

อิทธิพลของอารมณ์ส่วนตัวที่มีต่ออุปสรรคในการสื่อสารข้ามชาติ
การเข้ารหัส การถอดรหัส และการส่งข้อความเป็นตัวแปรสื่อกลาง

THE INFLUENCE OF PERSONAL EMOTION ON CROSS-NATIONAL
COMMUNICATION BARRIERS; THE ENCODING, DECODING
AND TRANSMITTING OF MESSAGES AS MEDIATING VARIABLES

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งานวิจัยนี้มีขึ้นเพื่อสำรวจอิทธิพลของอารมณ์ส่วนตัวของผู้สื่อสารที่มีต่ออุปสรรคในการสื่อสารข้ามชาติผ่านการกล่เกลี่ยตัวแปรในการเข้ารหัส ถอดรหัส และส่งข้อความ จำนวนพนักงานของบริษัทในเขตระเบียงเศรษฐกิจพิเศษภาคตะวันออก (EEC) ของประเทศไทยได้จัดทำเอกสารแบบสอบถามจำนวน 516 ฉบับเพื่อเป็นแหล่งข้อมูลสำหรับการวิจัยครั้งนี้ ภายใต้การวิเคราะห์ SEM (Structural Equation Modeling) งานวิจัยนี้พบว่าอารมณ์ส่วนตัวส่งผลกระทบต่อความแข็งแกร่งของอุปสรรคในการสื่อสารข้ามชาติผ่านการเข้ารหัสและถอดรหัส การส่งข้อความนั้นไร้ประโยชน์ในแง่ของความรู้สึกละอายใจที่มีอิทธิพลต่ออุปสรรคในการสื่อสารข้ามชาติมากน้อยเพียงใด เห็นได้ชัดว่าการเข้ารหัสข้อความมีบทบาทสำคัญที่สุดในการลดความเข้มแข็งของอุปสรรคด้านการสื่อสารข้ามชาติ ในแง่ของการลดความแข็งแกร่งของอุปสรรคในการสื่อสารข้ามชาตินักสื่อสารที่จะสื่อสารกับชาวต่างชาติจำเป็นต้องพัฒนาความสามารถในการเข้ารหัสข้อความและปรับอารมณ์ส่วนตัวของตนอย่างเหมาะสม การแสดงอารมณ์ที่เหมาะสม บางรูปแบบสามารถปรับปรุงความสามารถในการเข้ารหัสข้อความเพื่อลดความแข็งแกร่งของอุปสรรคด้านการสื่อสารข้ามชาติ ในทางตรงกันข้าม การแสดงอารมณ์อย่างไม่เหมาะสมอาจเป็นภัยคุกคามต่อการถอดรหัสการถอดเพื่อก่อให้เกิดอุปสรรคในการสื่อสารข้ามชาติ

คำสำคัญ: อุปสรรคในการสื่อสารข้ามชาติ อารมณ์ส่วนตัว การเข้ารหัส การถอดรหัส

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Abstract

This research is to explore influence of communicators' personal emotion on cross-national communication barriers through mediating variables of messages' encoding, decoding, and transmitting. Numbers of companies' employees within The Eastern Economic Corridor (EEC) zone of Thailand provided 516 questionnaire papers as the data resources for this research. Under the analysis of SEM (Structural Equation Modeling), this research has found that personal emotion indirectly affects the strength of the cross-national communication barriers through encoding and decoding. Transmitting of messages is useless in the sense of how much the emotion would be influenced on the cross-national communication barriers. Noticeably, encoding of messages plays the most important role in diminishing the strength of cross-national communication barriers. With respect to diminish the strength of the cross-national communication barriers, communicators, who will be communicating with foreigners, need to develop their capability of messages' encoding and appropriately adjust their personal emotion. Some forms of the expression of proper emotion can improve the capability of messages' encoding for diminishing the strength of cross-national communication barriers. On the contrary, improper expression of emotion will likely pose a threat on decoding message to cause cross-national communication barriers.

Keywords: Cross-National Communication Barriers, Personal Emotion, Encoding, Decoding

1. Introduction

The process of interpersonal communication is a communication circle which includes messages' encoding, transmitting, and decoding. As illustrated in figure 1. An individual conveys his/her intention to another one that is expected to receive and promptly decodes the messages for the purpose of understanding the information (Cheney et al., 2010, p.248). The thoughts or information expressed by the sender may be clearly made by human's voice, sound, the collection of data, including his/her, physical movements (Robbins & Coulter, 2017, pp.409-410). Thus, the sender may need to select the words, symbols, or gestures prior to convey a resulted message; this is so called as encoding of messages. The purpose of encoding is to express meanings of messages (Cheney et al., 2010, p.248). There are non-verbal and verbal ways of encodement for messages' encoding and communication with others (Koegel et al., 2020, p.1-16). For instance, institutional academic staff or teachers usually directly speak (verbal mode) to their students or others, this mode also includes face-to-face talking, telephone calls, writing letters, oral reports, and others. Nonetheless they likely do it in another ways – nonverbal to convey their purposed messages to others. Regarding a nonverbal medium it includes facial expressions, body gestures, and other body languages (Keyton & Shockley-Zalabak, 2009, p.201).

