HUMAN BEHAVIOR, DEVELOPMENT and SOCIETY

Editorial Statement
Human Behavior, Development and Society is a refereed multidisciplinary journal that explores a wide range of scholarly topics, especially in fields relating to the humanities and social sciences. It is published online three times a year and is available free of charge through the ThaiJo and Asia-Pacific International University (AIU) websites, with a limited number of hard copies available. The journal, originally entitled *Catalyst*, has been published since 2006 by Asia-Pacific International University, Muak Lek, Thailand, through its publishing arm *Institute Press*.

The journal has the following objectives:

a). To stimulate the creation and synthesis of beneficial information, as well as its broad dissemination, especially in the varied fields of the humanities and social sciences,

b). To foster a deeper understanding regarding the impact of business policies and practices on society, and

c). To promote the adoption of best practices in communities through education, and to aid in the resolution of community issues for the betterment of society; this represents the development aspect referred to in its name.

Editorial Objectives
The editorial objectives are to advance knowledge through use of classical–or the creation of innovative–methods of investigation, and to foster the examination of cross-cultural issues to increase mutual understandings among diverse social groups. Encouraging cooperative studies and scholarly exchange across borders, as well as within Thailand, remains one of its aims. The application of theoretical considerations to the field, business, or community situations is also an outcome that is sought.

Journal Positioning

The journal is broadly based and has the potential to impact thinking and practices across a range of subject areas, dealing with substantive issues that arise in both developing and developed countries. It will likely appeal to readers with a broad appreciation of the social issues facing organizations, communities, and governments operating under varied challenges and constraints. Its contents are meant to appeal to both the academic community and practitioners in numerous areas of interest.

The positioning of the journal means that a variety of topics is covered in most issues. These, in turn, differ in their philosophical content, academic appeal, and practical implications.

Appropriate Content

The journal covers a broad spectrum of topics. These include, but are not limited to, anthropology, allied health focused on community issues and health education, education from the primary to the tertiary levels, literature, language use and acquisition, business, management, finance, geography, psychology, social sciences, philosophy, and theology. Review essays and seminar/forum papers are also accepted when appropriately focused. Well-executed studies that address interesting and significant topics in the areas mentioned above are particularly welcomed. All articles accepted should make significant contributions to understanding and add to the corpus of knowledge in their respective fields.

The following constitutes a partial list of topics that are considered potentially suitable for publication:

1. Applied linguistic or linguistic studies that examine issues related to communication, language pedagogy and use, as well as theories and meaning of language.
2. Religious or biblical studies that explore historical, philosophical, sociological, as well as hermeneutical issues.
3. Anthropological or ethnographic studies which seek to reflect cultural nuances of communities for a better understanding of the society.
4. Cultural/intercultural issues and diversity, including how tensions involving these parameters might be handled to achieve social justice and acceptance.
5. Review articles or studies in the fields of marketing, business, stock market trading, and auditing practices, and their significance to the business and broader community.
6. Organizational behavior, resilience, and the creation of a positive psychological work environment and job satisfaction.
7. Teaching strategies, interventions, assessment, and other issues to the betterment of society.
8. Policies and political movements, and their impact on educational development.
9. Violence, discrimination, and marginalization: how these issues are viewed in contemporary society, and the factors contributing to their emergence.
10. Social trends in addictive behavior; how to address such issues creatively.
11. Impact of specific policies and interventions on health care, including how to promote positive health outcomes in communities.
12. Innovative and cost effective approaches to health care and education in poor, rural communities.

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Current and Past Issues

From the Editor

Human Behavior, Development and Society (HBDS) is an interdisciplinary peer-reviewed journal of Asia-Pacific International University (AIU). *HBDS* publishes findings and discussions regarding most aspects of human behavior, development and society. The journal's scope is to advance knowledge through the use of classical methods of investigation and to foster the examination of cross-cultural issues that increase mutual understanding among diverse social groups within the international community, with a particular emphasis on Southeast Asia. All articles in the journal are indexed with the Thai-Journal Citation Index Centre (TCI) and with the EBSCO database. The editorial team is committed to maintaining meticulous peer-review standards and the highest level of ethical integrity, ensuring consistency and scientific rigor in each research article.

As mentioned in the previous issue, starting in 2021 only three issues–rather than four–will be published each year. This is the first issue for 2021. This issue of HBDS contains 10 articles, nine of which were written by researchers external to the university, and one that was authored by an AIU researcher. We are delighted to see reports and findings from various disciplines including business, culture, education, English, health, and research. Most articles in this issue reflect studies conducted in Asian contexts, including Bangladesh, China, Indonesia, Korea, Myanmar, the Philippines, and Thailand. We hope that this issue of HBDS will contribute to the development of society and serve as a source of information for various academic fields and research projects.

We would like to invite readers to publish your valuable papers with us. More information may be found on our website: *https://www.tci-thaijo.org/index.php/hbds*. We would also appreciate comments or suggestions from you to help us improve the journal. Finally, we appreciate the hard work of authors, reviewers, editorial board members, executive board members, and journal staff members who have contributed to make this issue a reality.

Assistant Professor Dr. Damrong Sattayawaksakul, Editor
Human Behavior, Development and Society
Asia-Pacific International University

University Students' Perceptions of Korean Wave and Its Impact on Their Views of Korea and Korean Culture

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Abstract

This study examines undergraduate student perceptions of Korean Wave and how these perceptions impacted their views of Korea and its culture. A mixed research design was adopted using qualitative and quantitative methods. The main components of the Korean Wave–dramas, movies, and pop–were analyzed. The data collected showed that the attractive elements of the Korean Wave were related to aesthetic and structural elements, messages, and differentiation. Overall, participants related well to Korean Wave products and felt that they could connect with the cultural content. The impact of Korean Wave products on students' perceptions of Korea and its culture was analyzed through correlation analysis, which revealed that perceptions of Korean wave content correlated with participants' interest in Korean culture.

Introduction

The Korean mass media business has spread worldwide. In the beginning, it was called "Korean Wave" or "Hallyu." More recently, media and entertainment industry magazines use the term "Korean Fever" (Song, 2016). In the early stages of Hallyu, drama and K-pop were centralized, but recently it has expanded to include fields such as movies, games, dancing, food, and fashion.

Suggestions why the Korean Wave has attracted attention include social and cultural, economic, and technical perspectives. From the social and cultural viewpoint, the spread of Korean Wave is based on cultural proximity theory. Cultural proximity theory suggests that audiences tend to prefer media products that are closely related to their own culture (Straubhaar, 2014). Based on a desire for cultural relevance, audiences actively gravitate towards national or regional television programs when they are available. This perspective is supported by the notion from other cultural studies that the audience plays an active role in selecting and interpreting media outputs (Straubhaar, 1991).

The cultural values featured in Korean Wave are attractive to other cultures, such as its portrayal of family values and respect for the elderly. In addition, scholars who advocate for cultural hybridity claim that the blend of Asian traditional elements and Western modernity within the Korean Wave is the key to understanding its global spread. From an economic perspective, the drive for Korean Wave products to meet the needs of Korean consumers has led to improvement in quality, making them competitive not only in Korea, but also abroad. Finally, the technology used is progressive. For instance, as Social Network Service has become an important means of communication, Korean Wave content has utilized such platforms as promotional tools (Parc & Moon, 2013). In addition, advanced technology using computer graphics and augmented reality technology has made the Korean Wave significantly more attractive to consumers.

One effect of the Korean Wave is that the Korean Language (or "Hangul") has been adopted as a second foreign language besides English. The growth in the number of language schools indicates that the status of the Korean language has been getting stronger (Ministry of Korean Education, 2018). According to Wang (2016), 97% of directors and coordinators of curriculum programs acknowledged that the popularity of the Korean Wave was responsible for an increase in Korean language learners.

In addition, the Korean Wave has brought about various economic and cultural effects. According to a Korean International Trade Association (2011) survey, 80% of participants in Japan, China, Taiwan, and Vietnam suggested that the Korean Wave influenced Korean product purchases. The Korean Wave also

has facilitated an increase in the number of foreign tourists visiting Korea, from nearly 300,000 in 1998 to 11.8 million in 2014, mostly from Asia (Bae et al., 2017).

Most of the studies on the Korean Wave are focused on business, culture, tourism, national policy, and motives for wanting to learn the Korean language (Park et al., 2017). Very few studies have addressed how peripheral cultural products, such as Korean Wave products, have become accepted by global audiences. This paper attempts to shed some light on this issue by focusing on the reasons why participants consume Korean Wave products and how they relate to it. The study also explores how consumers' perceptions of Korea and its culture are affected by Korean Wave. Ultimately the entire investigation was based on the following three questions:

1. First, what are the factors that attract students to the Korean wave?
2. Second, how do students relate to the Korean wave?
3. Finally, what is the impact of the Korean wave on students' perceptions of Korea and its culture?

Literature Review
Media and Culture
Because of globalization, the world is spatially integrated into a wide range of interdependent networks. Capital, goods, information, and ideas are closely linked, regardless of distance or location. Popular cultural products and cultural consumption have become increasingly transnational and complex as boundaries have become less clear (D'Silva, 2001; Jung, 2009).

In modern life, it can be argued that mass media has a close relationship with culture (Showkat , 2017). The Korean Wave is a special form of popular culture introduced as a form of commercial nationalism through the media (Lee, 2011). It creates diverse socio-cultural contacts across national and institutional boundaries (Jung, 2009). However, different populations decode and respond to cultural products in various ways (Lee, 2011). D'Silva (2001) identified three codes used by audiences—dominant, negotiated, and opposite codes.

Hallyu (or Korean Wave)
The term "Korean Wave" or "Hallyu" refers to the international spread of Korean pop culture, Hallyu meaning "to flow" (Lee, 2013). It represents the flow of popular culture, but also a wave of transition from a mere political and economic ideology after the Cold War to other paradigms of culture and civilization (Kim, 2015). Hallyu means the flow and spread of Korean popular culture including K-drama and films (1.0), K-pop music (2.0), K-culture (3.0), and K-style fashion and food (4.0).

Korean TV broadcasts, movies, and music began being exported in the early 1990s, but they did not attract a lot of attention until 1997 following the broadcast the Korean drama "What is Love all about?" by China Central Television (Jung, 2009). Since 2000, the Korean Wave phenomenon has spread; Korean Wave 1.0 led to K-pop 2.0 (composed of hip-hop, pop, rock, R & B and electronic music—Touhami & Al-Haq, 2017), causing stimulation of interest in Korean culture.

The development of Internet technology has brought a turning point to Hallyu giving rise to the "Neo-Korean Wave" (Korean Culture and Information Service, 2011). The digitized music and music videos of K-pop have created conditions for reaching the masses. The popularity of global K-pop has been particularly predominant in Asia, but has also spread to the rest of the world (Cruz et al., 2019).

Korean Wave Success Factors
The secret of the Korean Wave's popularity can be found in cultural hybrids. It has been argued that hybridity is the key to understanding the proliferation of media globalization (Kraidy, 2002) on account of the freedom of cultural production and consumption in the free trade era. Dani and Bruno (2015) described cultural hybrids in terms of the modification and merging of cultural elements of the "Orient" and "West" to create appealing new products. Korean pop culture combines the tempting image of modernized Westernness with an appropriate amount of Asian sentimentality, attracting a wide spectrum of spectators (Shim, 2006). Korea has grafted advanced Western cultures onto its own and created its own unique culture (Jang & Paik, 2012).

Technological advances have also aided in the global growth of Korean popular culture with the increased acceleration of globalization (Dani & Bruno, 2015). Social Network Service has now become an important means of communication throughout the world, and is used to promote Korean content (Parc & Moon, 2013). Fans of the new Korea Wave are rapidly expanding from the middle-aged to teenagers and twenty-somethings who are familiar with the digital environment. The popular group "Beyond The Scene" is considered a successful example of social media utilization (Jin, 2018). K-pop music videos incorporate 3D visual cubic and 4D sensuous experiences using colorful and sophisticated techniques (Cho & Sim, 2013). The technologies have enabled sophisticated and skilled editing of dramas, movies, and K-pop, contributing to the success of the Korean Wave.

The Impact of Korean Wave

The success of K-drama/movies and K-pop has led to an interest in Korean culture, food, fashion, and language. According to Fukunaga (2006), people with a strong interest in foreign pop culture are likely to develop critical attitudes, cultural knowledge, and foreign language skills. In Thailand, Korean language has become popular, and students are interested in Korean culture (Song, 2016). With regards to Thailand, the Korean Wave has facilitated the integration of Korean cosmetics, clothing and cuisine into Thai society, particularly amongst the youth. This has been partly driven by the desire of Thai K-pop fans to imitate the physical appearance of their favorite Korean celebrities (Prasopsorn & Panmanee, 2019).

According to Statista (n.d.), inbound visitors to Korea increased from 5.32 million in 2000 to 13.34 million in 2017. Due to the Korean Wave, Korea has become a tourist hotspot for foreign tourists on account of visits to drama and movie locations, and to enjoy K-pop concerts.

The Korean Wave has raised the value of Korean brand products. The economic impact of the Korean Wave showed a continuous increase from 2011 to 2014 (Song, 2015). In particular, the medical (cosmetics) tourism, cosmetics, and beauty industries have been directly influenced by the phenomenon. Korean stars are leading the trend of consumers as their fashion and styling products are being sold in Asia where the Korean Wave is influential (Bae et al., 2017).

Embodiment, Identity, and Global Engagement

K-pop fans form part of "a dynamic community that imagines itself as transcending national boundaries" (Swan, 2018). Whilst the global Korean Wave community are dispersed geographically, it is tightly connected by a sense of affinity, devotion, and belonging. This construction of closeness within the transnational Korean wave community is facilitated through the intimacy of online spaces allowing fans to connect, share, and express. Far from being passive pop-culture consumers, individuals are active participants in the Korean Wave, leading fans to engage with popular culture in creative and even transformative ways (Swan, 2018). Safe spaces of transnational connection are formed, in which expression and identity formation can take place. The fan community itself and the shared passion and devotion it encompasses constitutes the safe space in which in-group interactions are fostered. It is within such spaces that fans have the freedom to explore alternative means of understanding and expression that lie beyond the confines of Eurocentric, patriarchal ideologies in which the physical and emotional articulation of feelings is devalued (Swan, 2018). Through his exploration of YouTube reaction videos, Swan revealed the important role of place, body, and emotion in K-pop fan engagement, and the ways in which K-pop videos facilitated identity construction, indicating the embodied and emotional engagement of K-pop fans (Swan, 2018).

The issue of identity resonance between the viewer and the media content was explored by Seto and Martin (2019). Their study focused on the media practices of Southeast Asian transmigrants in Australia. Participants sought out Sinophone media forms that enabled them to connect with the homeland and to reengage with familiar sounds and sights. They experienced the local media as exclusionary and alienating. The study exemplifies the ways media products contribute to the materializing of the life worlds of consumers and their sense of place and migrant identity.

The worldwide success of Korean popular culture is on account of its products being "transculturally intelligible" (Cruz et al., 2019), and it has disrupted Western dominance of cultural globalization. The

consumer translator role constitutes a pivotal enabling force in this movement, as fans play an active part in interpreting and expressing K-pop content in locally meaningful ways. Translation is the process that enables text from one semiotic context to be rendered intelligible in another. This level of fan participation is particularly important for peripheral cultural products such as K-pop, which face additional barriers to internationalization when compared to more centralized Western products. Cruz et al. (2019) have highlighted that the translation practices of K-pop fans enables non-Korean consumers to connect unfamiliar elements with their own life worlds. Translation provides the means to access and embody K-pop as a cultural form; it also facilitates the negotiation of identity dimensions and boundaries.

Methodology
Research Design
A mixed research methodology was used combining qualitative and quantitative design. Qualitative open-ended questions were used to establish participants' relationship to the Korean Wave and its attractive elements. The impact of the Korean Wave on participants' behavior was analyzed through quantitative questionnaire items.

Research Setting
This research study was carried out at the Muak Lek Campus of Asia-Pacific International University, Thailand, during the 2018/2019 school year. At that campus there were 756 students from 32 countries. More than 90% of the students were from Asian countries.

Sampling Procedure
Purposive sampling was adopted, using a non-probability method for participant selection (Palinkas et al., 2015). Data were gathered using an online survey of undergraduate students (*N* = 718), excluding Koreans, over a three-week period (April to May 2019). Ninety-two responses were received.

Survey Instrument and Data Collection
The questionnaire was conducted using a Google survey program. The questionnaire was produced in English for international students (60.2% of students) and in Thai (39.8 % of students). Multiple-choice and open-ended qualitative questions were included. Questions pertaining to K-movies and dramas were kept separate from those related to K-pop. A 4-point Likert scale was used: *strongly disagree* (1), *disagree* (2), *agree* (3), and *strongly agree* (4). Demographic information was included in the first section of the questionnaire.

Five experts evaluated the questionnaire: the Content Validity Index value was .91, exceeding the minimal level of .80, indicating its validity. Some items were modified to make them more appropriate. The research study also received ethical approval.

Data Analysis
Each item of quantitative data was assigned a unique identification number. In the case of the numeric converted data, the mean values were obtained from Excel, and the Statistics Package for Social Sciences program was utilized for correlation analysis.

The open-ended questions were subjected to thematic analysis. Key issues were identified, and certain key words and phrases highlighted. A number of themes were then established within the data, indicated by similar words and statements. Each theme was looked at individually to decipher theme dynamics. Finally, data were analyzed and explained using examples that clearly conveyed each theme.

Results and Discussion
Demographic Representation
In terms of gender, 63% were female and 37% male. The majority (39.1%) were freshman, 25% were sophomore, 14.1% were junior, and 21.7% were seniors. Some were younger than 19 (17.4%), 55.4%

were in the 20 to 22 age group, 19.6% were between 23 and 25, and 7.6% were older. Participants originated from 11 different countries; Thais 58.7% and Malaysians 13% were the largest groups with the remainder from Asia, except for sole representatives from Sweden and Zambia.

Participants (89.1%) expressed some interest in the Korean Wave, while 10.9% of participants were not interested. Participants were most commonly introduced to the Korean Wave through media sources (52.2%), friends (40.2%), family members (5.4%), and others (2.2%). Participants reported that they had been interested in the Korean Wave for more than five years (38%), 27.2% for less than one year, 18.5% for three to five years, and 16.3% for one to three years. In general, participants seemed to have a high consumption of K-drama (47.8%), K-pop (34.8%), and K-movies (17.4%).

Perceptions of Korean Wave—Structured Questions

For the analysis of participants' perceptions of K-dramas/movies and K-pop, a total of 20 statements were presented to them. Table 1 shows students' perceptions of Korean dramas/movies.

Table 1 *Perceptions of Korean Dramas and Movies (N = 92)*

No.	Items	Mean Value
1	I am able to identify with the characters of Korean dramas/movies.	2.68
2	The stories of the characters are similar to my own life.	1.98
3	I can connect emotionally with the characters in Korean dramas/movies.	2.68
4	I can identify well with the plot of Korean dramas/movies.	2.67
5	I can relate well to the culture portrayed in Korean dramas/movies.	2.53
6	I can relate well to the morals and values portrayed in Korean dramas/movies.	2.67
7	There are similarities between my culture and the culture portrayed in Korean dramas/movies.	2.30
8	It is difficult for me to relate Korean movies/dramas to what happens in my own life.	2.54
9	The culture portrayed in Korean dramas and movies is different from my own.	2.20
10	The culture portrayed in Korean movies/dramas conflicts with my own culture.	2.76

According to Table 1, participants generally identified with K-dramas/movies (#4), agreed that they could identify with the stories and the characters (#1), and could connect emotionally with the characters. Understanding of morals and values in K-dramas/movies (#6) showed their understanding of Korean culture described in them (#5) as well. This is perhaps because most participants (97.8%) were Asian and therefore had some similar cultural values (#7). This agrees with cultural proximity theory, which indicates that people favor media products with similarities to their own cultures (cf. Jung (2009). However, participants disagreed that the lives depicted by the characters in K dramas or movies were similar to their own (#2), indicating a difference between the reality of K-dramas/movies and the reality of participants' own lives (#8). Participants agreed that there were differences (#9) or conflict (#10) between their own cultures and the culture portrayed in the Korean dramas/movies. Overall, participants agreed that they could relate to Korean dramas/movies (mean score 2.50). These results strengthen the idea that the Korean Wave is a cultural hybrid that creates attractive new products for audiences in different cultural environments, as claimed by Dani and Bruno (2015) and Shim (2006). The data give evidence of cultural translation amongst participants, allowing them to give local interpretations to K-dramas and movies despite cultural differences (Cruz et al., 2019).

According to sociologist John Lie (2012), K-pop reaches out to the masses with its fusion of infectious beats, proficient dance, and American-led pop music. The powerful use of English lyrics and the melody attracts the listeners. As presented in Table 2, participants indicated that they were able to identify K-pop lyrics (#1) and connect to the music emotionally (#2). Participants could identify with the K-pop

singers (#5) who touched their emotions (#3), and participants were able to connect emotionally with the melody and rhythm of the songs (#4).

Participants thought that K-pop singers were role models, that their songs promoted agreeable moral values, and that they could relate the messages of K-pop songs to their own lives. This perception is connected with the K-pop singers' politeness, attractive appearance, tender attitude, and the messages of the songs that appealed to the audience (Lie, 2012). On the other hand, as shown in items 9 and 10, participants agreed that it was difficult to relate the lyrics to their own lives or to connect emotionally with the melody of K-pop due to imperfect translation (Cruz et al., 2019). However, overall participants agreed that they could relate to K-pop (mean score 2.41).

Table 2 *Perceptions of K-pop (N = 92)*

No.	Items	Mean Value
1	I am able to identify with the lyrics of K-pop.	2.14
2	I can connect emotionally with the lyrics of K-pop.	2.35
3	The voice of the singer touches my emotions.	2.66
4	I can connect emotionally with the melody and rhythm of K-pop.	2.54
5	I can identify with the K-pop singers.	2.39
6	I see K-pop singers as good role models.	2.27
7	I agree with the morals and values promoted in K-pop songs.	2.33
8	I can relate the messages of K-pop songs to what happens in my own life.	2.28
9	It is difficult for me to relate the lyrics of K-pop to what happens in my own life.	2.55
10	It is difficult for me to connect emotionally with the melody of K-pop.	2.57

Curiosity about other cultures can be manifested in behaviors. Mariani (2008) and Lita and Yoon (2012) indicated that consumers exposed to various media can show positive attitudes and a desire to familiarize themselves with the culture. Table 3 shows how the mental condition of the participants exposed to the Korean Wave was reflected in their behavior and attitudes.

Table 3 *The Impact of the Korean Wave (N = 92)*

No.	Items	Mean Value
1	Korean Wave has influenced my image of Korea.	2.70
2	Because of Korean Wave, I now desire to travel to Korea.	2.60
3	Korean Wave has made me interested in eating Korean food.	2.89
4	Korean Wave has made me more interested in Korean fashion and beauty.	2.77
5	Korean Wave has made me want to experience traditional Korean culture.	2.73
6	Because of Korean Wave, I became a consumer of Korean products.	2.46
7	Because of Korean Wave, I am interested in making Korean friends.	2.55
8	Korean Wave has made me interested in the Korean language.	2.63
9	I want to learn Korean so that I can better understand Korean dramas, movies and K-pop.	2.59
10	Because of Korean Wave, I am learning Korean.	2.20

Participants generally agreed that the Korean Wave had an impact on their image of Korea (#1). This agrees with Lee's (2011) data, which indicated that the Korean Wave was raising the national image. Generally, participants expressed a desire to go to Korea (#2) and agreed that the Korean Wave had made them interested in Korean food (#3) and fashion/beauty (#4). This is consistent with Lita and Yoon's (2012) study that consumers of culture find information about the lives of actors, follow their lifestyles, and collect related goods.

Participants also expressed their interest in actions. They have become consumers of Korean products (#6) and had a desire to experience Korean traditional culture (#5). They also wanted to make Korean friends, and showed curiosity about the Korean language. Participants were motivated somewhat (#10) to learn Korean because they wanted to understand K-dramas/movies or K-pop better. The overall mean score of 2.61 suggests that participants' positive preference for the Korean Wave can lead to consumer behaviors, as well as cultural awareness of and desire for aspects of Korean culture such as food, language, and the desire to visit the host country.

Correlations were sought between responses shown in Table 1 and impacts identified in Table 3. Uniformly strong correlations ($p < .01$) were found between Perceptions 1, 3, 4, and 6 with all Impacts 1 to 10. Perception 5 showed strong correlations for Impacts 2 to 10 inclusive, and Perception 7 for Impacts 2 and 4 to 10. In addition, Perception 10 was correlated strongly with Impact 10 and Perception 9 with Impacts 3 and 5. Weak correlations ($p < .05$) were found between Perception 6 and Impact 6 and Perception 7 and Impact 4. Therefore, it was confirmed that students' perceptions of K-dramas/movies influence their behavior and attitudes toward the Korean Wave.

Similarly, correlations were sought between responses shown in Table 2 and impacts identified in Table 3. Uniformly strong correlations were shown between K-pop items 3, 6, 7 and 8 and all Impact items 1 to 10. K-pop items 2 and 5 showed strong correlation with items 2 to 10 inclusive and weaker ($p < .05$) correlations for Impact item 1. And item 1 showed a strong correlation with Impacts 2, 4, 6 to 10 and weaker correlation ($p < .05$) for Impacts 1 and 5. K-pop 4 also showed a weak correlation with Impact item 10. Therefore, students' perceptions of K-pop had a higher correlation with variables related to attitudes towards Korea than with perceptions of K-drama/movies.

Attractive Elements of Korean Wave
Aesthetic Elements
The most attractive element of the Korean Wave identified was the physical appeal and fashion of K-drama/movie actors/actresses and K-pop singers. Parc and Moon (2013) argued that the Korean Wave's competitiveness came from young actors/actresses who are tall and beautiful in appearance. Participants made the following comments about their attraction to Korean Wave products:

Attractive actors/actresses and their acting skills (Respondent #11, F, Filipino)

Girls groups are very pretty (33, M, Chinese)

I like their fashion. Which is why I watch their video songs. (42, M, Malaysian)

Statements by participants indicated they were attracted by physical appeal, and they showed a favorable impression towards the fashion styles of Korean Wave stars. In particular, the mention of fashion appeared more in relation to K-pop than to K-dramas/movies. This shows that K-pop stars are spreading Korean fashion trends in various regions including Asia (Korean Culture and Information Service, 2011). The performance skills of actors were also important to some viewers (Parc & Moon, 2013) as was expressed by one participant in the study.

Music and Dance
K-pop fans deemed fast beats, sweet melodies and group performances as attractive, while those commenting on K-drama/movies pointed to the background music. This relates to the quantitative results, in which participants showed an emotional connection to the melody and rhythm of K-pop (mean score 2.54). Participants expressed the following about music and dance:

K-pop songs can be easily related to, as with the case of Bangtan Sonyeondan (BTS). (14, M, Indian)

Good performances in dancing and singing (40, M, Cambodian)

The dance where they move at the same time and the good meaning of the songs (46, F, Thai)

The songs of the drama are fun and interesting (85, F, Thai)

Most of the K-pop groups consist of teenage boys and girls, each with their own personality. World class choreographers train them to move in synchrony as if one person is dancing. These physical expressions transcend national borders and appeal to young people around the world (Korean Culture and Information Service, 2011). In the case of dramas, the musical element is not as strong as in K-pop, but as the 85th respondent mentioned, background music increases the fun and interest levels. These comments indicate that music and dance have delivered universal emotions and ideas that everyone can easily interpret.

Storylines

Stories are one of the most important elements of the success of K-dramas/movies. The composition of various genres, including the melodies, captivates the audience. Participants were interested in fantasy and action, including romantic stories, and they agreed that they were able to identify with the stories of K-dramas/movies (mean score 2.67). In the case of dramas, each series is quite brief, so viewers can maximize immersion. Below participants' explained why they enjoy K-dramas and movies:

Because it is short, interesting, they directly go to the main point and not go around in a circle with the story… the time spent for one episode is moderate. (7, F, Indonesian)

Nice story, interesting, showcase of modern and traditional Korean Culture (12, F, Filipino)

Most of the plots can persuade me. (26, F, Myanmar)

The reason why K-dramas/movies can appeal to various generations and social groups across national borders is that they combine resonance, beauty and poetic beauty with descriptions of Korean traditions, "pure love," nostalgia, longing, and character portrayals (Parc & Moon, 2013). The stories can be very persuasive to Korean Wave audiences, as two of the participants suggested.

Lyrics (K-pop)

K-pop songs convey messages to the audience through lyrics. Despite the language barrier, participants indicated that they found the lyrics attractive. This was reflected in this study, where participants were able to identify with K-pop lyrics (mean score 2.14) and connect with them emotionally (mean score 2.35). Participants said the following about K-pop lyrics:

If I listen to it a few times, then the next time I will be able to sing along. (1, F, Malaysian)

Not that I understand Korean, these day they provide the subtitle so I understand what they are singing (17, F, Malaysian)

Easy words in the lyrics makes me know that it is heart breaking song. If I continue listening until I can sing, I will understand the song more. (73, F, Thai)

One characteristic of K-pop is the mixed Korean and English lyrics, and the fact that they have a repeated chorus. Some popular music critics say that this structure is effective in getting audiences to subconsciously follow the songs, even if they cannot fully understand the content (Korean Culture and Information Service, 2011). The creativity has succeeded in attracting consumers' attention. K-pop listeners can easily sing along if they listen to a song several times, as indicated by one participant.

Message

Participant responses revealed that the rich stories of K-dramas/movies can be decoded according to a viewer's individual situation and values. Comments by participants indicated that the lyrics had a deep meaning and provided lessons on how to solve family problems, and assisted them to find knowledge and lessons to apply to their lives.

They inspire the youth to work hard to achieve their dream (6, F, Malaysian)

I have faced similar situations that characters have faced on screen. (14, M, Indian)

Education of morals was helpful me to solve problems in my family situation. (25, F, Cambodian)

The lyrics from most Korean song have a really deep meaning. (31, F, Malaysian)

The above comments are in line with the finding that K-pop messages are related to participants' lives (Table 2, #8), and perhaps explain why they could connect emotionally with the characters (Table 1, #1). Most K-pop singers are young and striving to fulfill their dreams, so they are able to reflect this sentiment to many of their Korean Wave fans. This shows that the media plays an important role in shaping a person's sense of reality (Showkat, 2017). As shown in Seto and Martin's (2019) study, the engagement of these participants goes beyond passive entertainment so that these media products are being experienced and connected with in affective and practical ways.

