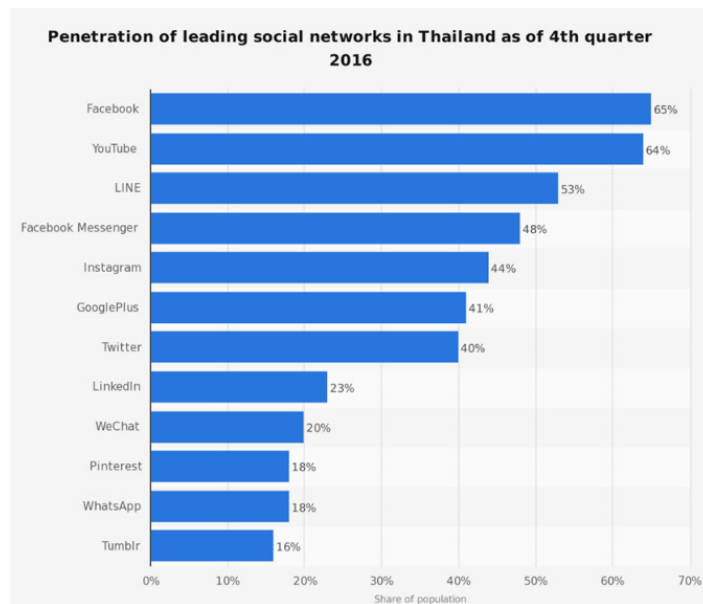


Figure 3. The share of Thailand population in leading social networks in the 4th quarter of 2016 (Retrieved from <https://www.statista.com/statistics/284483/thailand-social-network-penetration/>.)

From the statistic, the second used MIM in Thailand after LINE is Facebook Messenger. The author would like to argue that in the business context, LINE and Facebook Messenger have been used for an entirely different purpose. Facebook Messenger is used mainly privately with the contacts on Facebook such as sharing links on Facebook for friends and family members. It is usually uncommon to give out the Facebook name to someone who is not acquainted with the user because it means granting the other person access to the user's profile page and information.

On the other hand, LINE is used more freely since it does not require a telephone number, a user ID is sufficient to add as a friend. It, therefore, gives users more privacy. According to the writer's field research, Facebook Messenger was not mentioned as a means for the inter-office communication channel.

Since LINE had established dominance in Thailand, it becomes difficult for other MIM applications to penetrate the share of users. WeChat, another MIM application from China was launched in Thailand in 2012. However, it has never been able to rival with LINE which has the most active users as shown in Fig.4, the same as LINE's former biggest competitor, WhatsApp.

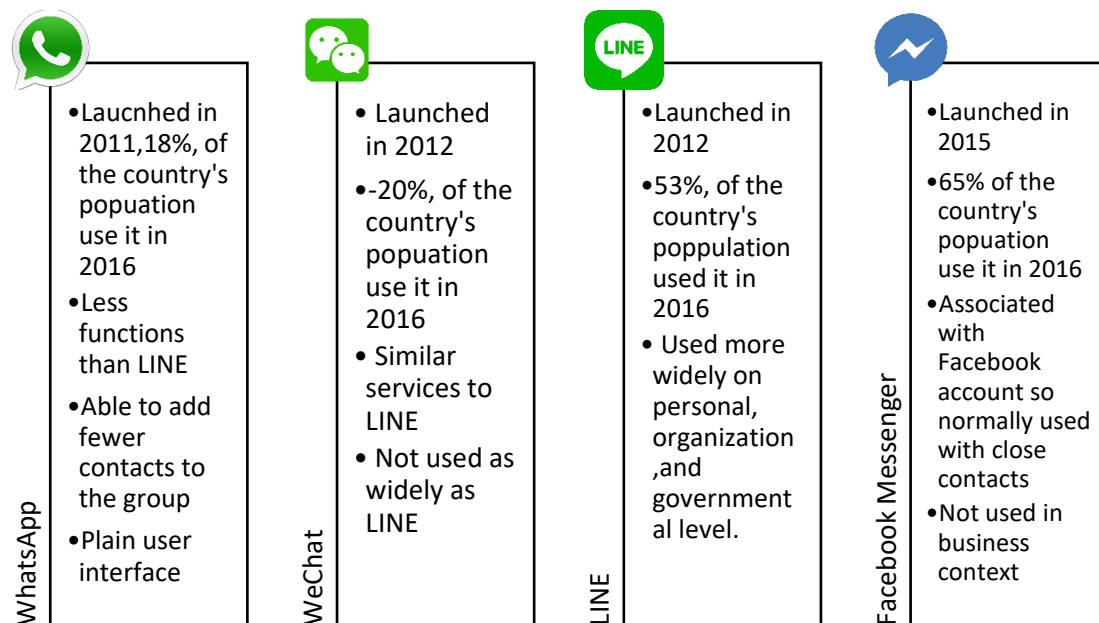


Figure.4 The most used MIM applications in Thailand.

In early 2017, LINE has first launched a new service called 'LINE Works' in Japan which featured similar functions to other MIM applications for works such as Slack,

Microsoft Teams, and Workplace by Facebook. LINE works offered both free and paid services promised as *'Business chat that anyone can use right away. Communicate your emotions.'* However, it has not been available in Thailand yet as of 2018. Some of the added functions of LINE Works are such as board, push notification, and 'must read' which helps to keep users updated. LINE Works users can set push notification for each board and receive real-time notification when a new post or a comment is posted. In addition, if the post is set as "must read," it will be exposed at the top for the extra reminder ("LINE Works," 2017). According to Mr. Katano Hideto who works at LINE Corporation in Japan, LINE Works helps to complement the missing information of the typical media such as telephone call.

“The core of our business is gradually being executed on the mobile environment. It is certain that, much like LINE’s service, mobile devices are becoming central in communication. When a service failure occurs, for example, you need to send detailed information. The content that can be sent through a phone call is limited, there is a definite need to send an e-mail or a text message (LINE,2017).”

1.2 LINE Adoption in Organizations

LINE has become one of the main tools of communication, especially among young generations. Nowadays many workplaces and organizations have adopted the use of MIM applications in the workplace, both in the public and private organizations. The Department of Provincial Administration is one of the government organizations that embrace the use

of MIM application among the organization. The Deputy Director revealed that before the introducing of MIM application like LINE, the cost of sending SMS (Short Message Service) and MMS (Multimedia Messaging Service) between the central department and the provincial sectors such as to District Chief Officer and Assistant District Chief Officer was high. After using LINE, the local officers could conveniently send a real-time informal report. Therefore, LINE is considered one of the fastest and cost-effective means of communication to send and receive non-classified orders and feedbacks. It is normally used before the official government documents are sent to reconfirm. (Marukapitak, 2014).

Another example of the use of LINE in the government offices is the introduction of LINE in the Ministry of Agriculture and Cooperatives which oversees the administration of agricultural policies, irrigation, water resources, forestry, promotion and development of farmers and cooperative systems, including agricultural manufacturing and products. In December 2017, Mr. Krissada Boonraj, the then Deputy Minister of Agriculture and Cooperatives stated the operation policy for all the Ministry's tangible projects which was to 'continue,' 'complete,' and 'cut.' To 'continue' was to keep working on the old policies which were already good and 'complete' the incomplete projects such as to increase the number of working people and the budget. To 'cut' was to cut off the projects which saw no future and change some projects to be more appropriate. In the provincial level, the Ministry would support the work of its officials both in districts and provinces by restructuring and cut down the work process. The officials would be allowed to use smartphones and LINE application to cooperate (Thairath, 2017).

1.3 Data-driven Economy and Social Change

The popularity of MIM and other social media in Thailand could be related to the soaring number of smartphone users. Nevertheless, despite the significance of smartphones for digital access, the use of smartphone devices is not equally prevalent across the nation.

“In the capital city of Bangkok, the country’s largest urban area, more than 70% of the overall population uses smartphones, according to the National Statistical Office survey. By contrast, the country’s less developed Northeastern region has a usage rate of just 39.3%—though overall mobile phone usage is higher, at 76.1% (Kressmann, 2017).

This statistic is according to the survey result which showed that Thailand ranked near the bottom in the Asia Pacific (see Table 2) in the overall ranking of the digital nation despite the Thai government’s aims to create the digital economy and society. However, the Ministry of Digital and Economy and Society or MDE has encouraged all sectors to use digital technology to drive the country’s economy and society within five years. The biggest challenge for the Thai government is how to transform from a digital economy into a digital nation since digital economy only focuses on digital literacy and entails passively waiting for foreign direct investment. Those economies only focus on broadband infrastructure improvement for universal access. On the other hand, a digital nation entails programs for workforce development and upskilling. This model supports startups, attracts

multinational digital companies and employs experimental approaches. (Leesa-nguansuk, 2017).

Table 2.

The National Ranking in Digital Literacy among Asia-Pacific Countries (Source: A study by AlphaBeta, a strategy and economic advisory business in Australia and Asia-Pacific https://www.alphabeta.com/wp-content/uploads/2017/05/DigiNations_FA.pdf).

| Rank | Overall Ranking | Financial Capital | Digital Products | Human Capital | Digital Community |
|------|-----------------|-------------------|------------------|-----------------|-------------------|
| 1 | Singapore | Australia | South Korea | Singapore | Japan |
| 2 | Australia | Singapore | Japan | Malaysia | Singapore |
| 3 | South Korea | Japan | Taiwan | New Zealand | Australia |
| 4 | Japan | Taiwan | Australia | India | India |
| 5 | New Zealand | Malaysia | New Zealand | Taiwan | South Korea |
| 6 | Taiwan | New Zealand | Singapore | Australia | New Zealand |
| 7 | Malaysia | India | Malaysia | South | Korea Taiwan |
| 8 | India | Indonesia | Viet Nam | Indonesia | Indonesia |
| 9 | Indonesia | Thailand | India | Japan | Malaysia |
| 10 | Thailand | South Korea | Indonesia | Thailand | Thailand |
| 11 | Viet Nam | Viet Nam | Thailand | Viet Nam | Viet Nam |

From the digital nation scoreboard in Table 2, it was seen that although the Thai government has been ready to promote national policy and plan on digital development for economic and society, Thailand was still ranked at the bottom among the Asia-Pacific nations.

When comparing Thailand to Japan, Japan's ranking was higher overall. Regarding digital products, Japan was ranked number two while being the first leader in the digital community. This is according to the Japanese Ministry of Foreign Affairs and Communications in 2016 that the use of Social Network Sites or SNSs had increased so that it would spread to the spread of smartphones. Some of the leading SNS and MIM in

Japan include LINE, Facebook, and Twitter. In the overall age group of users, the utilization percentage of these services rose from 41.4% in 2012 to 71.2% in 2016. This shows that the use of SNS has become more apparent in the smartphone society.

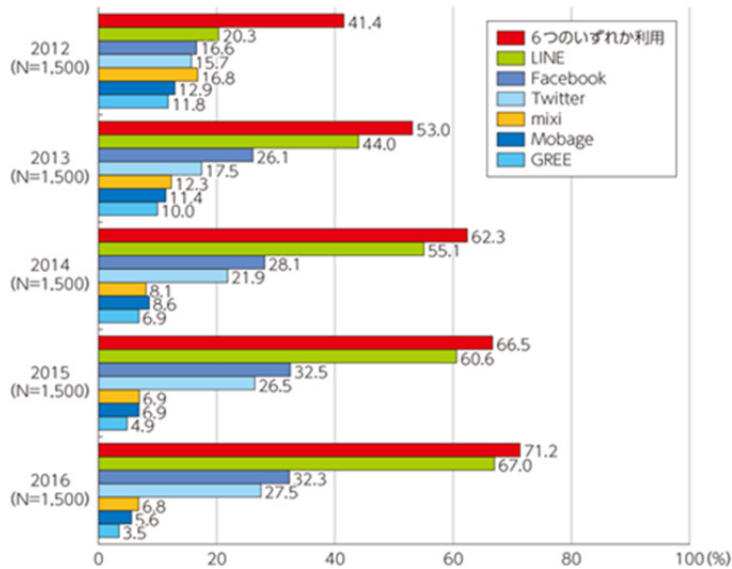


Figure 5. Changes in utilization rates of representative SNS in Japan from 2012-2016.

(Source: Information and Communication Policy Research Institute, Ministry of Internal Affairs and Communications "Survey on Information Time and Information Behavior of Information and Communication Media")

Smartphones and SNSs (including MIM) draw similar trajectories, and it is thought that both are leading to the expansion of the use of smartphones and related services. SNS and MIM are used not only for communication tools but also for other services and cooperation with other services. For example, some examples are utilized for marketing, such as FinTech and sharing services to guarantee the reliability of individual transactions based on the usage status of SNS. Table 3. Shows the utilization ratio of major SNSs in Japan by 2016.

Table 3

The Utilization Ratio of Major SNSs in Japan by 2016 by Gender and Age.

(Source: Information and Communication Policy Research Institute, Ministry of Internal Affairs and Communications "Survey on Information Time and Information Behavior of Information and Communication Media")

| | LINE | Facebook | Twitter | mixi | Mobage | GREE | Google+ | YouTube | ニコニコ動画 | Vine | Instagram |
|----------------|-------|----------|---------|-------|--------|------|---------|---------|--------|-------|-----------|
| 全体 (N=1500) | 67.0% | 32.3% | 27.5% | 6.8% | 5.6% | 3.5% | 26.3% | 68.7% | 17.5% | 2.9% | 20.5% |
| 10代 (N=140) | 79.3% | 18.6% | 61.4% | 2.9% | 6.4% | 3.6% | 28.6% | 84.3% | 27.9% | 5.7% | 30.7% |
| 20代 (N=217) | 96.3% | 54.8% | 59.9% | 13.4% | 9.2% | 6.9% | 29.5% | 92.2% | 36.4% | 7.4% | 45.2% |
| 30代 (N=267) | 90.3% | 51.7% | 30.0% | 9.4% | 9.7% | 4.5% | 37.5% | 88.4% | 19.5% | 3.7% | 30.3% |
| 40代 (N=313) | 74.1% | 34.5% | 20.8% | 8.3% | 4.8% | 3.2% | 30.0% | 77.9% | 15.3% | 1.6% | 16.0% |
| 50代 (N=260) | 53.8% | 23.5% | 14.2% | 5.8% | 4.2% | 2.7% | 25.4% | 55.4% | 9.2% | 1.2% | 12.3% |
| 60代 (N=303) | 23.8% | 10.6% | 4.6% | 1.0% | 1.0% | 1.0% | 10.2% | 29.7% | 6.6% | 0.3% | 1.3% |
| 男性 (N=756) | 63.6% | 32.0% | 25.7% | 6.5% | 7.5% | 4.2% | 25.4% | 72.0% | 19.8% | 2.1% | 13.9% |
| 男性 10代 (N=72) | 70.8% | 16.7% | 54.2% | 2.8% | 9.7% | 5.6% | 23.6% | 81.9% | 27.8% | 4.2% | 20.8% |
| 男性 20代 (N=111) | 94.6% | 50.5% | 53.2% | 14.4% | 14.4% | 9.0% | 33.3% | 91.0% | 46.8% | 4.5% | 34.2% |
| 男性 30代 (N=136) | 86.0% | 46.3% | 30.1% | 5.1% | 11.8% | 5.1% | 34.6% | 90.4% | 20.6% | 2.9% | 18.4% |
| 男性 40代 (N=159) | 68.6% | 36.5% | 21.4% | 8.8% | 6.3% | 5.7% | 25.2% | 78.0% | 17.6% | 1.9% | 11.3% |
| 男性 50代 (N=130) | 49.2% | 24.6% | 11.5% | 6.2% | 4.6% | 0.0% | 23.8% | 59.2% | 6.9% | 0.8% | 6.9% |
| 男性 60代 (N=148) | 23.6% | 14.2% | 4.1% | 1.4% | 1.4% | 1.4% | 13.5% | 40.5% | 8.8% | 0.0% | 0.0% |
| 女性 (N=744) | 70.4% | 32.5% | 29.3% | 7.1% | 3.6% | 2.7% | 27.3% | 65.3% | 15.1% | 3.6% | 27.3% |
| 女性 10代 (N=68) | 88.2% | 20.6% | 69.1% | 2.9% | 2.9% | 1.5% | 33.8% | 88.8% | 27.9% | 7.4% | 41.2% |
| 女性 20代 (N=106) | 98.1% | 59.4% | 67.0% | 12.3% | 3.8% | 4.7% | 25.5% | 93.4% | 25.5% | 10.4% | 56.6% |
| 女性 30代 (N=131) | 94.7% | 57.3% | 29.8% | 13.7% | 7.6% | 3.8% | 40.5% | 86.8% | 18.3% | 4.6% | 42.7% |
| 女性 40代 (N=154) | 79.9% | 32.5% | 20.1% | 7.8% | 3.2% | 0.6% | 35.1% | 76.6% | 13.0% | 1.3% | 20.8% |
| 女性 50代 (N=130) | 58.5% | 22.3% | 16.9% | 5.4% | 3.8% | 5.4% | 26.9% | 51.5% | 11.5% | 1.5% | 17.7% |
| 女性 60代 (N=155) | 23.9% | 7.1% | 5.2% | 0.6% | 0.6% | 0.6% | 7.1% | 19.4% | 4.5% | 0.6% | 2.6% |

2. Research contribution

Since communication via MIM applications is becoming more popular in Thailand with millions of active users, it is interesting to study how MIM applications play a role in the workplace, especially the use by the managers. It will also discover how MIM application can play a major role in communication between managers and their subordinates. The researcher hopes that the study in the case of Thailand can help to understand a country's work culture and can lead to the future study of using MIM application for work in other countries.