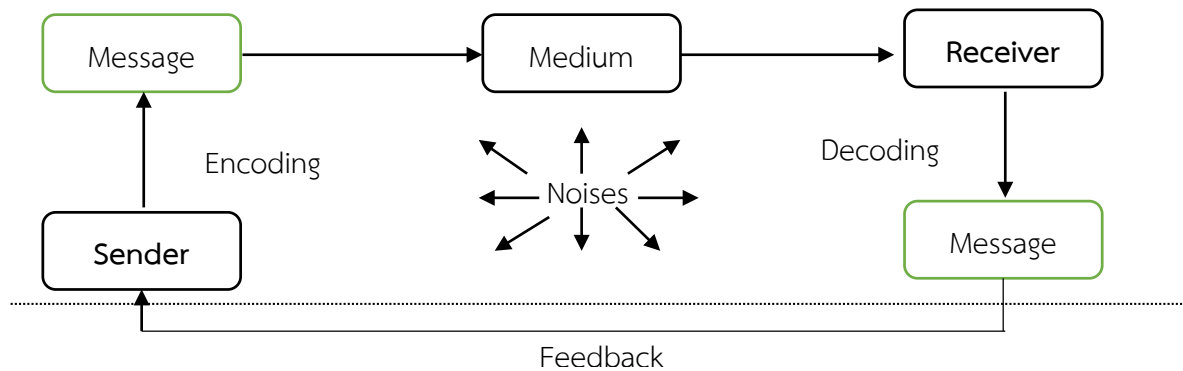


Figure 1 The process of interpersonal communication

(Source: Robbins, S. P., & Coulter, M. (2017). **Management**. Boston, Mass.; London: Pearson Education. p.407)

The primary role of this medium is to transmit the messages from a sender directly to a receiver (Tang & Bradshaw, 2020, p.111-130). There are various modes of communication, such as a face-to-face conversation (the medium is voice), telephone-call, computer, e-mail, and others (Keyton & Shockley-Zalabak, 2009, p.201). It is noted, however that different kind of communication channels varies the efficiency of transmission (Miller, 1965, p.193-237). As a result, choosing an appropriate medium is of critical importance to develop quality of message transmission (Robbins & Coulter, 2017, p.410). The receiver will decode messages he/she has been delivered by way of extracting the information (through the nervous system). It is alternatively known as the “encodement” (Schram, 1954, p108). Feedback of messages occurs when the receiver is required to respond the senders, whereby sender need to express the information that they received or understood the messages. In this regard, both the sender and the receiver must swap their primitive own roles. To illustrate, the receiver thus perceives the successfully sent message, and produce a new interpersonal communication line (Dewey, 1997, p.231).

The interpersonal communication between a sender and a receiver occurs; yet, surrounding noises likely interrupt every single step of the communication process (Park & Song, 2005, p. 159-166). While messages are being transmitted to a receiver, noises (technically called “affecting or influence elements”) are interfering, distracting, or distorting the efficiency of messages transition (Severin & Tankard, 2001). Noises disturb and interfere all communication elements, such as the sending, receiving, and transmitting of messages (Robbins & Coulter, 2017, p.410). Communication problems arise from various reasons, though unaware, communication noises what interfere with the capability of the encoding, transmission, and reception or decoding of messages (Adler, 2006, p.3). Those noises are key elements which bring about communication troubles (Robbins & Coulter, 2017, p.408). For instance, a noise potentially originates discretionary barriers such as biases, prejudices, closed-

mindedness, extreme emotions, and others (Chen, 2007, p.529). Environmental noises degrade the quality of transmitting (Rothwell, 2010, p.427).

Cross-national communication is a kind of human activities under a unique situation where messages can be easily sent across the nations (Samovar et al., 2015, p.16). Nowadays, with the development of globalization in the digital/information age, diverse communication frequently takes place in such activities as international trade, world science cooperation, international education, broadcasting media across the countries, and others (Martin & Nakayama, 2013, p.93; Huang et al., 2021, pp. 247-253). However, the communication barrier sounds the biggest problem repugnant to the cross-national communication (Farnsworth 2021, p.345-353). Communication barriers will highly likely be a concern inertial to international communication (Kotian, 2020, p.697-701). Likewise, they will arise many misunderstandings of communication between local people and a foreigner (Robinson & Giles, 1990, p.233), and will possibly create different aspects of problems in procedural, semantic, physical, and psychosocial (Eisenberg et al., 2013, p.246).

Those barriers concerning cross-national communication is safe to say that they can hinder the diver communication between local people and the foreigner for attaining the goal (Farnsworth 2021, p.345-353). Obstacles still exist in term of traditional communication and confuse diverse communicators, who generally come from unfamiliar countries and/or have unique belief and way of life different from local people (Kim, 1986, p.33-38). For instance, communication misunderstandings and language problems (Robinson & Giles, 1990, p.27). To sum up, all cross-national communication barriers arise in the three steps of the communication process: messages' encoding, transmitting, decoding (Hulbert, 1994, p.41-44).