Differentiation

One reason why the Korean Wave has maintained worldwide popularity is its uniqueness. Participants considered the music unique, interesting and appealing, creative, and of high quality:

Their music is unique (3, M, Thai)

They make the music video interesting and appealing… there is actually meaning behind the music videos they make (5, F, Indonesian)

They have their own creative way to present their culture. (12, F, Malaysian)

The Korean dramas are made high quality (47, F, Thai)

The differentiation of the Korean Wave can be described as a form of cultural hybridity that makes new products attractive to audiences in different cultural environments (Dani & Bruno, 2015; Shim, 2006; Jang & Paik, 2012). This encompasses cultural interactions connecting countries and communities (Jin & Yoon, 2017). It is on the grounds of this transcendence of national boundaries that the Korean wave poses a challenge to the centrality of Western media products (Cruz et al., 2019). K-pop music videos show colorful and elaborate technology that provide 3D visual cubic and 4D sensory experiences (Cho & Sim, 2013). These technologies have enabled elaborate and skilled editing of dramas, movies and K-pop, making them an important success factor of the Korean Wave.

How Participants Relate to the Korean Wave
Identity

For members of the East-Asian community, the Korean Wave plays an important role in reminding them of their national identities. The participants indicated that they had something in common with the Korean Wave content with regards to lifestyle, religion, and values. Participants felt that Korean culture and their own cultures were similar (Table 1, #7), and that they could relate well to Korean culture (Table 1, #5). The perceptions were reinforced by comments received in relation to marriage and respect for elders and parents, showing that the media plays an important role in disseminating cultural norms and values in daily life (Showkat, 2017).

The fact that Korean popular culture confirms the identity of Asians supports the theory of cultural proximity. On the other hand, scholars suggest that the Korean Wave is the result of a combination of Eastern and Western cultures (Kraidy, 2002). The participants expressed opinions about the greater freedom, openness, and mobility of Korean society. Perceptions differed on whether a conservative or Westernized view was being conveyed:

The difference in culture is that they are more open than us in the term of relationship. (5, F, Indonesian)

Their way of life is freer and more mobile. (15, M, Indonesian)

Koreans seem to be westernized a bit. (42, M, Malaysian)

Thai openly accept transgender. Korean has perspective of stereotype. Their perspective are sometimes hard to explain and sometime their perspectives are very strong. (73, F, Thai)

Here we see participants' interpretations of Korean popular culture in light of their own. In this regard some participants considered Korean wave to be 'open', 'free' and 'Westernized'. However, the Thai participant suggests that Koreans have a conservative outlook. In this sense, the Korean Wave is, in fact, a mixture of traditional Korean values and Western ideas and lifestyles (Shim, 2006), so there are variations in the interpretations of Korean popular culture.

In some cases, participants felt that the differences between Korean culture and their own culture caused conflicts. Some participants who perceived this cultural heterogeneity had negative feelings about the Korean Wave, with some concern being expressed that the style and behavior of the singers was unhealthy for adolescents, and that the lyrics were inappropriate. Kaisii (2017) and Touhami and Al-Haq (2017) suggest that the enthusiasm around such media products may be considered a threat to local cultural identities.

Realism and Escapism

Participants linked the drama characters' stories and song lyrics to their lives; thus, they said that they were realistic. They also indicated that they learned about the knowledge, values, life and culture of Korea, which enriched their experiences. This shows that audiences are deciphering and accepting the media in a variety of ways (D'Silva, 2001). The following responses reflect this:

I personally think that I'm not only into k-pop and stuff but I'm most interested in the Korean culture. Hope to visit Korea one day! (1, F, Malaysian)
Korean dramas gives us more insight to different aspects of life, such as: family, psychology, medical, military and etc. (19, F, Indonesian)
It has a good moral to teach people which can help people to think critically in a creative way and apply it in the reality of life. (25, F, Cambodian)

These participants indicated that they had expanded their knowledge and experience through the Korean Wave, and had a practical approach towards Korean Wave products. This seems to be related to the mean score recorded for the overall impact of the Korean Wave (Table 3), which shows that a positive preference for it can lead to a greater awareness of and desire for aspects of Korean culture. This may represent some level of cultural romanticization on the part of participants. In particular, the statements pertaining to the shaping of perceptions and morals demonstrate the potential for the examination and negotiation of local cultures through peripheral media spaces. While some participants accepted the stories of K-dramas/movies as realistic, other participants separated them from reality and saw them as a form of escapism:

Because it shows the unrealistic fantasy world which we all wants to live in, and that is the sole reason I'm interested in it. (42, M, Malaysian)

Watching Korean dramas makes me feel relax from studying, which makes me tired (49, M, Thai)

Participant 42 perceived that the world shown in K-dramas/movies is based on fantasy which resonated with his own ideals. Participant 49 attempted to relieve stress and tension of studying through K-drama.

Conclusions

Regarding the attractive elements of the Korean Wave, participants mentioned aesthetic factors, message, and differentiation. Most of these matched with popular Korean Wave factors mentioned in previous studies. Aesthetic factors include physical appeal, music and dance of K-drama/movie actors/actresses and K-pop singers. Structural elements included the storylines of K-dramas/movies and

the lyrics of K-pop. These structures were linked to messages that appealed to audiences. Participant perceptions of K-dramas/movies and K-pop were related to the Korean culture's moral values, which made the Korean Wave accessible and acceptable. Another attraction of Korean Wave was differentiation; participants appreciated its quality while accepting it as novel and new.

Participants felt both a sense of homogeneity and of diversity towards the Korean Wave compared to their own cultures. Their opinions supported the assertions of cultural proximity theory. However, there were variations in participants' interpretations of the Korean Wave content, and they also acknowledged points of divergence, such as the integration of Western lifestyle. Some felt that there were conflicts between their own cultures and Korean culture. Through participation in Korean Wave, participants were able to process and escape from reality.

Participants' perception of Korean Wave content led to an understanding and interest in aspects of Korean culture. In particular, they appreciated the physical attraction of Korean Wave stars and found the storylines of K-dramas/movies attractive. This was also seen in the case of K-pop. Whilst this can be viewed as a positive progression, this heightened interest could indicate the romanticizing of Korean culture through Korean Wave products. This may lead to superficial idealization and fetishism around all things Korean and distorted notions of Korean life. In worse cases, this may also result in the dehumanizing of Koreans, as the unique personalities of individuals are reduced to stereotypes and certain aesthetic features.

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Factors Influencing Behavioral Intention to Use and Use Behavior of
Mobile Banking in Myanmar Using a Model Based on Unified Acceptance Theory

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Abstract

In this study factors were explored that influenced behavioral intention and adoption of mobile banking by bank customers in Myanmar. The model used adapted factors from the extended Unified Theory of Acceptance and Use of Technology, along with perceived risk. A structured questionnaire was used to collect data using purposive sampling. Four hundred and six valid responses received from mobile banking customers were analyzed using a structural equation model. The results showed a positive and significant relationship between behavioral intention and performance expectancy, hedonic motivation, and habit. The effect of behavioral intention on use behavior was also significant, while the relationships between behavioral intention and effort expectancy, facilitating conditions, social influence, price value, and perceived risk were not significant. The results suggested applicable guidelines for banks to effectively implement and design mobile banking in Myanmar.

Keywords: *Unified Acceptance Theory, perceived risk, mobile banking*

Introduction

The banking industry has been revolutionized by advancements in telecommunication and information technology. Banks were forced to provide and advance self-service banking applications to mobile devices with their increase use and the availability of high-speed Internet-enabled mobile phones, smartphones, and tablets, which are multifunctional, sophisticated, and linked to fast and reliable communication networks. According to Poushter (2016), business growth based on the mobile sector has increased considerably worldwide, especially in emerging countries.

Due to the increased usage of the Internet with mobile devices, especially in many emerging countries, it provided an excellent opportunity to develop mobile banking in financial markets. In Myanmar, a developing country, Internet usage with mobile devices has increased considerably in recent years (GSMA, 2019). More than 70% of the population in Myanmar has access to the mobile Internet (Holm & Karlsson, 2019), and 80% of the population have mobile phones and smartphones (Charles, 2019). However, according to Charles (2019) and Zainudeen and Galpaya (2015), only 23% of the adult population have bank accounts, and only a few use banking services. In other words, cash is still the primary tool of exchange in Myanmar. According to Breen (2020), banks are trying to seize opportunities presented by mobile technology to provide new services.

Mobile banking resulted from the activities of financial institutions' integrating technological innovation with their information systems. Mobile banking systems provide customer value in terms of time and place accessibility (Lin, 2011; Chong, 2013). Ensor et al. (2012) argued that mobile banking was considered a valuable channel for delivering financial information to customers, making it easier to check account balances and transfer funds to and from accounts irrespective of their location.

Although mobile penetration has been gaining momentum and most banks offer mobile banking, there is still low familiarity and poor understanding of mobile banking among Myanmar users (Thar et al., 2017). Therefore, it was desirable to do exploratory research to understand the adoption levels of mobile banking and users' attitudes toward it in Myanmar (Holm & Karlsson, 2019). A few studies have adapted the Unified Theory of Acceptance and Use of Technology (UTAUT) model to explore the acceptance level of mobile banking users and the antecedents of their behavioral intention to use. In this research the objectives were to gain an overview of the attitude toward and usage of mobile banking in Myanmar. The specific objectives of this study were to investigate the factors influencing behavioral intention and the effect of behavioral intention on use behavior. The aim was to examine

whether the seven factors of the extended UTAUT model (UTAUT2) positively impacted behavioral intention to use, and to know whether perceived risk had a negative impact on behavioral intention to use. An understanding was sought concerning the relationship between behavioral intention to use and use behavior of mobile banking users. Therefore, the UTAUT2 was applied, which included assessing the perceived risk. Such an approach was bound to contribute to the technology adoption literature regarding mobile banking in a developing country.

Literature Review

There are various theoretical models to examine the adoption process and usage characteristics of technology. Among them, the UTAUT represents a framework developed by Venkatesh et al. (2003). This model was applied to predict technology acceptance levels in organizational systems. Moreover, the model was based on unifying the primary eight elements used in previous models, ranging from human behavior to computer science. The UTAUT approach considered four main factors that influenced behavioral intention and usage of information technology, according to Venkatesh et al. (2003). The four main factors were performance expectancy, effort expectancy, facilitating conditions, and social influence.

Venkatesh et al. (2012) defined performance expectancy as "the level of benefits that technology usage provided to the consumer in functioning some activities." Consumers tended to accept technology if they perceived that the technology was useful and supportive (Alalwan et al., 2016). From the customers' perspectives, effort expectancy was defined as "the extent of easiness that consumers experience while using a particular kind of technology" (Venkatesh et al., 2012). Since particular skill and knowledge levels are needed to apply a new technology, effort expectancy was bound to affect customers' adoption conditions for mobile technology (Alalwan et al. 2016).

A facilitating condition was defined as "the level of consumers' perception of availability for inputs and supported activities to behave in a certain way" (Venkatesh et al., 2012). Facilitating conditions were recognized as significant during the adaption of a new technology due to the requirement of a certain kind of support associated with technological matters and organizational actions (Alalwan et al., 2016). Social influence is thought of as "the degree of consumers' perception of which important person in their environment thinks they should apply a certain technology" (Venkatesh et al., 2012). Social influence can be a critical determinant affecting users' intentions to use new technology, since information and recommendations received from others can be significant (Alalwan et al., 2016).

The UTAUT approach was extended by Venkatesh et al. (2012) from the consumer perspective on technology by adding three factors, namely, hedonic motivation, price value, and habit. This extended form of UTAUT was called UTAUT2. The hedonic motivation was "the enjoyment or happiness resulted from usage of a certain technology," according to Venkatesh et al. (2012). It was focused on an intrinsic part of the motivation in customer technology rather than the extrinsic part of motivation from an organizational perspective (Tamilmani et al., 2019). According to Zhang et al., (2012), the more enjoyment users perceived, the greater the adoption level seen for a new technology. From an information system perspective, habit was referred to as the level at which people were eager to act voluntarily due to prior learning (Limayem et al., 2007). Past behavior with technology could affect present actions with related technology (Ajzen, 2002). Price value was "the trade-off condition caused due to the variance between benefits and monetary cost" (Venkatesh et al., 2012). These authors also argued that price was usually an essential factor in the consumer context, since the user had to bear the costs associated with adopting the technology.

The UTAUT adoption studies, completed in the context of m-commerce, m-banking, and m-payment, have extended the core model with relationships adopted from other models or studies. Moreover, three constructs–namely perceived risk, trust, and perceived financial cost–were not derived from the core model. However, each has gained significant support for its impact on behavioral intention in m-commerce, m-banking, and m-payment contexts (Slade et al., 2014). As m-banking involves the transfer of money electronically, perceived risk is highly relevant to the context, and hence this construct was proposed as an extension to UTAUT2.

Hypothesis Development

From the marketing aspect, using a single model to examine the conditions of adopting information technology has been assumed, and is difficult to explain (Madan & Yadav, 2016). Therefore, the current study applied the UTAUT2 model by extending it, with perceived risk as a new variable, in order to understand better the mobile banking system's features. The conceptual framework used in the present study is shown in Figure 1.

Figure 1 *Conceptual Framework*
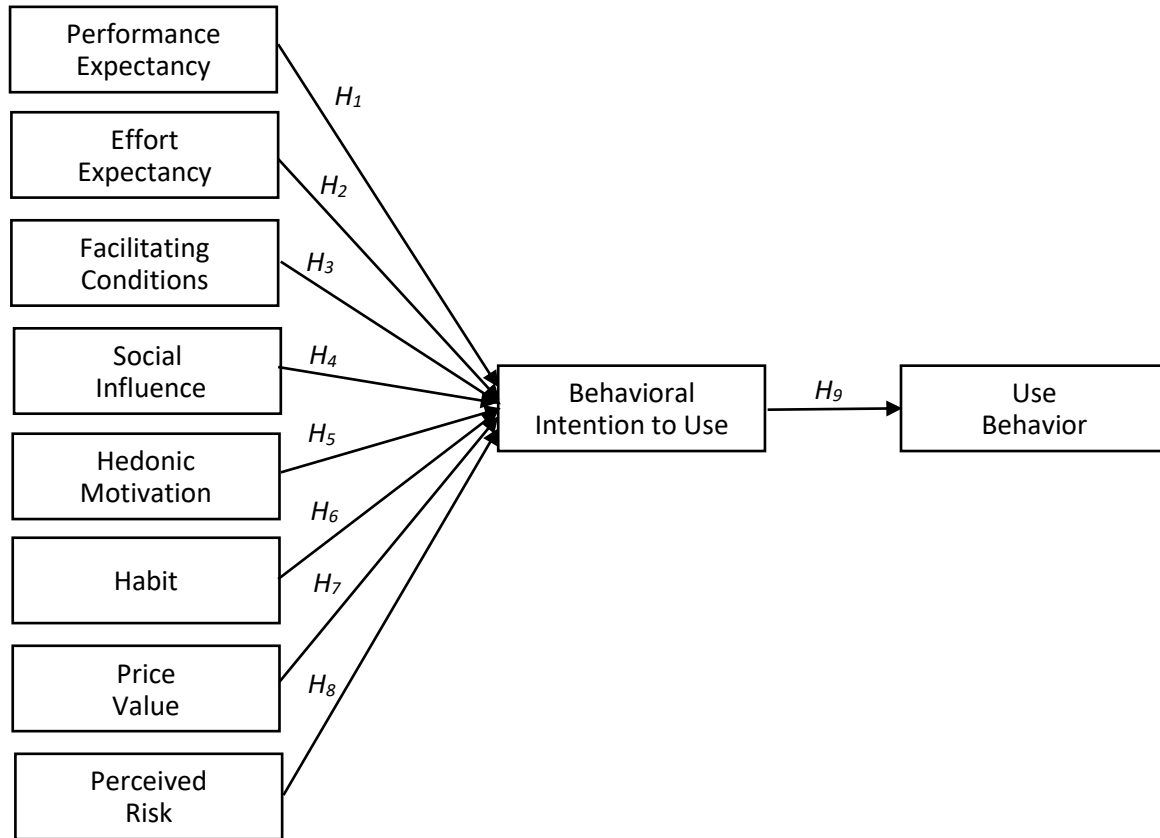
Performance Expectancy and Behavioral Intention to Use

Performance expectancy was one of the significant, influential factors encountered in the adoption process of technology, according to Venkatesh et al. (2003). Although performance expectancy was not a predictor for behavioral intention to use in previous research done by Kwateng et al. (2019), it had a positive impact on behavior intention in several contexts, including mobile banking (Savic & Pesterac, 2019), mobile applications (Tak & Panwar, 2017; Gupta et al., 2018; Palau-Saumell et al., 2019), electronic payments (Indrawati & Putri, 2018), and mobile payments (Lee et al., 2019). Therefore, the following hypothesis was proposed:

H_1: Performance expectancy positively influences behavioral intention to use.

Effort Expectancy and Behavioral Intention to Use

When users recognize that technology is easy to use, they are more eager to apply this technology, according to Lin (2011). Although effort expectancy did not affect behavioral intention to use in some studies (Kang et al., 2015; Alalwan et al., 2017), it was the significant determinant of behavioral intentions in different mobile contexts, ranging from mobile banking (Savic & Pesterac, 2019) to mobile applications (Tak & Panwar, 2017; Palau-Saumell et al., 2019). Therefore, the following hypothesis was made:

H_2: Effort expectancy positively influences behavioral intention to use.

Facilitating Conditions and Behavioral Intention to Use

Facilitating conditions are crucial in the adoption process of technology, according to Venkatesh et al. (2003). Although facilitating conditions did not affect behavioral intention to use in some previous researches (Kwateng et al., 2019; Lee et al., 2019), they had a strong relationship with behavioral intentions (Tak & Panwar, 2017; Cai et al., 2019; Palau-Saumell et al., 2019; Savic & Pesterac, 2019). Therefore, the following hypothesis was generated:

H_3: Facilitating conditions positively influences behavioral intention to use.

Social Influence and Behavioral Intention to Use

Social influence has been assumed to be a primary factor in exploring the adoption process of technology, according to Venkatesh et al. (2003). Indeed, it was found to be a crucial factor in predicting behavioral intentions (Fajar et al., 2018; Gupta et al., 2018; Moorthy et al., 2019; Piarna et al., 2020). In some studies, social influence did not affect behavioral intention to use (Baptista & Oliveira, 2015; Kwateng et al., 2019). However, it had a significant relationship with behavioral intention to use in the mobile banking context (Alalwan et al., 2017; Lee et al., 2019) and e-banking context (Ghalandari, 2012). Therefore, the following hypothesis was made:

H_4: Social influence positively influences behavioral intention to use.

Hedonic Motivation and Behavioral Intention to Use

According to Venkatesh et al. (2012), hedonic motivation refers to perceived fun or enjoyment resulting from mobile technology usage. If users gained enjoyment from mobile phone usage, they tended to use their mobile phones more (Park & Lee, 2011). The mobile phone has been assumed as an entertainment device for some users, so that hedonic motivation can be seen as critical in adopting mobile banking technology (Merhi et al., 2019). Some researchers have shown that hedonic motivation was strongly related to behavioral intention (Phang et al., 2018; Moorthy et al., 2019; Putra et al., 2019). Although hedonic motivation does not always affect behavioral intention to use (Kwateng et al., 2019; Merhi et al., 2019), it was a critical factor affecting behavioral intention to use in the mobile banking context (Alalwan et al., 2017; Raza et al., 2019). Therefore, it was hypothesized that:

H_5: Hedonic motivation positively influences behavioral intention to use.

Habit and Behavioral Intention to Use

Venkatesh et al. (2012) described habit as a significant factor that could predict behavioral intention and usage of technology. Although habit does not always affect behavioral intention to use in technology users (Shaw & Sergueeva, 2019), it has been accepted widely as being a strong predictor of behavioral intentions across various contexts, including mobile learning (Moorthy et al., 2019), mobile wallet (Indrawati & Putri, 2018), and mobile applications (Gupta et al., 2018; Khurana & Jain, 2019). Therefore, the following hypothesis was proposed:

H_6: Habit positively influences behavioral intention to use.

Price value and Behavioral Intention to Use

To complement UTAUT's primary resource considerations, Venkatesh et al. (2012) applied price value as a financial matter. They defined price value as a consumer's perception of the discrepancy between the received benefits and cost of the money used. Although price value did not affect behavioral intention to use by technology users in some previous researches (Baptista & Oliveira, 2015; Alalwan et al., 2017), it may have a positive relationship with behavioral intentions in several contexts, including mobile applications (Khurana & Jain, 2019; Hungilo et al., 2020) and mobile wallet (Indrawati & Putri, 2018). Therefore, the following hypothesis was made:

H_7: Price value positively influences behavioral intention to use.

Perceived Risk and Behavioral Intention to Use

The consequence of feelings of uncertainty and anxiety are known as perceived risk from the customer's perspective. These feelings are concerned with the behavior and the seriousness of possible outcomes of the behavior. Perceived risk is related to the consumer's concerns about finance, relationship, and product features while conducting a particular online transaction (Forsythe & Shi, 2003). Many previous researchers have pointed out a significant and negative relationship between perceived risk and behavioral intention in the mobile application context (Gupta et al., 2018; Khurana & Jain, 2019; Piarna et al., 2020). Therefore, it was hypothesized that:

H_8: Perceived risk negatively influences behavioral intention to use.

Behavioral Intention to Use and Use Behavior

Behavioral intention was the extent of the likelihood of conducting something rather than examining actual behavioral conditions (Wu & Wang, 2005). Earlier researchers found that behavioral intention was positively related with use behavior in several contexts, including mobile applications (Gupta et al., 2018), the banking industry (Putra et al., 2019), and online shopping (Piarna et al., 2020). Therefore, the following hypothesis was made:

H_9: Behavioral intention to use influences use behavior positively.

Research Methodology

A structured questionnaire was used in this study to examine the proposed hypotheses. The questionnaire was divided into two sections. The first part of the questionnaire included questions about the demographic details of respondents. The second part consisted of 55 questions that were answered using a five-point Likert scale about the primary constructs involved in this study's proposed model. The survey instrument was adapted from Venkatesh et al. (2003, 2012), Escobar-Rodríguez et al. (2014), Featherman and Pavlou (2003), Alam et al., (2018), Kim et al. (2009), Goodhue and Thompson (1995), and Zhou et al. (2010).

Before a pilot test was conducted, the questionnaire was translated from English to Myanmar using the back-translation method. A pilot test collected data from 30 respondents. Reliability and Exploratory Factor Analysis (EFA) were applied as a preliminary analysis of the pilot test. According to the pilot test results, the final questionnaire was updated for primary data collection by making some adjustments. The population of the study consisted of online users who utilized mobile banking applications and was assumed to be 40 million—the number of online users in Myanmar in 2019, according to Charles (2019). The sample selected for the study involved online users who had used mobile banking applications supported by three big banks, namely, KBZ bank, AYA bank, and CB bank from two cities (Yangon and Mandalay). The target respondents were selected using a purposive sampling method. Mobile banking users (450) were selected from Yangon and Mandalay who had at least six months of mobile banking usage experience and had made at least one transaction, such as an account transfer, mobile top-up, etc. with the mobile banking application during the past month. They were asked to complete a structured online survey administered during March and April 2020. A total of 406 usable and valid responses were received after screening out incomplete and invalid responses. Confirmatory Factor Analysis (CFA) was applied to test the instrument's convergent validity and reliability, and Structural Equation Modeling (SEM) was applied to test the theoretical model and the hypotheses.

Results

The demographic data indicated that a majority of the respondents were female (50.2%), the age group between 26 and 30 accounted for 23.6%, and private sector employees for 29.8%. Most of the respondents (43.8%) had one to three years of experience using mobile banking. Furthermore, 54.7% of respondents were university graduates, and 53.4% had been using KBZ's mobile banking rather than other banks' mobile banking.

Composite Reliability (CR), the Average Variance Extracted (AVE), and Maximum Shared Variance (MSV) were calculated in order to evaluate the reliability of the measurement model. The composite reliabilities, ranging from .74 to .97, were above the cutoff level of .70 (Hair et al., 2010). The average variance extracted values of the factors, except facilitating conditions, were higher than .50, which were above the cutoff level of .50 (Hair et al., 2010). The average variance extracted for the facilitating conditions was .49. However, this value could be applied because Fornell and Larcker (1981) argued that if the AVE is less than .50, but composite reliability is higher than .60, the convergent validity of the construct is still high enough to be used. As shown in Table 1, since the maximum shared variance value was less than the average variance extracted, this established the discriminant validity among the variables of the study (Hair et al., 2010). For testing scale reliability, Cronbach's Alpha was applied. In the main study, the values of Cronbach's Alpha of all the constructs were above .70, ranging from .79 to .89, which is considered as outstanding reliability (Zikmund et al., 2010). These results are illustrated in Table 1.

Table 1 *Confirmatory Factor Analysis of Model*

Constructs	CR	AVE	MSV	Cronbach's Alpha
Performance Expectancy (PE)	.89	.54	.19	.83
Effort Expectancy (EE)	.90	.75	.34	.86
Social Influence (SI)	.86	.61	.24	.83
Facilitating Conditions (FC)	.74	.49	.26	.88
Hedonic Motivation (HM)	.88	.71	.30	.83
Price Value (PV)	.86	.68	.41	.84
Habit (HA)	.80	.57	.41	.79
Perceived Risk (PR)	.97	.92	.10	.87
Behavioral Intention to Use (IU)	.86	.59	.01	.83
Use Behavior (UB)	.85	.54	.37	.89

To examine the discriminant validity of the study, the data were analyzed by calculating the overall correlation between the constructs and the square root of AVE, which should exceed the correlations between each construct and all other constructs. The results in Table 2 show that the overall correlations among the variables were stable, and the analysis of the square root of AVE confirms a satisfactory discriminant validity.

Table 2 *Discriminant Validity and Correlations*

Constructs	PE	EE	SI	FC	HM	PV	HA	PR	IU	UB
PE	**.87**									
EE	.49	**.78**								
SI	.22	.29	**.70**							
FC	.33	.45	.51	**.84**						
HM	.42	.47	.47	.48	**.82**					
PV	.31	.41	.41	.55	.64	**.76**				
HA	.22	.25	.27	.31	.27	.32	**.96**			
PR	-.10	-.10	.05	.02	-.07	.01	.05	**.77**		
IU	.58	.45	.22	.36	.61	.43	.30	-.12	**.73**	
UB	.41	.34	.23	.36	.33	.38	.15	-.03	.43	**.73**

In this study, the UTAUT2 model, extended with perceived risk, allowed eight factors to be examined; these were measured using 43 measurement items. However, in the final CFA model of the extended UTAUT2, some items were removed to improve model-fit indices. This meant that 27 items remained to meet the Goodness-of-Fit Index (GFI) of .91. Behavioral intention to use was measured using five measurement items. The final CFA model for behavioral intention retained all items of behavioral intention after obtaining a GFI that was over .90. The use behavior factor was measured using seven measurement items. The final CFA model for use behavior retained seven items without reducing them after getting a GFI of over .90. In structural modeling (SEM), firstly, dependent and independent variables were measured using 39 measurement items. However, some items were removed to improve model fit-indices; 30 items were left. The GFI was .89 (Figure 2). This GFI did not exceed the recommended cutoff (Hooper et al., 2008). However, it still had the required level because Baumgartner and Homburg (1996) and Doll et al. (1994) described that a value was tolerable if the GFI was above .83. Fit indices of CFA of all variables and SEM are shown in Table 3.

Table 3 *CFA Fit Indices for UTAUT2 with Perceived Risk, Behavioral Intention, Use Behavior, and SEM*

Item	CMIN (χ^2)	Degrees of Freedom (*df*)	Probability Level	X^2/df	GFI	NNFI	CFI	RMSEA
Purchase Behavior	28.60	10	.001	2.86	.98	.98	.99	.07
Behavioral Intention to Use	0.27	1	.605	0.27	1.00	1.00	1.00	.00
Extended UTAUT2	590.23	276	.000	2.14	.91	.93	.94	.05
SEM	792.77	353	.000	2.25	.89	.91	.93	.06
Fit Criteria	-	-	-	≤ 3.00	≥ .90	≥ .90	≥ .90	≤ .08

Results of hypotheses testing are presented in Table 4, with factors considered according to SEM output. In Table 4, acceptance is indicated for four hypothesized relationships, and five were rejected. The relationship between behavioral intention and performance expectancy was significant (*p* < .000), thus supporting *H₁*. This means that performance expectancy positively impacted behavioral intention. The relationship between behavioral intention and hedonic motivation was also significant (*p* < .001), supporting *H₅*. This means that hedonic motivation had a positive impact on behavioral intention. The relationship between behavioral intention and habit was significant (*p* < .001), thus supporting *H₇*. Habit had a positive impact on behavioral intention.

Table 4 *Hypothesis Testing*

Path Commences	Path Ends	Hypothesis	Beta(β)	*p*	CR (*t*-value)	Supported
PE	BI	H_1	0.44	.000***	6.48	YES
EE	BI	H_2	0.09	.181	1.34	NO
SI	BI	H_3	-0.11	.112	-1.59	NO
FC	BI	H_4	0.01	.867	0.17	NO
HM	BI	H_5	0.33	.000***	3.80	YES
PV	BI	H_6	0.05	.568	0.57	NO
HA	BI	H_7	0.10	.011**	2.55	YES
PR	BI	H_8	-0.01	.580	-0.55	NO
IU	UB	H_9	0.46	.000***	7.41	YES

Note. *** *p* < .001, ** *p* < .01; PE = Performance Expectancy, EF = Effort Expectancy, SI = Social Influence, FC = Facilitating Conditions, HM = Hedonic Motivation, PV = Price Value, HA = Habit, PR = Perceived Risk, IU = Behavioral Intention to Use, and UB = Use Behavior

However, the following factors had no influence on behavioral intention to use mobile banking—effort expectancy ($p > .05$), social influence ($p > .05$), facilitating condition ($p > .05$), price value ($p > .05$), and perceived risk ($p > .05$). Therefore, hypotheses H_2, H_3, H_4, H_6, and H_8, were not accepted. Finally, the relationship between behavioral intention and use behavior was significant ($p < .001$), supporting H_9. Thus, behavioral intention positively impacted use behavior.