3. Research Questions

1. *Is MIM application an effective communication medium for work?* - To see how effective MIM is as a communication medium between the manager and the team.

2. *How do managers in Thai company use MIM for managing purposes?* - To investigate the managing roles of the Thai managers when they use MIM for work.

3. *What are the MIM messages used for work by the managers?* - To explore the types of messages in MIM used for work by the managers and the team.

4. *Are there any positive or negative effects of using MIM for work with the team members?* – To see the effects of the manager’s use of MIM with the team members.

5. *What are the leadership characteristics demonstrated by the managers’ use of MIM?* – To study the leadership characteristics of the managers from the use of MIM with the team.

Chapter II

Literature Review

1. Mobile Instant Messaging (MIM) Application:

MIM refers to Mobile Instant Messaging. According to Oguhuma et al. (2016), MIM is a new form of communicative technology with specific objectives and unique features. Before MIM, each online service requires its domain. With MIM, this need is no longer present as the application can serve as the platform and hub for online services. MIM applications use their network effect, mobility and ubiquity to connect various services on one single platform. Using MIM, users can update real-time information anywhere, anytime (Oguhuma et al., 2016).

Church & Oliveira (2013) describe MIM application that it allows the user to send and receive images, video, audio, and location-based messages to individuals or groups of friends using the users' pre-existing data plan and at no cost. For example, an application called WhatsApp requires a mobile internet connection to function and both parties must have the proprietary software installed on their mobile phones. It also provides additional social information to its user (e.g., contacts can see when their friends are online, when they are typing and when they last accessed the application. It also provides delivery notifications when a message is sent and when it is delivered to the recipient's device (Church & Oliveira, 2013).

Similarly, according to Karimiyazdi & Mokhber (2015), MIM has become more important in the era of a high-speed data network such as 4G when people use mobile

instant messaging to communicate with others in everyday life. They also explain why it has become more popular than SMS:

“The emergence of MIM applications, exposed traditional SMS in danger of losing its market as the dominant mobile messaging service. MIM applications such as WhatsApp, Viber, LINE, etc which install and run on personal digital assistant such as tablets and smartphones, have become very popular worldwide and have generated significant demands and enable consumers to send and receive text, photo, and video message, at very low or no cost. MIM is more user-friendly and has more features in comparison with traditional short message services (SMS). In addition, MIM offers variety of instant communication options, and users can easily switch between MIMs (Karimiyazdi & Mokhber, 2015).”

The convenience of MIM has been stressed by many scholars, including Deng et al. (2010) who stated that MIM enables consumers, whether sitting at the computer or on the road, to connect instant message (IM) with existing communities and across the mobile Internet. It brings tremendous conveniences for customers and is widely adopted by young people (Lu et al., 2010). Some of the widely-used MIM applications worldwide are such as KakaoTalk, WhatsApp, WeChat, LINE, and Viber.

2. Previous Studies about MIM and Smartphones

The existing MIM literature has covered some aspects such as customers continuance intention to use MIM (Oguhuma et al.,2015), viral marketing campaign on MIM (Karimiyazdi & Mokhber, 2015), and several on users' behaviors and attitudes towards MIM applications, especially in Thailand. Other studies on organization communication using smartphones are such as the study by Kiddie (2014) who studied workplace communication in the United States whether youth entering the workforce would act as change agents to evolve primary business communication channels from email to text messaging. The results revealed that change agents and early adopters already in the company, not new hires, would affect a change in communication media that would involve new technology such as smartphones (Kiddie, 2014).

Lee et al. (2012) examined the use of an attitude toward smartphone specifically iPhone and Blackberry as a communication device by organizational members in Malaysia. They found that smartphone had been used as a communication tool by the interviewees with their superiors, colleagues, and clients for communicating verbal instruction and urgent matters, transmitting work-related and updated information, building rapport and affiliation, solving clients' query and demand, and providing feedback. Smartphones were perceived as a communication tool in the workplace because of its various advantages. Also, smartphones were also used as a dynamic avenue for organizational communication and demonstrated high effectiveness as a new form of communication culture in Malaysian organizations (Lee et al., 2012).

Pitichat (2013) also studied the use of smartphones in the workplace. It was found that using smartphones in the workplace could be valuable in three ways: promoting autonomy, strengthening relationships with peers as well as superiors, and improving

knowledge-sharing. Additionally, these three main factors could increase employee job satisfaction, which leads to better efficiency in the workplace. Therefore, organizations would be better able to successfully adapt to changes by integrating the use of Smartphones in the workplace (Pitichat, 2013).

3. Media Richness Theory (MRT)

According to Daft and Lengel's theory (Daft & Lengel, 1984), richness is defined as the potential information carrying capacity of data. If the communication of an item of data provides substantial new understanding, it would be considered rich whereas the datum provides little understanding would be low in richness. Daft & Lengel, (1984) proposed that communication media used in organizations determine the richness of information processed. According to Lengel, communication media vary in the richness of information processed. Communication media include (1) *face-to-face*, (2) *telephone calls*, (3) *written personal*, (4) *written formal* and (5) *numeric formal*. Based on MRT, each medium differs in (1) *feedback capability*, (2) *communication channels utilized*, (3) *source* and (4) *language*.

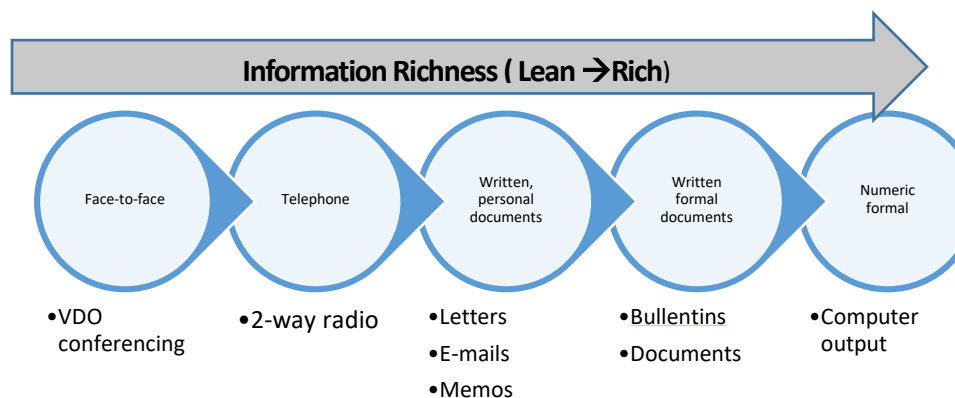


Figure.6. MIM and Media Richness model adapted from Communication Media and Information Richness in Daft and Lengel, 1984 (Daft & Lengel, 1984).

Media richness theory or MRT is one of the most extensively studied frameworks of media choice in managers' communication (Sheer & Chen, 2004). Sheer and Chen (2004) studied manager-subordinate communication from various organizations in Hong Kong and found that relational and self-presentational goals are also relevant in manager-subordinate interactions, particularly when messages differ in valence (Sheer & Chen, 2004).

According to Daft and Lengel, media capable of sending rich information such as face-to-face meetings are better suited to equivocal tasks whereas the less rich media such as computer-mediated communication are best suited to tasks of uncertainty.

Dennis, Valacich et al. (1998) found the lack of convincing supports in the stream of research where managers typically have been asked to choose which medium to use to send a set of hypothetical messages to determine whether their choices fit the predictions of media richness theory. They argue that in a number of cases, managers have made different choices than those predicted by media richness theory due to the insufficiency in the task-media fit in explaining media choice; therefore many researchers have concluded that media choice is affected by factors beyond the richness of the medium itself (Dennis, Valacich, et al. 1998). One explanation behind the lack of empirical support for media richness is that the task-media fit is insufficient in explaining media choice. Many researchers have thus concluded that media choice is also affected by factors beyond the richness of the medium itself such as the number of users required before a medium become widely used, the availability of the medium to the message sender and ability of the sender to use that medium (Dennis, Valacich, et al. 1998).

According to Dennis, Valacich et al. (1998), even though a medium's ability to support the various communications processes occurring in a face-to-face context is important, there are also other media dimensions that are important to consider. These include computer-facilitated communication such as electronic mail, group support systems, voice mail and video teleconferencing which have become widely used after the development of MRT.

They also argue out that these different media dimensions may provide more effective support for specific communication processes than previously theorized by MRT. They suggested three important conclusions beyond the traditional MRT. First, no one medium has the highest values on all dimensions (i.e., none could be labeled as "richest" in Daft & Lengel's terms). Second, media are not monolithic since it is possible for one medium to possess different levels depending upon how it is configured and used (for example, one electronic mail system may have a very limited symbol variety by being limited to text only, while another electronic mail system may provide the ability to include graphics, pictures, and video in a mail message.) And, third, ranking media in absolute terms is not practical when past empirical research has repeatedly suggested that richness not be a continuum. Therefore, concluding that face-to-face communication is the "richest" media is inappropriate (Dennis, Valacich, et al. 1998).

On the studies of MRT in other types of media as proposed by Daft and Lengel, Dennis and Kinney (1998) studied the effect of media richness on decision making in two-person teams using "new media" (i.e., computer-mediated and video communication). They found that media richness matters, but it does not improve performance for the new media (Dennis & Kinney, 1998). They argued that MRT might be useful for the old media

(i.e., letters and memos) whose levels of feedbacks and cues are lesser than those of the new media. “The new ‘lean’ media may be just rich enough to enable users to successfully communicate for moderately equivocal tasks (Dennis & Kinney, 1998)”.

Recent studies such as Lee (1994), and Markus (1994) have included the study of e-mail use in organizational communication and found that MRT failed to explain the richness of electronic medium like e-mail. In 2013, Mandal and McQueen studied social media adoption in micro businesses (Mandal & McQueen, 2013). They proposed that regarding richness, the social media interface of the Facebook business page is considered richer than email in its capacity (i.e., to express by photos, and to transmit web links). They also suggested that the incapability of MRT to explain rich communication through email is carried forward to social media adoption (Mandal & McQueen, 2013).

As on MRT and mobile instant messaging (MIM), Tseng et al. (2017) identified a lack of more recent studies in the role of media richness in determining customer loyalty to mobile instant messaging (MIM). Based on MRT, they examined how media richness influences customer perceived values, consequently contributing to customer loyalty to MIM. In their study, it is found that language variety has the strongest effect on user loyalty to MIM.

4. MRT and Culture

Media richness refers to the extent to which a communication tool provides contextual support for interaction by allowing for immediate feedback, body language, vocal cues, and the like (Setlock, Quinones, et al. 2007). In their research, Setlock et al. focused on three types of information that media can provide: visual cues of others’ facial expressions, movements and other nonverbal reactions, vocal cues (tone of voice), and

interactivity (immediacy of feedback). Richer media such as video conferencing have more of these features than leaner media such as Instant Messaging (IM). They hypothesized that communication among members of high-context cultures might be more disrupted by the use of leaner media than communication among members of low-context cultures.

“For members of low-context, Western cultures, studies have found that media richness affects such things as the efficiency of grounding or the formality of language, but rarely influences outcome measures such as task performance. Richer computer-mediated communication tools, such as video conferencing systems, provide added social context by making available information about participants’ surroundings, attention, gesture and demeanor (e.g., [5] [18]). Because high-context cultures theoretically place more value on visual and vocal cues than do low-context cultures (Setlock, Quinones et al. 2007).”

In their study, they compare the communication and performance of low-context American dyads, high-context Chinese dyads, and mixed American-Chinese dyads on a negotiation task under two possible media conditions: audio conferencing or video conferencing. Despite theoretical, cultural work and some prior research suggest that high-context Chinese dyads can benefit from the visual cues available in video-enabled systems, there is little support for this hypothesis (Setlock, Quinones, et al. 2007).

5. MIM applications and Organizational Communication

There have been some recent studies about MIM such as WhatsApp and Slack in organizations. These MIM tools have similar features to LINE yet; they are not used widely in Thailand. For example, Slack which claims to be ‘The Office Messenger Application’ has similar features compared to LINE. Users of Slack can create ‘Team’ based on company, department, or project-based. They can also create ‘Channel’ for a specific purpose such as marketing channel, promotional channel, or in a granular level like a special event. Within the team, members can be flagged in the conversation in the channels, send direct messages back and forth with other team members. This feature works like other messaging application. However, the difference between Slack and emails/ other MIM is that it is more instant and team-based than e-mail, making it easier to use with fewer barriers in opening/downloading. Like other MIM, it does not replace e-mail completely. Instead, it reduces the amount of e-mails threads with team members which is an advantage for every MIM.

The advantage of using Slack for work are such as:

- Flexibility- it depends on how the user sets it up (private group, tagged. Etc.)
- Search-back ability (over 10,000 messages storage)
- Fast, efficient and accurate
- Good level of encryption
- Integration with other tools: *Trello*-a web-based project management application, *Wunderlist*- a cloud-based task management application,

One of the previous studies on Slack in the organization was carried out in a healthcare field. Gofine & Clark, 2017 has studied the integration of Slack into their research team of practitioners of epidemiology. According to them, the practitioners of epidemiology usually require efficient real-time communication and shared access to numerous documents in order to manage a study effectively. Much of this communication involves study logistics and does not require the use of Protected Health Information. Slack is used since it is a team collaboration app. It allows the team to communicate in real-time without the need to find email addresses or phone numbers or create contact lists. They found that Slack is easily integrated into the workflow at an urban, academic medical center and is adopted by users as a highly effective tool for meeting research teams' communication and document management needs (Gofine & Clark, 2017).

Another interesting study on Slack and organizational communication is the study of Slack in team communication in reducing social loafing. Lam (2016) addressed the issue of social loafing by examining the importance of team communication by using Slack as a team communication application. He found that Slack influences communication quality and social loafing. From his study, the results of the preliminary data indicate that the use of Slack significantly improved communication accuracy and appropriateness. Therefore, the use of Slack significantly reduced social loafing (Lam, 2016).

Using MIM applications or digital tools can also bring advantages to the organization. It is suggested that using MIM applications such as SLACK, WhatsApp, Yammer, or Skype can enable fast, dialogic and public conversations within the company (Ristniemi et al., 2017). Nevertheless, the studies on MIM in Thailand is quite a new area for study. There are not many existing types of research on the aspects of this study would

like to explore. Therefore, the researcher wishes to deeper investigates the use of MIM in business organization, hoping this will be one of the first studies about MIM in organization study in Thailand.

6. Organizational Communication and Leadership

6.1 Task-Oriented Leadership

One of the renowned behavioral approaches in leadership study is *task-oriented leadership*. Task-oriented leadership theory describes a leader as a person whose actions are centered on the task to achieve certain goals or to achieve a certain performance standard. Task-oriented Leadership can be defined as "a descriptive model of leadership which maintains that most leadership behaviors can be classified as performance maintenance or relationship maintenance" (Forsyth, 2010). The features of task management are covered in task-oriented leadership styles such as the leader's coordination of job-related activities, administrative activities, and supervising. In other word, task-oriented leaders focus on completing necessary tasks in order to reach organization's goals. As for their characteristics, these leaders are less concerned with the employees, but more concerned with following a planned path.