Traditional studies of communication prefer to clarify affecting factors of communication barriers and analysis the relationships of communicators rather than confirm the affecting factors and effect paths (Palm & Backman, 2020, p.1-13). Some scholar claims that many factors are potential barriers cross-national communication. Communicators show a low efficiency in cross-national communication because of the limitation on rules and norms of their own culture (Jandt, 2017, p.60-67). There are following six barriers of cross-national communication: *anxiety*, communicators are *assumed as similarity* instead of difference, ethnocentrism, stereotypes and prejudice, nonverbal misinterpretations, and language. Besides, other scholars also point out some elements regarded as barriers, e.g., messages' filtering, emotions, information overload, defensiveness, the different languages, and the diverse national culture (Robbins & Coulter, 2017, p.409). Several human factors are also considered as barriers to cross-national communication. They are cognition, affection, and patterns of behavior (Dodd, 1995). Differences between personal experiences or backgrounds are also taken as barriers to cross-national communication (Hulbert, 1994). In some healthcare centers, barriers even exist in the other five types: linguistic, psychological, physiological, physical, and attitudinal (Inc, 2018).

As discussed above, the barriers of cross-national are complicated and possibly have many connotative elements. Personal emotion is an affecting factor. Hence, the first objective of this research is to ascertain the influence of personal emotion on cross-national communication. Meanwhile, confirming the operational and most acceptable measurement of the cross-national communication barriers is the other research target. Another inescapable research phase is the effects' test and analysis by data, this research collected the data from the companies' employees of The Eastern Economic Corridor (EEC).

2. Literature Review

Personal emotion is the conscious experience (Damasio, 1998, p.83-86), which is typically originated by an intensive mental activity and a certain degree of pleasure or displeasure (Schacter, 2011, p.27). The personal emotions are critical for cross-national communication, particularly for affecting the quality of interpersonal communication (Mesquita & Frijda, 1992, p. 179). The changes in personal emotion can cause bad consequences in cross-national communication which not only decreases the quality of communication but also deteriorate the relationships of communicators (Fredrickson, 1998, p.300). There are at least double sides of emotions to disturb the communicator's understanding of cross-national communication (Yoshida et al., 2013, p.72-85). As to the first aspect, it is the emotional status when people communicate with foreigners. Notably, the negative emotions (e.g., anxiety, uncertainty, anger, loss, and guilt) might have offended each communicator's understanding (Austin & Anderson, 2010, p.17-31). As for the second one, it is the emotional intelligence (EQ) to figure and regulate communicators' own emotions (Campos, Campos, & Barrett, 1989, p. 394).

Both uncertainty and anxiety worsen communication, and they contribute to the adverse effects of cross-national communication (Presbitero & Attar, 2018, p.35-43). Many scholars confirmed that both anxiety and uncertainty aggravate the effectiveness of cross-national communication between interpersonal and intergroup (Gudykunst, 2005, p.127; Nadeem & Koschmann, 2021, p1-13). The degree at which both anxiety and uncertainty can imply the people's attitudes and behaviors towards others of course happen; so, they directly degrade the quality of cross-national communication. Communicators' emotion, whether positive or negative, will express to communicators and influence the communicative behaviors (Vuckovic, 2008, p.47-59). The more high degree of anxiety and uncertainty, the more increase in improper attitudes to occur many communication misunderstandings. Thus, all resulted anxiety and uncertainty can hinder the cross-national communication (Czerwionka et al., 2015, p.80-99). Furthermore, negative emotion expressing in communication causes conflicts, such as unstable emotion usually cause conflicts in conversation (Eagly & Chaiken, 1993, p.23). The negative emotions, like anger, loss, or guilt, evidently influence or induce cross-national communication barriers (Jwa, 2017, p.517-529).

Emotional intelligence (EQ) is also an essential factor because negative emotions can impede effective communication (Cooper & Petrides, 2010, p.449-457). Emotional intelligence (EQ) is the individual capability of how human beings are able recognize the different types of changes in personal emotions, and the emotional intelligence also refers to the ability of emotion adjustments to fit in surrounding environments (Colman, 2015, p.231). Whereas low emotional intelligence means that people easily lose control of personal emotion (Murphy, 2014, p.211), high emotional intelligence is much more helpful to control negative emotions such as anger, anxiety, uncertainty, and others, and to impair the strength of barriers in cross-national communications (Jwa, 2017, p.517-529).

There are many dimensions to the strength of cross-national communication barriers (Shin, 2013, p.750-754). Robbins and Coulter (2017) concluded and pointed out five elements like the dimensions of strength. Those are filtering, information overload, defensiveness, inefficiency, and misunderstanding.

Filtering is one element of the strength of cross-national communication barriers (Robbins & Coulter, 2017, p.409). Filtering means deliberate manipulation of information for specific recipients. For instance, information is being filtered when a person only focusses on the information that the manager wants to hear. The level of filtering is determined by two sides of factors (Robbins & Coulter, 2017, p.409). The first side is the amount of ignored information. If there are more ignores information, the level of filtering is higher. The second side is the times of filtering. The more vertical levels in communication will increase the chances and degree of filtering.

Information overload is another problem in cross-national communication. With the development of digital communication, the number of messages increased a lot. For instance, 87% of American employees use e-mail and each person devotes 107 minutes in emails' editing a day. The e-mail increases a lot in the past several years and takes much time to deal. Not only the e-mail transmits many messages, but also the phone-call, fax, and video carry more and more messages (Robbins & Coulter, 2017, p.409). When facing too many messages, recipients tend to ignore, pass over, forget, or selectively choose information (Robbins & Coulter, 2017, p.409).