Figure 2 represents the model constructed to illustrate the combined data obtained.

Figure 2 *Final Model of SEM*
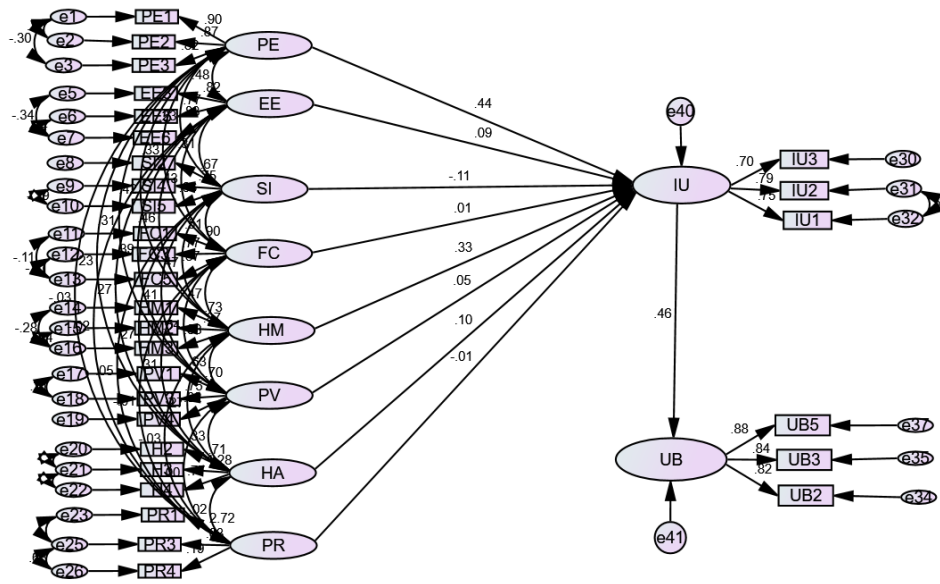
Discussion

Insightful understandings flowed from using the UTAUT2 model with perceived risk to study mobile banking adoption in Myanmar. Performance expectancy was the strongest predictor of users' behavioral intention to adopt mobile banking. This result indicated that the respondents found benefits from using mobile banking in that it increased efficiency in performing their banking activities. This finding was consistent with previous research that the level of performance expectancy influenced the behavioral intention to use (Fajar et al., 2018; Gupta et al., 2018; Indrawati & Putri, 2018). Hedonic motivation was also a necessary antecedent to predict the behavioral intention to use mobile banking. This finding was in line with previous papers indicating that the level of hedonic motivation positively impacted intention to use (Megadewandanu et al., 2016; Indrawati & Firda, 2019; Putra et al., 2019). The present study indicated that customer tendency to use mobile banking was significantly affected by a customer's habits. This finding is also consistent with previous studies (Megadewandanu et al., 2016; Moorthy et al., 2019; Piarna et al., 2020).

Further, no significant relationship was found between five factors, namely, effort expectancy, facilitating conditions, social influence, price value and perceived risk, and the behavioral intention to use mobile devices. These findings were in line with those of some previous papers (Megadewandanu et al., 2016; Cai et al., 2019; Indrawati & Firda, 2019; Lee et al., 2019; Piarna et al., 2020), but differed from the findings of some researchers (Ghalandari, 2012; Zhang et al., 2012; Owusu et al., 2019). The results obtained may have occurred for several reasons, such as intricate application design and navigation, and unstable network conditions. Another reason may be that users were early adaptors; fees were being charged for most mobile banking transactions, such as account transfers or cashless withdrawals from ATMs, so they were not free.

Many studies have supported the idea that behavioral intention has an impact on use behavior in the banking sector. However, some researchers have argued that behavioral intention has no direct effect on use behavior. In this study, behavioral intention represented a predictor of use behavior of

banking customers. This finding was in line with previous research in the banking sector (Putra et al., 2019; Raza et al., 2019), indicating that behavioral intention positively impacted use behavior.

Theoretical Contribution and Managerial Contribution

The study findings contribute to the literature examining mobile banking technology use in a developing country with an emerging market context. Specific distinctions dealing with mobile banking technology usage have not received sufficient attention in context of an emerging country. In contrast, technology adoption has been studied somewhat extensively in developing countries. Moreover, this paper extends the theorized technology adoption model proposed by Venkatesh et al. (2012) by integrating perceived risk as an independent variable, which is crucial to examining the case of online transactions. From a consumer behavior perspective, the study also contributes to theoretical understandings by exploring technological acceptance conditions and intention to use mobile banking in an emerging country. The study may also contribute to the literature that further explores technological acceptance models for mobile banking and mobile payments from a financial perspective.

In the context of mobile banking, this study confirmed that performance expectancy, hedonic motivation, and habit were significant predictors of behavioral intention to use mobile banking in Myanmar. The results can be beneficial to the banking industry and other stakeholders, such as telecom providers and application developers, since these significant factors are concerns to all stakeholders in financial markets. According to the findings, banks should make significant benefits available to users, such as online transactions for bill payment and interbank transfer. They could also make the user experiences enjoyable by delivering exciting activities such as the opportunity to play games and participate in lucky draws. Moreover, providing applications so that users adopt mobile banking naturally could also be critical. This might be accomplished by adding more value-added features such as alerts for a deposit, bill payments due, large purchase and log-in info, and easy-to-access customer service options.

Limitations and Further Research

Although the study results were significant in their managerial implications and theoretical contributions, there were a few limitations. First, generalization of the findings is limited because the study focused on mobile banking users from two cities, Yangon and Mandalay. The respondents' perceptions reported in the current study might not represent Myanmar's population and mobile technology users outside of banking. As to the second limitation, it was associated with the data collection method. In this study, data were collected by a non-probability sampling method. Lastly, this study used the framework of the UTAUT2 model with perceived risk so that the scope of the study was limited. There may be other factors that could affect intention to use mobile banking.

Some recommendations for further research can be made. Future research could expand its scope by exploring other mobile technologies, such as mobile applications, mobile games, and social media usage. Data might be collected by using probability sampling methods to get detailed insights from technology users. More variables, such as perceived trust, security, and service convenience could be added to gain a more extensive view of mobile banking users' intention to use the technology. In conclusion, although this research had some limitations, its results highlight some of the benefits for Myanmar's mobile banking industry.

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The Attitudes and Preferences of Undergraduate Students toward the Use of Case Studies as an Instructional Methodology

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Abstract

The increasing use of case studies as a learning strategy has been a trend in higher education since 1870. The purpose of this study was to investigate the attitudes of undergraduate students towards case studies and the types of case studies they preferred. A total of 16 undergraduate participants exposed to individual and group case studies participated in in-depth structured interviews that lasted between 10 to 20 minutes. The majority of the participants had an overall positive attitude towards case studies, and felt that they were an effective learning tool that increased learning. Students preferred to choose their own group members, and their experiences could be improved with shorter case studies, better online search engines for researching, and clearer explanations and examples by lecturers. Working in groups was the greatest challenge, followed by lengthy case studies and deadlines. They preferred a combination of an equivalent number of individual and group case studies, and found end-of the chapter case studies most beneficial, with an equivalent preference for homework and in-class case studies.

Keywords: *Case studies, group and individual, group work*

Introduction

Case studies have been an integral part of undergraduate studies, particularly in business schools (McFarlane, 2015), as a learning strategy to promote the development of critical thinking skills, collaboration, knowledge application, communication, and ability to grapple with real-life scenarios (Taneja, 2014). Most students are engaged in group case studies and, to a much lesser extent, individual case studies. Educators generally have faith in case study usage (Herreid et al., 2014), while students have varying opinions of group case studies. Some students are in favor of group case studies because of their well-reputed benefits, while many cited their intense dislike of working with free-riders (Grzimek et al., 2014), particularly when everyone receives the same grade (Hall & Buzwell, 2013). The purpose of this study was to find out the feelings that students had about case studies, along with their preferences and dislikes. The amount of literature pertaining to group case studies is huge, but for individual case studies, it is extremely limited. Comparative studies between individual and group case studies were scant, and the results from this study would help to fill an important gap in the literature. Through this contribution to the literature, those who stand to benefit from this study are educators and students in higher education.

Literature Review
Case Studies

The case study method was introduced in 1870 by Christopher Columbus Langdell, the Dean of Harvard University's law school and case studies currently are extensively used in higher education in various fields, particularly in business schools (Herreid et al., 2014; Kennedy et al., 2017; McFarlane, 2015). A case study is defined as "a series of real events that tell a story about an issue or conflict to be resolved" (Peters et al., 2015, p. 1), and its inclusion in the curriculum is a student-centered approach in active learning (Gudmunson et al., 2015; Herreid et al., 2014). According to Brooke (2006), case studies "promote problem-solving skills, higher order thinking skills, or critical thinking skills" (as cited in Pilz & Zenner, 2018, p. 326) that allow students to acquire networked thinking skills essential in handling complicated decisions in a complex world (Probst & Gomez, 1992). The knowledge application gained through case-based learning activities have also had a positive impact on students'

higher-order thinking skills in Bloom's revised taxonomony (Nkhoma, 2017). Also known as the case-study approach, this teaching methodology provides students with the advantage of active collaborative learning (Noblitt et al., 2010; Wu et al., 2014; Yadav & Beckerman, 2009). A few hindrances to active learning include some students' preferences for the "traditional lecture and passive learning" (Gudmunson et al., 2015, p. 321; Kawulick, 2011) and some instructors who favor the traditional lecture approach (Gudmunson et al., 2015).

The Advantages of Case Studies. Educators across the global are "convinced of the case-method's efficacy" (Herreid et al., 2014, p. 20), and small group case studies have gained favor amongst educators particularly because students receive the "greatest learning gains" (Herreid et al., 2014, p. 26). This represents a move from a teacher-centered to student-centered activity (Grant, 1997) that promotes reasoning and thought processes (Cellucci et al., 2012). Case studies also enhance the students' ability to collaborate, communicate, and think analytically (Backx, 2008; Cellucci et al., 2012; Prince & Felder, 2007; Taneja, 2014). Other advantages include increased learning motivation (Taneja, 2014; Yadav et al., 2010), along with better and more extensive mastery of course content (Herreid et al., 2014; Kawulick, 2011).

In a survey study conducted by Taneja (2014), students were reported to have "positive attitudes towards the group case-study approach" (p. 185). Aside from being more interesting than textbooks (Cellucci et al., 2012), "case studies made course learning more relevant and beneficial to them" (Taneja, 2014, p. 185). As an engaging tool (Wu et al., 2014), case studies have provided students with rewarding experiences (Kawulick, 2011), collaborative opportunities (Cellucci et al., 2012), and idea sharing (Kathiresan & Patro, 2013; Kawulick, 2011; Taneja, 2014). The exposure to case studies have given them the chance to enhance their critical thinking skills, while reinforcing concepts (McFarlane, 2015). Students are also given the opportunity to apply their theoretical knowledge and skills in solving real-world scenarios, and in making decisions (Noblitt et al., 2010; Wu et al., 2014; Yadav & Beckerman, 2009).

The Disadvantages of Case Studies. Business schools and colleges may be fond of using the trendy Harvard Business Review (HBR) case studies, but students react very differently to them, labeling them as being extremely long, boring, and irrelevant (Cellucci et al., 2012; McFarlane, 2015; Taneja, 2014), preferring short, lesson- related case studies (McFarlane, 2015). Moreover, numerous educators have found them very time consuming (Cellucci et al., 2012; Herreid et al., 2014; Kathiresan & Patro, 2013), adding further to their existing workloads (Andersen & Schiano, 2014), and creating a time constraint (McFarlane, 2015) in completing their teaching outlines (Herreid et al., 2014). Aside from that, some lecturers reported difficulties in motivating students to work on cases, and have been encouraged to select more student-centered cases (McFarlane, 2015).

Group Work

It has been documented widely that students in higher education benefit from the increasing popularity of group work (Hall & Buzwell, 2013; Lavy, 2017; Šerić, & Garbin Praničević, 2018) with learning retention levels as high as 98% compared to 4–8% for lecture-based learning (Herreid et al., 2014). According to Ro and Choi (2011), males had a more positive perception of group work than females. Domestic students were reported to have a preference to work within their circles, while international students were more open to working outside their comfort zones (Moore & Hampton, 2014). Those who had positive experiences in group work had a more positive attitude towards working in groups (Payne et al., 2011). Students were also reported to have more positive perceptions of group work with increased frequency of face-to-face meetings (Butt, 2018). Lower achieving students prefer group work, compared to high achievers, who prefer to work alone (Grzimek et al., 2014).

The Benefits of Group Work. There are numerous benefits attached to working in groups (Davies, 2009; Kawulick, 2011) and many studies have supported the positive perceptions that students have towards group work (Knight, 2004). Students benefit from deeper and more involved learning,

increased communication, and opportunities to improve interpersonal and teamwork skills (Gudmunson et al., 2015; Kawulick, 2011; Šerić, & Garbin Praničević, 2018). They also develop good habits of learning how to "help each other and valuing each person's contribution to the case or project" (Kawulick, 2011; Miglieti, 2002, as cited in Gudmunson et al., 2015, p. 324). Group work provides space for social networking and collaboration, particularly for international students (Mittelmeier et al., 2018). Students also gained better understanding (Kathiresan & Patro, 2013) and achieved synergy (Šerić, & Garbin Praničević, 2018).

The Drawbacks of Group Work. Collaboration overload (Cross et al., 2018) may result from too much group work, but this can be remedied by providing time management and project planning training (Butt, 2018). By engaging in group work, students experienced "less time for focused individual work, careful reflection, and sound decision making" (Cross et al., 2018, p. 135). As individual students have their own personalities and work preferences, the desire for and effectiveness of group work varies accordingly (Cross et al., 2018). Some groups that had worked well throughout the term were reported to have fallen apart at the end (Allan, 2016). Interpersonal conflicts resulting from group work have also been a cause for some to intensely dislike it (Hall & Buzwell, 2013). In fact, some students experience "Grouphate," which is the terminology "used to describe students' negative attitude toward group work" (Parrot & Cherry, 2011, as cited in Allan, 2016, p. 81). Some students, on the other hand, have found case studies to be a very effective learning methodology (Kennedy et al., 2017). The most salient risks of group work include unfair final evaluations, lack of respect, and the increasing percentage of free-riders (Hall & Buzwell, 2013; Šerić, & Garbin Praničević, 2018). Having free-riders onboard is common in group work; they are defined as "students who do not put effort into group work, but hope to benefit excessively from the work of others" (Dijkstra et al., 2016, p. 675). Administering peer evaluations (Dijkstra et al., 2016; Hall & Buzwell, 2013) and engaging in a group contract (Pahomov, 2018) could potentially reduce this behavior.

Individual Case Study Method

The individual case method is another option for how case studies can be administered. It allows an individual student to work solely on a case study and can be effective, despite the absence of rich discussions in group work (Herreid et al., 2014). Some students have also reported that they preferred to work alone, as group work proved to be a learning hindrance (Kawulick, 2011). Higher achievers had a greater preference for individual work and felt that there should be less group work, as it had a harmful impact on their grades (Grzimek et al., 2014).

Objectives and Research Questions

As there has been minimal research on individual versus group case studies, the objective of this research study was to investigate if undergraduate students preferred individual and/or group case studies, while learning about their feelings towards case studies. The study also sought to explore the challenges involved in solving case studies, and how their case study experiences could be improved.
This study was guided by five main research questions:

RQ1: What are the students' feelings towards case studies?
RQ2: How effective do students perceive case studies to be as a learning tool?
RQ3: How can their case study learning experiences be improved?
RQ4: What were the challenges faced in solving case studies?
RQ5: What type of case studies do students prefer?

Methodology

This research study investigated the attitudes that undergraduate students had towards case studies and their preferences with regards to case studies. The qualitative research methodology was used in this study through in-depth structured interviews that lasted between 10 to 20 minutes, and

data collection was conducted through hand-written notes. The interview protocol consisted of three main parts with a total of 12 open-ended questions:

(a) Part 1: a Student Profile consisting of five questions that included gender, age range, major, nationality, and Cumulative GPA;

(b) Part 2: Students' Attitudes Towards Case Studies, consisting of four questions: Students' feelings towards case studies, Case studies as an effective learning tool, How case study experiences could be improved, and The challenges of working on case studies; and

(c) Case Study Preferences that addressed three questions: Types of case studies most beneficial to students, the option of in-class or take-home case studies, and the preferred type of case study.

Through purposive sampling, the targeted participants included 16 undergraduate students at an International University in Thailand who had been exposed to both individual and group case studies. Every participant completed a personal informed consent form that affirmed the confidentiality of the interview. There were eight males and eight females representing 13 countries from five majors. International Hospitality Management had the highest participation (*n*=9), followed by International Business Management (*n*=3), International Relations (*n*=2), Event Management (*n*=1), and Finance and Banking (*n*=1). Participant demographics are shown in Table 1.

Table 1 *Participant Demographics*

Item	Age Range			Year			CGPA			
Range	18–21	22–25	26 up	2nd	3rd	3+	2.00–2.50	2.51–3.00	3.01–3.50	3.51–4.00
n	5	11	0	1	11	4	4	4	4	4

Results: Attitudes of Students towards Case Studies
Students' Feelings towards Case Studies

This section answers the first research question: "What are the students' feelings towards case studies?" The majority of students liked case studies, and one person specifically stated that "I like case studies a lot." The participants felt that using cases in class was a valuable and practical way to help students relate the concepts learnt in the lesson, and apply them in solving the cases. Moreover, it was interesting and useful as students could learn so many things from companies in real-world settings, and from mistakes that had been made. Some case assignments that required additional research enabled students to gain more knowledge despite the challenges and difficulties involved. Cases added color to normal courses by helping students relate better to the course, as case studies helped build upon the lessons learnt.

A few students mentioned that they preferred case studies that were related to their major and disliked those that were outside of their comfort zones. One student also stated that, "I enjoyed them when they were nice and sweet within two pages", while another mentioned that "case studies were much more preferable compared to difficult project assignments." Students were also appreciative when the same cases were offered across different sections of the same course that were taught by different instructors, as students studying in different sections could collaborate in working on them. Just a small minority responded negatively towards case studies. They hated lengthy case studies that required a great deal of reading, and working in groups had an impact on how they felt. Different perspectives when working in groups had resulted in confusion, and although case studies were sometimes helpful, some students complained that their feelings were negative when the lecturer failed to explain the objectives, and when they did not know how to solve the cases.

Case Studies as an Effective Learning Tool

The second research question: "Have case studies been an effective learning tool?" is addressed in this section. The effectiveness of case studies as a learning tool was dependent on how they were being used and varied accordingly to the perception of each participant. The majority felt that case studies were an effective learning tool when properly used, explained, and examples given as to how

they should be analyzed. Case studies provided the participants with good and new learning experiences, as every case was different and contributed to new and greater knowledge. Critical thinking and problem-solving skills were used in applying the knowledge to real situations, and the theoretical aspects of the class were made clearer through in-depth information and analysis. Moreover, it helped the participants to relate better to the course, particularly when cases were assigned immediately after the lesson was taught.

The participants described case studies as a motivating tool when they were more interesting than boring lecturers, PowerPoint slides, and tests. Comments were also made that students who were uninterested in class had displayed an interest in solving case studies, and found them to be more useful than just reading the textbook. Analyzing case studies have helped students prepare for examinations, particularly when they were similar to examination questions. The cases in the International Hospitality Management course, according to a hospitality student, "were usually based on the lecturers' actual experiences that were extremely interesting." On the other hand, they claimed that it ceased to be an effective learning tool when no introductions or instructions were given, when it was not graded, and when social loafing occurred in group case study assignments. When there was too much content to cover in one case, it became overwhelming and was no longer an effective learning tool. It also became ineffective when case studies were unrelated to their majors, as they found them to be difficult and confusing.

How Case Study Experiences Can Be Improved

The third research question: "How can their case study experiences be improved?" is addressed in this section. The students' case study experiences could be improved in four main ways: (a) grouping, (b) type of case study, (c) lecturer; and (d) technology. Several students reported that they had a preference in the choice of grouping, as it was easier to collaborate with those with whom they knew rather than being assigned to work with strangers, or members with a free-rider reputation. With regards to case studies, students expressed a liking for shorter case studies that were straight to the point, and being allowed to think on their own and beyond the topic. They liked a good balance of individual and group case studies with open-ended–rather than close-ended–questions. Many still preferred hard copies to be distributed in class instead of soft copies. The participants stated that their experiences could also be improved if they were assigned at the end of the chapter so that the knowledge and concepts gained could be applied to solve the cases. Lecturers could help improve the students' experiences by providing an explanation of the rationale behind the case study, being more specific in their instructions, coaching to assist students in solving cases, and giving examples within the case studies to help students understand them better. If possible, scheduled site visits to companies where the case studies took place would also make them more interesting and meaningful. With regards to technology, better online search engines were needed to facilitate research, and there was a request for augmented reality.

Challenges in Working on Case Studies

Multiple challenges were cited when working on case studies, and the answers have been placed into three main categories: (a) group work, (b) case study length, and (c) time. This addresses the fourth research question: "What were the challenges faced in solving case studies?"

Working together in groups was the most frequently mentioned challenge that participants encountered when working on case studies. The differences in opinions resulted in conflicts and confusion, while some members hardly ever voiced their opinions. One respondent specifically stated that "members with much stronger personalities were egotistical and dominated discussions even though they had the wrong answers", while another shared that "there were difficulties in fair division of work, and each student was only knowledgeable about his or her part instead of the entire case study." One respondent also said that "aside from scheduling problems, it was really tough when some meetings did not go as well as planned, with members disappearing while others [were] not making much effort."

Meeting deadlines created problems within the group, particularly when the entire group needed one part to be completed prior to getting the next part done. Other members were "last minute people'' who would procrastinate and work at the last moment, while others were simply very slow in completing their parts. One very frustrated respondent said that "Working in bad groups with unambitious and lazy members also required extra effort to go after them to get them to finish their work, which was really frustrating." Bad work submissions had created an extra burden on responsible group members to fix the paper so that it would be presentable and correct prior to submission. And working with strangers was no better, particularly when they were unmotivated and only wanted to pass the course, and a motivated student had to complete the entire work. To avoid conflict, dedicated students have been known to have individually completed the entire assignment, but still included the other non-performing group members' names. Language barriers, due to team cultural diversity, had also created communication issues, and inadequate English skills also created plagiarism problems that consequently had a negative impact on the entire group's grade.

The second most frequently cited challenge was lengthy case studies that contained repetitive contents and sometimes required several rounds of reading. It was particularly a challenge when the topic was difficult, unrelated to the major, and had technical and difficult vocabulary (example: law). Some students also had problems doing online cases that strained their eyes, while other students complained about the need to have their answers aligned with the lecturers' or else they would be wrong. Working in groups even worsened things when it came to coming up with the correct answers, and this was particularly so when the perspectives of teachers and students did not align.

Time constraints were a big challenge for students, particularly when case studies were assigned to be completed in class within a short 20-minute timeframe. When assigned as homework, the challenge came in the form of having better time management, as there were many other assignments that had to be completed, along with other pressures in life.

Case Study Preferences

The theme addressing the fifth research question: "What type of case studies do students prefer?" was broken up into three parts: (a) type of case studies most beneficial to students, (b) the option of in-class or take-home case studies, and (c) the preferred type of case study.

Type of Case Studies Most Beneficial to Students

Participants were given three options regarding the type of case studies that would be most beneficial to them. The results of the study (Table 2) indicated that the majority had a high preference for End of the Chapter case studies (n = 11, 68.7%), followed by one-fourth of participants who opted for Short Harvard Business Review (HBR) case studies (n = 4, 25%). None of the students indicated any interest in Long HBR case studies. One student (6.3%) had no preference, while another mentioned that "I would like pre- and post-case studies to be administered." The participants who had chosen only End of the Chapter case studies explained that they were easier as they were shorter, straight to the point, and a great summary of the chapter and a beneficial review practice, as knowledge gained from the chapter was fresh and concepts could be immediately applied to solve the case studies.

Table 2 *Type of Case Studies (CS) Most Beneficial to Students*

Type	End of Chapter Case Study	Short HBR Case Study	Long HBR Case Study	No Preference	Total
n	11	4	0	1	16
Percent	68.7	25.0	0.0	6.3	100.0

The Option of In-Class or Take-home Case Studies

When asked if they preferred in-class or take-home case studies, half of respondents (n = 8, 50%) preferred in-class case studies, while the other half (n = 8, 50%) preferred take-home case studies as homework (Table 3). The half of participants who preferred in-class case studies liked the fact that

lecturers gave instructions, they were available for questioning, and gave students immediate feedback. By working on cases in class, the students felt that cases gave them purpose, they could focus and pay attention to the task at hand, and apply the fresh knowledge they had received in their lessons in solving the cases. Another student also stated that "doing it outside of class could lead to procrastination," while another preferred to just get it done or else "there would be too many distractions in completing it if it were assigned as homework." Not liking homework was another reason behind the preference for working on cases during class time.

As for those who preferred case studies as homework, they liked the fact that they had more space and time to think and work, and felt more productive at home. Others were distracted when working on case studies in class as "students usually didn't care and they were doing other things," and "when others are not focusing on working on the cases, it was difficult for me to focus, too." Another student also mentioned the preference to just "sit and learn, and so I prefer case studies to be assigned as homework."

Table 3 *Option of In-Class or Take-home Case Studies*

Type	In-Class	Homework	Total
n	8	8	16
Percent	50.0	50.0	100.0

Preferred Type of Case Study

Participants were allowed to choose which type of case study they preferred from five different options: (a) only individual case studies, (b) only group case studies, (c) an equivalent number of individual and group case studies, (d) more individual than group case studies, and (e) more group than individual group case studies (Table 4).

The majority of the students favored an equivalent number of Individual and Group Case Studies (*n* = 7, 43.7%), as they felt they were equal in importance. Working individually allowed them to work independently without any time constraints, pressures, or the need to rely on or discuss material with others. It was particularly good preparation for examinations when cases were related to exam questions, and they provided an opportunity to analyze and improve critical thinking skills. Working in groups, on the other hand, resulted in knowledge sharing from different perspectives, thinking outside of the box, and preparing them for the workplace where they have to work and collaborate with others. This collaboration helped those who did not understand the case study, and helped students to stay on the right track, particularly when they were confused regarding the case study. The downside, however, included division of work amongst group members, with each person focusing on one's work and not knowing what others were doing. Although working with friends was generally great, it was sometimes problematic when assignments were not submitted on time, or respondents had to work with bad groups consisting of lazy members who were difficult to contact.

As for those who preferred more Individual and less Group Case Studies (*n* = 4, 25%), more individual case studies allowed students to showcase their own abilities, and they preferred this approach when the cases were short. These respondents preferred to concentrate by working alone so that they did not have to rely on or be let down by others. A few group cases would be helpful as students also need to learn how to work collaboratively with others to build team building skills aside from working alone. Moreover, less group work meant fewer problems. One student, who had negative working experiences in working in groups as the only one person who did the work, stated that "having more Individual Case Study assignments was much better than Group Case Studies."

Students who preferred only Individual Case Studies (*n* = 4, 25%) stated that they preferred to work alone, and wanted to avoid the unpleasantness of working alongside free-riders or unmotivated groupmates. One student said that working alone allowed her to "focus more and have a greater understanding of the case study", while another said that "there was no need for group work to work on a short two-page case study." These students had prior experience of doing all the work alone, even though it had originally been assigned as group work. A female participant said that she

understood that "different students have different academic goals of just wanting to pass the course, so I just completed the entire assignment because I wanted to get a good grade." A female respondent voiced her frustrations over uninterested group members who "have created a lot of pressure and work, stress, procrastinate, do last-minute submissions, and I have to correct their grammar, and had to eventually complete the entire study myself." The only person who preferred only Group Case Studies (n = 1, 6.3%) said that "by working in groups, I could work with students from other countries who contributed different perspectives due to the cultural diversity, and it helped me to improve my English. I was also able to discuss the case study with others, and I just love to work with different groups of friends." No desire for More Group than Individual Group Case Studies was expressed (n = 0, 0%).

Table 4 *Preferred Type of Case Study*

Type	Individual CS = Group CS	Individual CS	Individual > Group	Group CS	Group > Individual	Total
n	7	4	4	1	0	16
Percent	43.7	25.0	25.0	6.3	0.0	100.0

Discussion

Case studies have been used extensively in higher education since 1870 as a student-centered approach to active learning (Gudmunson et al., 2015; Herreid et al., 2014). The study clearly indicated that the majority of students had a positive attitude towards case studies as an effective learning tool. Case studies complemented undergraduate courses by providing more in-depth learning as students applied their knowledge and used critical thinking in solving case studies (Noblitt et al., 2010; Wu et al., 2014). Since most case studies were company-based, they gave students a glimpse of the real world that enabled them to broaden their horizons outside the arena of the textbook. As an additional learning methodology, they also added variety to the class, aside from the normal class lectures. In fact, they have been effective in gaining the interest of some students who never read textbooks, but showed an interest in reading assigned case studies. This finding is aligned with the literature which shows that case studies enhanced course content learning (Herreid et al., 2014; Kawulick, 2011), were more interesting than textbooks (Cellucci et al., 2012), and motivated learning (Taneja, 2014; Yadav et al., 2010). The hospitality students seemed to enjoy and benefit tremendously from experienced hospitality lecturers who had worked in the industry prior to joining the university, and who presented real-life case study scenarios. A few students also mentioned the challenges of working on case studies outside of their majors, as they were filled with technical terms that were outside of their comfort zones. The benefit of this approach would be exposure to something different, while the drawback would be the higher level of difficulty that may demotivate some students. One frustration worth mentioning here is a big challenge that is out of students' control: the ability to correctly align their answers with their teachers' expectations.