Task-oriented style leaders have many strengths such as the ability to complete jobs promptly as they focus on the necessary work procedures to have the duties fulfilled. This strength will ensure employees manage their time well as the leaders delegate work in a timely and productive manner (Rüzgar, 2018). Task-oriented leaders design workgroups for specific tasks to ensure the members have a clear understanding of their roles. Since

the task definition is clear and precise, the work targets are clear and understood by the employees. As a result, this style of leadership is suited to a well-structured work environment such as manufacturing assembly lines (Fiedler, 1964).

However, according to Bass (1990), task-oriented style of leadership does have some flaws of autocratic leadership including causing motivation and retention problems, since the leaders tend to think less of the team than the tasks (Bass, 1990).

6.2 Relationship-Oriented Leadership

As often compared with task-oriented leadership, relationship-oriented leadership theory describes a leader as a person who is motivated by and concerned with his/her interactions with the team members. Relationship-oriented leaders focus on job satisfaction, motivation and work-life balance of the employees. They are also focused on supporting, motivating, and developing their employees to encourage teamwork, collaboration, and encouraging communication to build a positive relationship within the employees. The relationship-oriented leaders often act as mentors to their employees. They also understand the welfare of the employees are prioritized, and the leaders do not hesitate to tend to their needs (Rüzgar, 2018).

The benefits of relationship-oriented leadership are that team members are in a setting where the leader cares about their well-being, and the positive dynamic of the group is created. Nevertheless, relationship-oriented leadership may have weaknesses that the development of team spirit may hinder completing the actual tasks and desired goals (Burke et al., 2006), or, if employees have too much responsibility without leader guidance,

the decision-making duty can become challenging and this may lead to lower performance, high employee turnover, or customer dissatisfaction (Rüzgar, 2018).

6.3 Supervisor Behaviors

One of the rigorous behavior approaches of leadership was proposed by Komaki, Zlotnick, and Jensen in 1986 (Komaki, Zlotnick, & Jensen, 1986). They categorized specific supervisor behaviors into seven categories. The first three categories are related to effective supervision (derived from operant conditioning theory): (1) *Performance consequences*- indicating knowledge of performance, (2) *Performance Monitors*-collecting information and performance, (3) *Performance Antecedents*- providing instructions for performance, (4) *Own performance*- referring to the manager’s performance, (5) *Work-Related*- referring to work but not performance, (6) *Non-Work Related*- not pertaining to work, and (7) *Solitary*- not interacting with others (Bass, 1990). Fig. 7 shows the seven categories of supervisor behaviors.

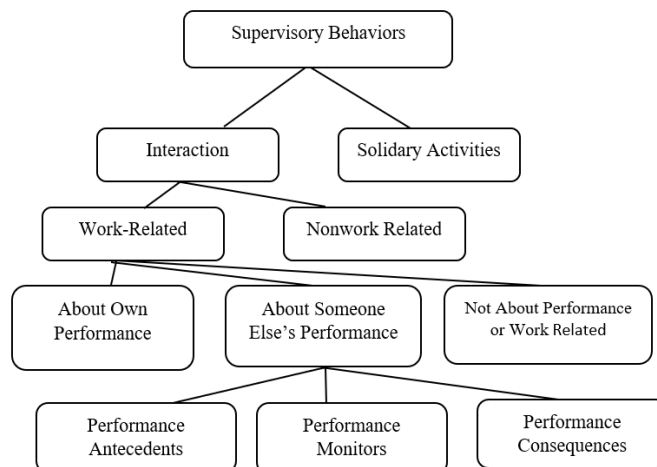


Figure 7. Operant taxonomy of supervisory behavior proposed by Komaki, Zlotnick, and Jensen (1986).

Mumford, Fleishman, Levin, Korotkin, and Hein (1988) have also proposed an approach for the interrelationships among the leader-behavior dimensions. These include (1) The search for and structuring of information (acquisition, organization, evaluation, feedback, and control), (2). The *use of information in problem-solving* (identifying requirements, planning, coordinating and communication, (3). Managing personnel resources (acquisition, allocating, development, motivation, utilization and monitoring, and (4). Managing material resources (acquisition, maintenance, utilization, and monitoring) (Bass, 1990) which are demonstrated in Fig.8 This model of the interrelationships of supervisor's behavior can perhaps help explain the managers' managing behavior of using MIM in this study.

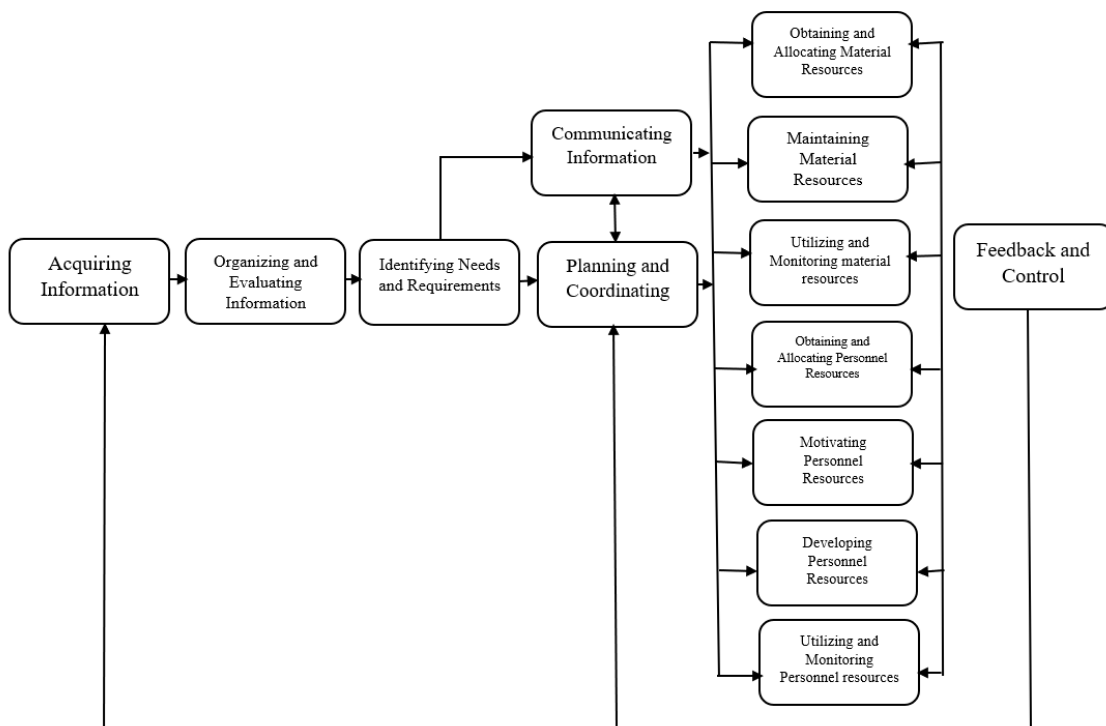


Figure 8. The interrelationships among the leader-behavior dimensions (Fleishman et al., 1988).

Chapter III

Research Methodology

1. Research Method

Using a snowball sampling method, the author recruited fifteen middle managers from five different business organizations located in Bangkok, Thailand for a semi-structured interview during May-June 2017 and August-September 2018. Snowball sampling is regarded as a purposeful sampling that “typically proceeds after a study begins and occurs when the researcher asks participants to recommend other individuals to be sampled (Creswell, 2012)”.

According to the data from the National Statistical Office of Thailand, it was found that Bangkok showed the highest proportion of ICT users comparing to other regions. The users of computers, internet, and mobile phone (including smartphones) in Bangkok was the highest at 50.5%, followed by the Central Region, Northern Region, Southern Region, and Northeastern region with the user’s percentage of 31.5%, 30.1%, and 27.0% respectively.

It was also shown that Bangkok also had the highest numbers of smartphone users of 70.3%, followed by the Central region (56.3%), Southern region (48.7%), Northern region (45.2%), and Northeastern region (39.3%). The demographic age of the smartphone users showed that the age group between 24-35 was the highest at 73.6%, and the activity of using the internet was used mostly to Social Networks (including MIMs) ("The 2015 Establishment Survey on the use of Information and Communication Technology," 2017).

Therefore, the research sites in this study are chosen on the ground of the locations, all of which are located in Bangkok, the capital city of Thailand in the Central

region which show the highest use of ICT services and devices. The different business profile of each company is another reason for the researcher to compare the studies of MIM use by the managers of different industries.

In this study, the five business organizations and their business industries are demonstrated below in Table 4.

Table 4

The Business Industries of the Companies Studied in this Research

| Company | Business Industry |
|-------------------------|---|
| 1. Company A (Thailand) | Consumer' snacks (candy, gum and mints, cookies, crackers, chocolate, etc.) |
| 2. Company B | Information technology (IT) and communications service |
| 3. Company C | Consumer health and nutrition (drug capsule) |
| 4. Company D (Thailand) | Automobile and supplier to car dealers |
| 5. Company E (Thailand) | Products and services for medical business |

The interviewees' confidentiality of response was assured, and due to companies' privacy reason, the companies and the managers' names must remain anonymous. Only the manager's initials and positions can be revealed. So, the names of the companies studied will be simply referred to Company A, Company B, Company C, Company D, and Company E. The interview data were recorded using an audio recorder and then were transcribed for coding and analysis.

2. The Research Sites

The details about the companies in this study and their business are described in the following section.

(1) *Company A International (Thailand) Co., Ltd.-*

Company A is a subsidiary of an international, Inc. - a world's leading snacking powerhouse in consumer's candy, gum and mints, cookies, crackers, chocolate, and powdered beverages. Company A (Thailand) is the number one market share in candy and gum in Thailand, with the biggest gum and candy plant among the company's plants in the Asia Pacific. Another plant in the Northeastern of Thailand is also the largest sourcing hub for powdered beverages in the company's Asia Pacific hubs. Company A's three sites including the main headquarter in Bangkok have nearly 1,400 employees in 2017. The company's organization divisions and the managers interviewed in this research are demonstrated in Fig.9.

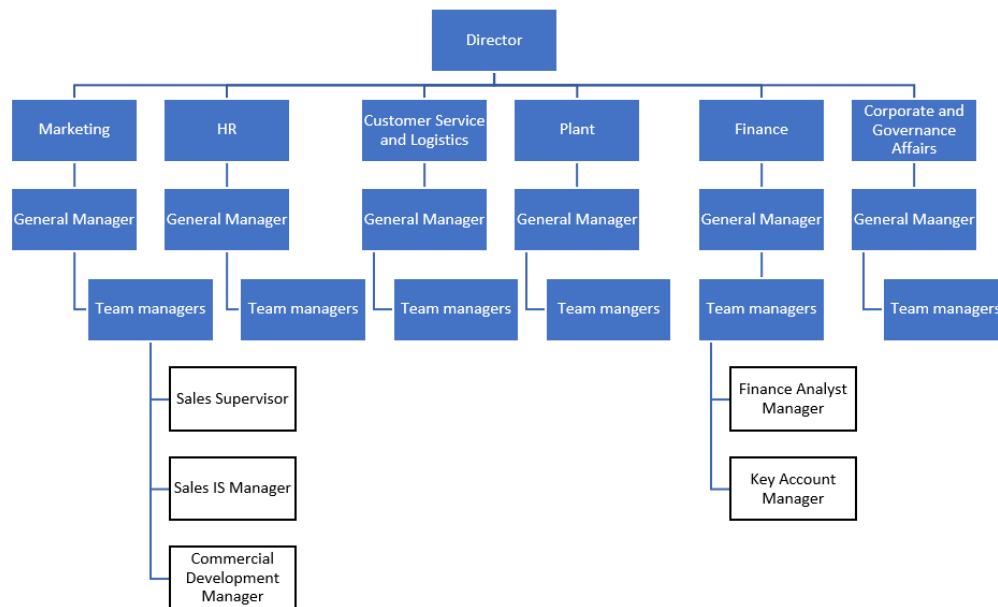


Figure 9. Company A's divisions and the managers interviewed in this research.

Note: The managers are portrayed in the white boxes.

(2) Company B (Inc).:

Company B is a company offering a variety of information technology (IT) and communications service including solutions delivery, infrastructure management, applications management, training service, customer service, and hardware /software service. The company was founded in 2006 and is based in Bangkok, Thailand. Company B operates as a subsidiary of a Company Limited in Petroleum business. The company’s organization divisions and the managers interviewed in this research are demonstrated in Fig.10.

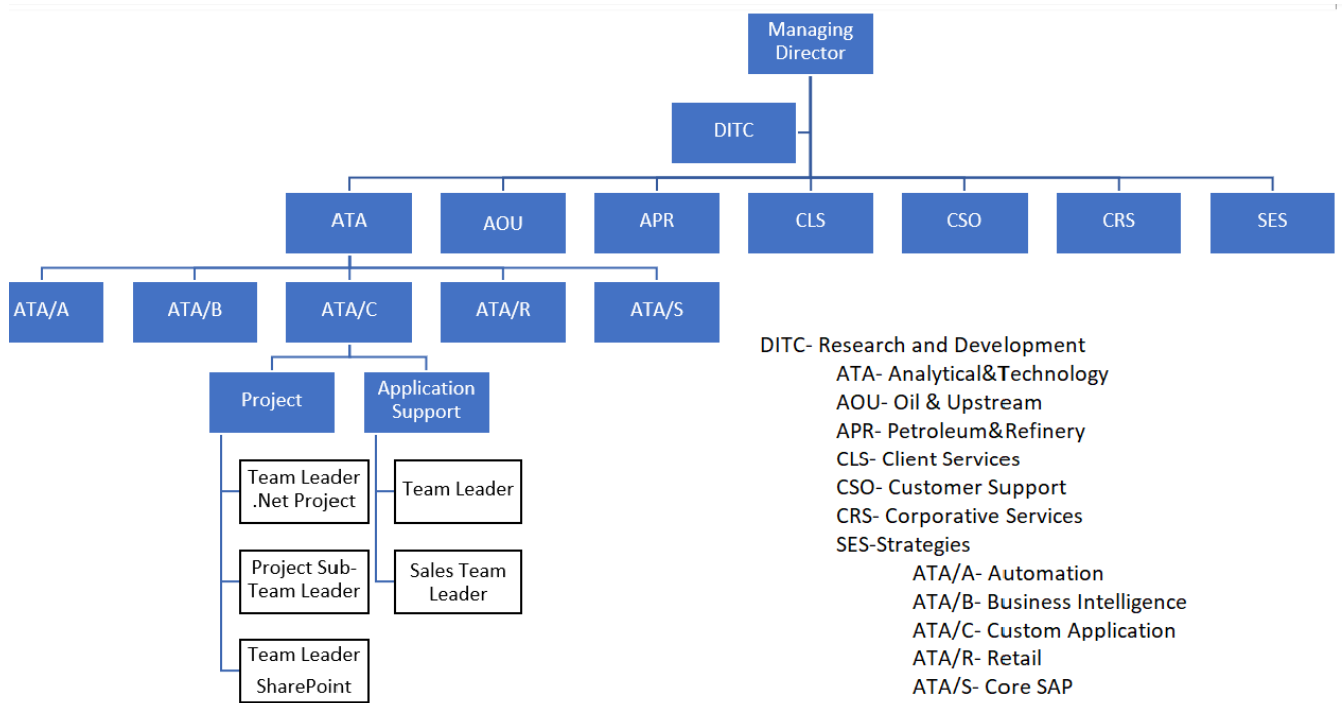


Figure 10. Company B ’s divisions and the managers interviewed in this research.

Note: The managers are portrayed in the white boxes.

(3) *Company C Thailand:*

Company C Thailand is a subsidiary of Company C, Inc., a leading developer, and manufacturer of drug capsule used in biopharmaceutical and consumer health and nutrition industries. The main office of Company C is located in the central Bangkok with the manufacturing sites in Ayutthaya Province. Fig.11 shows the company's organization divisions and the managers interviewed in this research.