Defensiveness is another problem. One way to improve the communication quality is to improve interpersonal relationships. Reducing the degree of defensiveness is one possible alteration (Gibb, 1960a, p.141-148). Defensiveness occurs to escape punishments or attacks when an individual perceives a threat (Gibb, 1960a, p.141). While people feel they under threat, they usually show the actions of attacking others, making sarcastic remarks, being overly judgment, or question other's motives (Berlo, 1960, p.31). The increasing of defensiveness positively correlated to inefficiency in communication (Gibb, 1960b, p.148). Inefficiency and

misunderstanding also appear in employees' communication as cross-national communication barriers (Farnsworth, 2021, p.345-353; Robbins & Coulter, 2017, p.410).

3. Research Design

Research Framework

The personal emotion in cross-culture communication impacts the acceptance level to cross-national communication, and thus it can cause different strengths of cross-national communication (Barker, 2016). Some investigations of cross-national intelligence indicated that the control capability of emotion has a strong affecting on cross-national communication expression (Lieberman & Gamst, 2015). As figure2, this research hypothesizes that,

H1: Personal emotion (EMO) affects the strength of cross-national communication barriers (CCB),

H2: Personal emotion (EMO) affects the strength of cross-national communication barriers (CCB) through the capability of encoding(ENC),

H3: Personal emotion (EMO) affects the strength of cross-national communication barriers (CCB) through the capability of transmitting(MED),

H4: Personal emotion (EMO) affects the strength of cross-national communication barriers (CCB) through the capability of decoding(REC).

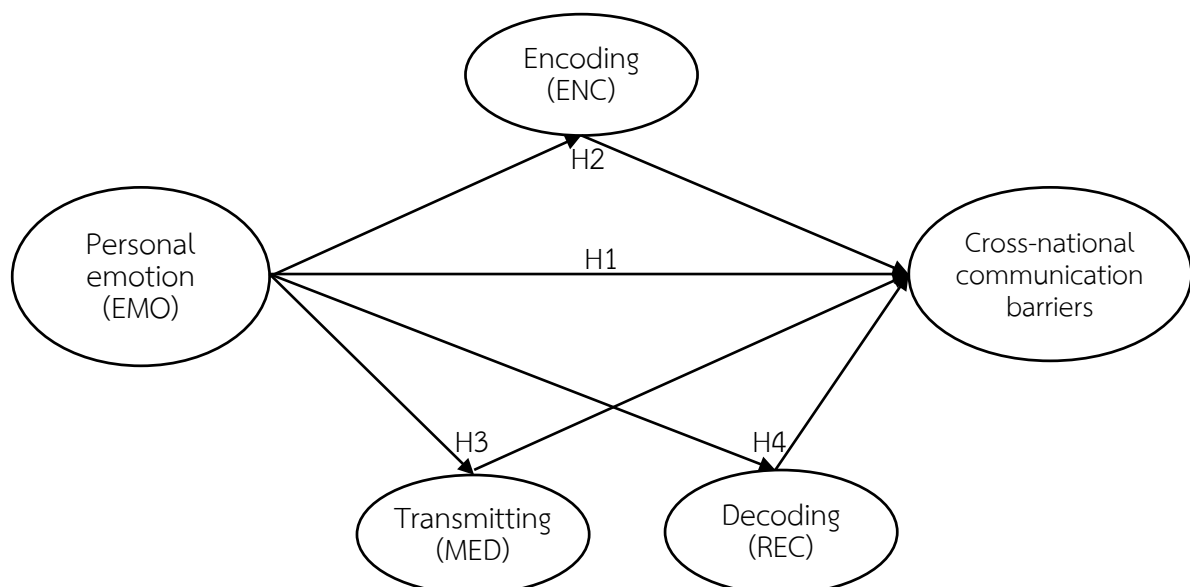


Figure2 The hypothetical model of this research

Measurements

Cross-national communication barriers are the dependent variable that the degree of strength is self-report measuring. As table 2.4.1, the dimensions are the degree of filtering, information overload, defensiveness, inefficiency, and misunderstanding.

Table 1 Operationalized definition of the cross-national communication barriers

Variable	Abbr.	Conceptual definition	Operational definition	Dimension	Sources
Cross-national communication barriers	CCB	Cross-national communication barriers are various factors to distribute or decrease the quality of cross-national communication.	There are filtering, information overload, defensiveness, inefficiency, and misunderstanding in cross-national communication.	filtering information overload defensiveness inefficiency misunderstanding	Farnsworth (2021); Clampitt (2012); Robbins and Coulter (2017)

The value of Cronbach's Alpha is 0.829.

According to the ideas of Clampitt (2012) and Robbins (2017), the questions of cross-national communication barriers in the questionnaire base on five dimensions. The first one is filtering. Filtering is the deliberate manipulation of information to make it appear more favorable to the receiver, e.g., hiding, and multiple levels' transmitting (Robbins & Coulter, 2017, p.408). The first question is that: when you communicate with foreigners (other culture's persons), for some reason, you will deliberately hide some information even it breaks the original meaning. And another question is that: when you communicate with foreigners (other culture's person), there are multiple levels' filters before the messages arrive in recipients.