The length of case studies was a major concern, with students indicating a much higher preference for case studies that were short and to the point, compared to the lengthy ones that proved to not only be confusing, but provided a lot of irrelevant information. It can be concluded that students want to work on case studies that provide relevant and sufficient information to enable them to be solved. This was clearly supported by the high preference for end-of-the chapter case studies (68.7%) and short HBR case studies (25%), with no preference whatsoever for long HBR case studies. This adds on the existing literature that labeled long HBR case studies as being lengthy, boring, and irrelevant (Cellucci et al., 2012; McFarlane, 2015; Taneja, 2014), while supporting the case for shorter case studies (McFarlane, 2015). Case studies have been assigned in various ways by lecturers, and this study reported an equivalent preference for take-home (homework) and in-class work. Students felt that lecturers could improve their case study experiences by taking the time to provide good instructions and explain their expectations instead of just assigning work.

The pain of working in groups where members loaf, procrastinate, or submit poor work undoubtedly contributed to the intense dislike or *grouphate* (Parrot & Cherry, 2011, as cited in Allan, 2016, p. 81) of group case studies. This seems to be an ongoing and unsolved challenge of working in groups. Therefore, it came as no surprise that only one person (6.3%) preferred using only group case studies, while the majority of the students opted for a good balance of both individual and group case studies (43.7%) so that they could have the best of both. Despite the disadvantages of group work, some students could see the benefits of group work in learning to collaborate, the advantages of more perspectives, discussions, helping each other out, and staying on track. These advantages are in alignment with the literature on working in groups (Mittelmeier et al., 2018; Kawulick, 2011). Upon further exploration, it was evident that one-fourth of students (25%) just wanted to work individually, as it was easier to complete assignments without having to go through the stress of following up, revising other members' work, and putting up with free-riders. The issue of free-riders never ceases to be a problem, and this is supported by literature that favors working individually (Grzimek et al., 2014). Moreover, these respondents were students who were basically doing the entire group's work anyway. For them, it was logical to do the work individually since the expenditure of effort was the same. The preference for working individually could also be attributed to the fact that students have different personalities and work preferences, and group work is not meant for everyone, which was also mentioned in Cross et al. (2018). The same number of students, on the other hand, could see some light in working with others, and so opted for more individual and less group case studies (25%). Aside from working alone most of the time, students could also cultivate team-building skills through collaboration (Gudmunson et al., 2015; Kawulick, 2011). With fewer group case studies, less problems would be created.

There were reasons behind students' requests for choosing their own group members. Learning to collaborate with strangers can be beneficial even though it involves stress and pressure on students as they work with "uncertainty." This uncertainty takes the form of not knowing the working style of new "members," whether they will do good work, the risk that they may engage in plagiarism, and the question of whether new group members will submit their work on time. Not all group member may share the goal of doing a good job. It takes time for groups to form, storm, and norm prior to performing (McShane & Glinow, 2018). Thus, working with strangers at times poses more costs than benefits. On the other hand, despite the benefits of working in their comfort zone within their same circle of friends, there might also be the danger of allowing their friends to free-ride in order to avoid potential conflicts.

More challenging case studies demanding more research can be facilitated by the library in providing them with more training in search engine usage, and increasing the availability of search engines, but that would mean additional cost which needs to be approved by top management. As time constraint was another challenge for students, which in this case was a time slot of just 20 minutes during class time, lecturers might want to consider extending the time allowance to allow more discussion, less pressure, less stress, and better problem-solving sessions in class. Students with time constraints, particularly in group work, have the tendency to distribute the work to get it completed on time, instead of engaging in active group discussion of all the questions prior to working on the answers. This defeats the purpose of group work.

Conclusion

This study was successful in addressing its intended objectives and provided valuable insights from students' perspectives regarding case studies. Its findings were aligned with the literature in that case studies were seen as an effective tool for learning that should continue to be included when possible as an additional add-on tool for learning aside from the textbook. Lecturers can improve students' case study experiences by spending some time in giving good instructions, allowing students, if possible, to choose their own group members, and assigning case studies that are not too lengthy and within their majors. Students should be encouraged to benefit from both individual and group studies, where they can think for themselves and learn to collaborate with others. A good balance of individual

and group case studies should be assigned within a reasonable timeframe that allows students to complete their work in a productive, stress-free, and pressure-free climate. As social loafing in groups is difficult to eradicate, individual lecturers might be encouraged to establish their own protocols for reducing this to improve group case study experiences, such as by establishing student peer evaluations (Dijkstra et al., 2016; Hall & Buzwell, 2013) and signing group contracts (Pahomov, 2018).

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Local Response and Coping Mechanisms Adopted to Disruptions Associated with the COVID-19 Pandemic at a Filipino State University

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Abstract

The various social and mobility restrictions imposed during the COVID-19 pandemic brought unprecedented disruptions in working adults' day-to-day lives at Visayas State University in Leyte Island, Philippines. Everyone had to adjust abruptly to help contain the spread of the virus. In this paper, one of the local responses through an agricultural production program at the University is highlighted, and reflections on its employees' coping mechanisms are recorded in response to the pandemic. The initiative taken was to intensify vegetable production for local consumption to mitigate the looming disruption in the supply of vegetables to neighboring towns. To date, at least seven tons of assorted vegetables have been distributed to around 5,000 beneficiaries in the province. The results of the cross-sectional survey show that the topmost ranked coping mechanism for both men and women during the lockdown was engaging in household chores. Beyond that, men were more inclined to surf the Internet, while women focused more on gardening. Policymakers and administrators can use these results as a benchmark to develop programs and approaches that may contribute to working adults' well-being during this pandemic.

Introduction

The COVID-19 pandemic caught everyone unprepared, and local institutions had to make abrupt adjustments. COVID-19 was declared a public health emergency of international concern by the World Health Organization (WHO) in January 2020 (WHO, 2020a); the outbreak escalated rapidly and was declared a pandemic by March. In the Philippines, a national emergency was declared and lockdown measures were imposed with varying degrees of community quarantine to slow the spread of the virus, flatten the curve, and potentially decrease the growing rate of positive cases (Official Gazette, 2020). This study documented the action of a State University focusing on vegetable production and distribution, and provides reflections regarding its employees' coping mechanisms. These will provide input for strengthening local actions in case similar situations occur in the future.

Coping Mechanisms in the Pandemic

The sudden and unprecedented pandemic has left everyone inadequately prepared and workplaces negatively affected (Babore et al., 2020). Nonetheless, local actions and various coping mechanisms have been adopted in response. Such disruptions can cause psychological stress. How an individual reacts to the situation depends on several factors such as the community one lives in and the socio-economic background. Coping is a behavioral and conscious effort to reduce, manage, or tolerate stress (Algorani & Gupta, 2020; Baqutayan, 2015; Folkman & Lazarus, 1980). It is a process in which people assess and deal with internal and external stressful situations (Skinner & Zimmer-Gembeck, 2016). Such mechanisms are used to maintain physical, emotional, psychological, and spiritual well-being.

Various studies have highlighted the coping mechanisms adopted by Filipinos in response to climate-related hazards. The review by Israel and Briones (2014) found that households used multiple coping mechanisms to address the negative effects of natural disasters such as floods, storm surges, and typhoons. Specifically, Predo (2010) found that people in selected municipalities in Southern Leyte who were affected by flooding and storm surges in 2007 coped by using family savings, obtaining loans, and receiving support and grants. Penalba and Elazequie (2011) found that households affected

by Typhoon Milenyo (2006) employed structural (i.e., house strengthening) and behavioral (i.e., securing basic necessities) coping strategies. The study of Seriño et al. (2021) found that coconut farmers coped with the destruction wrought by Super Typhoon Haiyan (2013) by replanting, adapted resilient cropping systems, and praying. At the local government level, the response to natural hazards may be through risk-coping strategies, such as doing clean-up operations and receiving aid from others (Ravago et al., 2018).

Various psychosocial problems have occured as a consequence of the lockdowns imposed to contain the spread of the coronavirus disease, and vulnerable communities should not be ignored in providing interventions (Mackolil & Mackolil, 2020). In India, people reported experiencing anxiety, sleeping disorders, and even paranoia about contamination by the virus (Roy et al., 2020). In China, Zhang et al. (2020) emphasized the need to identify whose health and well-being were more affected by the pandemic for targeted interventions. Banerjee (2020) stressed that working adults need to be made aware of common stress responses, and are encouraged to promote healthy behaviours during lockdowns by being referred to reliable sources of information. In the Philippines, teachers dealt successfully with anxiety during the lockdown through adopting virtual learning, communicating among themselves, adhering to quarantine requirements, and finding purposeful activities (Talidong & Toquero, 2020) . However, there is limited literature on local actions and coping mechanisms from rural areas. Hence, this study is important in documenting how a rural State University coped with the disruptions experienced. In addition, a survey was conducted on the coping mechanism of adults forced to work from home or adopt flexible working arrangements during the pandemic.

To better understand the coping mechanisms adopted by adults during the pandemic, this study aimed to address the following specific objectives:

1. To study the experiences and the local response made through an agriculture program at a State University located on the island of Leyte.
2. To determine and provide reflections on coping mechanisms of employees of a State University located on the island of Leyte.

The Study
Context of Study
The coronavirus was first detected in China in December 2019, and then spread exponentially worldwide (WHO, 2020b). In the Philippines, the Department of Health (DOH, 2020), recorded a total of 378,933 cases–41,291 active cases, 330,457 recoveries, and 7,185 deaths as of October 30, 2020. Nonetheless, with the increasing number of cases and local transmission, the government implemented community quarantine measures classified as enhanced, modified-enhanced, general and modified-general community quarantine (Esguerra, 2020). Physical distancing–along with wearing face masks or face shields in public places–were enforced, and curfews were implemented.

Various mobility restrictions were imposed to help contain the spread of the coronavirus. First, enhanced community quarantine (ECQ) was the strictest form adopted, where no movement of people was permitted, regardless of age and health status. Only minimal economic activity was allowed, and no public transport services ran except essential sectors, such as health and food. Second, the modified-ECQ (MECQ) allowed limited movement for work and services, and was restricted to 50% of the workforce. Limited transport services operated for essential goods and work-related transport, but face-to-face classes were not permitted. The third level was general community quarantine (GCQ), which represented a more relaxed approach, where 75% of the workforce was allowed to report to the office. Limited transport services were available with social distancing applying, but no face-to-face classes were permitted. Lastly, the lowest restriction level was the modified-GCQ (MGCQ). Here, economic activities and movements were allowed as long as minimum public health standards, such as wearing face masks or shields, and physical distancing occurred; no facetoface classes were permitted at all levels.

Following the Philippine national government's directives, the local provincial government of Leyte enforced a general community quarantine in March 2020. This meant that classes and work

were suspended and only a skeleton workforce operated. Students were immediately advised to go back to their respective homes. This occured in the middle of the semester, which resulted in the midterm exams being cancelled. Teachers were advised to design alternative learning approaches and implement a contingency plan to minimise disruption to learning. The teaching and non-teaching personnel adopted flexible working arrangements. Employees could choose to work from home, or report only twice or thrice per week depending on the nature of their jobs. However, frontliners such as medical doctors, nurses, security guards, and quarantine personnel were required to report daily to the University. In addition, returning residents, overseas Filipino workers, and locally stranded individuals had to follow quarantine protocols (CNN Philippines, 2020). Following the provincial government's orders, mayors declared the closure of municipal borders and limited the movement of people, goods, and services (Manila Bulletin, 2020). Although not intended, the movement of essential goods was impeded. With neighboring towns imposing tighter restrictions, the supply of goods was bound to be affected. Access to vegetable supplies from the vegetable bowl of Leyte Island was projected to be limited (Cagasan & Centino, 2019).

This study investigated the experiences and responses of employees of Visayas State University (VSU). The University is located 10 kilometers north of Baybay City and 34 kilometers south of Ormoc City, Leyte, Philippines. The University is a leading agricultual institution in the Eastern Visayas region (Auestero et al., 2012; QS Star, 2020). It plays a vital role in the provision of innovative technology and capacity building activities related to agriculture. It is a three-star university based on the QS Star ranking of top universities (QS Star, 2020). Figure 1 shows the location of the study.

Figure 1 *Location of the Study*
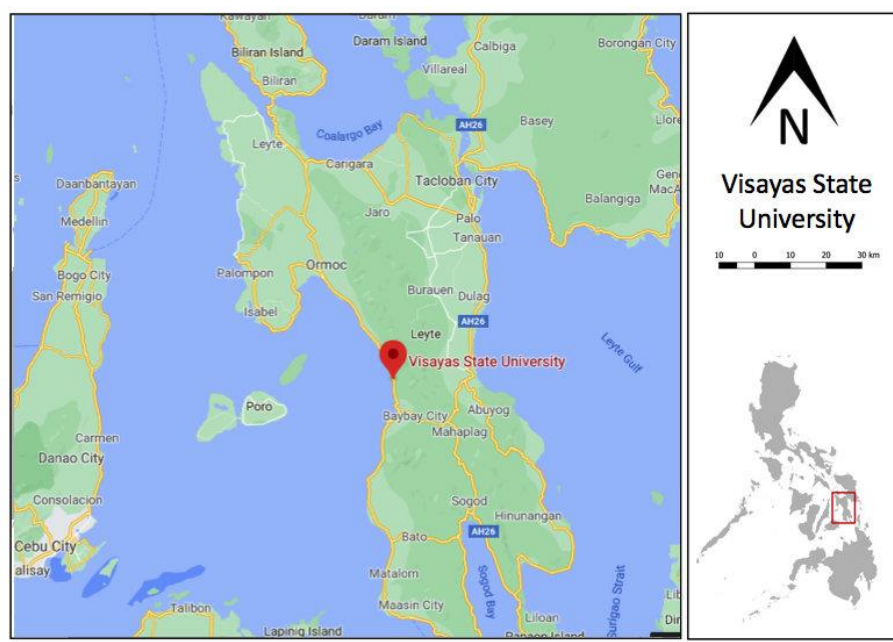
Note. Source Google Maps (2020) and Ruales et al. (2020)

Research Design

A mixed method approach that used qualitative methods and cross-sectional surveys was adopted in addressing the objectives of the study.

Data Collection and Analysis

In order to mitigate the looming disruption in the supply of vegetables, VSU launched a project dubbed #OplanTanom (meaning "operation vegetable planting") on April 30, 2020. This local action aimed to provide fresh vegetables in anticipation of disruptions in supply chains (De Veyra, 2020). The vegetable production was situated on the campus. The University, being an agricultural university,

was able to allocate a portion of their experimental site (around 1.5 hectares) for vegetable production.

The plan was to grow at least 10 different kinds of vegetables, with the harvest being distributed freely to the VSU community, frontliners, local agencies, and neighboring communities. Employees of the University and representatives from nearby communities were able to avail themselves of fresh vegetables every week. Only representatives from the nearby communities were permitted to receive food in order to prevent people from gathering, flocking to the area, and not adhering to physical distancing. To ensure sustainaibility of the undertaking, free vegetable seedlings were also provided for those who wanted to grow their own vegetables.

This local action was documented through observation and interviews with key informants. Dr. Othello Capuno, the project leader (right foreground, Figure 2), responded to questions about the project. The other key informants (five) were experts from the university's research and extension unit. These included the vice president for research and extension, two horticultural experts, and farm workers. Interviews were conducted in an informal manner using open-ended and unstructured questions. This was done to facilitate free flowing discussions with the experts involved in the project. We asked them about the motivation for the project, its intended beneficiaries, how the project was conceptualized, and further plans related to vegetable intensification.

Figure 2 *Observations Conducted during Harvest and Preparations before Distribution of Fresh Vegetables*

The second aim was to determine and provide reflections on coping mechanisms of University employees. This was conducted online among the employees of the University. Employees were either working from home or operated on a flexible working arrangement. Flexible working arrangements permitted an employee to report once or twice per week and work from home for the rest of the time. The online survey aimed to collect information about the coping mechanisms of working adults in the University regarding movement restrictions. The survey was arranged in three major parts. Part 1 focused on the socio-demographic characteristics of respondents, Part 2 on their current situation during the lockdown, and Part 3 on their coping mechanisms. The survey collected multiple responses on coping mechanisms and adaptation strategies to counter pandemic-related anxieties. The main reference for the survey was taken from Seriño et al. (2021), where the impact of super typhoons on coconut farmers in Leyte, Philippines was assessed. Part of their survey documented the coping

mechanisms of typhoon-affected farmers. Some possible responses from this part were added to the questionnaire. We also modified some responses and added some options that were not indicated in the 2021 study. Every effort was made to capture all the unique responses from respondents. The online survey was made using a Google form which was pre-tested prior to conducting the survey. This led to the refinement of the questionnaire, but was accomplished without major revisions. The survey was conducted via email in mid-May 2020. In addition to sending emails, an online survey link was posted in websites and social media that were accessible to employees. A non-probabilistic sampling technique was employed. The online survey was open for one week, and a total of 133 out of over 800 employees responded to it.

To summarize the responses, descriptive statistics, available from the Statistical Packages for Social Sciences (IBM SPSS) version 20, were used. For the coping mechanisms employed, responses given by males and females were reported separately.

Results and Discussion
Experiences and Response to the Intensifyied Vegetable Production by the University

The vegetable production at the University was on the land area previously used for students' experiments and laboratory classes. Since classes were suspended and the students were sent home, the experimental area was availble for use. According to the project implementers, production of at least 10 different vegetables was planned, and these would be distributed to VSU employees and neighboring communities. According to Dr. Capuno, the project leader, "the team came up with a project on enhancing vegetable production, with the purpose of planting at least 10 different types of vegetables including bitter gourd, okra, bottle gourd, eggplant, tomato, pepper, water spinach, squash, basella (Malabar spinach), and string beans tops in such a way [that] we could produce a healthy and ample supply of vegetables to the VSU community."

According to the team's horticultural experts, these vegetables were suited to the field location, soil type, and climate. In addition, sufficient planting material was available including seeds, cuttings, and seedlings. It was held that the undertaking could "distribute at least 10 tons of assorted vegetable by December 2020." Dr. Salas, a horticultural expert, said "we have also started distributing seedlings for those who are interested to grow their own vegetables. If they need further information, they can visit us in the field. This vegetable production area has served also [as] a sort of demonstration farm for others to see how to care for and grow vegetables. We are encouraging households to plant vegetables."

We asked the farm workers about their contribution to the vegetable intensification projects. The project employed 10 farm workers, who are paid on an hourly basis. Their main involvement was in land preparation, care and maintenance, and harvesting. According to Mr. Tan, one of the farm workers, they depended upon instructions from the project leader and horticultural experts as to the care and maintenance of the crop.

By mid-October 2020, the project had distributed at least seven tons of assorted vegetables to more than 5,000 beneficiaries. This local action was a reflection of the "bayanihan" spirit. Bayanihan is a Filipino term referring to civic unity, cooperation, and helping each other. This project aimed to distribute free vegetables until December 2020. It was reasoned that ensuring a reliable supply of fresh vegetables in the local community would have the added benefit of encouraging the local people to eat more vegetables, enabling their immune systems to be boosted in defense against the virus. According to McDougall et al. (2019), vegetables are an essential component of a balanced diet, and ensuring availability of a local supply of vegetables would improve nutritional outcomes.

As food supply mobility was hindered by various movement restrictions, the vegetable intensification project of VSU aimed to augment the looming disruption in the supply of fresh vegetables. According to local experts, it appeared timely to plant various vegetables during the early stages of lockdown or community quarnatine. Aside from distributing fresh supplies of vegetables, seedlings were also distributed to VSU employees and nearby communities to encourage them to grow their own vegetables. This complemented the rising interest in backyard gardening by working adults, and acted as a valuable coping device against movement restrictions.

Survey of Coping Mechanisms

More than 100 respondents participated in the online survey (*N* = 133). This provided valuable documentation on how working men and women had handled the situation to remain mentally sound amidst the stress and anxiety brought on by the pandemic. The closure of schools, lockdowns, home quarantine, movement restrictions, and physical distancing implementation caused considerable anxiety and stress among working adults (Talidong & Toquero, 2020). Hence, information on how people responded was important to assess if there was a need to intervene or provide social support. Table 1 shows the selected socio-demographic characteristics of the respondents.

Table 1 *Summary Statistics of the Socio-Demographic Characteristics of the Respondents (N = 133*)

Characteristics	Mean	Minimum	Maximum
Female (1 = female, 0 = otherwise)	0.67	0	1
Single (1 = single, 0 = otherwise)	0.57	0	1
Married (1 = married, 0 = otherwise)	0.40	0	1
Age	35.1	22	64
Household size	4.8	1	12
College graduate (1 = for college graduate, 0 = otherwise)	0.53	0	1
With masters degree (1 = masters degree, 0 = otherwise)	0.32	0	1
With doctoral degree (1 = doctorate, 0 = otherwise)	0.15	0	1

Over half (67%) of the respondents were female. The percentage of single individuals was 57% and the percentage of married respondents was around 40%. The youngest respondent was 22 years and the oldest was 64 years, with an average age of 35.1 years old. The average household size of the respondents was five members. In terms of educational qualifications, 53% possessed bachelor degrees or were college graduates, around 32% of the respondents had master degrees, and only 15% had doctoral degrees.

The pandemic caused sudden changes and negatively affected the working environment, leaving the working adults inadequately prepared (Babore et al., 2020). Table 2 shows how the respondents handled the abrupt disruptions in their usual work routines. The respondents identified several strategies or activities that helped them cope during the pandemic.

Table 2 *The Coping Mechanism of Respondents during the COVID-19 Pandemic (N = 133)*

General Coping Mechanisms	*n*	Percentage
Doing household chores	103	77.4
Praying	92	69.2
Spending time with family	91	68.4
Increased social media usage	76	57.1
Surfing the Internet	76	57.1
Gardening	72	54.1
Educating myself (reading and writing)	65	48.9
Physical exercise	64	48.1
Movie marathon	63	47.4
Virtual connecting to family and friends	54	40.6
Develop a new skill	42	31.6
Spending time with pets	41	30.8
Restrict time watching/reading the news	30	22.6
Online/virtual classroom	26	19.5
Getting online jobs/selling online	15	11.3
Sewing/tailoring	10	7.5

Volunteering	6	4.5
Continue working from home	2	1.5
Home improvements/doing repairs/minor renovations	1	0.8
Meditation	1	0.8
Writing articles for publication	1	0.8

The results (Table 2) showed that working adults' top ranking coping mechanism was doing household chores (77.4%). This was followed by praying more (69.2%), spending time with family (68.4%), increased social media usage or surfing the Internet (57.1%), and gardening (54.1%). This suggests that home quarantine or working from home provided opportunities for families to spend more time bonding and reconnecting with each other. This reflects the findings of a study in Zimbabwe that also revealed that social (social media usage) and physical (cleaning, gardening, doing laundry, cooking etc.) coping strategies were guarding people from anxiety and fear during the lockdown because of COVID-19 (Chirombe et al., 2020). Similarly, Gan (2020) also reported that families spent more time bonding and reconnecting with each other in Wuhan, China and in addition, social media was a big help during lockdown situations. Praying was the second most used coping mechanism. This reflects what Verdida et al. (2020) and Seriño et al. (2021) reported. Praying has been one of the major coping mechanisms of Filipinos in times of disaster, as this has been reported by others (e.g., Almazan et al., 2019; Verdida et al., 2020; Seriño et al., 2021). Close to 50% of the respondents also undertook physical exercise at home. Burg et.al. (2017) reported exercising can improve mental health as well as physical health by alleviating stress.

The coping mechanisms of men and women are shown in Tables 3 and 4. Table 3 highlighted the coping mechanisms of women and Table 4 summarizes those of men. The results showed that there were slight differences in the coping mechanisms between women and men. The top-ranked coping mechanism for both women and men was completing household chores. This is plausible, as when people are forced to stay at home, they resort to household-related activities. The second top-ranked coping mechanism for women was praying (78.7%), followed by spending time with family (76.4%), gardening (56.2%), increasing social media usage (53.9%), surfing the Internet (53.9%), watching movie marathons (48.3%), and doing physical exercise (48.3%). Women tended to be less inclined to undertake home improvements, such as minor repairs.

Table 3 *Coping Mechanisms of Women during the COVID-19 Pandemic (N = 89)*

Coping Mechanisms of Women	*n*	Percentage
Doing household chores	75	84.3
Praying	70	78.7
Spending time with family	68	76.4
Gardening	50	56.2
Increased social media usage	48	53.9
Surfing the internet	48	53.9
Movie marathon	43	48.3
Physical exercise	43	48.3
Virtual connecting to family and friends	42	47.2
Educating myself (reading and writing)	39	43.8
Spending time with pets	30	33.7
Develop a new skill	25	28.1
Restrict time watching/reading the news	23	25.8
Online/virtual classroom	15	16.9
Getting online jobs/selling online	10	11.2
Sewing/tailoring	8	9.0
Continue working from home	2	2.2
Home improvement/doing repairs/minor renovation	1	1.1
Writing articles for publication	1	1.1

Table 4 shows that the top-ranking coping mechanisms of men were equally represented in household chores, increased use of social media, and surfing the Internet (63.6%). This was followed by upgrading their skills (59.1%), spending time with family (52.3%), doing gardening, and then praying (50%). In addition, men also indicated that they undertook physical exercises (47.7%) and watching movies at home (45.5%). A few male respondents indicated that they meditated or engaged in sewing related activities.

Table 4 *Coping Mechanisms of Men during the COVID-19 Pandemic (N = 44)*

Coping Mechanisms of Men*	n	Percentage
Doing household chores	28	63.6
Increased social media usage	28	63.6
Surfing the internet	28	63.6
Educating myself (reading and writing)	26	59.1
Spending time with family	23	52.3
Gardening	22	50.0
Praying	22	50.0
Physical exercise	21	47.7
Movie marathon	20	45.5
Develop a new skill	17	38.6
Virtual connecting to family and friends	12	27.3
Online/virtual classroom	11	25.0
Spending time with pets	11	25.0
Restrict time watching/reading the news	7	15.9
Volunteering	6	13.6
Getting online jobs/selling online	5	11.4
Sewing/Tailoring	2	4.5
Meditation	1	2.3

Both men and women were engaged in various activities while staying at home. These findings are in agreement with those of others, who have reported that people tend to use various coping strategies and localized activities to deal with the adverse psychological outcomes associated with a health crisis such as the current pandemic (Chew et al., 2020; Yildirim et al., 2020).

Based on our observations, the pandemic gave the opportunity for working women and men to engage in backyard gardening. This augmented households' supply of fresh vegetables, and in addition helped reduce the frequency of visits to crowded markets. Aside from the provision of fresh vegetables, gardening is a good physical activity. Soga et al. (2017) reported that gardening can bring positive effects on health, and can help reduce depression and anxiety. Furthermore, with more people engaging in agriculture during this pandemic, this explains why the agriculture sector alone posted a 1.6% growth in gross domestic product (GDP) against an overall massive decline of the Philippine GDP of 16.5% in the second quarter of 2020 (PSA, 2020). From a macroeconomic perspective, efforts to boost agricultural productivity should be continuously pushed to optimize its potential to contribute to regional economic growth in Eastern Visayas (Seriño, 2014).

Conclusions

The pandemic has caused unprecedented challenges and disruptions in life among working adults in the rural Philippines. Considering the increasing number of COVID-19 cases there, resumption of a normal working life is becoming more uncertain. This will have unpleasant economic and social implications. This paper highlighted one of the local actions, particularly the experiences and response from an agicultural project initiated by a university in Leyte, Philippines to mitigate disruptions brought by the pandemic. The initiative was to launch a project to intensify vegetable production for local consumption to mitigate the looming disruption in the supply of vegetables due to border closures in its neighborhood. To date, the project has distributed at least seven tons of assorted vegetables to at least 5,000 beneficiaries in the province. Undeniably, the COVID-19 pandemic has

given rise to an economic and health crisis. Local actions are vital to mitigate potential adverse disruptions to daily life in rural areas. The action of this University was a manifestation of the *bayanihan* spirit or civic unity of Filipinos. This local action contributed to the food security of rural households during the pandemic when there were looming food supply disruptions in the early stages of the lockdowns. To sustain this endeavour, free vegetable seedlings were provided to those who were interested in doing backyard gardening.

The various mobility restrictions through community quarantines brought sudden changes, and everyone had to adjust quickly. The varying conditions of working adults in VSU during the pandemic should be taken into consideration. Some were staying with their families, others lived alone, some were working from their homes, while others faced great anxiety related to health issues, especially those who had comorbidities. Under these conditions, some were coping better than others. The observations made at the University may resonate in other rural areas in the Philippines, where people are rediscovering household chores, have more family time, and have improved their gardening skills. Policymakers and administrators can use these results as a benchmark to develop programs and approaches that may contribute to working adults' well-being during this pandemic. Meeting individual needs and targeted interventions are crucial in allocating limited resources in responding to the crisis. Hence, documenting local actions and coping mechanisms is important in outlining concrete plans in case of similar incidents happening in the future. In addition, it will help policy makers assess local responses and strengthen their actions in mitigating disruptions and related public health hazards. The lessons learned from this pandemic can provide input into devising local policies to mitigiate adverse effects of the pandemic. Our case study shows the critical role of improving food self-sufficiency and the local coping mechanisms adopted to improve well-being when individuals are under isolation. As the pandemic continues to disrupt daily lives and social distancing remains in place, learning to cope with these disruptions can help adults become more resilient. However, our documentation warrants further investigation to evaluate the efficiency of local actions and coping mechanisms as a way of enhancing resiliency among working adults in the rural Philippines.

Limitations

This study had several limitations. Since this study presented the case of a State University located in Leyte Island, Philippines, its results cannot be generalized for situations in other universities. Second, having utilized open-ended and unstructured questions, no thematic analysis was undertaken from the qualitative interviews among key informants. Third, the survey involved decriptive analysis alone. In the future, statistical analysis could be undertaken to deliver meaningful inferences. A follow-up survey could be conducted to document how working employees at the University have transitioned and coped following the initial stages of lockdown to post-pandemic situations.