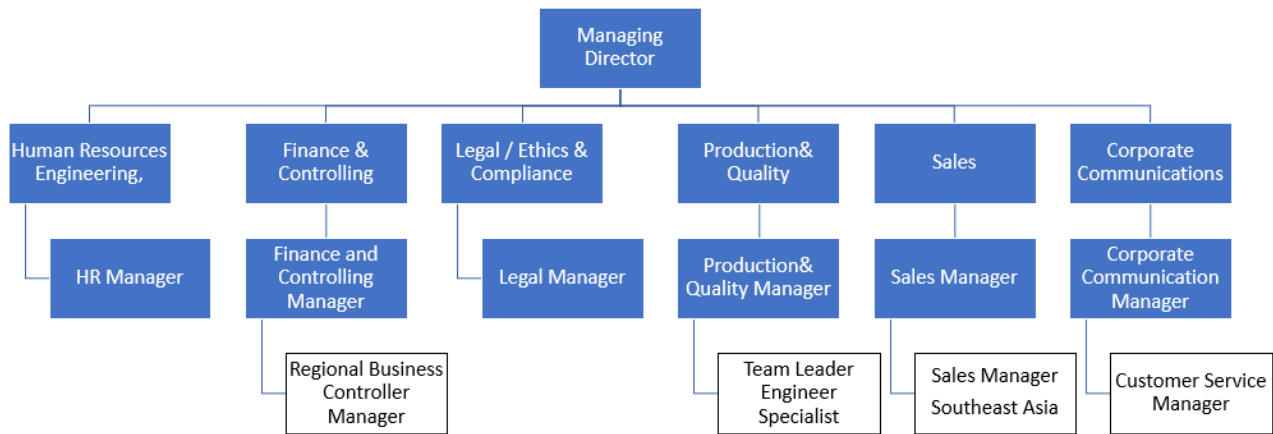


Figure 11. Company C 's divisions and the managers interviewed in this research.

Note: The managers are portrayed in the white boxes.

(4) *Company D Thailand:*

Company D Thailand is the wholly-owned subsidiary of Company D Corporation (Japan). Company D controls the manufacturing of Company D's cars in Thailand and supplies cars to various official dealers throughout the country. Company D export cars to

many regions of the world as well. The organization divisions and the managers of Company D interviewed in this research are demonstrated in Fig.12.

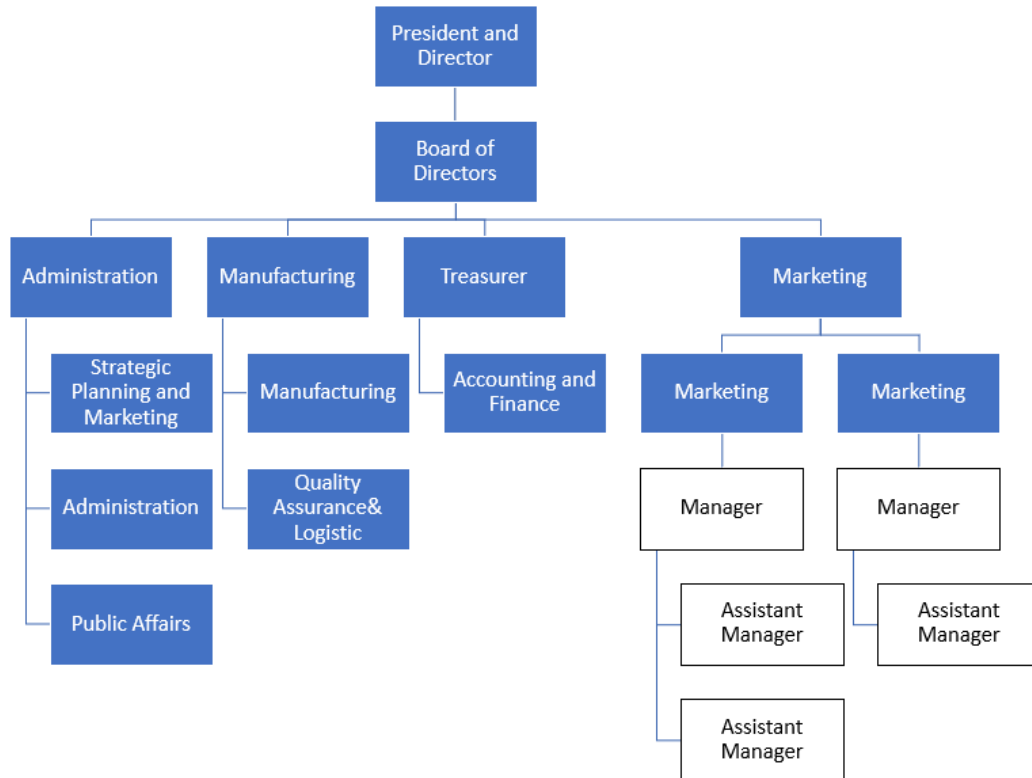


Figure. 12. Company D 's Divisions and the Managers Interviewed in this Research.

Note: The managers are portrayed in the white boxes.

(5) Company E Thailand:

Company E defines itself as a "Business to Specialist" Company. Company E Thailand is also a subsidiary of Company E Corporation (Japan). Company E Thailand provides products and services for medical business (e.g. endoscopes, endo-surgery, endo-therapy), scientific solutions business (e.g. biological microscope systems, industrial

microscope systems, remote visual inspection products and non-destructive testing (NDT) systems), and imaging business (e.g. interchangeable lens cameras, compact digital cameras, digital camera accessories, software and applications, etc.) Company E's organization divisions and the managers interviewed in this research are demonstrated below in Fig. 13.

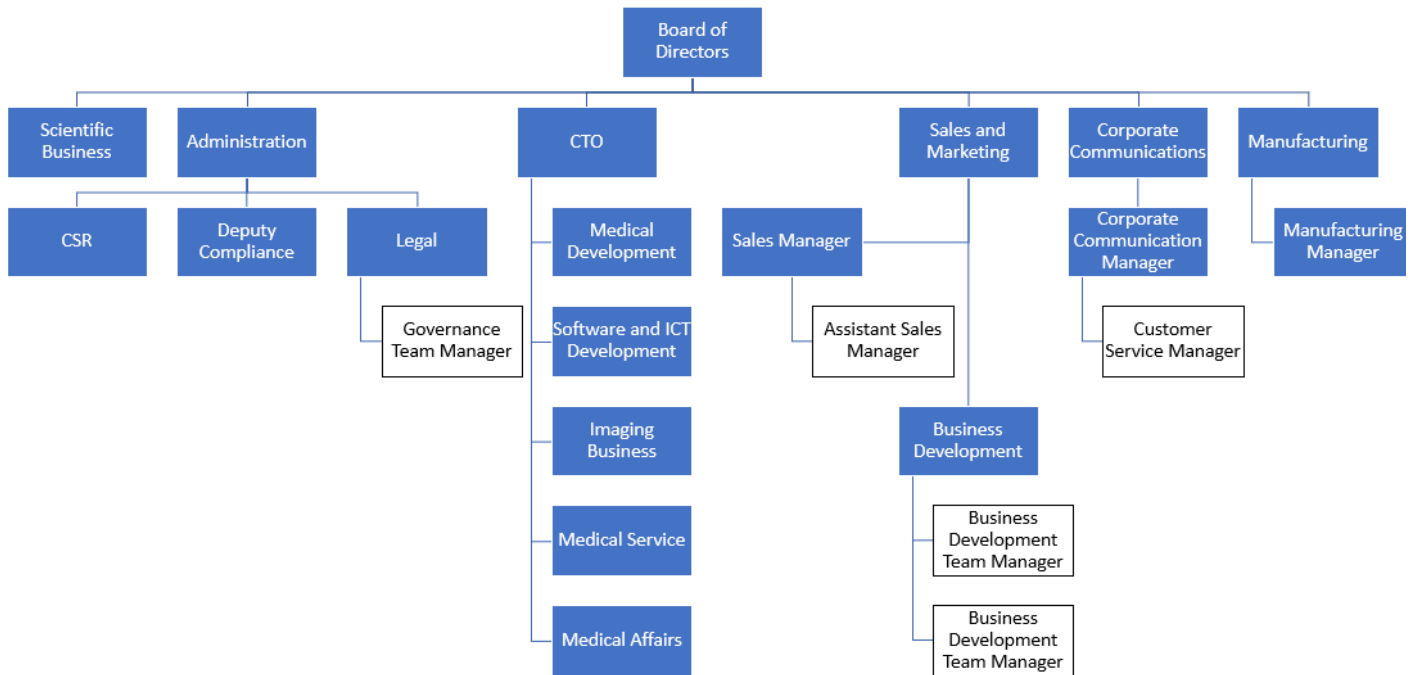


Figure 13. Company E 's Divisions and the Managers Interviewed in this Research

Note: The managers are portrayed in the white boxes.

The managers in each company interviewed in this study and their positions are presented in the following Table 4.

Table 5

The Managers (with their positions) Interviewed in this Study

| Company | Manager | Position |
|----------------------|-----------|-----------------------------------|
| Company A (Thailand) | Mrs. C.T. | Finance Analyst Manager |
| | Ms. K.S. | Key Account Manager |
| | Mr. P.H. | Sales IS Manager |
| | Mr. K.S. | Sales Supervisor |
| | Mr. P.J. | Commercial Development Manager |
| Company B | Mr. J.M. | Team Leader “.Net” Project |
| | Mr. W.W | Project Sub-Team Leader |
| | Ms. W.J. | Team Leader |
| | Ms. W.Ji | Team Leader SharePoint Project |
| | Ms. S.T | Sales Team Leader |
| Company C | Mr. P.P. | Regional Business Controller |
| | Mr. P.T. | Sales Manager Southeast Asia |
| | Mrs. P.C. | Customer Service Manager |
| | Ms. T.S | Team Leader Engineer Specialist |
| | Ms. R.U. | Sales Manager |
| Company D (Thailand) | Mr. C.L. | Assistant Manager |
| | Mr. S.T. | Manager |
| | Mr. N.K. | Manager |
| | Mr. W.N. | Assistant Manager |
| | Mr. N.N | Assistant Manager |
| Company E (Thailand) | Ms. N.S. | Governance Team Manager |
| | Mr. S.C | Business development Team manager |
| | Mr. P.S | Marketing Communication Manager |
| | Ms. I.D | Business Development Team Manager |
| | Ms. M.U | Assistant Sales Manager |

3. Research Framework

The research framework for this study is demonstrated below in Fig. 14 according to the assumptions that:

1. Managers use MIM for managing purposes.
2. There are different functions of MIM messages used for work by managers.
3. MIM is an effective communication medium for work and leadership.
4. MIM positively affects and motivates team members.

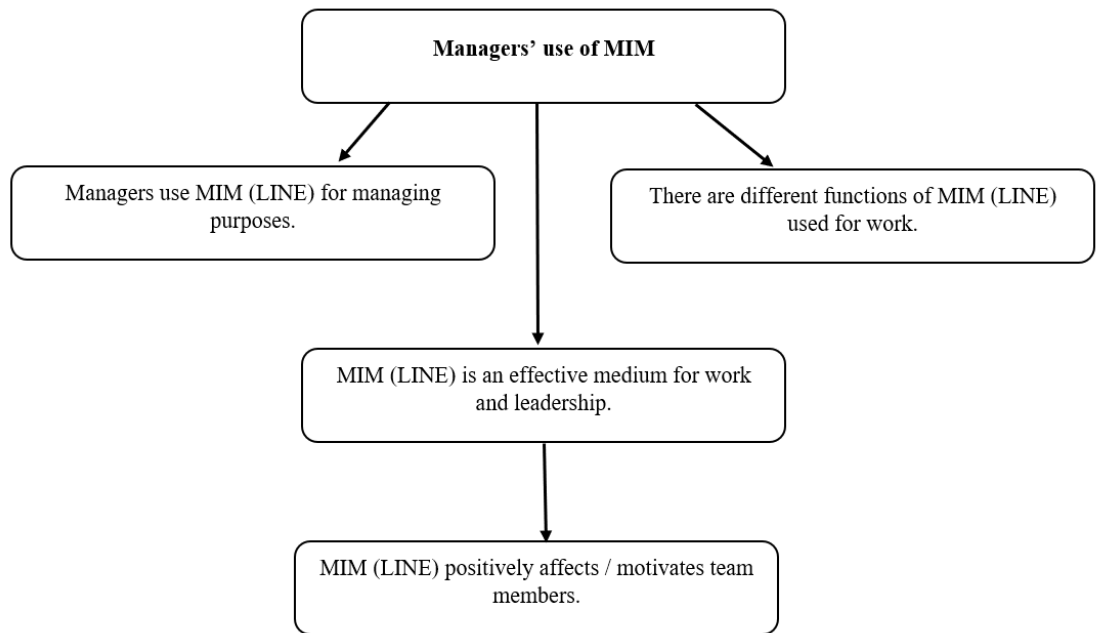


Figure.14. The research framework.

Chapter IV

Qualitative Analysis of the Managers' Use of MIM

1. The Positioning of MIM in the Media Richness Theory

From the interview with the managers in Thailand in this study, the interview data supported the main hypothesis of this research that *managers in Thailand use MIM application for work*. The number one most used MIM application by all the managers from the five companies interviewed in this study (fifteen in total: eight females and seven males, between 30-40 years of age) is LINE application.

According to the Media Richness Theory (MRT), the data from the interview suggested that the richness of MIM, since it is a new media never been mentioned before, should be categorized between the richness of 2-way communication like telephone and written personal documents. The researcher argues that the richness of MIM is richer than the telephone since it can also be used as a voice call (Fig.15). Nevertheless, it still serves as written personal documents (in the same category as letters, e-mails, and memos) with the features of two-way chat, group chat, and other media sharing (such as pictures, audio, and VDO). MIM, although most used as an informally written form, is 'richer' than letters and e-mail because of its unique combination of functions since it can be used as informally written text, voice call, stickers showing emotions and sounds, or sent as a voice message.

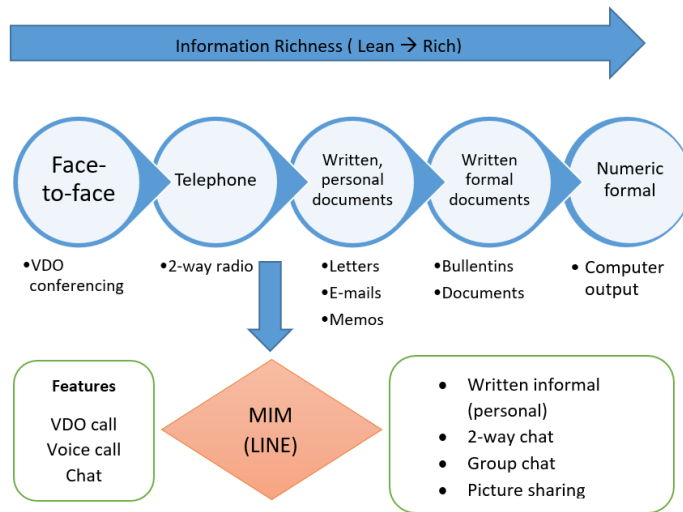


Figure 15. Author's proposal of media richness for MIM.

The other communication media used by the managers in all five companies are similar. The interview data demonstrated that besides face-to-face, the managers mainly used these media for work: 1. Telephone 2. Skype for Business 3. E-mail 4. MIM (LINE) as shown in Table 6.

Table 6
A Typical Use of Each Media

| Media | Use |
|--------------------|---|
| Telephone | <ul style="list-style-type: none"> • Urgent matters • Complicated tasks |
| Skype for Business | <ul style="list-style-type: none"> • For meeting • Seeing team members' status update |
| LINE | <ul style="list-style-type: none"> • Informal communication • Following-up work |
| E-mail | <ul style="list-style-type: none"> • Formal communication • Evidence required • Sending file attachment • Confirmations / Making appointments |

The findings of this research support the hypotheses of as follows:

2.1 MIM (LINE) is an Effective Medium for Work

The answers from the managers are slightly different in each of the company. In Company A, the managers suggested that LINE can create clear communication which will lead to good work performance.

For Company B, the managers suggested the ability of LINE for remote communication for team members who work separately. It enables them to communicate efficiently and will result in good work performance.

- *“We always have to stay connected even though the members out of the office.” – Mr. J.M.*
- *“Our work is not desk-based. We work on different projects in different provinces, so effective communication is necessary.” – Ms. W.Ji.*

For Company A and Company C managers, the importance of team communication and information sharing which LINE can help create was suggested. The group call function was given as an example of work- supporting functions they always used.

- *“You cannot work by yourself, so communication with other people is very important. LINE is a great communication tool to stay connected with your team member.” – Mr. PJ (Company A)*
- *“LINE is an important tool for work because we need a clear, smooth communication for successful work.”- Ms. K.S. (Company A)*
- *“It is very important for contacting the team which requires a swift information sharing.”- Mr. P.T. (Company C)*

- *“It is very important, especially when sending pictures or information from the customers to the team.” – Mrs. P.C. (Company C)*
- *“LINE is very important for group calling function which requires real-time information for a team meeting.” – Ms. T.S. (Company C)*

For Company D and Company E managers, the commonality of LINE since it has become used widely makes it more convenient to be introduced at work.