Second is information overload. Overload means people ignore, skip, forget, or selectively choose communication information due to heavy messages (Robbins & Coulter, 2017, p.409). The question is that: when you communicate with foreigners (other culture's persons), you will ignore, skip, forget, or selectively choose communication information due to heavy messages.

The third is defensiveness. Defensiveness is an inner feeling and outward acts to avoid attack or punishment in communication (Gibb, 1961, p.141-148). The third question is that: when you communicate with foreigners (other culture's persons), you feel being threatened (not good), defending, attacking, and even asking others' motives.

Fourth is inefficiency. The question is that: when you communicate with foreigners (other culture's persons), your communication is inefficient.

Misunderstanding is the last. The question is that: when you communicate with foreigners (other culture's persons), you always cause misunderstandings.

Table 2 Operationalized definition of the decoding, transmitting, and decoding

Variable	Abbr.	Conceptual definition	Operational definition	Measurements	Sources
verbal communication	VER	Verbal communication is a type of encoding ways for messages by spoken and written.	Verbal communication is encoding ways by symbol, lexis, articulation, terminology.	Symbol Lexis Articulation Terminology	Ferguson and Terrior (2014)
Nonverbal communication	NON	Nonverbal communication is a type of encoding ways for messages with the form of non-linguistic representations.	Nonverbal communication transmits information using haptic communication, chronemic communication, gestures, body language, facial expressions, and eye contact.	Voice Body language Facial expression	Giri (2010); Kowner (2002)
Medium	MED	Media is transmission and storage tools or channels for data storage and messages.	Media is transmission and storage tools or channels for complex, wide breadth, accurate data storage and messages under limited time, space, and cost.	Complexity capacity Breadth potential Accuracy Time-space constraint Cost	Clampitt (2012); Robbins and Coulter (2017)
Recipient	REC	Recipient (decoding) refers to the communication process that human interpret encoded messages to understandable information.	Recipient (decoding) refers to the communication process that human interprets encoded messages to understandable information through the ways of seeing, hearing, touching, smelling, and testing.	seeing hearing touching smelling testing	McQuail (1987); Schram (1954)

The Cronbach's Alpha of verbal communication is 0.828. The Cronbach's Alpha of nonverbal communication is 0.901. The Cronbach's Alpha of medium is 0.821. The Cronbach's Alpha of recipient is 0.778.

The capability of encoding includes the capability of verbal encoding and nonverbal encoding. As table2, verbal communication is a mediator variable which means the capability of using the symbol, lexis, articulation, and terminology to encode information. Many scholars gave their questions or measurement suggestions to assess verbal encoding. For instance, Kowner (2002) and Henderson, Barker and Mak (2016). However, the capability in using symbol, lexis, articulation, and terminology is the best and widely accepted measurement to measure the capability of verbal encoding in communication. Nonverbal communication is a mediator variable which means the capability of using voice, body language, and facial expression to encode information. Kowner (2002), Durham and Kellner (2009) presented the widely used questions to measure the capability of nonverbal communication. The transmitting capability

bases on the right choice of the medium which is a mediator variable in this study. Clampitt (2012) indicated five dimensions to evaluate whether people choose the right medium to transmit messages. They are the capability to transmit multiple and various messages, the degree of accuracy and timeliness, and the cost. The capability of decoding messages is the mediator variable which means the messages' receiving and decoding capability through seeing, hearing, touching, smelling, and testing. Five traditional senses are the basic and applied dimensions to measure the capability of decoding (Dodd, 1995).

Ferguson and Terrion (2014); Giri (2009), and Kowner (2002) proposed the assessment questions for verbal and nonverbal communication, as table3.

Table 3 Assessment questions of verbal and nonverbal communication

When you communicate with foreigners (other culture's person); you will		Measurements
verbal	use writing or symbol	Symbol
	use agreement words to others' opinions	Lexis
	use independent words to express your own opinion	
	use humor or joke words	
	use words to praise others and show respect	Articulation
	speak rationally and warmly	
	have clear logic and grammar	Terminology
	don't use terminology (unfamiliar words)	
nonverbal	very quickly speak	Voice
	loud voice to speak	
	let your legs shake or cross	Body language
	sit while others are standing	
	let your hands in pocket, shake, or no move	
	haven't gestures to explain	Face expression
	haven't facial expression (like a smile)	
	avoid to eye contact	

(source: Kowner, R. (2002). Japanese communication in intercultural encounters: the barrier of status-related behavior. *International Journal of Intercultural Relations*, 26(4), 339-361.)

According to opinions of Clampitt (2012), Robbins and Coulter (2017), Complexity capacity, breadth potential, accuracy, time-space constraint, and cost are the strength of the right communication tools. The first question is to measure complexity capacity that: you can use proper communication tools to transmit complex messages to foreigners (other culture's person).

The second question is to measure potential breadth that: you can use proper communication tools to transmit a huge number of messages.

The third question is to measure accuracy that: you can correctly send and receive messages through the right communication tools.

The fourth question is to measure a time-space constraint that: you never worry about the limitations of time and distance while you communicate with foreigners (other culture's person).

The last question is to measure the cost that: you cost a little to communicate with foreigners (other culture's person).