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Digital Transformation of Accounting Firms:
The Perspective of Employees from Quality Accounting Firms in Thailand

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Abstract

This research aimed to study the digital transformation of accounting firms and investigate the factors affecting it. A questionnaire was used to collect data from 260 employees of 162 quality accounting firms in Thailand. Data obtained were analyzed using descriptive statistics, Pearson's correlation analysis, and MIMIC analysis for testing hypotheses. The results revealed that successful digital transformation depended on adopting digital processes, having a digital mindset, developing digital culture, and obtaining digital knowledge and skills. Four factors that accounted for 84% of digital transformation ability were accounting firms' executive leadership, business model and organizational structure adopted, resource accessibility, and external support. Information and findings obtained from this research can benefit accounting firms and lead to the development of guidelines by agencies relevant to Thailand's accounting profession. This would improve the transition process in becoming a digital accounting firm.

Keywords: *Digital transformation, quality digital accounting firms*

Introduction

The digital transformation in the 21st century has created a change in the accounting sector. Cloud accounting has replaced traditional accounting methods because it is more efficient in terms of accuracy and speed. Automated accounting has changed the accounting profession, and accountants need to look for a way to survive in the future. The leading reason why many accounting firms have digitized their accounting services is to meet market demands. Digital transformation involves adopting new technologies, but it also is about developing new ideas. The change has provided a prime opportunity for accountants and accounting firms to use technology to offer more numerical solutions. They are now acting as business advisors to clients (Vessenes, 2016; Blueback Global, 2020).

Being a successful digital accounting firm requires not only a focus on new technology but also human participation, the strategy adopted, the culture developed, and the broader business goals set (Intuit, 2011). The real power of technology is its ability to allow professionals to connect with customers to build better and longer relationships and offer valuable services and sound advice to help businesses succeed (Maneemai et al., 2018). Therefore, accountants need to balance these matters, which will help their businesses run smarter and faster. Technology provides better access to financial information and improves interoperability.

The Department of Business Development is an agency that promotes and supports accountants to develop professionalism and good governance so that they recognize the importance of developing and enhancing accounting standards to keep pace with the profession's changes and technology. Therefore, the policies and plans adopted encourage professional accountants to be prepared to transition into the digital economy. The programs available include preparing quality accounting firms to gain access to accounting and management innovations and enable the transition from the traditional methods to a digital accounting format (Department of Business Development, 2020a).

In 2020, a few quality accounting firms in Thailand had started to adopt some new technologies, such as cloud accounting, artificial intelligence, or robots in accounting. However, there is no clear information as to what extent and in what areas quality accounting firms in Thailand are using technology. This is because the Department of Business Development and other departments involved in the accounting profession's development have not yet determined a clear set of the criteria,

structures, and formats to be recommended for adoption by digital accounting firms (Matichon Online, 2020).

Due to these issues, the aim adopted for this research was to review the literature relevant to digital transformation of accounting firms and factors affecting a successful transformation, and to place this in a conceptual framework. The findings may be useful for agencies relevant to Thailand's accounting profession in developing assessment tools to determine the success of accounting firms' transformation. They may also be helpful in developing processes best suited to assist in the transition to become a quality digital accounting firm.

Literature Review and Hypothesis Generation
Transformation to Become a Digital Accounting Firm

The process of transformation to become a digital accounting firm (DTBDAF) involves applying digital technology in operations, management, and solving accounting firm problems. This enables products to be created and services offered to be digitized in response to market demands. It enables business goals to be set for the future (Farnell, 2019). It also includes developing a new mindset and corporate culture to help businesses adapt to the digital age and prepare for changes. Digital transformation involves four elements (Khunpolkaew, 2018; Reynolds, 2019) as follows:

1. Digital Mindset (DMS)—transformation involves changes in organizational staff thinking at all levels, starting from the executive team and transmitted to people throughout the organization. It encompasses developing digital business thinking, including supporting budgets and developing an infrastructure that will aid digital development.

2. Digital Processes (DPC)—internal processes must be altered to permit the adoption of digital technologies so that there is a seamless flow of information. This can involve the development of database systems to reduce data redundancy and that assist information flow, and the implementation of processes that assist planning and decision making that benefits the organization. Training in the new systems is required to build confidence among employees in handling both old and new information.

3. Digital Knowledge and Skills (DKS)—developing organizational employees' digital knowledge and skills is a necessity. This can involve acquiring proficiency in using various computer programs to process information and make paperless reports quickly, and includes becoming familiar with everything being on a digital platform. Therefore, organizational employees must have digital skills to extract and use data to make reports.

4. Digital Culture (DCT)—a new digital culture must be developed in order to encourage organizational collaboration among employees. They need to be ready to cope with emerging technologies, innovative changes, and continual work improvements in order to increase organizational productivity and reduce problems and obstacles that cause limitations. Such limitations may involve delays in gaining an executive's signature of approval on important documents, the issue of scheduling meetings among busy working people, how to handle lots of stored paper information from previous operations, how to deal with reports that can take considerable time to produce, and lack of knowledge of the status of machinery and data production. Therefore, organizational employee selection and development are essential because they require people with vision, beliefs, and goals to meet the needs of the digital age.

Executive Leadership in Accounting Firms

Corporate executives play a crucial role in driving organizational operations to achieve goals and lead to organizational change. Digital transformation requires the presence of executives who have the essential characteristics of being knowledgeable and supportive leaders, with vision and inspirational communication abilities, able to provide intellectual stimulation, possessing organizational and personnel management skills, and able to cope with diversity (Clark, 2019; Rafferty & Griffin, 2004; Sunkphoet et al., 2017). Therefore, if the accounting firm executives have these characteristics, it will enable accounting firms to become digital accounting firms. Thus, it was

hypothesized that an accounting firm's executive leadership (AFEL) affected its ability to become a digital accounting firm.

H_1: The executive leadership provided in an accounting firm affects its ability to become a digital accounting firm.

Accounting Firms' Resources

An organization's operational success depends on crucial internal factors: people, money, materials, management, work processes or operation methods, and time. These are the organization's resources that support the organization's operations to achieve its goals. The use of resources by the administration is a science that requires discipline in allocating limited resources to achieve optimal work outcomes. The aim is to use the resources available to enable the implementation of management processes and effectively achieve the specified objectives (Pongtanee, 2009; Injun, 2009). Therefore, to enable transformation into a digital accounting firm, the organization must have the resources to support digital operations. Of considerable importance is the presence of personnel with digital knowledge and skills who meet the legal requirements related to the accounting profession, accounting standards, and ethics. Resources, innovative tools, and cutting-edge accounting technology need to be ready for use (Maneemaiet al., 2018). Therefore, it was hypothesized that an accounting firm's resources (AFRS) affect its ability to transform into a digital accounting firm.

H_2: An accounting firm's resources affect its ability to transform into a digital accounting firm.

Accounting Firms' Business Model and Organizational Structure

Organizations in the digital economy age must have a business model that emphasizes customer values and relationships, and how customer interactions and collaboration are capable of being improved (Berman, 2012; Remane et al., 2017). The organizational structure needs to be appropriate and straightforward to work in a digital environment. Business organizations must create a culture that promotes learning new things by employing knowledgeable and innovative personnel who work with the future in mind. Besides, businesses need to develop their technology and application capabilities to distinguish and deliver a superior customer experience for who choose to use their products or services (Berman, 2012; Kaltum et al., 2016; Krüger & Teuteberg, 2016; Remane et al., 2017). The changes instituted in an accounting firm's business model and organizational structure impact the overall business operations and ability to become a digital accounting firm. Therefore, it is hypothesized that the accounting firm's business model and organizational structure (AFBM) affect the ability to transform into a digital accounting firm.

H_3: An accounting firm's business model and organizational structure affect its ability to become a digital accounting firm.

External Support

External support means having access to help and support in various fields such as knowledge of the business platform and system development, relevant regulation development, support from agencies involved in business operations, and the accounting profession (e.g., the Thailand Federation of Accounting Professions, Department of Business Development, and IT partners) to drive the accounting firm into becoming a digital accounting firm (Matichon Online, 2020). Therefore, it is hypothesized that external support (EXSP) affects the ability to transform into a digital accounting firm.

H_4: External support affects a firm's ability to become a digital accounting firm.

The information outlined and discussed above can be visualized in a conceptual research model, as shown below in Figure 1.

Figure 1 *Conceptual Research Model*
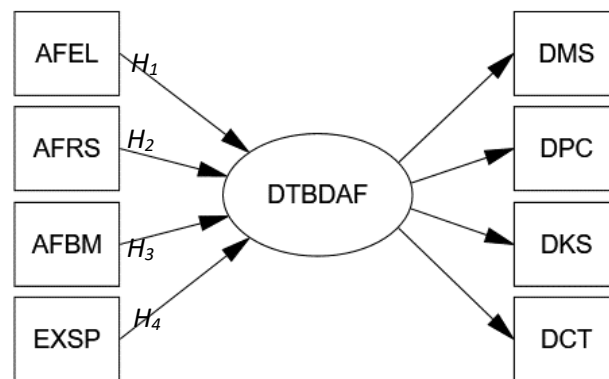
Research Objectives

The model outlined in Figure 1 was tested for applicability by collecting data to provide information relevant to the following objectives.

　　1. To study the digital transformation of accounting firms in Thailand.

　　2. To investigate factors affecting the transformation to become a digital accounting firm using perspectives given by employees of quality accounting firms in Thailand

Research Methodology

Population and Sample

The research population consisted of employees from 162 quality accounting firms in Thailand (Department of Business Development, 2020b). The sample size for structural equation modeling (SEM) was determined according to Nunnally's (1967) and Stevens's (1996) criteria, which suggested that there should be 10–20 samples per observed variable. In this study, eight observed variables were involved. The optimal samples hence should be more than 80. Two hundred sixty samples were selected by stratified random sampling. Each quality accounting firm's sample was selected by chance, and the number of employees was determined by the employee population.

Tool Construction and Validation

The tool used for this research was a questionnaire created according to the established objectives and conceptual framework. It was divided into three parts as follows:

1. General information of the respondents. It contained a checklist of six items encompassing gender, age, level of education, work experience in the accounting profession, working position, and having a professional accounting license.
2. Digital transformation in becoming a digital accounting firm—19 items.
3. Factors affecting digital transformation in becoming a digital accounting firm—15 items.
In Parts 2 and 3, items were rated on a five-point scale (Likert, 1932).

The tool's content validity was examined by three experts using the index of item objective congruence (IOC) based on Hambleton's (1984) criteria (IOC > .60). The results showed that the IOC values of all questions in the questionnaire were between .79 and .93. The questionnaire's reliability was determined based on data collected from 30 employees (Cronbach, 1951), who were personnel from accounting firms in Lampang. The Cronbach's alpha value was .92. The questions used to collect data on the transformation to become a digital accounting firm (questionnaire part 2) and factors affecting digital transformation ability (questionnaire part 3) returned reliability values of .93 and .90, respectively.

Data Analysis

Data were analyzed as follows: (a) respondents' general information and the digital transformation of an accounting firm and factors affecting the transformation were assessed by using descriptive statistics; (b) Pearson's correlation analysis was used to assess the relationship between success in becoming a digital accounting firm and the firm's executive leadership, resources, business model, organizational structure, and external support; and (c) the multiple indicators and multiple causes outlined in the MIMIC model were assessed using various approaches recognized in the literature (Brown & Cudeck, 1992; Byrne, 2001; Kline, 2005; Schumacker & Lomax, 2004). Accordingly, the model-fit criteria adopted consisted of Chi-squared Probability Level ($p > .50$), Root Mean square Residual (RMR < .05), Goodness of Fit Index (GFI > .90), and Comparative Fit Index (CFI > .90).

Results

The study results were separated into four parts as follows.

General Information of Respondents

There were 260 respondents. The majority of respondents were female (74.6%), aged under 30 years old (43.8%), had graduated with a bachelor's accounting degree (68.5%), had working experience in the accounting profession of between 1–5 years (34.6%), and had positions as officers (38.5%). Most respondents (91.5%) did not hold an accounting license. Those who did were Certified Public Accountants (CPA) (6.2%) and Tax Auditors (TA) (3.8%).

Factors Affecting the Transition to Become a Digital Accounting Firm

In the firms surveyed, the pressure to become a proficient digital accounting firm was at the highest level, as shown by the total values in Table 1. In order of importance, the factors contributing to transformation success were digital processes, digital mindset, digital culture, and digital knowledge and skills.

Table 1 *Factors Affecting Digital Transformation to Become a Digital Accounting Firm*

Factors Involved in Digital Transformation	M	SD	Level
Digital Mindset	4.22	0.55	Highest
Digital Processes	4.28	0.54	Highest
Digital Knowledge and Skills	4.13	0.58	Highest
Digital Culture	4.18	0.60	Highest
Average	**4.21**	**0.49**	Highest

Variables Influencing the Ability to Become a Digital Accounting Firm

It was found that an accounting firm's executive leadership, resources, business model and organizational structure, and external support influenced the ability to become a digital accounting firm. All variables were statistically significant at the .01 level, and the correlation coefficients were high, as shown in Table 2.

Table 2 *Variables Influencing the Ability to Become a Digital Accounting Firm*

Variables	M	SD	AFEL	AFRS	AFBM	EXSP
Accounting Firm Executives' Leadership (AFEL)	4.25	0.51	1			
Accounting Firms' Resources (AFRS)	4.20	0.55	.723[**]	1		
Accounting Firms' Business Model and Organizational Structure (AFBM)	4.17	0.57	.716[**]	.691[**]	1	
External Support (EXSP)	4.19	0.60	.627[**]	.667[**]	.734[**]	1
Digital Transformation into becoming a Digital Accounting Firm (DTBDAF)	4.20	0.50	.894[**]	.862[**]	.901[**]	.848[**]

** $p < .01$

Factors Affecting the Digital Transformation to become a Digital Accounting Firm

In the analysis of the MIMIC model to assess the consistency of the model with the empirical data, it was found that the proposed model was well aligned with the empirical data. The data-model fit indices were Chi-square (χ^2) of 6.585, probability value (p) of .884, root mean square residual index (RMR) of .004, a goodness of fit index (GFI) of .987, and a comparative fit index (CFI) of 1.000. The statistical data obtained from the analysis of the structural equation model are shown in Figure 2.

Figure 2 *Statistics Show the Consistency of the Proposed Model with the Empirical Data*

Chi-square = 6.585, df = 12, p = .884, CFI = 1.000, GFI = .987, RMR = .004
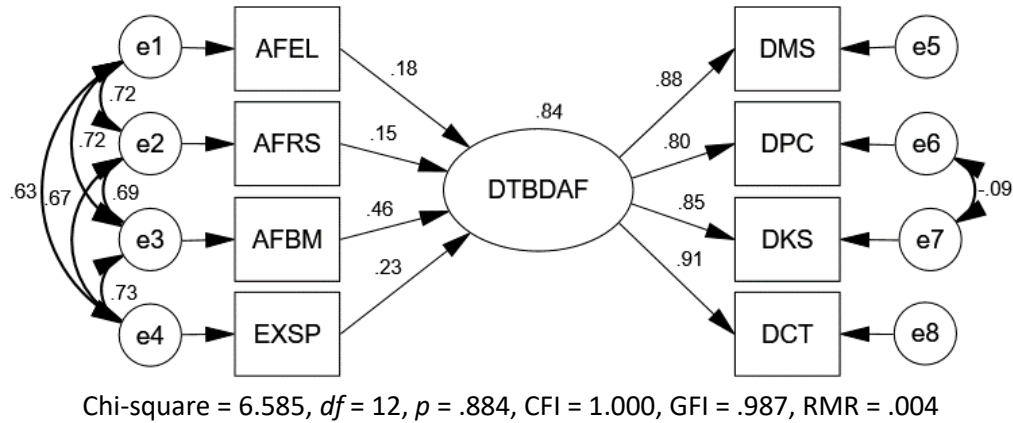
Standardized factor loadings of observed variables are components of latent variables affecting transformation into a digital accounting firm (DTBDAF). The variables were in four areas: digital mindset (DMS), digital processes (DPC), digital knowledge and skills (DKS) and digital culture (DCT). They had component weights of .88 (β = .88), .80 (β = .80), .85 (β = .85), and .91 (β = .91), respectively. All the observed component weight values contributing to DTBDAF were statistically significant ($p <$ .01) as shown in Table 3.

Table 3 *Component Weight Values of Observed Variables that are Components of Latent Variable Affecting Accounting Firms' Digital Transformation (DTBDAF)*

DTBDAF's Observed Variables	Std. Factor Loading (β)	SE	t-value
Digital Mindset	.88**	Scaling	
Digital Processes	.80**	0.076	11.632
Digital Knowledge and Skills	.85**	0.078	13.186
Digital Culture	.91**	0.075	15.234

** $p < .01$

Hypotheses Testing Results

The hypothesis testing results are summarized in Table 4.

Table 4 *Hypotheses Test Results*

Hypotheses	β	SE	t-value
H_1: AFEL $\rightarrow$ DTBDAF	.18	0.067	2.580**
H_2: AFRS $\rightarrow$ DTBDAF	.15	0.066	2.001*
H_3: AFBM $\rightarrow$ DTBDAF	.46	0.065	6.016**
H_4: EXSP $\rightarrow$ DTBDAF	.23	0.056	3.311**

* $p < .05$, ** $p < .01$

Hypothesis 1 (H_1): An accounting firm's executive leadership (AFEL) affected the digital transformation process (DTBDAF). The results showed that an accounting firm's executive leadership

ability positively affected the digital transformation process. The path coefficient of .18 was statistically significant at the one percent level ($p < .01$), indicating that Hypothesis 1 was supported.

Hypothesis 2 (H_2): The accounting firm's resources (AFRS) affected the digital transformation process. The results showed that accounting firm resources positively affected the digital transformation process. The path coefficient of .15 was statistically significant at the five percent level ($p < .05$), indicating that Hypothesis 2 was supported.

Hypothesis 3 (H_3): The business model and organizational structure (AFBM) adopted by accounting firms affected the digital transformation process. The results showed that the accounting firm's business model and organization structure positively affected the digital transformation process. The path coefficient of .46 was statistically significant at the one percent level ($p < .01$), indicating that Hypothesis 3 was supported.

Hypothesis 4(H_4): External support (EXSP) affected the digital transformation process. The results showed that external support positively affected the digital transformation. The path coefficient of .23 was statistically significant at the one percent level ($p < .01$), indicating that Hypothesis 4 was supported.

From the data shown in Figure 2 and Table 4, it may be concluded that the four factors (executive leadership, resources, business model and organization structure, and external support) could jointly predict 84% of digital transformation ability ($R^2 = .84$). All but one factor affecting digital transformation to become a digital accounting firm were statistically significant at the one percent level. An accounting firm's resources affected digital transformation success and was statistically significant at the five percent level. In the experience detailed here, the digital transformation ability to become a digital accounting firm (DTBDAF) might be forecast using an equation in the form of a standard score (β) as follows:

$$DTBDAF_\beta = .18AFEL + .15AFRS + .46AFBM + .23EXSP$$

Discussion and Summary

In the present study, which considered the digital transformation of accounting firms in Thailand, it was found that transformation was being experienced at the highest level. This may have been because the 162 quality accounting firms surveyed have been developing and promoting the adoption of accounting standards to keep pace with the professional and technological changes that have occurred since 2018. In other words, they have generated policies and plans for their accounting firms to acquire both knowledge and the technological tools needed for transition into the digital economy. Such forward thinking has enabled access to accounting and management innovation, and has permitted transformation from a traditional to a digital accounting working style. In 2020, the Department of Business Development took steps to enhance knowledge and boost technological development related to accounting. These initiatives have helped businesses transform successfully into digital accounting firms and have aided in adopting artificial intelligence or using robots in accounting or data analysis processing. A suitable formulation is available for an accounting firm to facilitate adopting a digital accounting structure and layout (Matichon Online, 2020).

Factors affecting digital transformation success were enlightened executive leadership, an appropriate business model and organization structure, and relevant external support. Possible explanations follow.

Executives can be transformational leaders and can play a crucial role in driving their organization's operations to achieve its goals. Leaders can play crucial roles in imparting a vision through clear communication, giving intellectual stimulation, and supportive leadership. When employee and organizational personnel diversity recognition is forthcoming, this will drive organizations toward their digitalization goal (Clark, 2019; Rafferty & Griffin, 2004; Sunkpho et al., 2017). Therefore, if accounting firm executives are qualified and experienced in digital matters, it will drive accounting firms to become digital firms. This is in line with Maneemai et al.'s (2018) study results, which found that successful digitation in accounting firms was linked to leadership

characteristics such as vision, inspirational communication, cognitive stimulation, supportive working environment, and employee and organizational personnel diversity recognition.

Resources available to accounting firms affected their ability to implement a digital transition. This may be on account of internal factors in an organization such as personnel, money, material and management resources, and work processes, especially those involved in the time taken to reach targets and marketing. Therefore, the use of resources for administrative benefit is a science that deals with allocating limited resources to achieve the organizational objectives effectively (Injun, 2009). Developing sufficient digital resources, ensuring their availability, and developing human resources to gain digital knowledge and skills will help promote efficiency in all organizational operations (Pongtanee, 2009). At the same time, accounting firms need to develop personnel and tools to keep pace with professional and technological changes. Therefore, human resource development is vital to enable the acquisition of digital knowledge and skills (in line with legal requirements relating to the accounting profession, accounting standards and ethics), and the provision of innovation and technology resources in accounting. Such developments will help drive the firm to become an excellent digital accounting office (Department of Business Development, 2020).

An accounting firm's business model and organizational structure affects the ease of digital transformation. For example, the following features represent a forward-looking approach—the adoption of a simple structure that reduces traditional barriers to work, using innovations and available technology to solve problems, hiring people with innovative knowledge to work with an eye to the future, emphasizing value and improving customer relationships and interactions, and working together. This will enable organizations to transform their business operations in the same direction as is occurring in the advanced areas of the world in this digital age (Berman, 2012; Remane et al., 2017). It is possible to create a culture that promotes the learning of new things and inspires employees. This means that a forward-looking business model and organizational structure are essential to improving the accounting firm's chances of a successful digital transformation (Kaltum et al., 2016; Krüger & Teuteberg, 2016; Remane et al., 2017).

External support affected the digital transformation prospects. Such support may come in the form of providing business platform knowledge and system development, information of innovations and advances in technology, the development of relevant regulations from outside agencies (e.g., Federation of Accounting Professions, Department of Business Development, as well as IT partners). This type of support will help prepare accounting firms to access accounting and management innovation skills and enable businesses to keep pace with the changes and technologies available and being used by accounting firms that have already become digital accounting firms (Matichon Online, 2020).

Accounting firms that wish to become successful digital accounting firms must consider organizational change and give due consideration to factors consistent with the findings reported in this article. This means giving careful consideration to the quality of executive leadership in an accounting firm, the resources available, the business model and organizational structure adopted, and the external support available.

Recommendations

In this study, it was found that accounting firm executive leadership, accounting firm resources, accounting firm business model and organizational structure, and external support optimized the ability of a firm to make the digital transformation necessary in today's world. Therefore, accounting firms need to change their working models from traditional to digital form, and the agencies involved in the development and promotion of accounting firm businesses must realize the importance of developing various factors accordingly. In this research, the following factors were identified as affecting digital transformation ability:

1. Develop the accounting firm's executive leadership so they have essential characteristics of being a leader in the digital age. The skills required include being able to engage in inspirational

communication, giving cognitive stimulation and supportive leadership, and recognizing employee diversity within the organization.

2. Develop the accounting firm's resources, such as boosting human resources, so that the personnel possess digital knowledge and skills, including knowledge of legal requirements, appropriate accounting standards, and ethical guidelines related to the accounting profession. Also, provide accounting innovation and technology resources so that a firm can keep pace with the changing profession and technology that supports the digital approach to work.

3. Transform the accounting office's business model and organizational structure by improving work processes and seeking innovations that can help solve problems and reduce obstacles in traditional operations so that they become compatible with practices in the digital world. Further, the hiring of personnel with digital knowledge and innovative thinking is essential for successful operations in the future. Benefits will also be seen by offering better value, improving customer relationships, providing for customer interaction, and improving the ability to work together. A culture that encourages new learning is bound to inspire people to work better in a constantly changing digital environment.

4. Develop cooperative networks with external agencies as a helpful strategy. This is especially true for agencies involved in the accounting business and profession, such as the Federation of Accounting Professions, Department of Business Development, and IT partners for organizational development. Areas of emphasis recommended are those that give knowledge of business platforms, work system development, innovation and technology, and the regulations relating to the accounting firm business promotion and development.

Future research should also seek to build suitable models and indicators for assessing the transformation process into a digital accounting firm to readily prepare organizations to satisfy quality certification criteria.

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The Effectiveness of Hyponymy Games to Enhance English Vocabulary Acquisition

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Abstract

Previous studies have shown that language games enhance language learning as well as vocabulary. The purpose of this study was to determine the effectiveness of hyponymy game usage to enhance vocabulary acquisition among students in Grade VIII at an Indonesian junior high school. Answers were sought to a number of questions: (a) Are there any significant differences in students' vocabulary ac$_h$ievement between experimental and control groups? (b) Are there any differences in vocabulary achievement scores between male and female students in the experimental group and those who are in the control group? (c) Contrasting females with males, which group achieved a higher score?; and (d) What were students' attitudes toward the implementation of hyponymy games; do they have a positive or negative impact? An experimental research design was adopted involving two intact random sampling groups with 70 students. The results showed there was a significant difference between students who were taught using hyponymy games and those who were not taught using them. No differences were found between males and females in the experimental group, but a significant difference was seen in the control group. Overall, hyponymy games improved the students' ability to learn English vocabulary.

Keywords: *Vocabulary acquisition, hyponymy games, quantitative research*

Introduction

English is the international language of communication, as well as cultural and information exchange. Proficiency in it assists in obtaining a job. Mastery of a language requires that an adequate vocabulary be possessed so that it can be used accurately. Words express meaning, can affect an individual's actions, and are important in communication. Hosseini & Salehi (2016) stated that to express or convey an idea, a student needs to have an adequate vocabulary. This means that vocabulary can be the foundation of language teaching. Taslim (2016) has correctly said that language proficiency has a strong connection with mastering vocabulary, for this means the user is able to know the words in a language and when it is appropriate to use them.

A number of other researchers also have expressed the opinion that vocabulary is an important part of language learning (Alqahtani, 2015; Hosseini & Salehi, 2016; Manik & Chistiani, 2016; Nurweni & Read, 1999; Rezaei et al., 2015). Alqahtani (2015) emphasized that sufficient lexical knowledge is required to master a second or foreign language. To communicate with a native speaker, people need to have knowledge of at least 3000 word families. Meara et al. (1997) noted that learners in an intensive second language area may be unable to acquire vocabulary easily. Extensive explanation may be required through written text or other means. Clearly, they lack the capability to identify, understanding, and learn new vocabulary.

Furthermore Purnamasari et al. (2017) explained that because it is hard for students to learn and enrich their vocabulary knowledge, their motivation to read English books is low. Despite the fact that there may be extensive schooling in English, mastery of it may be low (Hiew, 2012). For example, in Malaysia students still are not able to master English although they have spent about 11–13 years studying it. Tang et al. (2016) also observed that in Hong Kong, a former British colony, students do not have a standard grasp of the vocabulary.

In Indonesia, students have problems in acquiring vocabulary. Several studies and methods have been investigated to increase students' vocabulary knowledge (Amalia, 2020; Katemba & Parilla, 2020; Katemba & Sianipar, 2020; Katemba & Sitompul, 2018; Purnamasari et al., 2018). Gu (2003) argued that to learn vocabulary effectively, strategies must rely on the task, the learner, and the learning

context. To solve this problem with vocabulary, the present researchers used a technique designed to facilitate student learning through games. Interesting activities can be motivational and are able to challenge students to improve their vocabulary.

Hedge (2000) argued that semantic links have an important role in vocabulary acquisition. In order to solve this problem, Taslim (2016) argued that teaching vocabulary by using hyponymy games (to seventh graders at MTs Syech Ibrahim Payakumbuh) increased students' vocabulary knowledge. The present researchers adopted this method to enrich students' vocabulary that was connected with the area of semantics. This provided for enhancement of the learners' lexical entries in an enjoyable learning atmosphere. By way of explanation, according to Joshi (2014), hyponym [Hypo- under; -Onym: name] is a word that denotes a particular item from a general category of words. For example, football/hockey/cricket are hyponyms of game, and eagle/peacock/sparrow are hyponyms of bird. A hyponym also is called "Subordinate," "Subtype," or "Subset."

As McCarthy & O' Dell (2006) indicated, grouping words is beneficial to enhance vocabulary. It is easier for students because words are grouped according to their classification. It has been said:

> That is so beneficial to organize vocabulary into groups. It is not about the way you group those words or your grouping make sense to anyone else or not, but it talks about the words enough to create a group that improves the way we learn those words.

In this research, the researchers adopted several guiding principles. First, future researchers could use the information as a reference source and for guidance. Second, the aim was to develop a method that would be useful in enriching students' vocabulary achievement and, finally, the aim was to help both teacher and students move towards solving the problem of teaching and learning vocabulary.

This research was expected to provide practical contributions for both teachers and students. First, the findings of this research should help teachers to find a better way to teach vocabulary. By using the hyponymy method, the teacher encourages students to learn English indirectly and in a fun way, hopefully helping them to love learning English.

Research Questions

The following questions were posed:
1. Are there any significant differences in students' vocabulary achievements between those who are taught using hyponymy games (experimental group) and those who are not taught using such games (control group)?
2. Are there any differences between male and female students in the experimental and control groups in enhancing vocabulary achievement scores?
3. Contrasting female and male students, which group achieved a higher score?
4. What were the students' responses toward the implementation of hyponymy games?

The hypotheses adopted were as follows:

Null Hypotheses

H_{10}: There are no significant differences in students' vocabulary achievement between students who are taught using hyponymy games (experimental group) and those who are not taught using hyponymy games (control group).

H_{20}: There are no significant differences in vocabulary achievement score between male and female students.

Alternative Hypotheses

H_{1a}: There are significant differences in students' vocabulary achievement between students who are taught using hyponymy games (experimental group) and those who are not taught using hyponymy games (control group).

H_{2a}: There are significant differences between male and female in vocabulary achievement scores.

Methodology

This study focused on developing vocabulary through hyponymy games for Grade VIII students in Public Junior High School #1 (Sekolah Menengah Pertama Negeri–SMPN), Parongpong, Bandung, West Java, Indonesia. The study was continued for 50 hours (once a week for two hours spread over three and a half months) for both the experimental and control groups. The researchers limited the hyponymy games used to the Last Man Standing, Hangman, and Race Board.