- *“Because of the popularity of LINE that everyone has, LINE become a part of our lives both for private and work. It is difficult to ask everyone you meet to download a program they do not have on their smartphone like Slack so that you can contact them. The already availability of LINE makes it more common to use it with everyone.”- Ms. I.D (Company E)*
- *“If you are new in a company, instead of asking for your telephone number, other people would ask for your LINE contact since everyone already has one.”- Ms. N.S. (Company E)*
- *“Since everyone uses LINE, the HR department of the company uses HR LINE group to communicate with all the employees. They usually use LINE to promote new policy, inform about the employee’s benefits, or announce the meeting.”- M.R. C.L (Company D)*
- *“I think it has become an organizational culture to use LINE at work. Since everyone has it on their phone, it is easy to contact with your team and the*

clients if they ask to be added as a contact.”- Mr. N.N. (Company D)

The managers believe that one of the reasons for the popularities of LINE in Thailand is the sticker functions. LINE stickers enable users to send stickers with meanings without having to type a message, therefore convenient to use when they are busy to reply. For example, instead of typing the word “Okay, I have got it/ I understand,” they can choose a sticker with the graphic or wording that reads ‘Okay,’ to the receiver. Also, according to the managers, stickers can also show the sender’s emotion to indicate what the sender is feeling at the moment.

According to the interview findings, LINE is regarded as an effective medium used for work. The managers suggested that a clear communication among the team members is crucial and LINE is effective because of its swiftness that enables a clear communication, especially in a remote communication situation such as for the Sales team. There were many situations when the team members are away from the office so using LINE to communicate is cost-efficient. Therefore, LINE is often used by the managers and team members, and most of the managers stated that they use it for work regularly daily. The examples of the managers’ use are shown in the following Fig. 16 and 17.

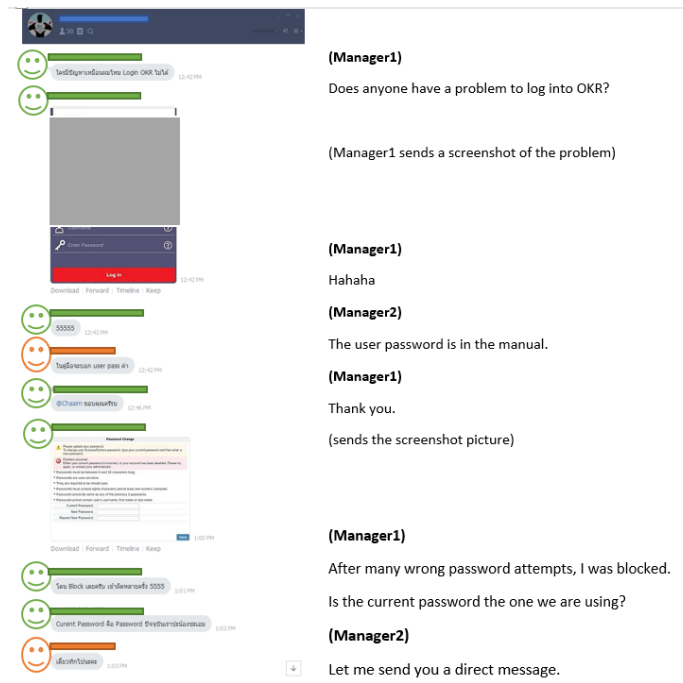


Figure 16. The examples of the managers' use of LINE for work in the group of Project Managers.

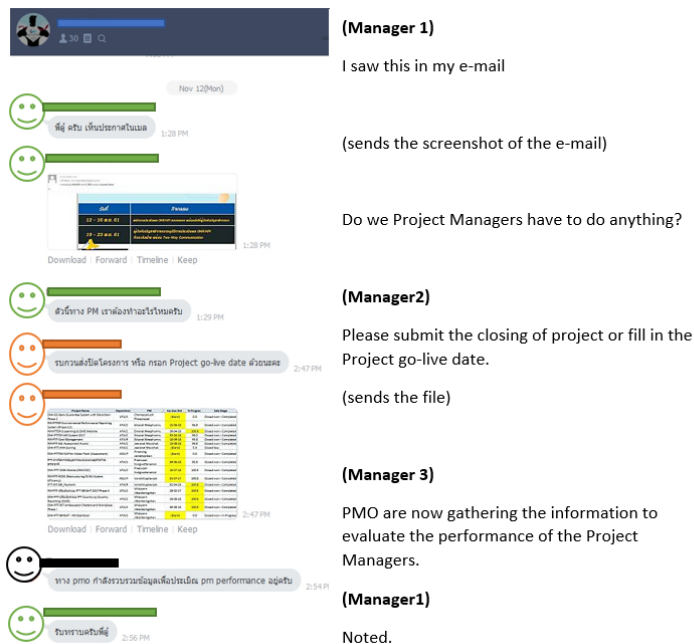


Figure 17. The examples of the managers' use of LINE for work in the group of Project Managers (continue).

2.2. Managers Use MIM for Various Managing Purposes.

It was found that managers use MIM for various purposes. For examples, LINE is most convenient when used for group chats as stated by one of Company A managers, Ms. K.S, “It can create group chats, so we can already control whom we are talking to either personal or work.” It is also used for remote communication, project monitoring, group chat, written evidence, and giving team support are also among the interview findings. Another interesting purpose of LINE use which is common in the answers of the managers is to use it when feeling considerate (as do not want to disturb the members by calling). There is no literal translation of the word from the Thai language which is ‘เกรงใจ’ (Kreng-Jai). However, the managers meant the feeling when one does not want to bother or disturb the other. Some of the explanations by the managers are:

- *“Sometimes we need to talk to someone but do not want to call them because the matter is not so serious. Leaving a message on LINE is appropriate and free, so it is often used when there is no need for the other person to reply immediately.”- Mr. P.H. (Company A)*
- *“LINE is often used when you want to talk to or ask someone about something, but it is not an urgent matter, so leaving a message for that person to answer back at his/her convenience seems appropriate.”- Mr. J.M (Company B)*
- *“I use it when there is no need for the other person to reply immediately because I do not want to bother them.” – Mr. P.C. (Company C)*

- “As a manager, I think LINE is appropriate to use when there is an issue we forgot to talk at work, and I just realize it after the work hours. I would leave a message asking my team in LINE, and they can answer when they are free. Calling is not good in this situation because they are already out of work.”- Mr. S.T (Company D)
- “When I do not want to talk or bother them, I prefer to leave a message, so my team can answer anytime when they are free.”- Ms. M.U (Company E)

Not only is LINE used by the managers to communicate with the team members, but it is also used by the managers’ supervisors and customers as well. Fig. 18 demonstrates an example of LINE communication between a manager and her supervisor.

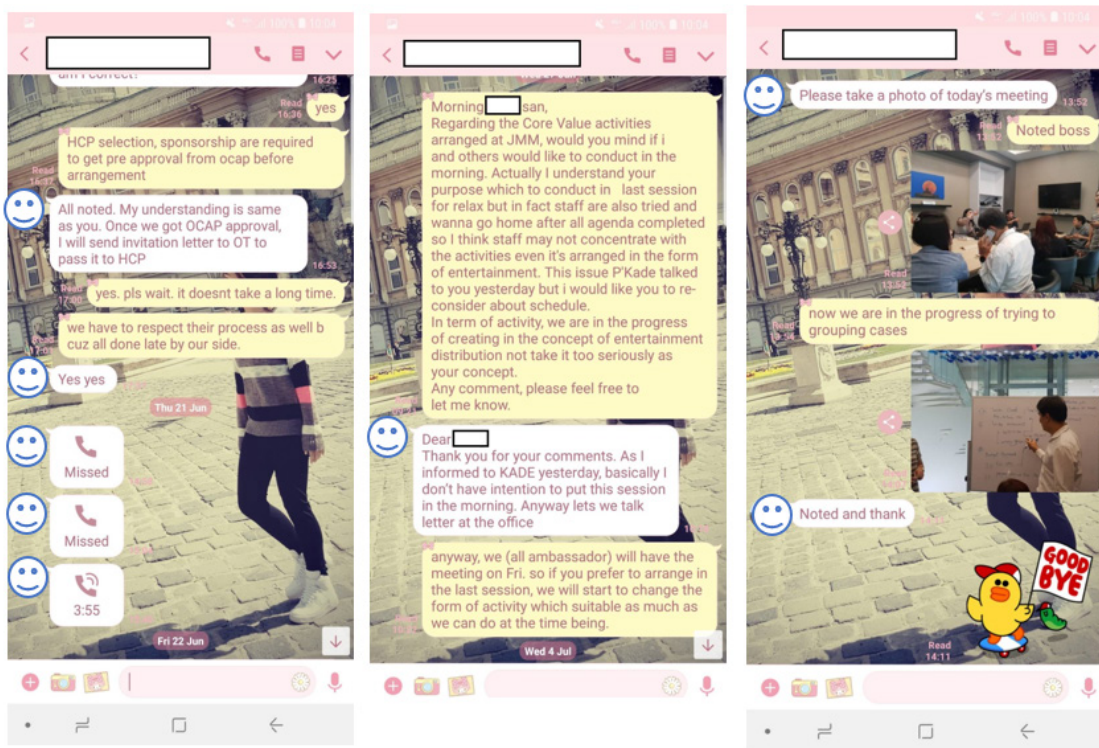


Figure 18. An example of LINE communication between a manager and her supervisor.

As for the LINE communication with customers or clients. It was found that the managers use LINE to communicate with their customers/clients if the customers/clients feel comfortable to be contacted in LINE (depending on the situation).

- *“I have different groups for each customer account, e.g., Big C, Tesco, Tops. There are more than 10 and other smaller groups for my team members.”- Mr. K.S (Company A)*
- *“There are so many groups I belong to in LINE because I have to contact with many team members and also customers.”- Mr. P.J. (Company A)*
- *“I use it to communicate with customers (depends on the customers) informally.” – Ms. W. Ji (Company B)*
- *“LINE is used most often because it can create a group chat, making communication between the team and with customers easier. We often invite customers to join LINE group for our and their convenience.” – Mr. P.T (Company C)*
- *“Also, we have customers’ LINE group to confirm the monthly meeting. The customers here I mean the car dealers. After sending the customers an e-mail about the details of the meeting, we resend the meeting details and agenda in LINE for their convenience.” Mr. C.L. (Company D)*
- *“I use LINE with my team members, colleagues and clients every day. It is very convenient to send files and pictures instantly to the people I must deal with.”- Ms. I.D. (Company E)*

The findings suggest that there are both vertical and horizontal communication when a manager uses MIM (LINE) for work as represented in Figure 19. Besides the intra-communication or internal communication within the company, the study shows the external communication between the managers and the company's customers' as well. For the internal communication, on the vertical level, the managers use LINE to communicate with their boss or superior managers and with the team members. While on the horizontal level, the managers also use LINE with the other managers of other teams and with other colleagues as can be demonstrated in Fig. 19.

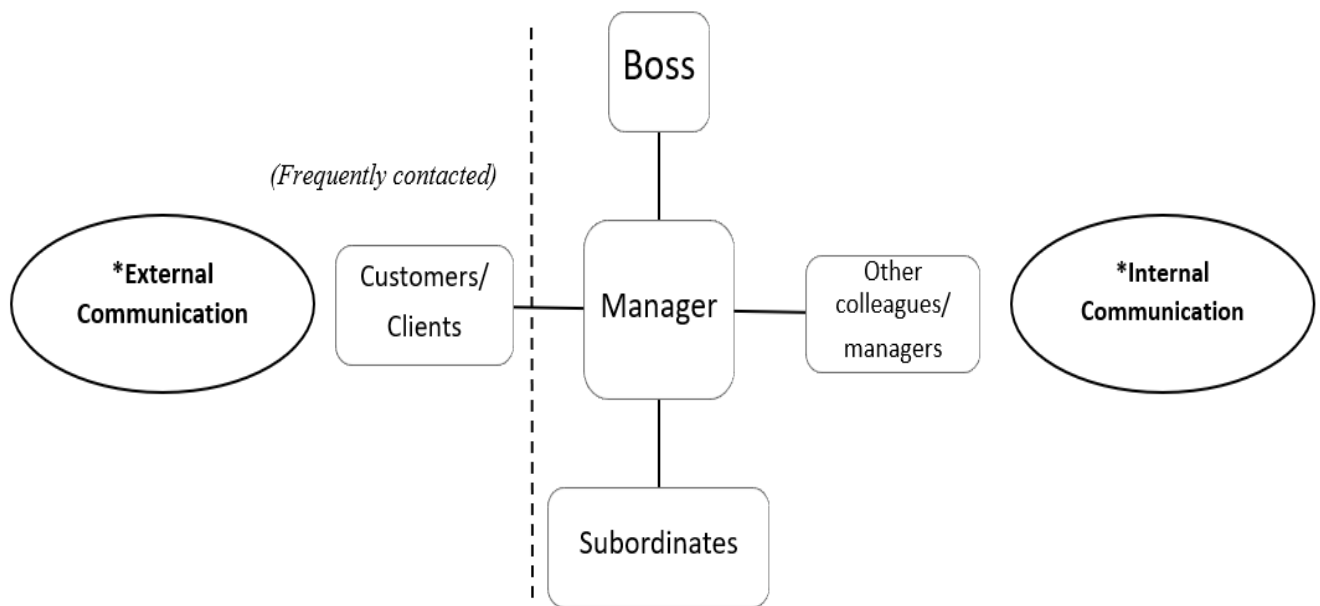


Figure.19. The vertical and horizontal communication of a manager using LINE for work.

However, it is found that there is also a hierarchy in the vertical LINE communication in the company. Many managers mentioned that even though sometimes

the key management people of the company were in a group chat, they are less likely to communicate directly to the operational-level employees. The managers, therefore, needed to play an active role to initiate the conversation. The following are from the interview with the managers in this study.

- *“As for the disadvantages, if the LINE group has someone in a high position, the members might not feel comfortable to answer the message. I think it is a kind of Thai culture to remain silent in order to avoid making a mistake in front of someone whose position is higher than you.” – Mr. J. M. (Company B)*
- *“The management rarely use it (LINE) though, they ask us managers to communicate with the team members. However, from my observation, they have LINE group of only the key management people. The other staffs in the lower positions also have smaller LINE groups according to their job roles and functions, normally with no managers in as the group members.”- Mr. C.L. (Company D)*

From the managers’ perspective, the smaller the LINE group chat means the higher rate of conversation and activity engagement since the junior employees would avoid engaging in a conversation in a large group of people, similar to showing their voices or opinion in the company’s meeting where everyone is required to attend. The example of LINE groups in an organization and the level of engagement in the groups can be illustrated in Fig.20.

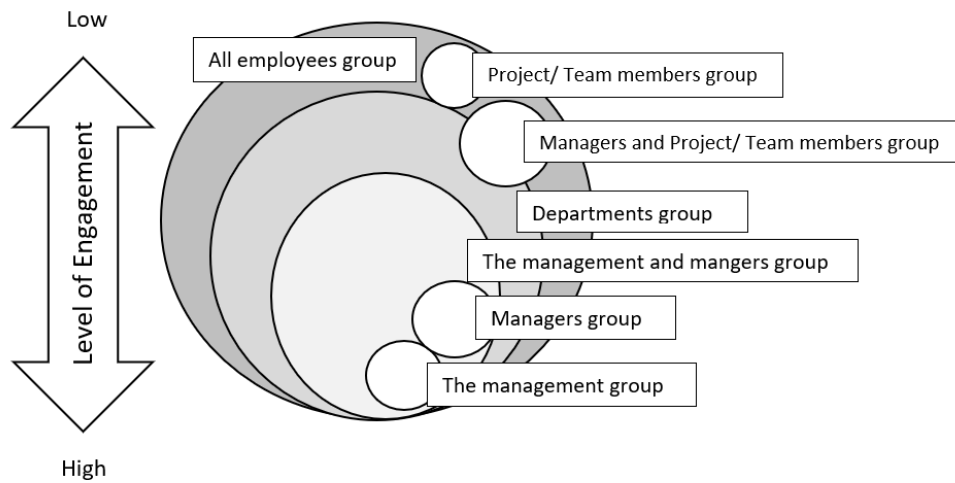


Figure 20. How LINE groups are used for work in an organization and the level of member engagement.