In normally, human use five traditional senses (seeing, hearing, touching, smelling, and testing) to receive messages and get the general information (McQuail, 1987, p.179; Schram, 1954, p.108). The assessment for the capability of receiving messages and getting information will base on five traditional senses. The best assessment methods of five traditional senses are medical equipment and techniques, e.g., eye test or eye movement test (Taylor, 1965, p.187-202). Self-report is also a practical assessment method in communication research (Berlo, 1960, p.31). A self-report inventory not only inexpensive and convenient but also effectively report the traits and tests of the examinee (Aiken, 1997, p.73).

As table 4, personal emotion is one of the influence factors to cross-national communication strength that the degree of severe negative feelings (e.g., anxiety, uncertainty, and anger.) and emotion intelligence which means the capability to face negative feels are the measurement.

In cross-national communication, negative feelings include five primary types: anxiety, uncertainty, anger, loss, and guilt (Cooper & Petrides, 2010, p.449-457). Several measuring questions are acceptable to test human emotional intelligence. There are that;

- 1: you have no problem to verbally expressing your emotions.
- 2: you find out that it's easy to figure out what emotion you are feeling and regulate your emotions.
- 3: you can control your emotions when you want to.
- 4: you understand why your emotions change.
- 5: by looking at their facial expressions or listening to their tone of voice, you can recognize the emotions people are experiencing.

Table 4 Operationalized definition of personal emotion

Variable	Abbr.	Conceptual definition	Operational definition	Measurement	Sources
Personal emotion	EMO	Emotion is an experience of human consciousness, characterized by intense mental activity and a certain degree of pleasure or displeasure.	The feeling in communication and emotion intelligence to achieve a successful communication.	Feelings Figuring out and regulating Controlling Understanding Recognizing	Cooper and Petrides (2010); Davies et al. (2010)

The Cronbach's Alpha of personal emotion is 0.884.

Sampling

This research targets the companies' employees of The Eastern Economic Corridor (EEC) as the respondents. According to the Summary of the labor force survey in Thailand (January 2017) published by the National Statistical Office of Thailand, the employees of the EEC' companies are over 100,000. Based on the table of the sample size, which was published in 1967 by Yamane, this research's sample size is 400. Under the consideration of an invalid questionnaire, this research has planned to receive 440 questionnaire papers at least. In practice, the research group distributed over 550 questionnaires, and surprisingly, 516 of them are valuably returned.

4. Data Analysis and Results

The result of the model of personal emotion achieved the minimum requirements of the successful running of data. The value of Chi-square is 2893.629. The degrees of freedom are 656. The value of the probability level is 0.000. These values insist on the successful running of the model and the data.

As figure2, this is a path diagram of the personal emotion model. According to this model, personal emotion (EMO) has positive effects to cross-national communication barriers indirect or through the mediator variables that encoding (ENC), medium (MED), and recipient (REC). Nevertheless, there are high correlated error items and high scored M.I.