The study was a quantitative one, and used a pre-test and post-test design to enable vocabulary achievement to be monitored before and after the treatment.

Population and Sample

The population selected for this research were students at SMPN 1, Parongpong, West Bandung. The sample consisted of two groups from Grade VIII. The first group was the experimental group and the second group was the control group. The students in the experimental group were taught through hyponymy games, and the students in the control group were taught using conventional methods. The range of ages was 13–15 years. The experimental group was composed of 37 students, and the control group numbered 33 students. The students' English ability was at the beginner level. The students were selected randomly for both groups.

Research Instrument

The instrument (vocabulary test) was pilot tested on a different group of 30 students to determine its validity and reliability. The pilot test consisted of 50 multiple-choice questions, five true and false questions, and five matching questions. Moreover, eight questions involved nouns, seven questions verbs, seven questions adjectives, eight questions involved tag questions, seven questions involved modal verbs, eight questions contained suggestions, eight questions involved agreeing or disagreeing, and eight questions assessed understanding. The results of the pilot test were analyze through a software program called Anatest to determine validity, reliability, and the index of difficulty level of each question. The questions that were considered reliable, valid, and significant were retained for the pre- and post-tests. The pre-test and post-test consisted of 45 multiple choice questions, six noun questions, seven verb questions, four adjective questions, four questions about modal verbs, six questions about suggestions, six questions that involved agreeing or disagreeing, and eight questions that assessed understanding. Moreover, some instructional objects were used in this research—such as a ball, trash bin, speaker, painting, lyrics of a song, a PowerPoint about adjectives, pictures of a woman and a man, marker, whiteboard, textbook and paper, letter, and other devices.

Pre-test

Both the hyponymy games group and control group were given a pre-test to measure their ability in vocabulary before the researchers gave the treatment. The pre-test was focused on nouns, adjectives, verbs, and adverbs. It was administered during the first week at the first meeting.

Procedures Adopted for the Hyponymy Games Class

First, the researchers motivated the students at the beginning of class by asking a few questions about the topic. For example, if the lesson was about fruits and vegetables, the teacher might ask questions such as "what kind of trees grow in your yards?", or "did you eat any fruits or vegetables for breakfast this morning?" Then the lesson commenced. Following this, students played one of the hyponymy games and repeated the games several times. At the end, a quiz was given to assess their learning of new vocabulary. Details of the three hyponymy games utilized are as follows.

Last Man Standing

Procedure for Playing the Last Man Standing Game. The researcher chose the name of a category or theme, such as kitchen, transportation, profession, food, and so on. Then all students ideally made a circle. It is easier for the students to play these games in this configuration, but if this is not possible,

they can sit in their chairs. Then the researcher began by tossing a ball to a student who was randomly picked. That student needed to shout a word that is part of the category or theme that has been chosen. For example, the words that belong to the theme of transportation could be car, bicycle, truck, plane, ship, and so on. Next, the student tossed the ball to another student. If that student repeated a word that has been mentioned already or cannot think of a new word, he/she would be disqualified. The last person who avoided being disqualified was the winner.

Hangman

Procedure to Play the Hangman Game. In this procedure, the researcher chose the name of a category or a theme, such as kitchen, transportation, profession, food, animal, and so on. The class was divided into two groups. Next the researcher wrote the theme, the number of dashes, and a column of stars on a whiteboard. After that, each group guessed a letter by taking turns. Then, the group that correctly guessed the letter got a star. At the end of the game, the group which got the most stars was the winner.

Race Board

Procedure Adopted to Play the Race Board. In the first step, the researcher divided the class into two groups. If the number of students was more than 30, it is better to divide the class into three or four groups. Next, divide the whiteboard into sections depending on the number of groups. Then the researcher chose one topic or theme and wrote it on the whiteboard. The students were given two minutes to write as many vocabulary items as they could remember. After that, the spelling of the vocabulary was checked. Finally, the group that was able to write the most words/vocabulary correctly was the winner.

Procedures Adopted in the Control Group

First, the researcher introduced the topic and motivated the students as described above at the beginning of the class. Then the researcher gave them a regular lesson. After that, the researcher gave a quiz to know whether the students had learnt new vocabulary or not. Procedures and steps adopted were all the same as for the experimental group. However, the control group did not participate in any games.

Conducting the Post-Test. Both the experimental and control groups were given a post-test to determine their improvement in vocabulary mastery.

Results and Findings

Both the experimental and control groups were pre-tested. The pre-test data was analyzed to determine whether it was normally distributed or not, and to see also whether it was homogeneous. The pre-test scores obtained for both the experimental and control groups were normally distributed, as assessed by the Kolmogorov-Smirnov method. The experimental group's score was 0.66 and the control group was 1.03, both of which were greater than 0.05. Levine's homogeneity test further indicated that the data were homogeneous (.968 > 0.05). These results allowed the *t*-test to be applied with confidence.

Table 1 *Results of Independent Sample t-test of Pre-test Data*

		Levene's Test for Equality of Variances		*t*-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Pre-test	Equal variances assumed	.002	.968	-2.21	52	.032
	Equal variances not assumed			-2.21	52	.032

There were significant differences between the pre-test scores in both groups (.032 < .05). This meant that H_{1a} could be accepted (There are significant differences in students' vocabulary

achievement between students who are taught using hyponymy games (experimental group) and students who are not taught using hyponymy games (control group). At the start of the treatment, the control group's scores were significantly higher than those of the experimental group.

The gain scores of both groups is shown in Table 2. The mean and standard deviation figures indicate enhanced vocabulary mastery through the use of hyponymy games. This can be seen from the elevation of scores after the exercise was completed—the gain of the experimental group (0.32) was higher than gain in the control group (0.18). Hence, the hyponymy games were effective in enhancing students' vocabulary achievements, and after the treatment, the experimental group's scores exceeded those of the control group.

Table 2 *Results of Pre-Test, Post-Test, Standard Deviation, and Normalized Gain*

Test Details	Experimental Group		Control Group	
	Mean	Standard Deviation	Mean	Standard Deviation
Pre-Test	46.89	10.77	53.22	10.33
Post-Test	64.22	8.55	61.82	10.75
Normalized Gain	0.32	0.11	0.18	0.19

The scores of both males and females in the experimental group showed improvement (Table 3). Tests of normality (Shapiro-Wilk test) and homogeneity (Levene statistic) for both the pre- and post-test score groups indicated that the data were normally distributed and homogenous. Hence, based on normalized gains, males (0.34) in the experimental group slightly outperformed the females (0.31). However, in the control group the females outscored the males. The normalized gain for females (0.26) was higher than that for the males (0.11).

Table 3 *Results of Pre-Test, Post-Test, Standard Deviation and Normalized Gain of Gender in the Control and Experimental Groups*

Group and Test Details	Males		Females	
	Mean	Standard Deviation	Mean	Standard Deviation
Control Group				
Pre-Test	54.21	8.37	52.15	12.38
Post-Test	59.64	7.83	64.15	13.14
Normalized Gain	0.11	0.16	0.26	0.20
Experimental Group				
Pre-Test	46.50	10.11	47.20	11.61
Post-Test	65.25	7.06	63.40	9.75
Normalized Gain	0.34	0.13	0.31	0.08

A test was done to see whether the data was normally distributed or not. H_o is accepted if the p-value is > .05 and H_o is rejected if p-value is < .05. The normalized gain for both groups was found to be normally distributed, with values for the Control Group of .979 and for the Experimental Group of .777, both of which were greater than .05. Thus, the data was normally distributed.

A test was also performed to check on the normalized gains for gender in both the Control and Experimental Groups. The normalized gains for males and females in both the Control and Experimental Groups were normally distributed, with scores of .425 and .402 respectively for the males, and .878 and .792 for the females. Since all of these scores were greater than .05, thus it can be concluded that these gains for gender were also normally distributed.

Since the normalized gain data from both the Control and Experimental Groups were normally distributed, they were tested for homogeneity based on their means. The levels of significance were .481 and .081, respectively for the Control and Experimental Groups, both of which were greater than .05. This showed that the data was homogeneous.

Further analysis using an independent samples *t*-test on the Control and Experimental groups (Table 4), showed that there was no significant difference between the scores of females and males who were taught using hyponymy games. However, a significant difference was noted between gender-based scores in the Control Group.

Table 4 *Independent Samples Test of Gender in the Control and Experimental Groups*

Levene's Test for Equality of Variances			*t*-test for Equality of Means		
	F	Sig.	*t*	*df*	Sig. (2-tailed)
Gain: Control Group					
Equal variances assumed	0.51	.480	2.23	25	.035
Equal variances not assumed			2.21	22.84	.037
Gain: Experimental Group					
Equal variances assumed	3.30	.081	-0.82	25	.420
Equal variances not assumed			-0.78	18.25	.444

Based on the results shown in Table 4, a significant difference was found between the learning of females and males in the Control Group (*p* = .035). For the Experimental Group, however, no significant difference was found between the scores of females and males who were taught using hyponymy games (*p* = .420 > .05). This appears to indicate that males, whose scores would otherwise be lower than females, benefited to a greater extent from the use of hyponymy games.

The percentage of participants and their responses to survey items about hyponymy games is shown in Table 5. It was found that 63.3% of the subjects gave positive responses to questions about hyponymy games. Furthermore, no questions in the questionnaire received a negative response.

Table 5 *Summary of Students' Responses to the Questionnaire*

Response Category	Students' Response (%)
Positive	63.3
Moderate	36.7
Negative	0.0

Discussion

The data indicated that hyponymy games are a good method to enhance vocabulary. Students were motivated to acquire and differentiate the vocabulary into their correct classification group in an easy and enjoyable way. This conclusion is in line with a study completed by Krashen (1989), who concluded that accidental learning of vocabulary produced better results than deliberate learning efforts.

The atmosphere evident in the control group differed from that found in the experimental group. Students in the experimental had more fun learning English. This made it easier for the students because they needed to remember just one theme. For example, if the theme was transportation, they needed to remember names such as car, motorcycle, plane, and ship. The same applied to verbs, with action words such as walk, jog, bring, and talk. This made it easier for the students to understand vocabulary words by their classification.

Hyponymy games exerted a positive impact on both females and males, but were more effective for males. This appears to be on account of the female students being shy to keep moving. For example, students needed to run from their chairs to other chairs in order to give the ball to other students in the Last Man Standing game. The female students did not want to run. A similar difficulty also occurred in the Race Board game—the speakers needed to run from their chairs and write as many words as possible on the whiteboard. Female students avoided being a spokesperson, ostensibly because they did not want to run from their chair to the whiteboard. A gender difference also was

found by Boyle (1987) in vocabulary acquisition. Male students outperformed their female peers in listening to vocabulary, despite female dominance in general proficiency.

The normalized scores of gender differences for females and males in the control group indicated the female gain scores were higher (0.26) than male gain scores (0.11), which was significant (p = .035). This might be explained along the lines that the female students were more confident using the conventional method, which was more convenient since they did not need to run from their chairs to another chair in front of the class. On the other hand, Oxford et al. (1996) found that women were far more likely to try new vocabulary learning techniques than men, a conclusion also reached in a few other studies (Gu, 2002; Young & Oxford, 1997).

After the experimental group was exposed to vocabulary learning experiences using hyponymy games, males and females failed to show any significant differences in vocabulary achievement. This meant that overall, hyponymy games exerted a positive impact particularly on males. This appears to be on account of the female students being shy about moving about while playing the games.

Students' responses towards the implementation of the hyponymy games were positive (63.3%), which meant that students agreed that the implementation of hyponymy games improved their vocabulary achievement scores. This agrees with studies conducted in several parts of Indonesia/Asia, China, Europe and the United States (Herdayani, 2019; Fang, 2014; Taslim, 2016; Telaumbanua, 2017; Wang, 2016).

Differences between this research and previous studies were that a different grade level was involved, and also some previous researchers investigated English acquisition as a native language, whereas in Indonesia, English is a foreign language. This study also differed in that the focus was on male and female achievement score achievements. It was found that this method was more effective for male students.

Hopefully, this method can be utilized effectively in Asian countries, as students in Asia have similar characteristics. The use of hyponymy games could help teachers solve the problem of learning vocabulary.

Conclusions

The answer to the question "Is there a significant difference between students who were taught using hyponymy games, and students who were taught using conventional methods?" was in the affirmative. Based on the different scores of males and females, hyponymy games were more effective in enriching the vocabulary achievement scores of males.

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Workplace Fun in Chinese Hospitals: Scale Development and Validation

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Abstract

Data indicate that workplace fun can promote organizational behavior among employees. Due to the lack of specific measurement tools, this suggestion has not been further studied in hospital working environments. In order to rectify this, a questionnaire was constructed and assessed for its usefulness through using qualitative and quantitative analytical approaches. Questionnaire survey data (*N* = 514; 183 face-to-face, and 331 online) were collected from the medical staff and hospital administrators of two Chinese public hospitals and analyzed using exploratory factor analysis and confirmatory factor analysis. The exploratory factor analysis favored a solution using three-dimensions, including 14 items to measure workplace fun, and the results of confirmatory factor analysis showed the appropriateness of the scale. The scale also returned good reliability measurements. This is the first reliable and valid scale to measure workplace fun in Chinese hospitals. In the future, the scale can be used to explore the impact of pleasure in the hospital workplace on the attitude, behavior, and performance of hospital employees.

Key Words: *Workplace fun, pleasure, Chinese hospital, scale development*

Introduction

With the development of greater social awareness and improvement of economic status, people have begun to pursue other needs. Work is an important element in people's lives, and working in a pleasant environment has gradually become more highly valued by employees and their supervisors. Data have indicated that a pleasant working environment is more attractive to job seekers than pay and promotion (Tews et al., 2012), leading companies to focus on meeting employees' other needs.

Providing for pleasure in the workplace has become more prevalent in businesses (Abdullah et al., 2016; Karamfilov, 2018). Researchers suggest that companies should create a fun work environment, including pleasure activities, as this would make employees happier and healthier (Michel et al., 2019).

Hospitals are places to provide patients with medical treatment, nursing, and rehabilitation care. Their staff provide services for disease treatment and prevention. Creating a working environment that helps to meet the physical and mental needs of hospital employees has attracted the attention of hospital administrators and scholars. A pleasant workplace reduces hospital manager anxiety, promotes nurses' health, and provides job satisfaction, among other things (Bae & Kim, 2019; Kang, 2018).

Theories about workplace enjoyment are covered by affective event theory and social exchange theory. Social exchange theory is the mainstream theory used in organizational management research. Organizations provide working conditions and remuneration, and employees repay the organization by performing their duties and obligations, thus forming a kind of interdependent exchange relationship (Rhoades & Eisenberger, 2002). The organization's activities, such as celebration activities, convey the organization's recognition of employees (Tews et al., 2014), encourage colleagues' social contact, and express the organization's support for its employees (Han et al., 2016). Based on this, employees develop an emotional attachment to the organization (Becker & Tews, 2016). By sharing exciting events with employees, managers convey care and support to employees, and employees are willing to repay their leaders, thus exhibiting more organizational citizenship behaviors (Cooper et al., 2018). Employees' participation in such activities means that they are willing to carry out social communication with the organization (Michel et al., 2019; Tang et al., 2017), thus forming a good

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exchange relationship at work. Social exchange theory, based on a "reciprocity norm," is an essential framework to explain the mechanism of organizational environmental factors, which is also the theoretical basis of this study.

The most frequently used workplace measurement of pleasure is McDowell's (2004) four-dimensional scale. Other single-dimension and three-dimension measurement scales have been suggested (Ford et al., 2003; Karl et al., 2005; Tews et al., 2014). The existing measurement scales show good reliability in empirical studies, but there are still deficiencies in content validity and dimension design (Plester et al., 2015). At present, few researchers have proposed a scale to measure fun in the hospital workplace, and the purpose of this study is to develop an instrument to measure it.

Methodology
Conceptual Framework and Hypotheses
From a review of the literature and interviews of experts, the conceptual framework illustrated in Figure 1 was developed.

Figure 1 *Conceptual Framework*
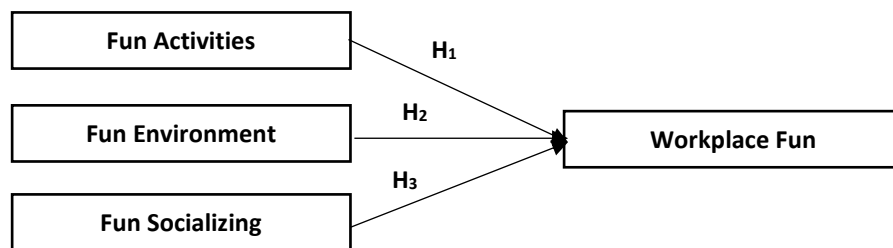
Three hypotheses regarding the posited relationships between the independent and dependent variables are as follows:

H₁ Fun Activities have a significant positive impact on Workplace Fun.
H₂ A Fun Environment has a significant positive impact on Workplace Fun.
H₃ Fun Socializing has a significant positive impact on Workplace Fun.

A mixed research method was adopted to develop and validate a scale suitable for measuring workplace fun. A five-step procedure was used: (a) to define hospital work fun and explore its connotation; (b) to form the initial dimensions and pool of items for the scale; (c) to revise and adjust the measurement items; (d) to analyze, verify, and validate the scale using collected data; and (e) to finalize the scale items (Netemeyer et al., 2003; Niyomsilp & Sompong, 2019).

A qualitative approach, including a literature review and expert interviews, was used to form the initial dimensions and items pool for the scale, and expert consultation was used to evaluate its content validity. A quantitative approach, involving a questionnaire survey, was adopted to collect data. The data were analyzed using Exploratory Factor Analysis (EFA) to test the structural validity of the scale, and Confirmatory Factor Analysis (CFA) was used to confirm the results of EFA. These data also were used to analyze the scale's reliability (Creswell & Creswell, 2017).

Initial Item Collection
The initial items used came from two sources—a literature review, and semi-structured in-depth interviews. The expert consultation method was used to filter the initial items collected.

The measurement scale developed from the literature review morphed from a single dimension to multi-dimensional. The single-dimensional scale focused on the form of fun activities initiated by the organization. For example, the scale developed by Ford et al. (2003) identified 10 forms of fun activities (10 questionnaire items), and that of Karl et al. (2005) contained 11 activities (26 questionnaire items). The multidimensional scale was based on two forms of fun—manager-led and

employee-led. McDowell (2004) first developed a four-dimensional workplace fun scale consisting of 24 items incorporating Celebrating at Work, Socializing with Coworkers, Personal Freedoms, and Global Fun at work. Tews and colleagues' scale (2014) contained 14 items covering three dimensions (Fun Activities, Coworker Socializing, and Manager Support for Fun). Chinese researchers developed a four-dimensional scale (Social Fun, Relaxing Fun, Auxiliary Pleasure, and Welfare Fun) with 19 items in total (Wang et al., 2017).

Semi-structured in-depth interviews provided the other source of initial items. According to Creswell and Poth (2016), there is no specific number of participants who might be interviewed. However, the number of participants depends on the qualitative research approach (Creswell & Creswell, 2017). Using a purposive sampling method, a total of 20 people from five hospitals were interviewed including deans, doctors, directors of the nursing department, head nurses, and nurses. A variety of questions were used, such as, "In your work environment, what situation makes you feel happy?"; "Have you ever organized activities in the hospital that make you happy?" and "Which department organized these activities?" Through these interviews, scale dimensions were provided and became the source of the items used. Interviewees volunteered to participate in this research. Following the interviews, the text data was generated, followed by analysis and evaluation. The initial items and dimensions are shown in Table 1.

Table 1 *Initial Items and the Dimensions of the Workplace Fun Scale*

Dimensions	Number	Items
Fun Activities	FA1	Competition involving professional knowledge and skills
	FA2	The advanced collective and individual Award Presentation Ceremony
	FA3	Anniversary activities related to personal events (e.g. birthdays, hiring/promotion anniversaries)
	FA4	Celebration activities of festivals or special events (e.g. International Nurses Day, Physician's Day)
	FA5	Outward bound (e.g. thematic education activities, sports games, outings, picnics)
	FA6	Activities that are physically relaxing and psychologically pleasing (e.g. mental health consultation, art appreciation meeting, cultural and artistic performance)
	FA7	Mini-games held during lunch break
Fun Environment	FE1	Create a pleasant natural environment and landscape for the hospital
	FE2	Decorate department regularly to create a pleasant working environment
	FE3	Provide relaxing lounges (e.g. coffee shop, a gourmet bar)
	FE4	Provide recreational venues and facilities (e.g. gyms, basketball courts)
	FE5	Personal music is allowed in the work area
Fun Socializing	FS1	Encouraging small talk with coworkers
	FS2	Sharing stories from your life and work with coworkers
	FS3	Visiting coworkers' family members when special events occur (e.g. coworkers' family members who are sick, coworkers are sent to other places for work)
	FS4	Providing opportunities for people in the community to come to the hospital to do volunteer activities (e.g. college students, volunteers)
	FS5	Socializing with coworkers at work
	FS6	Socializing with coworkers outside of work
	FS7	Sharing food with coworkers at work meal times

The expert consultation method was used for the preliminary selection of items. In reports of scale development, the widely reported approach for content validity is the content validity index (CVI) (Zamanzadeh et al., 2015). The CVI refers to the content validity ratio (CVR) average of all the remaining items. The content validity ratio (CVR) is the index of the items to retain or delete, and the formula is

CVR = (Ne - N/2)/(N/2), in which the Ne is the number of experts indicating "quite relevant" and "highly relevant", and N is the total number of experts. A 4-point ordinal scale was used to evaluate measurement items in terms of clarity and their relevancy to the construct underlying study. A CVR of not less than .80 represents the content validity of the better items.

According to Creswell and Creswell (2017), 13 experts were optimal. The following were invited: three hospital administrators, six nursing administrators, three chief physicians, and one psychology professor. Inclusion criteria for experts were that they had worked in this field for more than 10 years, had a master's degree or above, and had a senior professional title.

Item Analysis

The critical ratio (CR), computations of item-total correlation, and a homogeneity test were used to re-screen the items of the scale to improve its reliability and validity (Kanget al., 2019). The CR uses the independent samples t-test to examine the difference in each item between high and low groups (the top 27% and the bottom 27% of the total score); items with t-values of not less than three and p values of less than .05 were retained. The item-total correlation involved: (a) calculating the correlation coefficient between each item and the total score, and keeping the items with r values of not less than .40, and a p value of less than .05; (b) calculating the correlation coefficient between each item and the sum of the others, and retaining items with r values of not less than .40. The homogeneity test involved calculating the Cronbach's coefficient after unacceptable items were deleted and applying Exploratory Factor Analysis. This was completed using the principal component analysis method. Items were retained with a commonality of not less than .20, and factor loading of not less than .45.

Tests of Validity and Reliability of the Scale
Population and Sample

One hospital was selected for investigation from each of the eastern, western, southern, northern, and central regions of Sichuan Province. The number of employees who worked in the five hospitals was 12,365. Selection criteria were: (a) full-time staff at the hospital, (b) working in the hospital for more than one year, and (c) voluntarily participating in the research. Employees who had been on leave for three consecutive months before the survey were excluded. Based on the principle that the sample size needs to be 10 times the number of entries (Boateng et al., 2018), and factoring in an estimated loss of 20%, a total of 514 employees were selected using a convenience sampling method. These employees included doctors, nurses, technicians, pharmacists, and hospital administrators.

Measurement

A questionnaire survey was conducted consisting of two parts. The first part involved the demographic characteristics of the participants, and the other section was the revised scale after expert consultation and item analysis. The rating of each item was on a 5-point Likert-type scale, from *Strongly Disagree* = 1, *Disagree* = 2, *Neutral* = 3, *Agree* = 4, to *Strongly Agree* = 5.

Data Collection

Data were collected from July to September 2020. Before data collection, the informed consent of the participants and the permission of the hospital's personnel department management were obtained.

Two groups of data were used to test the validity and reliability of the scale. The first group of data was used for EFA and reliability tests, and the other was used for CFA. First, 200 questionnaires were distributed to hospital employees who met the inclusion criteria through a face-to-face survey; 183 valid questionnaires were recovered (91.5% valid response). In the second stage, data were collected through a network questionnaire. A total of 331 valid questionnaires were recovered (94.6% valid response).

Data Analysis

SPSS 26.0 software was used for statistical analysis. Among the demographic characteristics data, those consistent with the normal distribution were described by mean ± standard deviation, and non-normal distribution items were described by median and quartile. Critical ratio and correlation analysis were used to test item differentiation and homogeneity of the scale. Expert consultation was used for content validity analysis, including the calculation of the Item-level content validity index (I-CVI) and the scale-level content validity index (S-CVI). In this study, S-CVI/UA (the percentage of items receiving three or four from all experts against the total number of items on the scale) and S-CVI/Ave (mean values of I-CVI for all items in the scale) were used to test S-CVI (Polit et al., 2007). EFA was used to analyze the structural validity of the scale. Cronbach's coefficient was used to evaluate the reliability of the scale.

Amos 22.0 software was used as a statistical tool for CFA to verify the results of EFA and confirm the structural validity of the scale.

Results
Demographic Characteristics

The overall response rate was 93.5% from the 550 questionnaires that were distributed. The majority of respondents (70.9%) were female with a mean age at 35.2 years (SD = 6.62); the age range varied from 21 to 57 years. The predominant educational level (69.9%) was at the bachelor level. A majority (66.9%) worked in hospital wards and 81.3% had experience greater than five years. Predominant professional qualifications of participants (91.5%) were at the primary and intermediate levels.

Thirteen experts were invited for the consultation (mean age 40.2, SD = 5.12). The majority of them (66.9%) were female, their predominant education level (79.9%) was at the master and doctor degree level, and 80.3% of the experts had worked for more than 20 years. All were at the senior professional level.

Item Analysis Results

The CR values were 9.29 to 24.58, which meant that the results were significant (p < .01). Homogeneity was determined by calculating the product difference correlation coefficients between each item and the total score of the scale. In this study, the coefficient values were 0.39 to 0.88, and the results were significant (p < .01).

Validity Analysis Results
Content Validity Results

In this study, experts used a 4-point method to evaluate each item. A score of 1 meant that an item was *Not Relevant*, 2 meant that it was *Somewhat Relevant*, 3 meant *Relevant*, and 4 meant *Very Relevant*. The results of the content validity were considered acceptable after five items (FA7, FE5, FS5, FS6, and FS7) were deleted. The I-CVI was between .84 and 1.00, S-CVI /UA was .88, and S-CVI /Ave was .96.

Construct Validity Results

The premise of factor analysis is to ensure the commonness or connection between variables, and only variables with a close correlation can be classified to extract common factors. The most common method to determine the existence of this prerequisite is the Kaiser-Meyer-Olkin (KMO) Test and Bartlett's Test of Sphericity. Among them, the closer the KMO value is to 1.0, the stronger is the commonality between the measured variables, and the more suitable for factor analysis. The lower the significance level of Bartlett's Sphericity Test, the more suitable it is for common factor extraction. In this study, the KMO test coefficient value of the sample data was .89, and the significance level of Bartlett's Sphericity Test was less than .001, indicating that the original data were closely correlated and could be used for factor analysis.

Exploratory Factor Analyses

In the principal component analysis, the total interpretation rate of cumulative variance reached 63.9%, and the extracted principal component covered most of the information on the variable, and had good explanatory ability (Table 2).

After orthogonal rotation, the factor loading matrix was obtained. It can be seen from Table 3 that the standardized factor loading coefficient of the measurement items lay between .70 and .90. In line with an accepted measurement standard greater than .60, and the scale had good structural validity (Table 3).

Table 2 *Total Variance Explained (N = 183)*

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component			Cumulative						
	Total	Variance %	%	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	6.21	44.4	44.4	6.21	44.4	44.4	3.46	24.7	24.7
2	1.55	11.1	55.4	1.55	11.1	55.4	2.78	19.9	44.5
3	1.19	8.5	63.9	1.19	8.5	63.9	2.71	19.4	63.9
4	0.80	5.7	69.6						
5	0.68	4.9	74.5						
6	0.64	4.6	79.1						
7	0.48	3.4	82.5						
8	0.46	3.3	85.8						
9	0.40	2.9	88.7						
10	0.37	2.7	91.3						
11	0.35	2.5	93.8						
12	0.34	2.4	96.2						
13	0.31	2.2	98.4						
14	0.22	1.6	100.0						

Confirmatory Factor Analyses

Confirmatory factor analysis was used to verify the structural validity of the scale. Fourteen items were taken as observation variables to establish the structural equation model, and the maximum likelihood method was adopted to carry out model estimation. A path diagram was drawn with three factors (Fun Activities, Fun Environment, and Fun Socializing) as potential variables. The model showed a good fit statistically, forming a confirmatory factor analysis model (Figure 2).

Table 3 *Rotated Component Matrix[a]*

Items	Component		
	1	**2**	**3**
FE1		.77	
FE2		.74	
FE3		.71	
FE4		.74	
FA1	.72		
FA2	.66		
FA3	.64		
FA4	.72		
FA5	.75		
FA6	.74		
FS1			.75
FS2			.74
FS3			.79
FS4			.74

Note. [a] Rotation converged in six iterations. Extraction method: Principal Component Analysis; rotation method: Varimax with Kaiser Normalization.

Figure 2 *Confirmatory Factor Analysis Model*
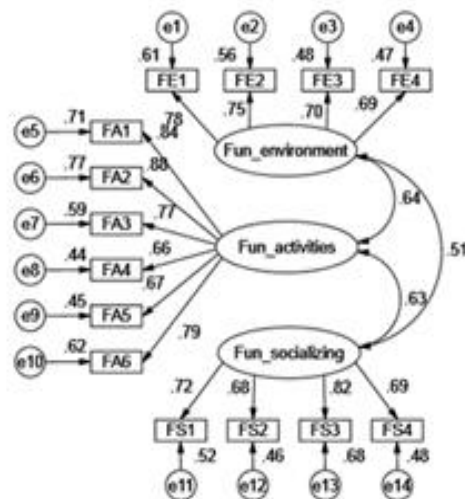
According to Wu (2010), a CFI value of > .90 and an RMSEA value of < = .08 are indicative of an acceptable model fit. In the CFA model, the model fit indices were good: $\chi 2/df$ = 3.283, RMSEA = .08 and CFI = .93 (Table 4).