The interview data also shows that LINE has both advantages and disadvantages. According to the managers, the advantages and the disadvantages of using LINE for work are presented in Table 7 as follows.

Table 7

The Advantages and Disadvantages of Using LINE for Work

| Advantages | Disadvantages |
|---|--|
| For work <ul style="list-style-type: none"> • Monitoring • Remote communication • Reducing work redundancy • Expediting work process | Informality |
| For managers <ul style="list-style-type: none"> • Convenient • Showing good examples • Showing acknowledgment | Lack of confidentiality |
| For Team relationship <ul style="list-style-type: none"> • Giving team support • Defusing work tension | Mistake-prone <ul style="list-style-type: none"> • Confusion • Frustration |

From the interview data, the advantages of using LINE for work can be categorized into three categories: *The advantage for work, managers, and team relationship*. The managers stated during the interview that LINE is used mostly for work monitoring which is practical when some of the team members must work away from the office, especially for the Sales team. Therefore, it is useful for remote communication between the managers and the team. It also reduces work redundancy when they communicate via LINE. Each team member can read the message and confirm the written text so there is no need to send another confirmation via e-mail which can help expedite the work process. However, in many cases, LINE and e-mail are used simultaneously.

- *"I think it is convenient because all of the team members have LINE on their phone. It reduces the problem of full e-mail inbox because some matters can be discussed and confirmed in LINE."* - Mrs. P.C (Company C)
- *"It is convenient because everyone has it. It helps solve the problem of excessive e-mails in the inbox because the team members can confirm with each other in LINE. Therefore, there is no need for sending e-mails to the team."* – Ms. W.J. (Company B).
- *"LINE is the first step of team communication to talk with the team before repeating the message via e-mail or telephone according to the situation."*
- Mr. C.L (Company D)
- *"It reduces working time since it can be sent instantly with evidence."*- Mr. S.T. (Company D).

As for the advantages for the managers themselves, they stated that it is convenient for them to use LINE, mostly because they could send the information to the all the team members all at once. The sales team managers often sent some pictures of a good example of work such as the desired store display for products to their team members.

- *"It creates competition in a good way for work. For example, when one team sees a good example of a display from another team, they will want to perform better. It is also easy for me to show a good example to my team without saying many words. I can just send a picture and say, 'Why do not you do like this?' and they just understand my instruction"* - Mr. P.J (Company A)

Other managers had mentioned the convenience of using LINE to communicate with the team members, to send in the information at once and receive immediate feedback, especially in the Sales team.

- *"LINE really makes my work easier since my team always have to deal with sales and marketing. We can send real-time pictures and information to share with the team using LINE."*- Mr. S.T. (Company D)
- *"I use LINE to support the sales department. There are around 40-50 employees in our company who are responsible for supporting dealers all over the country. If we want to ask for their cooperation to focus on which area of information, it would be done via LINE."*- Mr. C.L. (Company D)

The example of using LINE to support the Sales team is demonstrated in the following Fig. 21 and 22 in a manager's regional LINE group chat (with 89 members).

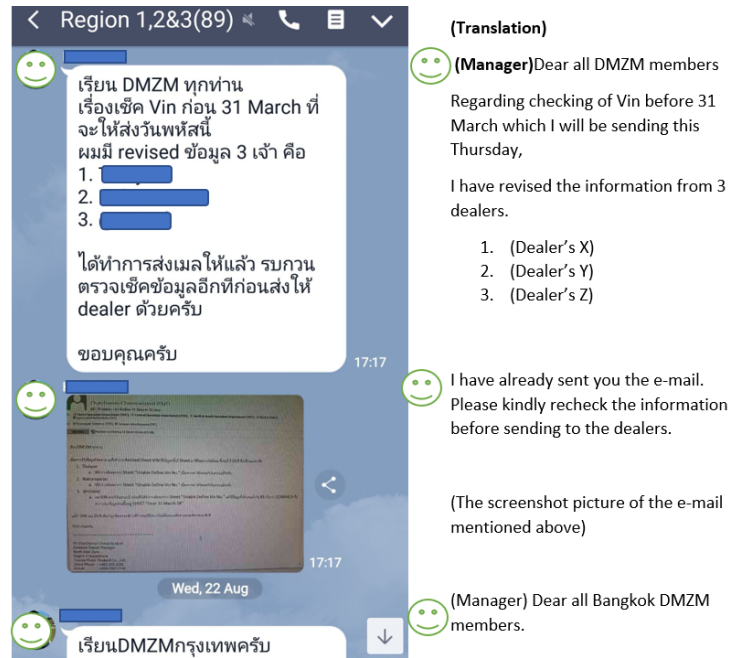


Figure 21. An example of using LINE to support the sales team (Company D).

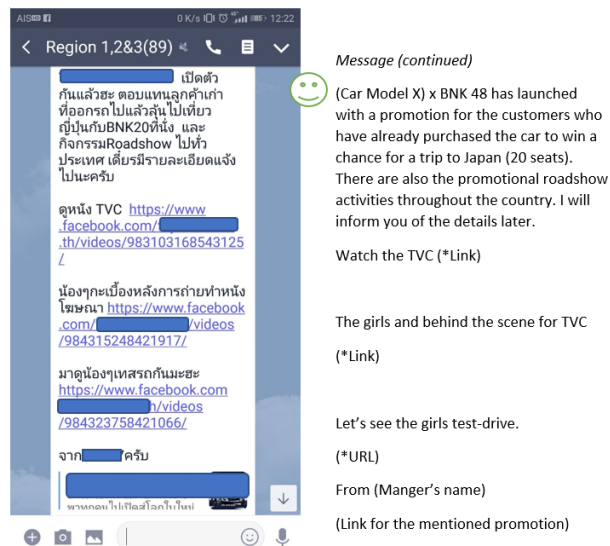


Figure 22. An example of using LINE to support the sales team (Company D)-

Continued.

It is also convenient for them to see how many members have acknowledged the message sent or ‘read’ it already. The examples are demonstrated in Fig. 23 with the red boxes.

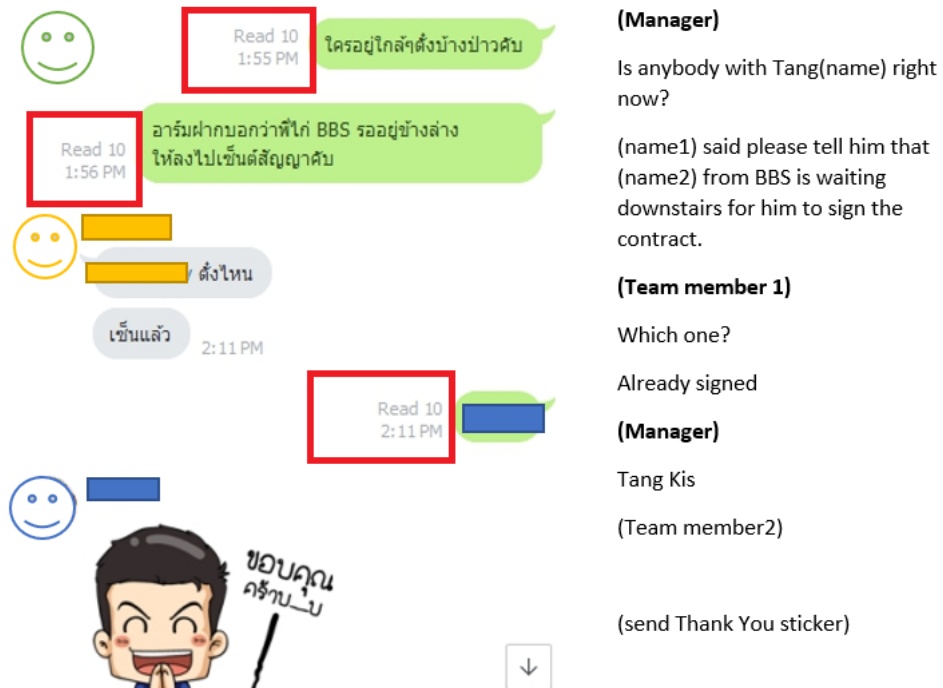


Figure 23. An example of the ‘read’ function in LINE which shows how many group members has seen or read the message by the manager.

According to the managers, this function helps them to manage the works easily as it helps them to understand if the messages have reached the intended audiences as indicated in the following statements.

- *“It facilitates communication with the team and customers. In the group chat, we can see who has already read the message, making it is preferable to e-mail.”* - Ms. R.U. (Company C)
- *“It helps to make communication with the team and customers more convenient. We can see immediately whether the other party has read the message or not.”*-Mr. P.T. (Company C)
- *“It can also show how many people have seen the message that you have sent.”*- Mr. W.W. (Company B)
- *“LINE can expedite the work process with more efficiency. It can tell how many team members saw the message I sent.”*- Ms. W. Ji (Company B)

For team-relationship building, the managers reported that LINE helps to give team support. For example, when one of the team members encounters a problem with work, he/she can ask the other members via LINE and everyone will try to help solve the problem.

- *“You can ask about a problem about work in a group chat where anyone who knows the solutions can answer.”*- Ms. W.J (Company B)

The example of this is demonstrated in Fig. 24. In this LINE group, the manager asked one of team member to answer the questions about a project under her supervision and the other team member who knew about the details helped to answer the questions.



Figure 24. An example of the team-supporting function in LINE group from a manager in Company B.

- *“As a manager, I think LINE is appropriate to use when there is an issue we forgot to talk at work and I just realize it after the work hours. I would leave a message asking my team in LINE and anyone who knows the answer can reply when they are free.”- Mr. S.T. (Company D)*

Since LINE is not used only for work but for casual or non-work as well, the relationship between the team members is strengthened. Also, when there is a tension about work, if a team member sends a funny picture, text, or stickers, the situation can become less stressful.

- *“When the situation gets too serious, sending funny text or stickers makes everyone feels relaxed.”* - Mr. P.J (Company A)

However, the disadvantages of using LINE for work mentioned by the managers are; the informality, lack of confidentiality, and mistake-prone nature which can cause confusion or frustration of using LINE. Some issues regarding confusion include:

- *It is quite difficult to scan through the past conversation and when sending a big file.* -Mrs. C.T (Company A)
- *Sometimes it is difficult to interpret the meaning of the message. For example, you send out a normal text, but the other person translated it as negative. It can be ambiguous. E.g. Why is there no display for this branch? One person might interpret it as an angry message while I just intend to find out the answer.* Ms. K.S (Company A)
- *“Some matters are too complicated to talk in LINE for everyone’s understanding.”*- Ms. S.T. (Company B)
- *“The flow of communication can be disrupted because it is not formal. A team member might be saying some important details about work, and*

then the chat is interrupted by another team member with another issue.”-

Ms. T.S. (Company C)

- *“The old history records are difficult to recover and find. I think it is quite difficult to follow the messages if you have not read it for a while. The conversations usually are scrambled in one long message making it hard to find what you are looking for.”- Mr. N.N. (Company D)*
- *“The real-time nature of LINE makes sometimes make it difficult to monitor what is being said. If the conversation in the group is so active, then there’s a chance to lose concentration what is being discussed.” – Mr. I.D (Company E)*

LINE is mainly used for non-formal matters, and since it is informal, it cannot be used as a formal reference. Some examples regarding its informality are:

- *“It can be used only for the non-formal matter. If it is a sensitive matter, we will have to use e-mail.”- Ms. K.S (Company A)*
- *“Since it is an informal way of communication, it cannot be used as a reference.” – Ms. W. Ji (Company B)*
- *“It is less formal than e-mail. Despite the benefits of LINE, sometimes I think it is not completely developed for work. You still cannot use it alone without other tools like e-mail. For example, I sent a file to my one of my team members who has not read nor answered back, so I had to call him on a telephone to read the message.”- Mr. N.K. (Company D)*

Furthermore, there could also be an information leak to the outsiders so the sender must be aware of the sensitivity of the information sent.

- *"I belong to 3 different group chats, so I need to be sure when sending information."*- Mrs. C.T (Company A)
- *"There are many group chats for many projects, so there is a chance to send information to a wrong group."*- Ms. W.J. (Company B)
- *"Having many LINE groups increasing the chance of sending wrong information to the wrong group."*- Mrs. P.C. (Company C)
- "I think it is not safe for the company's confidential information. The conversation can be leaked easily."- Ms. M.U. (Company E)

2.3 There are Different Purposes of MIM (LINE) Used for Work.

As for LINE use with their team members, when asked what the most used sentences are, the finding supported that the managers used LINE for different purposes as for the followings: 1. Following-up work and giving instructions, 2. Asking for information, 3. Informing, reminding, or group announcement, 4. Giving confirmation/ acknowledgment, and 5. Non-work related chat. Table 8 demonstrates some common phrases and sentences used as LINE messages by the managers.

Table 8

The Common LINE Messages Used by the Managers

| Purposes | Commonly used phrases/sentences |
|---|--|
| Following-up work / Giving Instructions | Please send me the feedback on... Is there any problem/ issue regarding...? Please confirm the closing sales report for this week/month. |
| Asking for information | How much is the discount for this product? When can we have a meeting? Have you finished the meeting with the customer |
| Informing/Reminding/ Group announcement | I am out of the office now. This week's meeting will be on ... Do not forget to send me.... file. |
| Giving Confirmation/Acknowledgment | That is ok. / It is fine. Thank you/ Thank you for.... Good job/ Well done |
| Non-work related chat | What should we eat? What should we go for lunch? Good morning Monday, Tuesday.Wednesday. etc. |

2.4 MIM (LINE) Positively Affects Team Members.

The positive effects of LINE communication for work found in this study are 1. Creating good competition, 2. Promoting team understanding, 3. Promoting good team relationship and 4. Increasing work performance

1. Creating good competition: There is often information sharing in a group chat among the sales team members. For example:

- *“We often use it to share information among team members, e.g. showing a new display from different supermarkets. It helps make others in the other*

*provinces or regions who see it feel the need to make it better.” – Ms. K.S
(Company A)*

- *“It creates competition in a good way for work. For example, when one team sees a good example of a display from another team, they will want to perform better.” –Mr. P.J (Company A)*

2. Promoting team understanding: Communication with the team via LINE help promoting the understanding of the other team members’ tasks or work. For example, when some team members who are always working outside of the office use LINE to ask about the work with the managers, the other team members in the office can have a clearer understanding of the team’s work or progress.

- *“It helps team members to understand other people’s job. The members at the office can see how the members at the field are working from the pictures sent.” – Mr. P.H. (Company A)*

3. Promoting good team relationship: The managers agreed that using LINE for work helps promote good team relationship, mainly because it is used every day by the team for both work and non-work subjects.

- *“Talking about a non-work matter such as sending them a happy birthday message helps create a good relationship with the team.” Mr. P.H.
(Company A)*

- *“When there is a new member of a team, belonging to a group chat and chatting with the group every day can make him/her feel like a part of the team.” – Mr. J.M. (Company B)*
- *“It helps maintain a good relationship with the team because you can share motivation stories or motivate them directly.”- Mrs. P.C (Company C)*
- *“It creates a good relationship within the team, and with customers when we share useful information, current news or even a funny story, and not only work-related matter is talked in the LINE chat.”- Mr. P.T. (Company C)*
- *“We do not use LINE only for work. Since my team members are very close, we always have a personal group chat to talk about other things besides from work. Sometimes I invite them to have dinner together, so we can set the place and time and talk about relaxing kinds of stuff after works. It is good for the relationship of our team.” – Mr. S.T. (Company D)*
- *“It brings all the member together when we talk about work and non-work matters.”- Mr. I.D. (Company E)*

4. Increasing work performance: According to the managers, LINE communication for work has a positive effect on work performance.

- *“It does not create pressure but helps to make things better.”- Mrs. C.T (Company A)*

- *“It really helps the team to perform better. When one team member has a problem and consults with the team in LINE, everyone will feel as if it is their own problem and help solve it.”*– Ms. W. Ji. (Company B)
- *“It helps the team to work better in solving the problem because we can send a picture or VDO clip (e.g. of the problem machine) so everyone can see the problem and help resolve it.”*- Ms. T.S. (Company C)

Some managers also stated that LINE is useful to encourage or motivate the team members as they can share motivation stories and motivate them directly in the group/personal chat.