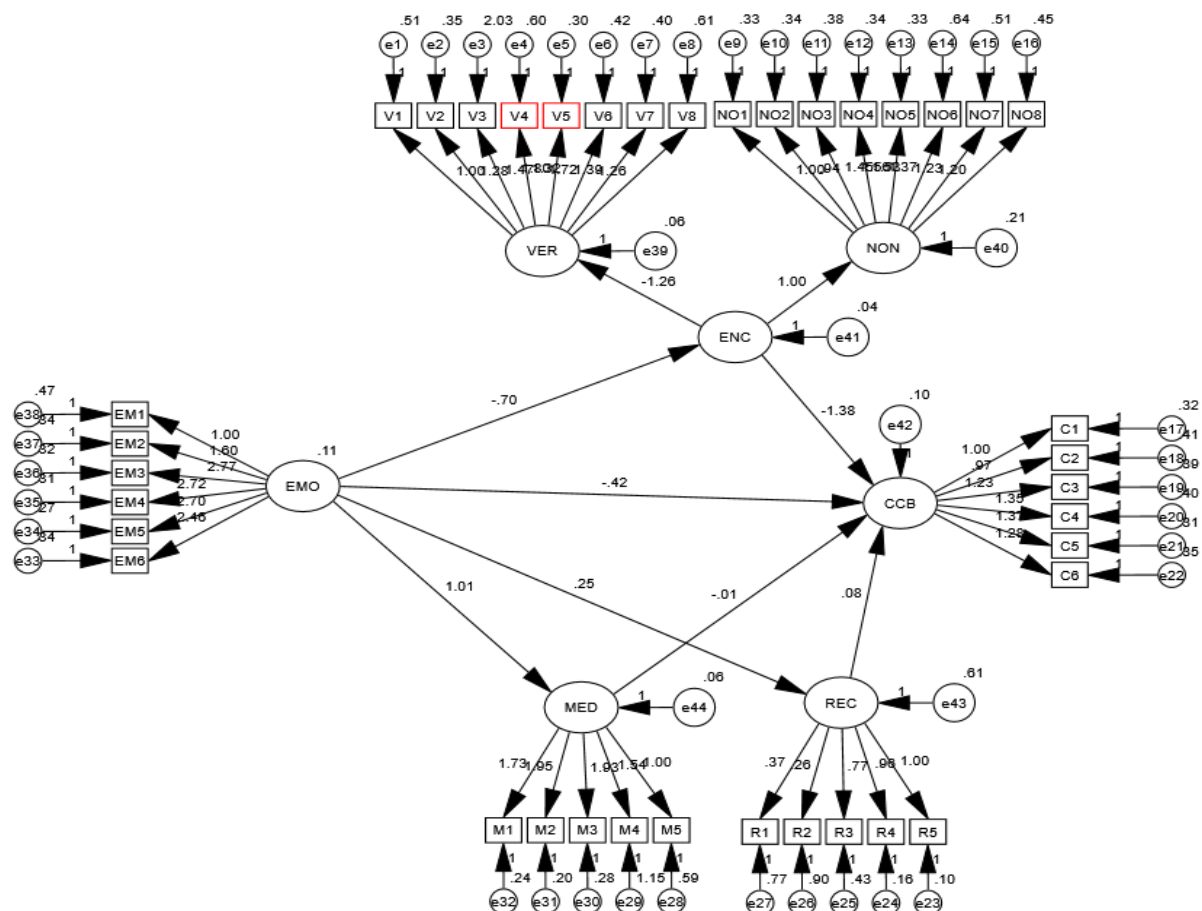


Figure 3 Path diagram of the research model

After correlated the high related or high scored M.I. error items, the model modified to the modified model like figure 3. After the modification, the effects from personal emotion (EMO) to the cross-national communication barriers (CCB) and the indirect effects though the mediators, which are encoding (ENC), medium (MED), and recipient (REC), have some changes in contrast. Additionally, the operation of modification improved the model fit of the model of personal emotion.

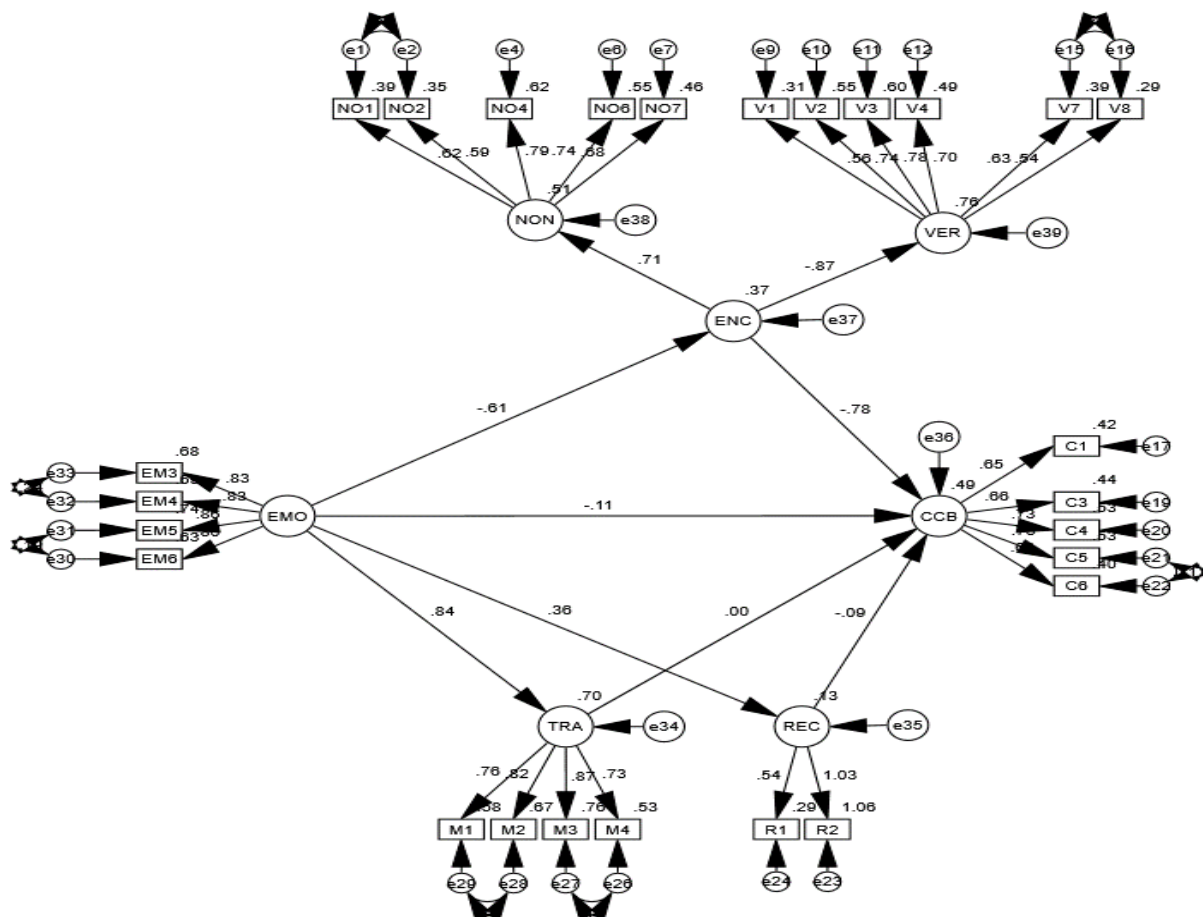


Figure 4 Modified path diagram of the research model

As an indication of figure 4, the value of Chi-square decreased from 4.411 to 2.514. This adjustment states the improvement of model fit. Moreover, the value of CFI up to 0.939 from 0.798. It shows that the modification of the model changed the model from unacceptable to acceptable under the standard of CFI. Besides, the values of SRMR and RMSEA are better in the modified model. Overall, the modification of the model improved the model fit.