Table 4 *The Model Fitting Index (N = 331)*

Model	χ^2	*df*	χ^2/df	PGFI	IFI	CFI	RMSEA
Three Factors	242.95	74	3.28	.64	.93	.93	.08
Two Factors	460.32	76	3.03	.58	.84	.84	.12
One Factor	679.69	77	8.83	.54	.75	.75	.15

Discriminant Validity Analyses

Discriminant validity analysis assesses differences among the dimensions. In this study, the values of the average variance extracted (AVE) of the three dimensions were as follows: the value of Fun Socializing was 0.53, the Fun Activities was 0.59, and the Fun Environment was 0.53. The italicized bold values are the square roots of AVE for each. To test discriminant validity (Fornell & Larcker, 1981), the square root of the AVE value of each dimension itself is compared to see if it is greater than its correlation coefficient with other dimensions. At the same time to avoid multicollinearity, it is generally required that the correlation coefficient between constituent dimensions be less than 0.85. From Table 5, the correlation coefficients of dimensions are all less than 0.70, which is less than the square root of AVE. Thus, all of these dimensions had good discriminant validity.

Table 5 *Discriminant Validity Analysis*

Dimensions	AVE	Fun Socializing	Fun Activities	Fun Environment
Fun Socializing	.53	*.73*		
Fun Activities	.59	.63	*.77*	
Fun Environment	.53	.51	.64	*.73*

Reliability Analysis Results

The reliability analysis of the scale with 14 items showed a Cronbach's coefficient of .90. The dimensions of fun activities, fun environment, and fun socializing were .87, .82, and .82, respectively.

Composite reliability was used to verify the reliability of the scale. According to the standards of Raine-Eudy (2000), when the composite reliability value of items reaches .50, the measurement tools could reflect the true fraction stably. This author recommended an average variance extracted (AVE) of greater than .50. In this study, a composite reliability greater than .60 was adopted. The AVE value reflects the aggregation degree of a latent variable that is effectively estimated by a set of measurement indicators. When the AVE square root value of each dimension is greater than the correlation coefficient with other dimensions, it has discriminant validity (Table 6).

Table 6 *The Composite Reliability Analysis (N = 331)*

Dimensions	Items	Unstandardized Estimate	*SE*	*z*	*p*	Standardized Estimate	SMC	C.R.	AVE
	FA1	1.00				0.84	.71	.9	.6
	FA2	1.06	.05	20.05	***	0.88	.77		
	FA3	1.03	.06	16.39	***	0.77	.59		
Fun Activities	FA4	0.86	.06	13.31	***	0.66	.44		
	FA5	0.80	.06	13.4	***	0.67	.44		
	FA6	0.98	.06	16.83	***	0.79	.62		
	FE1	1.00				0.78	.61	.82	.53
Fun Environment	FE2	0.86	.07	12.83	***	0.75	.56		
	FE3	0.94	.08	11.95	***	0.7	.48		
	FE4	0.91	.08	11.79	***	0.69	.47		
	FS1	1.00				0.72	.52	.82	.53
Fun Socializing	FS2	0.92	.08	11.14	***	0.68	.46		
	FS3	1.19	.09	12.98	***	0.82	.68		
	FS4	0.97	.09	11.33	***	0.69	.48		

The Final Version of the Scale

The final version of the scale was established (Table 7); there were 14 items and three dimensions. Five items were eliminated from the initial list (Table 1).

Table 7 *The Final Version of the Scale*

Fun Activities	FA1	Competition involving professional knowledge and skills
	FA2	The advanced collective and individual Award Presentation Ceremony
	FA3	Anniversary activities related to personal events (e.g. birthdays, hiring and promotion anniversaries)
	FA4	Celebration activities of festivals or special events (e.g. International Nurses Day, Physician's Day)
	FA5	Outward bound (e.g. thematic education activities, sports games, outings, picnics)
	FA6	Activities that are physically relaxing and psychologically pleasing (e.g. mental health consultation, art appreciation meeting, cultural and artistic performance)
Fun Environment	FE1	Create a pleasant natural environment and landscape for the hospital
	FE2	Decorate department regularly to create a pleasant working environment
	FE3	Provide relaxing lounges (e.g. coffee shop, a gourmet bar)
	FE4	Provide recreational venues and facilities (e.g. gyms, basketball courts)
Fun Socializing	FS1	Encouraging small talk with coworkers
	FS2	Sharing stories from your life and work with coworkers
	FS3	Visiting coworkers' family members when special events occur (e.g. coworkers' family members who are sick, coworkers are sent to other places for work)
	FS4	Providing opportunities for people in the community come to the hospital to do volunteer activities (e.g. college students, volunteers)

Discussion

Ford et al. (2003) first outlined the benefits of workplace fun, which refers to an organization that encourages, promotes, and supports a variety of interesting activities to stimulate positive attitudes and behaviors of individuals and teams. After integrating the research results of several researchers, Fluegge-Woolf et al. (2014) proposed that workplace pleasure refers to pleasant activities that occur inside and outside the workplace. Such activities are directly or indirectly related to work tasks and are characterized by sociality, interpersonal interactions, and task appropriateness. Based on the cultural background of Chinese hospitals, taking into account the organizational characteristics of hospitals and the particularity of hospital working environments, the study findings are supported by the concept proposed by Fluegge-Woolf and colleagues.

This research provides some practical recommendations for managing the working environment in Chinese hospitals. First of all, hospital managers should consider building a fun workplace for their employees. The application of the proposed scale in the Chinese hospital industry could provide managers with detailed guidelines to help them better establish a pleasant working environment. In particular, fun activities may become prioritized in the workplace, as the EFA results indicate that the "fun activities" factor has the strongest capacity to explain the variance obtained (44.4%). The results were similar to those of other researchers, who found that fun activities promoted enjoyable learning among nurses (Baid & Lambert, 2010), increased engagement among entry-level employees in the hospitality industry (Becker & Tews, 2016), and fun activities were significantly related to overall informal learning (Tews et al., 2017).

The second recommendation is that it may cost a lot of money to create a fun environment, such as increasing activity venues for employees' leisure, purchasing fitness equipment for employees to exercise, and renovating the natural landscape inside the hospital. However, the EFA results show that the "fun environment" factor had a considerable capacity to explain the variance (11.1%), indicating that generating fun in the workplace is also related to the fun environment. This result is similar to the findings of others (Chan & Mak, 2016; Gu et al., 2020). Therefore, it is suggested that hospital managers need to provide–as far as possible–the necessary financial support to transform working environments.

A third recommendation based on this study's findings is related to the difficulty in extending fun socializing to all Chinese hospitals. Due to the differences between Chinese and Western cultural backgrounds, fun socializing is not as highly recognized as found by Western researchers (Becker & Tews, 2016; Jamaludinet al., 2016). The possible reason is that workload of medical staff in China is relatively large, and they do not have sufficient time and energy to socialize with co-workers. Meanwhile, the traditional culture of China advocates the concept of family affection, so Chinese employees pay more attention to the social activities between relatives. This may help to explain why the "fun socializing" factor was only able to explain the variance (8.5%) in the present study.

Limitations and Future Research

The major limitation of this study is that the data were collected through convenience sampling, which means that the participants were selected according to the researcher's convenience. In addition to introducing bias into the sample, convenience sampling makes it difficult to identify differences in fun among different administrative departments and clinical units in the hospital. On account of the increasing number of private hospitals in China, the data obtained in this study need to be extended before greater applicability can be claimed.

Conclusion

This study is one of the first to explore workplace fun in the hospital industry, and attempted to establish an appropriate scale that could be applied to measure pleasure in Chinese hospital workplaces. Following a five-step process of scale development and using qualitative and quantitative analytical approaches, a three-dimensional measurement based on a 14-item scale was developed to assess workplace fun in the Chinese hospital industry context. These three dimensions reflect that hospital workplace pleasure is embodied in fun activities, fun environments, and fun socializing. The 14 items were further refined, and the reliability and validity of the scale were found to be satisfactory. The results help enrich the connotation of hospital workplace fun, and contribute to future research on the antecedent variables and consequences of creating a pleasurable hospital workplace.

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The Influence of Supervisory Approaches on Sales Performance
Through a Regulatory Focus Perspective in Telemarketing in Bangladesh

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Abstract

The influence of supervisory control and empowerment was investigated through a regulatory focus perspective (promotion focus and prevention focus) on sales performance. The responses came from 387 telemarketers working in international call centers in Dhaka, Bangladesh and were obtained through an online self-administered survey and analyzed using structural equation modeling. The results indicated that between control and empowerment, empowerment was more impactful on telemarketers, whereas supervisory control had no influence on regulatory focus. Some of the variables of supervisory empowerment impacted regulatory focuses. The sales performance of telemarketers was influenced by their regulatory focus-based strategies that were connected to the regulatory focus of both telemarketers and customers. The findings obtained from this research can be applied in the call center industry by designing supervisory approaches to motivate employees to maximize revenue and ensure better sales performance. Future studies from varied geographic locations or with a sales-customer dyadic perspective may add more insights in this area of research.

Key Words: *Supervisory control, empowerment, regulation, international call centers*

Introduction

Business process outsourcing (BPO) is a major section of outsourcing provider services in sectors like IT, finance, customer service, sales, etc. Recently, the BPO industry has received attention because it provides services that help to reduce and control costs, enable an outsourcing organization to focus on its core functions, solve capacity issues, improve services, manage the business environment, and accelerate organizational transformation (Patterson, 2019). A call center is a subset of the BPO sector that focuses on customer services or customer relations and telemarketing. Call centers are the section where companies provide customer services by receiving or giving calls, selling products and services, taking orders, giving after-sales services, and providing maintenance and solutions.

Bangladesh is a country that is developing at a reasonably high rate of growth. However, the unemployment rate measured in Bangladesh in 2017 was around 4.2% (Bangladesh Unemployment Rate, 2019). Due to the alarming rate of no new job offerings and lack of proper part-time job opportunities in Bangladesh, the government is trying to create business and employment opportunities in the BPO sector and call center sector. The government of Bangladesh initiated formation of an association called the Bangladesh Association of Call Center and Outsourcing (BACCO) in 2014.BACCO is under the Information and Communication Technology Division, and aims to ensure fair and objective call center regulations and policies, provide proper governance for the growth of the BPO sector and call center industry, promote these industries globally, and generate sustainable employment through this sector (BACCO, 2019). The number of BPO companies and call centers in Dhaka, the capital of Bangladesh, is increasing. This emerging industry is inspiring young entrepreneurs and investors to invest in this sector, which will generate additional revenue.

The international call centers in Bangladesh that focus on telemarketing usually conduct cold calls to customers living in foreign countries for a third party. In an international call center, revenue depends entirely on the productivity, quality, and competence of the employees. The employees who call the customers and sell products and services are known as telemarketers or agents. The telemarketers are responsible for making or receiving calls, closing the calls, generating leads, and transferring calls to a third party. The team leaders (TL) are the intermediaries between the manager and agents. The TLs have to manage and control the agents, ensure productivity, and obtain a minimum required number of sales. The manager oversees the call center as a whole and helps the

team to meet its targets. The chief executive officer (CEO) or chief operation officer (COO) is the head of the pyramid in call centers. The CEO or COO is accountable for handling existing clients, launching new campaigns, ensuring profitability, setting new policies, and generating rules for a sustainable environment in call centers (Barbier, 2016).

One of the vital pillars of growth in business is to have good leadership and supervision skills over employees and team members (Papadopoulos, 2018). The revenue of call centers is generated by the telemarketers, and it is vitally dependent on the number of successful sales calls they obtain. To manage these agents' performance, behavior and attitudes, the influence of management and supervisory factors are very important. The supervisory approaches include supervisory control and empowerment. Proper supervisory skill enables a business to grow more rapidly, bring change in the adaptive selling behavior of the telemarketers, and hit the target number of successful closing sales.

Regulatory focus theory is a goal pursuit theory that examines the relationship between a person's motivation and the way that is chosen to obtain his/her goals. Regulatory focus theory maintains that human motivation is based upon the search for pleasure or the avoidance of pain; these are referred to as promotion and prevention focus, respectively. Therefore, this study aimed to create a bridge between supervisory approaches, regulatory focuses, and then sales performance. This was done by examining the influence of supervisory control and empowerment on regulatory focuses, and then investigating the impact of regulatory focuses on the sales performance of the telemarketers.

In this study the following research questions were investigated:

1. What controlling methods lead telemarketers to use promotion focus and prevention focus techniques on customers?
2. What empowerment techniques lead telemarketers to use promotion focus strategies and prevention focus on customers?
3. To what extent do promotion focus and prevention focus influence sales performance?

Literature Review

This research investigated the controlling and empowering factors influencing regulatory focuses (promotion focus and prevention focus) strategies of telemarketers. Furthermore, it also aimed to explore the impact of regulatory focuses on the sales performance of telemarketers working in international call centers in Bangladesh.

Supervisory Control: Output Control, Activity Control and Capability Control

Control is considered as an organizational response to resource dependence, and the motive is to ensure that resources are used effectively and efficiently (Anthony, 1965). Managerial or supervisory control means that a supervisor attempts to influence employees to behave in accordance with an organization's goals. There are two kinds of supervisory controls based on personal surveillance and measurement of outputs (Ouchi & Macguire, 1975). Research distinguishes between behavior-based and output-based sales management control. Behavior-based control is characterized by monitoring a salesperson's activities and outcomes, by high levels of management direction and intervention in activities of the salesperson, and by use of methods that are complex and subjective for evaluating the sales force. On the contrary, the output-based control system is direct and straight-forward by measuring the output of the salesperson involved (Anderson & Oliver, 1987). Two kinds of behavioral control have been identified, i.e., activity control and capability control. Activity control refers to controlling routine activities and monitoring actual behavior (Challagalla & Shervani, 1996). Capability control indicates setting goals and targets for the level of skills and abilities that people must possess, monitoring their skills, and providing guidance for improvement when needed (Lawler, 1990).

To encourage creative thinking, problem-solving, and exposure to different scenarios, the use of a controlling technique can be very effective. Structural leadership over employees' behavior represents supervisory control that influences regulatory focuses (Neubert et al., 2008). Goal orientation also tends to alter the relationship with regulatory focuses (Johnson et al., 2010). These considerations lead to the following hypotheses:

H_{1a}: Output control positively influences promotion focus.
H_{1b}: Output control positively influences prevention focus.
H_{1c}: Activity control positively influences promotion focus.
H_{1d}: Activity control positively influences prevention focus.
H_{1e}: Capability control positively influences promotion focus.
H_{1f}: Capability control positively influences prevention focus.

Supervisory Empowerment: Structural and Psychological Empowerment

Empowering employees has been viewed from both a cognitive and managerial approach (Kim & Fernandez, 2016). Some researchers have considered empowerment to be sharing power with or moving power to those doing the work (Bardwick, 1991; Block, 1993). Others described empowerment as redistributing authority and control (Champy, 1995). There are two kinds of empowerment: structural empowerment (or relational empowerment), and psychological empowerment (or motivational empowerment) (Wong & Tan, 2018). From a psychological perspective, empowerment of employees is a state of mind in which someone believes strongly in his capability to perform a task (Conger & Kanungo, 1988) or experiences a heightened level of intrinsic task motivation (Thomas & Velthouse, 1990).

Thinking from a managerial point of view, empowerment describes managerial behavior or practices such as sharing information, resources, rewards, and authority with lower-level employees (Kim & Fernandez, 2016). Structural or managerial empowerment comes in the form of delegated authority and responsibility, situations where a project manager hands over to a team member, or as involvement in decision-making processes and goal setting (Yu et al., 2018). A high level of structural empowerment comes from access to opportunities and resources (Laschinger et al., 2001). Structural empowerment influences job satisfaction and innovation (Sun et al., 2012). Promotion of a regulatory focus has been shown to be a mediator of employee creativity and empowerment (Tung, 2016).

The previous studies lead to the following hypotheses adopted for this study:
H_{2a}: Formal power positively influences promotion focus.
H_{2b}: Formal power positively influences prevention focus.
H_{2c}: Access to information positively influences promotion focus.
H_{2d}: Access to information positively influences prevention focus.
H_{2e}: Access to support positively influences promotion focus.
H_{2f}: Access to support positively influences prevention focus.
H_{2g}: Access to resources positively influences promotion focus.
H_{2h}: Access to resources positively influences prevention focus.

Empowerment from the psychological perspective refers to the sharing of authority by the hierarchy with other levels in the organization (Spreitzer, 1995). Meaningfulness, self-determination, competence, and influence are the basic cognitions of psychological empowerment. Empowerment has been in the limelight recently and has been considered from motivational and structural perspectives. The feelings of employees regarding empowerment were notable (Kim & Lee, 2016). A study conducted on packing waste and recycling behavior indicated that psychological empowerment had an impact on regulatory focus. The researchers found that a regulatory focus had a positive influence on psychological empowerment as it works as an "amplifier" (Chen et al., 2019). This led to the following hypotheses being generated for this study:

H_{3a}: Meaningfulness positively influences promotion focus.
H_{3b}: Meaningfulness positively influences prevention focus.
H_{3c}: Competence positively influences promotion focus.
H_{3d}: Competence positively influences prevention focus.
H_{3e}: Influence positively influences promotion focus.
H_{3f}: Influence positively influences prevention focus.

Regulatory Focus

Regulatory focus theory highlights different kinds of self-regulation processes for reaching goals (Freitas & Higgins, 2002). The theory suggests that a similar goal attainment procedure operates through adopting a promotion or prevention focus. Promotion-focused people tend to be eager, and they respond more to the presence or absence of positive outcomes. On the other hand, prevention-focused people are more responsive towards the presence or absence of negative outcomes (Xie & Kahle, 2014). Customers with a promotion orientation usually concentrate on expected benefits and advantages, whereas customers with a prevention orientation are conscious about reducing risk and avoiding loss. A salesperson's point of view about a customer's regulatory focus causes the salesperson to use a certain tactic in an attempt to influence choice (Hartmann et al., 2020). People with different regulatory focuses view the end-state differently. For instance, people with a promotion focus view the end-state as a sign of hope and aspiration, and are responsive to nurture and accomplishments (Carver & Scheier, 2001; Lee & Aaker, 2004; Pham & Aaker, 2002). Salespersons and customers with a promotion orientation look forward to achieving things that lead to positive outcomes. By contrast, salespersons and customers with a strong prevention orientation view the end-state as an obligation, and they become concerned about their security and safety. These people focus on avoiding losses and undesirable outcome outputs (Cesario et al., 2008).

Studies indicate that salespersons should use a tactic that is relevant and consistent with their regulatory orientation because customers respond better to such influence tactics. Salespersons with a high promotion orientation view the customer-salesperson interaction as an opportunity for mutual advantage, where both parties will get a positive outcome for the successful completion of a sale. Customers with a high promotion orientation will consider the salesperson-customer interaction as a plus by thinking of it as an opportunity to obtain some advantage in the purchase (Forster et al., 2003; Forster & Higgins, 2005). Contrarily, a salesperson with a high prevention orientation views a customer-salesperson interaction as a challenge to avoid losing potential sales. Customers with a prevention focus avoid interaction with a salesperson and lower buying risk by not allowing a caller to proceed with the sales pitch (Puto et al., 1985).

Regulatory focus has an influence on and relationship to the performance of a salesperson. Some studies indicate that a promotion focus has positive effects, and a prevention focus has a negative predictive outcome (Hamstra et al., 2018). The regulatory focus has been the mediator in goal orientation and the sales performance of a salesperson (Johnson et al., 2011). These studies lead to the following hypotheses being generated for this study:

H_{4a}: Promotion focus has influence on sales performance.
H_{4b}: Prevention focus has influence on closing sales performance.

Figure 1 *Theoretical Framework (adapted from Challagalla and Shervani, 1996; Wong and Tan, 2018; and Hartmann et al., 2020)*
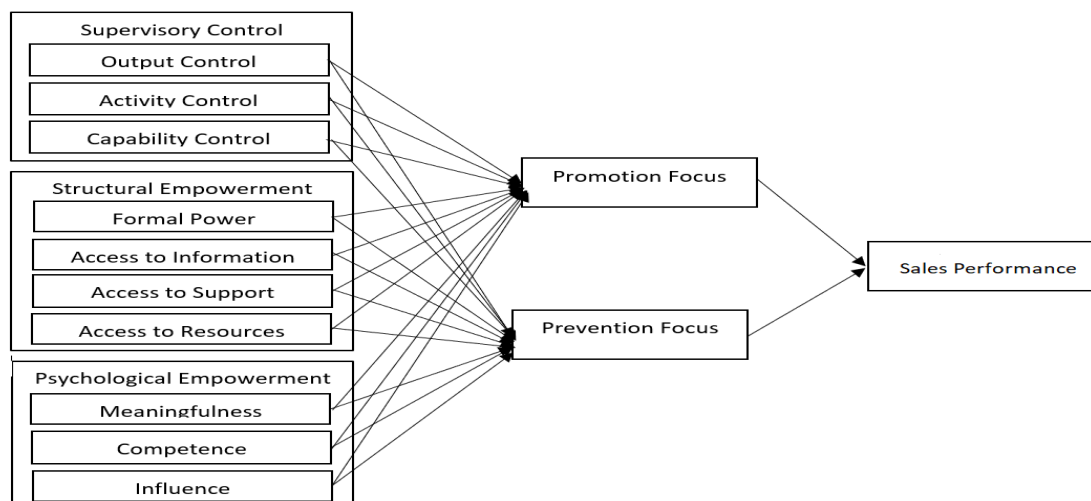
Table 1 *Definitions and Operational Definitions*

Variable	Definition	Operational Definition
Output Control	Enforced when formal directives from an organization are specified in the form of outputs. (Dalton, 1971)	Output control is enforced if telemarketers from call centers are evaluated based on their performance output.
Activity Control	Controlling routine activities and monitoring actual behavior. (Challagalla & Shervani, 1996)	Controlling routine activities, specifying tasks, activities, abilities, skills by providing scripts/monitoring telemarketers' behavior.
Capability Control	Setting goals and targets for the level of skills and abilities that people must possess, monitoring their skills, providing guidance for improvement if needed. (Lawler, 1990)	Setting goals and targets for the number of sales for each campaign, for the level of skills and abilities people must possess, monitoring their skills, providing guidance if needed to improve reaching the targeted number of closing sales.
Formal Power	Ability to mobilize resources to get things done. (Kanter, 1993)	Ability of telemarketers to mobilize the script, conversations with customers, participate in decision making to get the number of required closing sales calls done.
Access to Information	Having formal and informal knowledge that is necessary to be effective in the workplace. (Orgambidez-Ramos & Borrego-Ales, 2014)	Having formal and informal knowledge about customers and campaigns that are necessary to be effective for getting more sales.
Access to Support	Receiving feedback and guidance from subordinates, peers, and superiors. (Orgambidez-Ramos & Borrego-Ales, 2014)	Receiving feedback and guidance from subordinates, team leaders, quality assurers and supervisors.
Access to Resources	One's ability to acquire the financial means, materials, time, and supplies required to do the work. (Orgambidez-Ramos & Borrego-Ales, 2014)	Telemarketer's ability to acquire the financial means, campaigns and services offered, time and supplies required in order to close more sales.
Meaningfulness	The value of a work goal or purpose, with an individual's identity. (May, Gilson, & Harter, 2004)	The value of closing sales and purpose, judged by each telemarketer's identity.
Competence	Ability to carry out roles/tasks, integrate knowledge, skills, attitudes and personal values, and abilities to build knowledge and skills based on experience and lessons. (Bartram & Roe, 2005)	Ability to carry out calls and sales, roles or tasks, to integrate knowledge, skills in selling and negotiating, attitudes and personal values, ability to build knowledge and skills based on experience/lessons in call centers.
Influence	Sense of progression towards a goal, individuals' belief that their actions make a difference in their organizations; contributes to employee engagement. (Stander & Rothmann, 2010)	Sense of progression towards a goal, or supervisor's or peers' belief that telemarketers' actions are making a difference in call centers, which contributes to a telemarketer's engagement.
Promotion Focus	People's perception or orientation that emphasizes hopes, achievements, and gain. (Carver & Scheier, 2001; Lee & Aaker, 2004; Pham & Aaker, 2002)	Telemarketers' strategies to use people's perceptions emphasizing achievement and gain that is consistent with their own orientation.
Prevention Focus	People's perception or orientation that emphasizes safety and security, that leads to avoiding and resisting (Cesario et al., 2008)	Telemarketers' strategies to use people's perception emphasizing avoidance, insecurity, and resistance that is consistent with their own orientation. Telemarketers' strategy that uses the perception of loss.
Sales Performance	The result of carrying out many discreet and specific activities that may vary greatly across different types of selling jobs and situations (Walker et al., 1977)	The degree to which the telemarketers could close a targeted number of calls.

Research Methodology

To examine the proposed hypotheses, a structured questionnaire was designed that included 55 scaling items for 13 variables. There were 14 questions for supervisory control, 17 questions for structural empowerment, 12 questions for psychological empowerment, eight questions for regulatory focuses, and four questions for sales performance, which were measured using the number of successful closed calls by the telemarketers. There were six demographic questions and one "click through" question. The survey used a five-point Likert scale for recording information from the respondents. The survey instrument was adapted from Challagalla and Shervani (1996), Laschinger (2012), Kanai-Pak (2009), and Kirmani and Campbell (2004).

Initially, a pilot test was conducted with 30 samples to test the validity and reliability of the measurement items. Reliability and Exploratory Factor Analysis were applied as a preliminary analysis for the pilot test. According to the results of the pilot test, the final questionnaire was updated for primary data collection by making some adjustments. The population of the study consisted of 100,000 telemarketers working in Bangladesh. The data were collected using a convenience sampling method; seven international call centers were specifically chosen for gathering the data. The questionnaires were distributed among 405 respondents working in seven international call centers through a self-administrated online platform (email, Skype, Facebook Messenger). Completed forms were received from 387 respondents and were subjected to analysis.

The data analysis was completed in three main steps. First, the reliability of the data was checked. The Cronbach's Alpha ranged from .54 to .92 for the variables of the study. Finally, to test the hypotheses, Confirmatory Factor Analysis (CFA) and Structural Equation Model (SEM) were used.

Results

Table 2 shows the demographic information of the respondents surveyed in this study. It can be observed that the sample involved predominantly male telemarketers who were relatively young. The educational level was almost equally divided between high school graduates and bachelor degree holders. The payment range of the respondents differed greatly. In the call center industry, telemarketers are paid on an hourly basis. This means that the salary of telemarketers with no prior experience or skills started at 60 Bangladeshi Taka (BDT) per hour or below. The more skill or experience that telemarketers acquired, the higher the increment or payment they received per hour. In this study, data were collected from telemarketers who had different levels of expertise in the sector. Hence, there was a range of payments that telemarketers received from their call centers.

Table 2 *Summary of Demographic Characteristics*

Attribute	Option	Frequency	Percentage
Gender	Male	365	94.3
	Female	22	5.7
Age	18–25 years	268	69.3
	26–35 years	144	29.5
	36 years and above	5	1.3
Education Level	Higher School Certificate	182	47.0
	Bachelor Degree	177	45.7
	Master Degree and above	28	7.2
Prior Experience	Yes	239	62.6
	No	143	37.4
Duration of Work	6 months and below	109	28.2
	More than 6 months—1 year	123	31.8
	More than 1 year	155	40.1
Hourly Payment	60 BDT and below	13	3.4
	61 BDT–70 BDT	88	23.2
	71 BDT–80 BDT	98	25.8
	81 BDT–90 BDT	111	29.2
	91 BDT and above	77	18.4

Confirmatory Factor Analysis (CFA) was applied to measure the hypotheses of the model and to understand which variables or factors were correlated. CFA was used because this method helps to determine the convergence and discriminant validity of the items or variables. This technique was utilized for finding the relationship among the measured variables and latent variables of the developed hypotheses. To apply CFA, the model was divided into four constructs, i.e., supervisory control, structural empowerment, psychological empowerment, and promotion-prevention focus and sales performances. Initially, the model consisted of 57 scaling items. However, for improving the fit-indices of the model, some of the items were removed and the final model was left with 36 scaling items to meet an acceptable level of goodness-of-fit (GFI).

Table 3 *Confirmatory Factor Analysis Results*

Item	CMIN/*df*	*p*-value	Degrees of freedom	GFI	AGFI	CFI	NFI	RMR	RMSEA
Criteria	< 3	> .5	NA	> .95	> .8	> .95	> .90	Smaller, better	< .08
Supervisory Control Model	2.77	.000	34	.96	.92	.96	.94	.04	.07
Structural Empowerment Model	2.15	.000	55	.96	.93	.97	.94	.02	.06
Psychological Empowerment Model	2.30	.000	38	.96	.93	.97	.95	.01	.06
Promotion-prevention Focus and Sales Performance Model	2.88	.000	32	.96	.91	.98	.96	.05	.07

Note. GFI = Goodness-of-Fit Index; AGFI = Adjusted Goodness-of-Fit Index; CFI = Comparative Fit Index; NFI = Normed Fit Index; RMR = Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation

The results presented in Table 3 show that the overall indices met the acceptance level of the key criteria. The $\chi2/df$ was below the threshold of 3.0, $p = 0.000$, GFI > .95, AGFI > .90, AGFI > .98, NFI > .94, RMR = .03, RMSEA = .06. Hence, the CFA results obtained show a reasonable goodness of fit for the model. Following CFA, structural equation modelling (SEM) was used for evaluating the model. This allowed an analysis of the relation or covariance among the set of variables in the model and aided in formulating explanations for their variance with the specified model.

Table 4 *Overall Model Fit Results*

Model Fit	Acceptable Level	SEM Model
$\chi2$	Smaller, the better	1599.03 ($p =.000$)
$\chi2/df$	< 3	2.91 ($df = 422$)
GFI	> .80	.82
AGFI	< .80	.78
RMSEA	< .08	.07
SRMR	< .08	.18
RMR	Smaller, the better	.09
CFI	> .90	.86

Table 4 represents the goodness of fit of the model used in this study. Most of the fit indices met the standardized values used in SEM analysis. However, the GFI and AGFI of the model did not exceed the threshold value of fitness (.90). But according to Baumgartner and Homburg (1996) and Doll et al. (1994), the values are acceptable if the GFI is above .80 and the CFI figure is also close to the threshold

value, while the RMSEA, SRMR, and RMR values exceed acceptable levels (the threshold values). Thus, the proposed framework can be considered as having a good fit, as the results of the model fit the standardized values of the statistical analysis.