- *“It is impossible to have a meeting with everyone, so LINE really helps. Communication via LINE in a group chat can help motivate the team because everyone can participate when someone is motivated.”* – Ms. W. Ji (Company B)
- *“You can easily also motivate them by sending stickers or picture.”* – Mr. P.P. (Company C)

Despite a few disadvantages, this study finds that LINE is utilized to encourage or motivate the team members as they can share motivation stories and motivate them directly in the group chat or personal chat which can be beneficial to the leader-member exchange.

The Case Studies: A Manager's Perspective of MIM(LINE) for Work

1. Company D Thailand (Mr. C.L. - Assistant Manager)

Effective communication is important because it will enable work to be completed easier and faster. One-to-one communication and group communication are equally important for work in my opinion.

I have been working here for ten years now. My team and I deal with customer's satisfaction. We conduct customers survey after they purchase a car to see how much satisfaction they have in our products and services, or how we can enhance their satisfaction. For example, how much are they satisfied with the showroom, how are they treated by the salesperson. Then, we analyze the results and give feedback to each car dealer. The customers can rate the satisfaction on a scale from 1-10. If the feedback from the customers is good, we would reward the dealers as well as find a way to motivate the ones who are not doing so well. They might have to explain the negative feedback from the customers. There are similar teams who work with the customers to find out their satisfaction from using car service centers, but my team is solely responsible for the customers who purchase cars from our dealers.

In the beginning, when I start working here, the main communication tools used in the company were telephone, meeting, and power point in the meeting. There were more meetings in the past to talk about the work scope. We had printable whiteboards where we can draw figures or write on it and print it out for everyone in the meeting. Nowadays there are more choices for us to use to communicate with each other. So, instead of printing the picture on the whiteboard, we can easily take a photo using a smartphone and forward to

everyone in e-mails or LINE. Nowadays, the main communication tools in our company are emails and LINE. E-mail is used in a formal situation such as sending policy files or sales figures and large attachment files. It is also used for file sharing or sending document links with other departments.

Since everyone uses LINE, the HR department of the company uses HR LINE group to communicate with all the employees. They usually use LINE to promote new policy, inform about the employee's benefits, or announce the meeting. We also have an internal telephone to use within the company, another tool is Skype for Business, but it has just been started, not so many people are using it. There is also a company's application to communicate with the car dealers, but it is not for the employees. For the employees, we have LINE group chats. For example, on the company's sports day they can order the sports shirt size in LINE group. All the details would be announced in the official LINE account of the company. When the HR wants to remind the employees about vaccination service, they also informed everyone in LINE.

I use LINE to support the sales department. There are around 40-50 employees in our company who are responsible for supporting dealers all over the country. If we want to ask for their cooperation to focus on which area of information, it would be done via LINE. If we have a change of policy or announce a meeting, we would also send out the information via LINE.

There are several smaller units within a big LINE group, for examples, we have separate LINE groups for every region like the North and the South. If the Northern group members are assigned to check the stock, they would be reminded in LINE to send the report after finishing the assignment. LINE is convenient to communicate with them. If the

job is done perfectly then, I would compliment him with the word like ‘Good job!’ or send a sticker to motivate them.

As a manager, I belong to around 8 LINE groups. In some groups, my role is passive as an audience, but in some groups, I can be more active. I turn on the notification for my team group chat and turn off in some groups, so it will not be so distracting when working. I think it is convenient for a manager to use LINE to communicate with the team. The management rarely use it though; they ask us managers to communicate with the team members. However, from my observation, they have LINE group of only the key management people. The other staffs in the lower positions also have smaller groups according to their job roles and functions, normally with no managers in as the group members.

Also, we have customers’ LINE group to confirm the monthly meeting. The customers here I mean the car dealers. After sending the customers an e-mail about the details of the meeting, we resend the meeting details and agenda in LINE for their convenience. After contact the customers for a few times, if they are invited to join a group chat. I think it is easy to know if they receive our message or not because you can see when they have ‘read’ the message. I think it is quick and convenient to broadcast a message to a group. You can also see the feedback, and if there is no feedback, you can use the mention function of LINE to direct to a specific person. Besides sending a message, it is also convenient to send pictures, figures, voice message or VDO. We sometimes use it for VDO conferencing. It is the first step in team communication to talk with the team before repeating the message via e-mail or telephone according to the situation.

I think LINE is very useful for managing work. LINE is suitable for the lifestyle of people. If their work includes going out of the office to meet with the customers, LINE makes it easier to communicate with the team. You can use it anytime and from anywhere. In some office, there is a restriction to access the company e-mail from outside of the company, but you can always use LINE anywhere even though you are on leave. It helps to understand the real-time situation. I can ask where my team members are and see if they have received my message. If I send them an e-mail, I am not sure if they have time to read it.

I often use LINE to forward messages, create group notes, share a LINE contact, and assign works. You can use it both for work and personal. In my team, we talk about everything such as sharing useful or funny VDO clips or invite the members to lunch or dinner. I think it good for the team relationship. However, it depends on the atmosphere in the group chat. For the employees at the operational level, if they report their work in LINE and receive good feedback with the compliment from the management, they would feel motivated. Other members can see this as an example.

As for the disadvantages, it is difficult to interpret the emotion of the senders from the LINE message. Unlike talking on the telephone when you can understand the other person's emotion from his/her tone of voice. So, in LINE the intention might be misinterpreted. If you ask about the work update to a specific person in a group chat, that person might feel that they are losing face or incompetent about their work. For example, I might ask all my team members to submit the work assignment, and there is one person who has not to submit it yet. He could be caught up with other works, so he did not have

time to submit it. If I ask in the group, it might make him feel bad or look bad in front of other people.

Another point is that sometimes it is difficult for the receiver of the message to interpret the urgency of the assignment. As for confidentiality, I am not so concerned about it because we know the limit what we can share in LINE. There is the 'unsend' message function added in LINE features recently, so if you send an unintended message, you can always delete it. Also, since everyone uses LINE for work, so if one day there is a problem with the LINE network it might disrupt the work process. However, we can always come back to other communication tools like telephone, e-mails, or Facebook Messenger although they are not as convenient as LINE.

- Company D Manager Case Discussion

In this case study, the benefits of using MIM (LINE) as a managing tool for work is clearly demonstrated by the manager, Mr. C.L who has been working in this company for ten years now. He is currently an Assistant Manager dealing with customer's satisfaction after purchasing the company's product. His direct team members comprise of ten members; however, his responsibilities as a manager extend into many teams which work under his supervision. This case can be analyzed according to the following points:

1. Before and After MIM, 2. The Advantages of LINE that support the Manager's Work, and 3. LINE's Drawback.

1. Before and After MIM (LINE)

According to Mr. C.L, before the introduction of LINE for work, telephone, meeting, and e-mails are the main communication tools for works. It was mentioned that the printable whiteboard which was used to draw figures and the information of the meeting was the necessary tools for the mutual understanding of the members. Nowadays, after the popularity of LINE use, it has become easier for the employees to discuss work. Instead of printing from the whiteboard, one can easily take a picture from his/her smartphones and send via LINE to other members. He mentioned that nowadays, besides e-mail, LINE has become another main communication channel of the company. The strong supporting evidence, in this case, is that LINE has been used by the HR department of the company as one of the main communication channels to broadcast the company's policy, important information and details regarding employee's benefits or HR related matters. The reason why HR uses LINE, according to Mr. C.L is that everyone is using it. Therefore, in his opinion, LINE communication acts as the first step of team communication before the message is repeated via e-mail or telephone according to the situation.

2. LINE Advantages of LINE that Support the manager's work

One of the advantages of LINE that supports the manager's work as mentioned in this case is *the convenience* to broadcast a message in group chats. With the nature of his work to deal with many car dealers across the country, LINE is convenient for Mr. C. L to contact with them. He uses LINE to ask for cooperation from the dealers, announce a meeting or a change of policy as well as to send new information.

The real-time nature of LINE is also a favorite advantage of LINE by the manager for *work monitoring* since it can help the user to understand the situation in real time. According to him, LINE message is preferred over e-mail when he needs to ask the team members their whereabouts. The ‘read’ function of LINE is another benefit mentioned in this case similar to the interview with many managers who mentioned the same. For Mr. C.L, to know whether the receiver has already received the message is convenient.

3. LINE’s drawback

Nevertheless, from the manager’s perspective, the text-based nature of the message is seen as a disadvantage of LINE since sometimes the same message can be interpreted differently according to a different person. Another concern about LINE from the manager is the employees’ dependency upon LINE. When everyone depends on LINE for work, if someday there is a problem LINE system of the network, the work process might be disrupted.

Company E Thailand (Ms. N.S. -Governance Team Manager)

For me, communication is the essence of work. Effective communication will result in good work from the team members. Many communication tools have become parts of today’s working culture. For example, instead of turning on a laptop and connect to Wi-Fi to send e-mails, we can send the information in LINE any place, any time.

I have been with this company for three years. My work includes the company’s policy to promote and support sales and marketing. We must deal with healthcare professionals such as medical doctors and nurses in hospitals around Thailand, both

private and public hospital. We cooperate with the hospital when they have special events which require supporting the budget. We have to approve of these activities and event before granting them the budget money.

In many cases, LINE is used because it is convenient to contact the salesperson who is at the hospital and get the response immediately. My team members who are not at the office, when they have an urgent request, they would send the request in LINE so that I can approve it. If we have to find a computer that connects to the internet and send the request, it might be too late. So, LINE can help with this. It enables effective team communication because of its quick use.

Before LINE is available, we use e-mails, fax, and telephone. However, nowadays it is a lot easier to communicate. Now we have the company's laptop and iPad for everyone to use. There is a special compliance application of the company installed on iPads created just for our employees. Any requested activities request must be approved so the salesperson can use this application to fill in the request form. After clicking the submit button in the application, the managers can see the request and make a final decision. It is like a shortcut process to approve or not approve of the activities. LINE is used in my company for remote communication where calling is not suitable. There might be a situation when calling is not appropriate in front of the clients, so sending the message in LINE is applicable. It is convenient to send the most updates information like pictures and VDOs of the current situation to the managers and other team members. Other tools are WhatsApp which is used with Company E employees in other countries since it is more popular than LINE. For e-mail, we use it for formal communication in the company — any regular communication process like forwarding documents and contract, reviewing of

contracts, announcing a new policy. We do not use Skype. However, we do have a VDO conference with other countries but not via Skype.

In my opinion, LINE is used for work support with my team, colleagues, and clients in Thailand. WhatsApp is for international communication with Company E employees in other countries. These MIM are not a mandatory tool for work, yet it helps our work to become easier. For Company E corresponding person I work with, it would be more appropriate to send them e-mails. However, after working together many times, we become closer, so it is better to have casual contact. Sometimes the question I want to ask is so trivial that sending an e-mail seems ridiculous, so I ask them in WhatsApp.

When a salesperson about to close the deal or before signing a contract, if there is a problem or some point that needs to be changed, he/she would send a real-time picture of the contract to the manager to approve of the change before letting the client sign the contract. As a manager, I would make a review immediately and send feedback. If we do not do this, the reviewing process will take much longer. The sales person would have to scan all the documents and send to my e-mails or bring all the documents back to the office to fix before going back to the hospital. It was time-consuming before, but now LINE makes it a lot easier for our job. I always assign the work in LINE. I do not usually call to tell them. LINE is often used when I need to ask for an update. Another use is for Informing about leave. If I have to go to work in other provinces, I would use LINE to tell my team and also my boss. Another case is when I am sick; I would inform my team in LINE before submitting an official sick leave report.

In other words, LINE is used with the whole company, with my team, my boss, other departments. The management also uses it with the employees. It is convenient for work.

We also use it with the customers who asked to be added as a friend. This normally happens after encountering after 2-3 times. However, I do not think that it is appropriate to add LINE contact with the client we meet for the first time. It also enhances our relationship since it is not a formal communication. I also use it with my Japanese boss. He often calls in LINE to ask about the work update. The most often used feature is to send pictures and VDO. I have to use it all day. If I already get out of work and there is still a question for me from my team, I would answer according to my convenience. I do not mind even though it is not working time since we have to get back to this issue anyway. If I want to ask my team some questions and it is not urgent, I would also leave them a message in LINE rather than call to ask.

For the advantages of LINE, it is convenient and fast. It is also cheaper since we always connected to the internet, calling in LINE is cheaper than making a phone call on smartphones. LINE is accurate since it is written communication, if there is a problem, we can go back to see the message or the conversation, unlike calling on a telephone. There is a history record. Also, sending pictures is easier than explaining everything. Nowadays I think LINE is normal to use in a workplace and have become a standard in organizational communication. If we use it to support our work, there is no different than using the telephone or even better because it has a record where you can go back to read.

On the disadvantages side, LINE is quite distracting. When you are in a meeting and see the notifications, it is unable to tell whether it is urgent or not. If you always check on your smartphone, the manager might think you are not concentrating enough. I have never had a problem of sending a message to an unintended group. I am quite careful when

typing and sending the message. Others might have made mistakes but thankfully now we can 'unsend' messages in LINE. I do not encounter a problem using LINE for work.

Theoretically, regarding confidentiality issue, if the message is confidential, it should not be sent in LINE. We should use other platforms like e-mail or the company's program. However, practically, the confidential information is often shared and discussed in LINE. We do not have the problem yet because if the sender and receiver do not have an intention to use it in a wrong way, then it is okay.

It has become a normal communication tool we use at work. It helps build a relationship within the team. Beside work, we talk about other things. For examples, in my team's group chat, we would ask every morning if someone want to buy breakfast. Alternatively, on the weekends if the members go out and find some products or souvenirs, they would ask the other members if they want to buy those products. It makes the working atmosphere nicer.

I think the reason why it is popular because it is easy to use. The stickers are also cute and make it easier to acknowledge or reply. You do not have to type back, just send a sticker, and the other person you chat with can understand. Stickers can also show emotions which is better than WhatsApp's emoticon. If you are new to a company, instead of asking for your telephone number, other people would ask for your LINE contact since everyone already has one. Also, to LINE and telephone gives a different feeling. Sometimes you just want to send a message. When you see that the other person has read the message already then you know, they have got your message.

On the other hand, when you make a phone call and the other person does not pick up the phone. It is quite frustrating, and you feel that you are disturbing them. You would

think I do not want to disturb him/her because you do not know if he/she is busy at that moment or not. For me, LINE is easier to reach a person. However, it depends on a situation and the business manner in communication. If you request a meeting with a first-time client, sending a request in LINE might not be appropriate. So, you need to read the situation and use the communication tools accordingly.

However, I think there should be a limit for using LINE for work. I belong to many group chats in the company and one day there are messages about work from another team manager at 2-3 o'clock in the morning. You should respect other members' privacy after working hours. Although they think they just leave a message, not everyone turns off their LINE notification. I think it is inconsiderate since I do not separate my work and personal account. I only use one account and choose to answer if I have time.

I love the 'anytime, anywhere' nature of LINE. Communication is everything, and LINE helps to ease communication with my team.

- Company E Case Discussion

This case study clearly demonstrates how important MIM (LINE) has become for the manager to use for work. According to Ms. N.S, a Governance Team Manager in the Legal departments of Company E. Ms. N.S has been working in this company for three years with the total experience of working for almost ten years in other companies. From the manager's perspective, LINE is widely used throughout the company among the employees, including her supervising manager who comes from the headquarter in Japan. He often gives her LINE calls to ask about the work update. She sees LINE as a convenient,

fast, cheap means of communication and is beneficial for work. However, it might also become a work distraction with the stream of messages that do not show the urgency.

As described by the manager, her job functions include the company's policy to promote and support sales and marketing. Her team is responsible for cooperating with healthcare professionals such as medical doctors and nurses, both private and public hospital across the country. According to her, LINE is an effective tool of communication between her team members where she can approve any request sent in LINE, regardless of place and time. The reasons why LINE is an effective tool for work according to the manager discussed below.

1. The Benefits of Using LINE for Work

The benefits or advantages of using LINE for work mentioned in this case by the manager are that it can expedite the work process and used for remote communication. The example in this case study given by the manager demonstrates the work process of a salesperson before signing a contract to close a business deal. When a problem arises before the contract signing, the salesperson will send a real-time picture of the contract to the manager for the approval before the contract is finalized. In this case, LINE is appropriate because it the manager who could be anywhere at that time, could see the message sent in LINE and approve of the change of the contract. Otherwise, the contract approving process might take longer to review.

For remote communication, the manager explained that she is now always in the office and sometimes making a phone call is not suitable (in a meeting with clients, attending to a case at a hospital). According to the manager, she uses LINE all day

regarding works. She would still be willing to answer the message at her convenience even though it is out of office hours. This is to support her team in answering any question about the work issue. LINE is also accurate in its written form, so one can go back to the messages about work whenever in doubts.