Table 5 Model fit of the research model

Measure	Model	Modified model	Threshold
Chi-square/df (CMIN/df)	4.411	2.514	<3 good; <5 sometimes permissible
p-value	0.000	0.000	>.05
CFI	0.798	0.939	>.95 great; >.90 traditional; >.80 sometimes permissible
GFI	0.726	0.783	>.95
AGFI	0.690	0.749	>.80
SRMR	0.088	0.083	<.09
RMSEA	0.081	0.054	<.05 good; .05-.10 moderate; >.10bad
PCLOSE	0.000	0.000	>0.5

As table 6, the p-values are 0.000 under 0.05, which means that the indirect effect from personal emotion (EMO) to cross-national communication barriers (CCB) is significant. But the direct effect is insignificance (p-value is 0.293, >0.005). While the indirect effect is the significance and the direct effect is insignificance, the personal emotion (independent variable, IV) indirectly affects cross-national communication barriers (dependent variable, DV) through mediators (encoding, medium, or recipient).

Table 6 Direct and indirect effects of the research model

	Unstandardized			Standardized		
	Total	Direct	Indirect	Total	Direct	Indirect
EMO-->ENC	0.001	0.001		0.000	0.000	
EMO-->MED	0.001	0.001		0.001	0.001	
EMO-->REC	0.059	0.059		0.058	0.058	
EMO-->CCB	0.001	0.286	0.000	0.001	0.293	0.000
ENC-->CCB	0.000	0.000		0.001	0.001	
MED-->CCB	0.952	0.952		0.946	0.946	
REC-->CCB	0.004	0.004		0.005	0.005	

This table is the data of two-tailed significance (BC).

As table 7, the p-value of regression between personal emotion (EMO) and cross-national communication barriers (CCB) is 0.073 which is greater than 0.1. There is a negative influence from EMO to CCB. **Hypothesis 1 is rejected.** Which means the personal emotion affects the cross-national communication barriers must through the mediators. As an indication of table6, both the two paths, personal emotion (EMO) to encoding (ENC) and encoding (ENC) to cross-national communication barriers (CCB), are signs that the p-values are under than 0.001. **The hypothesis 2 is supported.** Although the path from personal emotion (EMO) to

medium (MED) is significance, the other path from medium (MED) to cross-national communication barriers (CCB) is insignificance. The medium (MED) has no mediation effect. **The hypothesis 3 is rejected.** The effect from personal emotion (EMO) to recipient (REC) is significance. The other path, from recipient (REC) to cross-national communication barriers (CCB), is also significance. **The hypothesis 4 is supported**, the personal emotion (EMO) has positive influence on cross-national communication barriers (CCB) through recipient (REC).

Table 7 Hypotheses testing

	IDV--->MV--->DV	Estimate	S.E.	C.R.	P	Verificatio n	Effects
H1	EMO ---> CCB	-0.420	0.234	-1.791	0.073	Reject	
H2	EMO ---> ENC	-0.694	0.102	-6.79	***	Support	Positive (+)
	ENC ---> CCB	-1.296	0.231	-5.605	***	Support	Full mediation
H3	EMO ---> MED	1.086	0.148	7.312	***	Rejection	No mediation
	MED ---> CCB	-0.013	0.109	-0.117	0.907	Rejection	
H4	EMO ---> REC	0.256	0.122	2.107	0.035	Support	Positive (+)
	REC ---> CCB	0.081	0.026	3.15	0.002	Support	Full mediation

5. Discussion and Conclusion

Personal emotion while communicating with foreigners indirectly affects the strength of cross-national communication barriers through encoding and decoding which is in line with (Cooper & Petrides, 2010, p.449-457; Robbins & Coulter, 2017, p.453-455). The transmitting is not the mediation factor between personal emotion and cross-national communication barriers. Although the decoding takes the role of mediation factor, the value is limited. The estimated value from decoding (REC) to cross-national communication barriers (CCB) is low to 0.081 in the path from personal emotion (EMO) to cross-national communication barriers. The encoding is the most important role in influencing the strength of cross-national communication barriers (Robbins & Coulter, 2017, p.401-411).

To decrease the strength of the cross-national communication barriers, the best way is to improve the capability of encoding. Moreover, keeping good personal emotion while communicating with foreigners is useful. Some emotional expressing will improve the capability of encoding to decrease cross-national communication barriers. However, excessive

personal emotion expressing will increase the difficulty of decoding to increase cross-national communication barriers.

This research developed the theory of interpersonal communication and clarified the personal emotion is one factor of noises. This also applied the interpersonal communication theory for the area of cross-national communication. It practically contributes to solve the cross-national communication problems. Many companies of EEC, such as Zhonghe, Zhongli, and LDZ, accepted the result that decreasing the cross-national communication barriers through adjusting the personal emotion.

Besides, due to the limitation of research time, this research limited the candidates as the employees. Thus, it is limited to the area of research. In further research, the samples can be expanded. It is possible to invite owners of companies to be candidates.

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