2. The Purpose of LINE Messages by the Manager

In this case study, the manager uses LINE for following-up work and giving instruction, asking information and informing/reminding. She prefers assigning works in LINE to calling. She also stated that LINE is often used when she needs to inform the team and her boss about a leave. The manager also believes that LINE communication with the team members can enhance the team relationship since it is not a formal communication. In many situations, LINE is more preferred than sending an e-mail when the matter is so trivial that sending an e-mail seems inappropriate for the situation.

3. LINE is the New Standard of the Organization

From the manager's perspective, nowadays, LINE has become a standard in the organization communication when employees use it interchangeably with e-mail and telephone, and it can deliver the desired result.

Chapter V

Conclusion and suggestion

Graen & Uhl-Bien (1995) suggested that the domains of leadership are consisted of 'Leader,' 'Follower,' and 'Relationship' as demonstrated in Fig.25. In order to produce effective leadership outcomes, effective leadership making is necessary to produce leadership relationships (Graen & Uhl-Bien, 1995). However, the leadership structure is not formally designed but emerges from the adoption of formally defined roles by organizational members. Organizational members develop a network of relationships based on mutual dependencies, in order to perform the roles and complete task. This relationship development varies within and across organizations while depends upon task structure and the characteristics of each organizational members (Graen & Uhl-Bien, 1995).

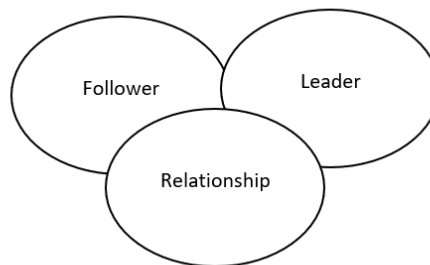


Figure.25. The domains of leadership by Graen & Uhl-Bien(1995).

This research is yet another attempt to study the network of the relationship between the leader and the follower concerning organizational communication. It focuses on the

increasing use of Mobile Instant Messaging (MIM) application in the workplace in Thailand, from the manager's perspective using the qualitative interview method.

It is found that the most popular MIM application with the most active users in Thailand is LINE. Nowadays LINE has become another communication standard used widely in business organizations, together with other traditional communication media like telephone and e-mail. The study shows the use of LINE for work by the managers in five business organizations with different business industries. The findings of this research suggest that the use of LINE by the managers in all five companies are similar since all the managers interviewed in this study use MIM (LINE) for work.

The first finding shows that LINE has become an effective communication medium for work because it is fast and cost-efficient. The features of LINE which can create a group chat makes it convenient for team communication and remote communication when some members are to work away from the office.

Second, LINE is used by the managers for managing purposes. It is revealed that LINE communication for work has both the vertical and horizontal relationships as the managers use it with their boss, subordinates (team members), and with the customers. For the team members, the managers use LINE for group chat, for work monitoring, when they need evidence, when they are feeling considerate (a very interesting notion about the Thai culture) and giving team support. The advantages of using LINE for managing purposes are the advantages for work, for the managers, and the team relationship while the disadvantages are the informality, lack of confidentiality, and mistake-prone nature of LINE.

Third, the managers used LINE to send different kinds of messages. The most common used LINE messages can be categorized as 1. Work follow-up/ giving instructions 2. Asking for information 3. Informing/ Reminding/ Group announcement 4. Giving information and 5. Non-work-related chat.

Finally, it is found that using LINE can positively affect team members. The managers agreed that LINE communication within the team could: 1. Create a good competition, 2. Promote the team understanding, 3. Promote good team relationship, and 4. Increase work performance.

According to the findings, it was found that the managers were more of relationship-oriented than task-oriented and LINE has become a communication tool for the managers to demonstrate their leadership and supervisory skills. Adapted from Komaki, Zlotnick, & Jensen’s Operant Taxonomy of Supervisory Behavior in 1986, Fig.26 shows the managers’ use of LINE in organizations found in this research. Except for the solitary category, the managers use LINE in all the other supervisory behavior categories.

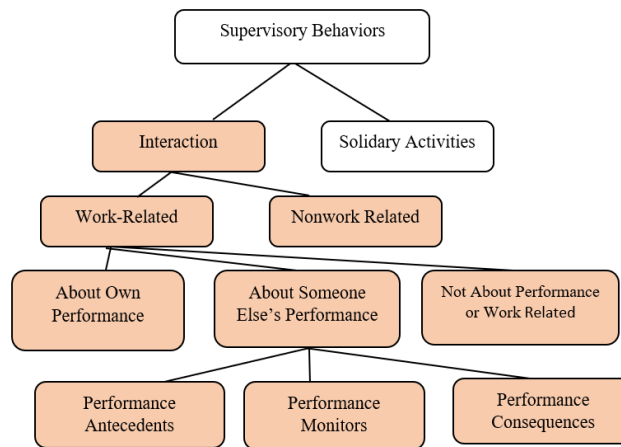


Figure.26. The managers’ use of LINE according to the supervisory behavior categories.

Adapted from Komaki, Zlotnick, and Jensen (1986)’s Operant Taxonomy of Supervisory Behavior

Additionally, it was found that MIM is used by the managers in many dimensions according to the leader-behavior approach. From Mumford, Fleishman, Levin, Korotkin, and Hein (1988)'s propose, it shows that the use of MIM for work is suitable for the managers.

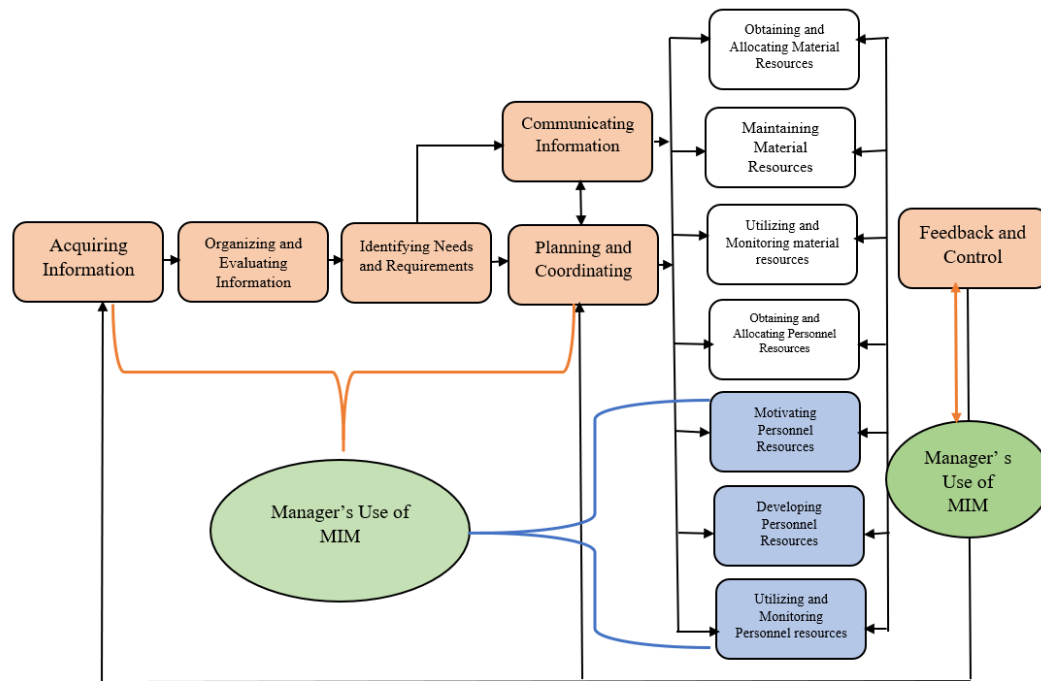


Figure.27. The managers' use of LINE found in this research.

Adapted from The Interrelationships Among the Leader-Behavior Dimensions (Fleishman et al., 1988).

This study of MIM used in Thai business organizations might seem to be new to the study of organizational studies, yet it is interesting to see how a country develops the use of an unconventional communication tool such as MIM for business and makes it an effective communication for work. In term of media richness, this research argues that MIM, although most used as an informally written form, is richer than letters and e-mail

because of its unique combination of functions. LINE can be used as informally written text, voice call, stickers showing emotions and sounds, or sent as a voice message, making it preferable to use in business organizations.

For further studies at a national level, it is useful to study deeper into the company's rules and regulations regarding the use of MIM for work, as well as the follower's perspective of using MIM. For an international level, a comparative study between countries is also suggested. More empirical researches might provide a better understanding of each country's business cultures which could be due to either an organizational culture or a national culture, or both.

References

- The 2015 Establishment Survey on the use of Information and Communication Technology. (2017). Retrieved from <http://www.mdes.go.th/view/10/home>
- AlfaBeta. (2017). *digital Nation: Policy Levers for Investment and Growth*. Retrieved from https://www.alphabeta.com/wp-content/uploads/2017/05/DigiNations_FA.pdf
- Bass, B. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications, 3rd ed.* New York, NY, US: Free Press.
- Chigona, W., Chigona, A., & Mpofu, S. (2008). *MXIT: Uses, Perceptions and Self-justifications* (Vol. 4).
- Church, K., & de Oliveira, R. (2013). *What's up with WhatsApp? Comparing mobile instant messaging behaviors with traditional SMS*.
- Communication, M. o. F. A. a. データ主導経済と社会変革. Retrieved from <http://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h29/html/nc111130.html>
- Creswell, J. W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. Boston: Pearson.
- Daft, R. L., & Lengel, R. H. (1984). Information richness: A new approach to managerial behavior and organizational design. *Research in Organizational Behavior*, 6, 191-233.
- Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30(4), 289-300. doi:<http://doi.org/10.1016/j.ijinfomgt.2009.10.001>
- Dennis, A. R., & Kinney, S. T. (1998). Testing Media Richness Theory in the New Media: The Effects of Cues, Feedback, and Task Equivocality. *Information Systems Research*, 9(3), 256-274. doi:10.1287/isre.9.3.256
- Dennis, A. R., Valacich, J. S., Speier, C., & Morris, M. G. (1998). *Beyond media richness: An empirical test of media synchronicity theory*. Paper presented at the System Sciences, 1998., Proceedings of the Thirty-First Hawaii International Conference on.
- Fiedler, F. E. (1964). A Contingency Model of Leadership Effectiveness. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 1, pp. 149-190): Academic Press.
- Fleishman, E. A., Mumford, M. D., Zaccaro, S. J., Levin, K. Y., Korotkin, A. L., & Hein, M. B. (1988). *Taxonomic efforts in the description of leadership behavior: A synthesis and cognitive interpretation*. . Fairfax, VA: George Mason University Center for Behavioral and Cognitive Studies.
- Forsyth, D. R. (2010). *Group Dynamics 5th edition*. Belmont, CA: Wadsworth Cengage Learning.
- Gofine, M., & Clark, S. (2017). Integration of Slack, a cloud-based team collaboration application, into research coordination. *Journal of Innovation in Health and Informatics*, 24(2), 252–254.

- Karimiyazdi, R., & Mokhber, M. (2015). Improving Viral Marketing Campaign via Mobile Instant Messaging (MIM) Applications. *Journal of Advanced Review on Scientific Research*, 10(1), 20-33.
- Karl E. WEICK (1979), *The Social Psychology of Organizing*, Second Edition. Paperback: 294 pages Publisher: McGraw-Hill (1979) Language: English ISBN: 978-0075548089. (2015). [Karl E. WEICK (1979), *The Social Psychology of Organizing*, Second Edition.]. *M@n@gement*, 18(2), 189-193. doi:10.3917/mana.182.0189
- Kiddie, T. J. (2014). Text(ing) in Context. *Business and Professional Communication Quarterly*, 77(1), 65-88. doi:doi:10.1177/2329490613511493
- Komaki, J., Zlotnick, S., & Jensen, M. (1986). *Development of an Operant-Based Taxonomy and Observational Index of Supervisory Behavior* (Vol. 71).
- Kressmann, J. (2017). More than 90% of Internet Users in Thailand Use Smartphones to Go Online: Urban regions have higher usage rates. *eMarketer*. Retrieved from <https://www.emarketer.com/Article/More-than-90-of-Internet-Users-Thailand-Use-Smartphones-Go-Online/1015217>
- Lam, C. (2016). *Can slack curb slacking?: Examining the importance of team communication in reducing social loafing*. Paper presented at the 2016 IEEE International Professional Communication Conference (IPCC), Austin, TX, USA. <https://ieeexplore.ieee.org/document/7740502/>
- Lee, A. S. (1994). Electronic Mail as a Medium for Rich Communication: An Empirical Investigation Using Hermeneutic Interpretation. *MIS Quarterly*, 18(2), 143-157. doi:10.2307/249762
- Lee, C. E. C., Yong San, Y., Ming Ming, C., & Th'ng, R. b. A. (2012). *Smartphone Use in the Workplace: Implications for Internal and External Communication in Malaysian Perspective* Paper presented at the 10th Communication Symposium Communication in the Millennium, Istanbul University, Turkey, .
- Leesa-nguansuk, S. (2017). Thailand ranked 10th in Asian digital rankings *Bangkokpost*. Retrieved from <https://www.bangkokpost.com/tech/local-news/1304291/thailand-ranked-10th-in-asian-digital-rankings>
- LINE Corporation Announces 2014 Fiscal Year Results. (2015). [Press release]. Retrieved from <http://linecorp.com/en/>
- Mandal, D., & McQueen, R. J. (2013). Extending media richness theory to explain social media adoption by microbusinesses. *Te Kura Kete Aronui*, 5.
- Markus, M. (1994). *Finding a happy medium: explaining the negative effects of electronic communication on social life at work* (Vol. 12).
- Marukapitak, S. (2014). LINE: New Era of Department of Provincial Administration-Getting works done on LINE. Retrieved from <http://www.komchadluek.net/news/lifestyle/187636>
- Mumby, D. K., & Stohl, C. (1996). Disciplining Organizational Communication Studies. *Management Communication Quarterly*, 10(1), 50-72. doi:10.1177/0893318996010001004
- Oghuma, A. P., Chang, Y., Libaque-Saenz, C. F., Park, M.-C., & Rho, J. J. (2015). Benefit-confirmation model for post-adoption behavior of mobile instant messaging applications: A comparative analysis of KakaoTalk and Joyn in Korea.

- Telecommunications Policy*, 39(8), 658-677.
doi:<https://doi.org/10.1016/j.telpol.2015.07.009>
- Oghuma, A. P., Libaque-Saenz, C. F., Wong, S. F., & Chang, Y. (2016). An expectation-confirmation model of continuance intention to use mobile instant messaging. *Telematics and Informatics*, 33(1), 34-47.
doi:<http://doi.org/10.1016/j.tele.2015.05.006>
- Pitichat, T. (2013). Smartphones in the workplace: Changing organizational behavior, transforming the future. *LUX: A Journal of Transdisciplinary Writing and Research from Claremont Graduate University*, 3(1).
- Rüzgar, N. (2018). *The Effect of Leaders' Adoption of Task-Oriented or Relationship-Oriented Leadership Style on Leader-Member Exchange (LMX), In the Organizations That Are Active In Service Sector: A Research on Tourism Agencies* (Vol. 7).
- Setlock, L. D., Quinones, P.-A., & Fussell, S. R. (2007). *Does culture interact with media richness? The effects of audio vs. video conferencing on Chinese and American dyads*. Paper presented at the 40th Annual Hawaii International Conference on System Sciences.
- Sheer, V. C., & Chen, L. (2004). Improving Media Richness Theory. *Management Communication Quarterly*, 18(1), 76-93. doi:[doi:10.1177/0893318904265803](https://doi.org/10.1177/0893318904265803)
- Statista. (2016). Penetration of leading social networks in Thailand as of 4th quarter 2016. Retrieved from <https://www.statista.com/statistics/284483/thailand-social-network-penetration/>
- Thairath. (2017). New generation of farmers learn to use LINE-smartphones for work (translated from Thai). *Thairath*. Retrieved from <https://www.thairath.co.th/content/1145395>
- Tseng, F.-C., Cheng, T. C. E., Li, K., & Teng, C.-I. (2017). How does media richness contribute to customer loyalty to mobile instant messaging? *Internet Research*, 27(3), 520-537. doi:[doi:10.1108/IntR-06-2016-0181](https://doi.org/10.1108/IntR-06-2016-0181)