Hypothesis Testing

The results from the hypotheses testing of supervisory control (H_1) showed that supervisory control had no influence on telemarketers' promotion focus strategies and prevention focus strategies. The results for the hypotheses that tested structural empowerment (H_2) demonstrated that the variables within this concept had no influence on promotion focus and prevention focus excluding "access to resources." The hypotheses of access to resources, H_{2g} and H_{2h} had p-values of .037 and .007 with standardized coefficient values (beta) of 0.18 and 0.21, respectively. This indicated their positive influence on promotion focus strategies and prevention focus strategies. For psychological empowerment variables, hypotheses H_{3c} and H_{3d} gave significant p-values and CR values, which indicated that "competence" had an influence on promotion focus strategies and prevention focus strategies. The beta values for these hypotheses were 1.63 and 1.96 respectively, which indicated a positive influence. Promotion focus, prevention focus and sales performances indicated indirect relationships among controlling or empowerment techniques and sales performance. Hypotheses H_{4a} and H_{4b} had significant p-values with acceptable CR values. The beta values for these hypotheses showed that promotion focus had a negative influence on sales performance, whereas a prevention focus had a positive influence on sales performance. Therefore, promotion focus and prevention focus techniques negatively and positively impacted sales performance.

Table 5 *Summary of Testing Results*

Hypothesis Path	Standardized Coefficients (β)	CR (*t*-value)	*p*-value	Results
H_1				
a. Output Control → Promotion Focus	-0.16	1.005	.315	Not Supported
b. Output Control → Prevention Focus	-0.44	0.969	.333	Not Supported
c. Activity Control → Promotion Focus	0.32	0.373	.170	Not Supported
d. Activity Control → Prevention Focus	0.32	0.507	.132	Not Supported
e. Capability Control → Promotion Focus	0.12	0.832	.405	Not Supported
f. Capability Control → Prevention Focus	0.15	0.911	.362	Not Supported
H_2				
a. Formal Power → Promotion Focus	0.01	0.127	.899	Not Supported
b. Formal Power → Prevention Focus	0.07	0.874	.382	Not Supported
c. Access to Information → Promotion Focus	-0.60	0.683	.495	Not Supported
d. Access to Information → Prevention Focus	0.01	0.071	.943	Not Supported
e. Access to Support → Promotion Focus	-0.03	0.487	.626	Not Supported
f. Access to Support → Prevention Focus	-0.08	1.240	.215	Not Supported
g. Access to Resources → Promotion Focus	0.18	0.086	.037*	Supported
h. Access to Resources →Prevention Focus	0.21	0.718	.007**	Supported
H_3				
a. Meaningfulness → Promotion Focus	2.76	1.384	.166	Not Supported
b. Meaningfulness → Prevention Focus	2.62	1.356	.175	Not Supported
c. Competence → Promotion Focus	1.63	1.856	.063*	Supported
d. Competence → Prevention Focus	1.96	1.988	.047*	Supported
e. Influence → Promotion Focus	-3.96	-1.611	.107	Not Supported
f. Influence → Prevention Focus	-3.78	-1.591	.112	Not Supported
H_4				
a. Promotion Focus → Sales Performance	-2.71	-2.957	.003**	Supported
b. Prevention Focus → Sales Performance	3.07	3.632	***	Supported

Note. (*) $p < .05$, (**) $p < .01$, (***) $p < .001$

Theoretical Contribution and Managerial Implications

This research provided some valuable insights into management of business organizations. The results showed that supervisory control had no impact on promotion and prevention focus. Rather than controlling telemarketers, supervisors should provide more freedom to them when they make cold calls. In addition, results indicated that the call centers should focus on providing telemarketers with access to resources and facilities for maximum productiveness. Supervisors should also work on giving more information about the products, clients, and customers so that the telemarketers are more flexible and confident while making calls so as to get more sales. Competence had significant impacts on the promotion and prevention focus. It gave the telemarketers a sense of freedom to handle the persuasion process, and convince customers to buy the offered services and products.

The call centers of Bangladesh and developing countries like India and Pakistan can develop a managerial framework for better performance from their telemarketers by using the findings of this study. From this study, it was found that the promotion focus-based strategies had a negative impact on sales performances, while prevention focus-based strategies had a positive impact on sales performance, thus leading to successful sales performance. Sometimes the strategy used might vary from campaign to campaign. Customers responded more to prevention–that is, what they were missing out on by not using a product or service–than to promotions. This information can be applied to build new strategies to manage telemarketers and earn more revenue.

Discussion

In this research, the impact of numerous supervisory approaches on sales performance were investigated and measured by the sales performance of the telemarketers. The study investigated the influence of variables in the setup of international call centers situated in Dhaka, Bangladesh. In many studies it has been shown that supervisory control plays an essential role in role ambiguity and job tension; it also has an indirect relationship with the performance of the salesperson (Challagalla & Shervani, 1996). Behavior controls, output controls, and activity controls seemed to increase performance of salespersons (Henderson & Lee, 1992) or, in another study, decreased performance (Turcotte, 1974). In this study, the supervisory controls tended to have neither positive nor negative impacts on regulatory focus or telemarketer performance. In addition, the effects of employee-perceived empowering acts tended to have an influence on performance (Biron & Bamberger, 2010). Some empowering factors impact the final sales performance and the way that telemarketers handle their customers. Regulatory focus impacts creativity, sales performance, and innovation of a salesperson (Hamstra et al., 2018). The results of this research indicated that regulatory focuses had both negative and positive effects on sales performance.

Conclusions

In spite of having multiple years of experience, some of the telemarketers do not become successful team leaders and supervisors. This research will help us to understand the driving factors of effective supervisory practice in international call centers. The telemarketers often do not succeed in obtaining the targeted sales number for lack of proper guidelines and supervision. Hence, they cannot generate enough revenue to make the company profitable. The result of this research will enable the supervisors at call centers to understand how to tutor telemarketers to be more productive. The management of call centers can check and apply effective methods for their companies to get more successful outputs by using the results obtained through this study.

There were some limitations to this study. The population surveyed was from a developing country. The model and results may be different for less developed cities and developed countries. In this study, there were significant differences in the number of male and female respondents. The reason is that international call centers are male-dominated in Bangladesh. Hence, a majority of the international call centers telemarketers were male. The data was collected from telemarketers who had different hourly salary ranges, which implied their level of expertise in the profession. This means that their respective feelings towards the survey might vary from telemarketer to telemarketer at each

level. This study was conducted using quantitative methods; qualitative methods were not taken into consideration. Future research could be conducted on national call centers that are involved with customer care services. A wider geographic distribution of call centers might also be considered for studies in the future. Comparison among countries from different parts of Asia or countries with cultural and perception differences could also be examined in the future.

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Teachers' Rationale and Use of Technology:
A Comparative Study Involving a Public Technical College and a Private High School

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Abstract

The aims of the study were twofold. First, it explored the technological applications that teachers at a wealthy private school incorporated in their classrooms and the rationale adopted. Second, it compared the findings with a previous study that investigated the stated needs and use of technology of teachers at a public technical college. The participants in the current study included the head of the foreign language department and 10 English teachers at a private high school. The head was interviewed to determine the need for technological incorporation. A training workshop was then organized to match the expressed needs. After one semester, semi-structured interviews were conducted. The findings revealed that all 11 teachers used technology applications to facilitate classroom learning resources. *Kahoot* and *Quizizz* were the most popular applications used, as the teachers reported that they felt these applications could motivate and encourage their students' learning. When comparing the results with our previous study, the main differences were in terms of the number of participants who actually used technology, the types of applications used, and the rationales for use and non-use of technology. On the basis of these findings, the pedagogical implications and suggestions are discussed.

Keywords: *Teachers' technology use, training, adoption hindrances*

Introduction

Technology has become an integral part of every aspect of today's dynamic society. The impact of technology, especially on teaching and learning, is growing rapidly. According to Zehra and Bilwani (2016), over the last two decades, the rapid evolution of technology has made traditional teaching methods outdated, and technology integration has become an important facet of successful teaching. The trend has escalated quickly as students have become increasingly tech-savvy.

The Thailand National Education Act of B.E. 2542 (Office of the National Education Commission, 1999) provides a top-down approach to language policy that dictates the curriculum and instruction in language learning. Although the Act may create a mindset for teachers, there are gaps in practice (Darasawang et al., 2012). Wiangsima and Boonmoh (2018) reported that the use of technology in classrooms stemming from top-down policy has proven unsuccessful. Such a policy has a controlling influence on the methods of instruction and affects students' engagement. For example, the One Tablet per Child Project, required all public school teachers to learn to use a computer tablet and integrate it into their teaching. The teachers set objectives and designed classroom activities related to the tablet devices. However, when the project was cancelled, the tablets were no longer used. Abrupt policy changes like this result in teachers continually adjusting their pedagogical practices in response (Wiangsima & Boonmoh, 2018).

In the context of some public schools and colleges, teachers are not motivated to facilitate technology in the classroom because of five main factors: (a) lack of access to technology resources and having no facilities provided, (b) difficulty for teachers in monitoring students, (c) large classroom sizes, (d) lack of Wi-Fi and Internet connectivity, and (e) teachers' lack of knowledge and confidence. A lack of access to technology resources and having no facilities provided has been corroborated by the studies of Riasati et al. (2012) and Saenkhot and Boonmoh (2019). The second factor is difficulty for teachers in monitoring students. According to Riasati et al. (2012), it may be difficult for a teacher to closely monitor their students to determine if they are utilizing an educational application on their

devices. Large student numbers demotivates teachers to facilitate technology in the classroom, as students' devices take up a great deal of Internet bandwidth (Riasati et al., 2012). The fourth factor is lack of Wi-Fi and Internet connectivity in some areas (Khamprem & Boonmoh, 2019). The last factor is that teachers lack knowledge of technology and are not confident in using the knowledge they have (Saenkhot & Boonmoh, 2019).

In the context of private schools, teachers may keep up with rapidly changing technology for other reasons. These teachers are under the jurisdiction of the Office of the Private Education Commission (OPEC). Different policies can be applied, and private teachers from each school may employ different approaches to enhance students learning. Investigating teachers' use of technology and their rationales for its use provides a broader picture of how and why technology is used. To continue with this goal, the objectives of the current study were to investigate teachers from a wealthy private school regarding their use of technology and the kinds of technology that they incorporated in their classrooms; this allowed a comparison with our previous study (Khamprem & Boonmoh, 2019) in a public technical college.

Literature Review
Integration of Technology in the Classroom
Technology use is becoming an increasingly important part of higher and professional education on account of providing an accessible and comprehensive teaching and learning environment. Integrating technology into classroom instruction involves more than just teaching computer skills (Solano et al., 2017). It demands that educators look for effective means of innovation in order to encourage students' engagement and increase their learning.

The integration of technology in classrooms has many benefits to both students and teachers. Gorra and Bhati (2016) indicated that technology enhanced learning-related activities in the classroom, promoted the communicative capacity of students, improved teaching effectiveness and student-teacher interaction, created a context for language teaching, and provided flexibility in course content, among other benefits.

Looking at various aspects of technology integration as a very broad concept, the present researchers sorted previous studies into two categories: (a) teachers' use of technology and (b) factors hindering teachers' technology integration in the classroom.

Teachers' Use of Technology
Wright and Wilson's (2011) study in the US, investigating teachers' perceptions of technology integration and use in their classrooms, showed that the participants who were more familiar with technology were more likely to facilitate learning through technology. Most teachers were willing to experiment with new technologies to facilitate students' learning and improve their critical thinking, and they agreed that technology could help to motivate and support the students' learning. Some teachers adopted technologies that allowed students to take control of their own learning.

Kurt and Eristi (2012) investigated 21 teachers at a Turkish elementary school regarding effective technology integration and problems they experienced in the process. Their data showed that the teachers were willing to use technology in their courses. However, it was apparent that they needed constant support regarding the use of technology. However, the limited number of technological support staff hindered the teachers' efficacy. This study reached a similar conclusion to that of Wright and Wilson (2011); both found that teachers were willing to use technology in their courses.

A study by Cote and Milliner (2018) used questionnaires to investigate 42 English teachers employed at a private university in Japan. It showed that all the teachers in the English program were confident in using digital technology, and they also had very positive perceptions of the use of technology. Moreover, they were willing to learn and facilitate the use of more technological applications because they saw the potential.

In a Thai context, Saenkhot and Boonmoh (2019) conducted semi-structured interviews with 12 EFL teachers (with varied years of teaching experience) in a public high school in Bangkok to examine

what types of technology tools the teachers used in their classrooms. Their findings revealed that all the teachers integrated technologies in their classes. Certain types of tools were already used by all the teachers, while some cutting-edge tools were more limited in their adoption. Three prominent factors that facilitated the teachers' use of technology were convenience, enhancing the students' understanding, and stimulating the students' interest.

Also in Thailand, a study by Kunna and Sukavatee (2017) used questionnaires and semi-structured interviews with 20 EFL teachers to study the use of and types of technology used. In their English classrooms, the teachers used various types of technology, for example, using songs and movies with video and audio technologies; applying Google, YouTube, Facebook, BBC, and Line; and using notebooks and cell phones to facilitate their teaching. They also used technology in warm-ups to provoke students' interest, present new content, and show examples of language being used.

Factors Hindering Teachers' Technology Integration in the Classroom

The previous studies have highlighted that teachers were willing to experiment with new technology to facilitate students' learning. However, there are also factors that hinder teachers' technology integration in the classroom. These are mainly a lack of facilities, teachers' anxiety about technology, excessive time consumption, and a lack of Wi-Fi and Internet connectivity.

In terms of a lack of facilities, a study by Kotrlik and Redmann (2009) reported examples of perceived barriers that included an insufficient availability of technology compared to the number of students in class, a lack of technical support for the teaching and learning process, and a lack of time for developing lessons to use the available technology. With regard to the last point, it should be noted that insufficient technology and support place an additional time burden on teachers and students, especially when the technology has to be shared with a larger group of individuals. The studies from Merc (2015) and Solano et al. (2017) also addressed facilities. Their results indicated that student teachers were not benefiting in their teaching practice from technology available at the desired level, and student teachers were not utilizing technological aids for a number of reasons. For example, failure to use technology was due to lack of basic facilities in the practicum school, insufficient training, and the cooperating teacher's and university supervisor's choice of technology.

With regard to teachers' anxiety about technology, Kotrlik and Redmann (2009) used mailed questionnaires to investigate factors that prevented 67 secondary technology education teachers in Louisiana from using technology. The results indicated that teachers were experiencing minor barriers to technology integration and some technology anxiety.

The next aspect is excessive time investment, and the findings of Zehra and Bilwani (2016) included it in the barriers that teachers faced in the integration of technology. They investigated the perceptions of teachers in both elite and ordinary schools. The results from self-administered surveys indicated that the teachers' use of technology for teaching and learning could be frustrating and time consuming. Teachers from both the elite and ordinary schools mentioned that major barriers were lack of Internet access and insufficient availability of computers, laptops, and other equipment, all of which conformed to the studies of Merc (2015) and Solano et al. (2017).

The last aspect is a lack of Wi-Fi and Internet connectivity. A study by Khamprem and Boonmoh (2019) used a survey questionnaire to reveal teachers' positive attitudes toward technology. The teachers were expected to learn new kinds of technology, to be updated regarding twenty-first century technological skills, and to apply technology in their classrooms. The findings of the semi-structured interviews, however, revealed that some teachers did not use technology to facilitate classroom learning because of a lack of facilities, a lack of Internet connectivity and Wi-Fi, as well as students not having their own smartphones.

The selected studies highlight key elements regarding teachers' use of technology in classrooms. It can be concluded that most teachers have a positive view towards professional development, and they are willing to be trained to improve their ability in the integration of technology in the classroom. However, some of them also needed constant support and were held back by factors, such as a limited

number of staff providing technological support to teachers, an inability to receive immediate support in moments of need, lack of sub-structure, and lack of time.

In our recent research study (Khamprem & Boonmoh, 2019), we explored perceptions of the use of technology by 10 teachers at a public technical college in Thailand and what technology applications they used in their classrooms. The results revealed that despite their positive attitudes towards technology and a willingness to use technology, some of these teachers did not incorporate technology into their lessons. When examining the factors that hindered their technology integration in the classroom, lack of Internet access and available equipment or facilities were major hurdles. Poor internet connectivity or even a lack of Internet access and a lack of facilities are common problems in public schools and colleges. It is for these reasons that we wished to conduct a study to find out teachers' needs regarding their use of technology and the kinds of technology that these teachers incorporated in their classrooms in a wealthy private school, as well as comparing this with teachers' stated needs and their use of technology in a public technical college.

As mentioned previously, most studies related to the use of technology in classrooms are contextually focused on either high schools or universities, and the results are not related to the researcher's present current teaching context, Assumption College Thonburi. In this context, all the classrooms are well equipped with technology support, and there are no practical limitations in utilizing various technologies. Moreover, the head of the school was completely supportive of teachers' use of technology in the classroom, and both teachers and students had their own smartphones. This study aimed to examine teachers' use or non-use of technologies in the classroom, as well as the types of technology tools utilized by the teachers and factors hindering their use of technologies in classrooms in comparison with the previous results obtained by Khamprem and Boonmoh (2019) regarding teachers' use of technology in a public technical college.

Research Questions
1. What kinds of technological applications do teachers from a private high school report using to facilitate learning in their classrooms compared with teachers from a public technical college?
2. What are the rationales and hindrance factors reported by teachers from a private high school in using technological applications in their classrooms compared with teachers from a public technical college?

Methodology
Contexts
This study was conducted in the context of a wealthy private school in Thailand. This school is not part of the government system and has its own enrolment process and costs. This school has both a primary school level (Grades 1 to 6) and a secondary school level (Grades 7 to 12). Students can opt to study in either an intensive English program (IEP) or an English program (EP). The tuition fees per semester range from US$ 700–840 for the IEP and from US$ 3,350–5,000 for the EP.

The college in our previous study was a public (government-run) technical college. It offers both a certificate in vocational education (*Bor Wor Chor*), which is taken during the upper secondary period (equivalent to Grades 9 to 12), and a technical diploma (*Bor Wor Sor*). The first level is free, and the tuition fees per semester for the technical diploma are around US$ 240.

Participants
The participants of this study were 11 out of 14 Thai teachers of English from Assumption College Thonburi, Bangkok, Thailand during the 2019 academic year. All the participants were English teachers in the Intensive English Program, with a range of three to more than 10 years of teaching experience. The participants were four men and seven women and ranged in age from 28 to 57 years old. Six of them were teachers at the junior high school (Grades 7 to 9) and five were teachers at the senior high school (Grades 10 to 12). All of them had attended a workshop called "Applications in the 21st Century"

run by one of the researchers. The objectives of the workshop were to (a) introduce technological applications teachers can use in their classroom and (b) provide teachers with hands-on experience in using and designing learning content through specific technological applications. The six technological applications introduced during the workshop were *Kahoot, Quizizz, Plickers, Padlet, Crossword*, and *Jeopardy.*

The participants in our previous study attended the same workshop. They went through the same process with only one exception; only four technological applications were introduced (Kahoot, Quizizz, Plickers, and Padlet*).*

Instrument

A mixed design method was used to address the research outcomes, as quantitative and qualitative data can help each other in explaining the phenomena being studied (Creswell & Plano, 2011). The instrument employed was a semi-structured interview. The questions were designed based on the research questions, and they were open ended so that we could ask follow-up questions in order to further explore the details of the answers provided. Consent forms were given to the participants before the interviews were conducted. They were informed that they were free to participate in this study or to withdraw at any time.

The questions for the interviews addressed three areas: (a) types of technological applications used by English teachers, (b) reasons for teachers' using technological applications in the classroom and (c) factors that hinder the use of technology. As a semi-structured interview, the questions served only as a guideline for the interview. The use of open-ended questions allowed the interviewer and participant to interact in a conversational manner, while the interviewer ensured the main areas were addressed.

Procedures

First, the "Applications in the 21st Century" workshop was conducted at the beginning of the first semester. After one semester (four months), semi-structured interviews were conducted on an individual basis to collect data in order to answer the research questions. Each participant was interviewed in an individual session and was asked to sign the corresponding informed consent form in order to participate. The interview took place in the school's meeting room and lasted 15–20 minutes. All the interviews were recorded. The collected interviews were then transcribed, and the textual data were analysed by categorization into themes. The findings of our previous study (Khamprem & Boonmoh, 2019) were also used to compare with the findings of this current study. Finally, the comparative results were noted.

Data Analysis

Keywords from the responses were identified and categorized into three main groups: types of technological applications used by the English teachers, reasons for teachers' use of technological applications in the classroom, and factors that hindered the use of technology. One set of interview transcripts was sent to an external coder to verify the reliability of the analysis.

Findings

In Table 1 a comparison is given of the provided facilities and technological applications used in the classroom by teachers from the two different contexts. The results show that in the private high school, all the listed facilities (computer, loudspeaker, smart board, whiteboard, landline-based Internet, and Wi-Fi Internet) were provided in the classroom, and the teachers reported using all these facilities in their classroom. In comparison with the study by Khamprem and Boonmoh (2019), the earlier results showed that not all of those facilities were provided in the classrooms. Loudspeakers were provided in some classrooms, but no smart boards were available. Computers and whiteboards were the only kinds of facilities provided in all the classrooms. Although the Internet (landline and Wi-

Fi) was provided, they were not available in all areas, and sometimes the Internet connectivity was unstable.

Table 1 *A Comparison of Teachers' Use of Technology*

		Current Study (*N* = 11)	Khamprem & Boonmoh (2019) (*N* = 10)
Facilities Provided in the Classroom	Computer	√	√
	Loudspeaker	√	X
	Smart board	√	X
	Whiteboard	√	√
	Internet (landline)	√	?
	Internet (Wi-Fi)	√	?
Applications Teacher Used on Computer / Smartphone	PowerPoint	11 (100%)	6 (60%)
	YouTube	10 (90.9%)	5 (50%)
	Word	8 (72.7%)	8 (80%)
	Google	8 (72.7%)	-
	Excel	6 (54.5%)	3 (30%)
	Dictionary	5 (45.5%)	2 (20%)
	Line	3 (27.3%)	8 (80%)
	Facebook	2 (18.2%)	8 (80%)
Did the teacher attend the "Applications in the 21st Century" workshop?		Yes, 11 (100%)	Yes, 10 (100%)
Did the teacher actually use these applications in their classes?		11 (100%)	Yes, 6 (60%) No, 4 (40%)
Applications Teachers Used in the Classroom	Kahoot	11 (100%)	5 (50%)
	Quizizz	6 (54.5%)	-
	Padlet	2 (18.2%)	-
	Plickers	1 (9.1%)	4 (40%)
	Crossword	3 (27.3%)	-
	Jeopardy	4 (36.4%)	-

Note. The symbol "?" means these kinds of facilities were provided, but due to some technical problems, teachers could not use them completely.

When asked about teachers' preferences of technologies on smartphones or computers, the results from the current study showed that all the participants used PowerPoint as an instructional media, followed by YouTube (90.9%). The rationale was the since the facilities were provided in the classrooms, it was easy for teachers to use the mentioned programs. For MS-Word and Google, the same number of teachers reported using these programs in the classroom (72.7%), followed by MS-Excel, a dictionary, Facebook and Line (54.5%, 45.5%, 27.3% and 18.2%, respectively). However, the results from Khamprem and Boonmoh (2019) were quite different. An interesting point was that none of the participants from the public technical college used *Google* in the classroom due to limitations of the Internet and Wi-Fi connection. These problems can waste a teacher's time during the class, as can be seen from this previously unpublished comment of a participant from the previous study:

> I have used Google in the classroom in order to show some evidence and give some examples to my students, but sometimes I cannot connect to the Internet and also the program cannot work. I have to wait for its connection, and it's really a waste of my time. So, after that, I will not use the programs which need the Internet in class anymore. (Participant 6)

Another interesting point is that Line and Facebook were popular applications among teachers from the previous study (80%). This might have been because the teachers used these applications for personal purposes and not for educational ones in the classroom.

It can be seen that teachers from both the current and the previous study had attended the "Applications in 21st Century" workshop run by one of the researchers. With regard to the applications teachers used in the classroom, the results showed that all 11 participants used Kahoot to facilitate teaching in their classroom, followed by Quizizz (54.5%), Jeopardy (36.4%), Crossword (27.3%), and Padlet (18.2%). Plickers was used by only one participant. For the teachers from the public technical college, the results showed that six of the 10 participants used technological applications in the classroom. Of these six, five teachers used Kahoot, while four used Plickers in their classroom. However, it was found that none of the participants from the previous study used Quizizz, Padlet, Crossword, or Jeopardy.

It can be concluded from Table 2 that differences occurred between the teachers from the private high school and the public technical college in terms of the applications they used in the classroom. Some applications that were used by the private school teachers as the facilities were provided in the classroom. Moreover, some participants in the current study reported that most students were active learners. They loved a variety of learning tools, so the teachers felt they had to facilitate new technology and interesting applications in the classroom. An interview with one participant directly supported this:

> I have to learn new technology and new applications in order to catch up with my students. If I use only the same application as Kahoot, students will be out of focus and they also will not concentrate in the classroom. It can make the classroom environment boring. (Participant 2)

However, the results from Khamprem and Boonmoh (2019) found that Kahoot and Plickers were applications that teachers used the most because students were already familiar with these and only required an Internet connection from the teachers. One teacher from the previous study reported that she was aware of the unstable Internet connection and that she decided to use Plickers for this reason (in a previously unpublished remark):

> The Internet connection at the college is unstable. Sometimes, it did not work properly, so I think using Plickers can help. With Plickers, my students did not need to have an Internet connection. I just needed a connection in the classroom computer, and I can use 4G or 3G from my smartphone. (Participant 7)

Table 2 *Comparison of Rationales for Teachers' Use of Technological Applications in the Classroom*

Rationales for Teachers' Use of Applications in the Classroom	Current Study (*N* = 11)	Khamprem & Boonmoh (2019) (*N* = 6)
Encouraging and motivating students	7 (33.3%)	2 (15.4%)
Ease of use	6 (28.6%)	2 (15.4%)
Changing teaching techniques	3 (14.3%)	-
Reducing paper usage	2 (9.5%)	2 (15.4%)
Familiar to students	2 (9.5%)	1 (7.7%)
Recording scores	1 (4.8%)	2 (15.4%)
Time-saving	-	3 (23.0%)
Analysing tests	-	1 (7.7%)
Total	**21 (100%)**	**13 (100%)**

In Table 2 details are given of the rationales for teachers' use of technological applications in the classroom compared with those of the teachers from the public technical college. In the current study, participants reported their rationales for using technological applications as follows: encouraging and motivating students (33.3%), ease of use (28.6%), changing teaching techniques (14.3%), reducing paper usage (9.5%), and familiar to students (9.5%). Only one participant (4.8%)

reported using these applications for recording scores. A number of comments from participants during the interviews supported these reasons as follows:

> I used Kahoot and Quizizz during my class and let students do the activities by using these applications. The purpose for using is I want to encourage and motivate students in my class. Moreover, I want to change my teaching techniques by using technology to facilitate in my classroom instead of lecture the class. (Participant 1)

> I used only the Quizizz application in my classroom because I think it helps me to motivate and encourage my students. I used the Quizizz application once a week after I finished the class. The purpose for using is to practice students' knowledge and their understanding from the lesson. (Participant 3)

> I used Quizizz in my class for pre-test and post-test. I think this application helped me to encourage and motivate students, and I can also record students' scores from this application. I used it once a week and my students enjoyed using it. (Participant 4)

Similarly, teachers in Khamprem and Boonmoh's (2019) study reported the similar reasons for using technological applications except for changing teaching techniques. None of the participants from the earlier study agreed that these applications helped them in changing teaching techniques. This could be due to the fact that teachers in the current study described their students as being very active and that they should bring a variety of teaching tools to the students. Moreover, the teachers also used technological applications in order to save time and to catch up with their students. One teacher from the previous study mentioned that she had used applications for analysing tests to check the limitations and knowledge of her students:

> I use Kahoot and Plickers in my class for recording students' scores because students can know their scores in real time; it helps me to save my time for doing other things. Moreover, it is easy to use, especially the Kahoot application. I can also analyse my test from the percentage of students' answers. (Participant 1)

Table 3 shows the factors that hindered the use of technology in the classroom as reported by the teachers. For the current study, the most mentioned factor was time limitation, which was reported by four teachers (23.5%). The following interview excerpts supported this:

Table 3 *A Comparison of Factors Hindering the Use of Technology*

Factors that Hinder the Use of Technology	Current Study (N = 11)	Khamprem & Boonmoh (2019) (N = 6)
Time limitation	4 (23.5%)	-
School rule limitations	3 (17.6%)	-
Unfamiliarity with the applications	2 (11.8%)	-
Job rotation	2 (11.8%)	-
Cannot be used in a real lesson	2 (11.8%)	-
Heavy teaching load	1(5.9%)	-
Problem with classroom management	1 (5.9%)	-
Students lack focus	1 (5.9%)	-
Prefer paper-based work	1 (5.9%)	-
Problem with Internet and Wi-Fi connection	-	5 (62.5%)
Students not owning smartphones	-	2 (25%)
Students guessing the answers	-	1 (12.5%)
Total	**17 (100%)**	**8 (100%)**

> I love to use technological applications in my classroom but because of time limitations and lots of teaching work, I cannot prepare a lesson by using the mentioned technological applications, and I also have many responsibilities in my department. (Participant 1)

> I don't have time to use technological applications because school has lots of activities, I have to teach students within the specified period and finish all the lessons before their examination. Moreover, school rule limitations and job rotation are also factors for why I don't want to use the applications. (Participant 5)

> Because of time limitations, I cannot prepare my lessons for students. Moreover, I think these applications are only the activities and cannot be used in real lessons, as well as my class is mostly reading and speaking which these applications do not cover. (Participant 9)

The second most reported aspect was school rule limitations, which was mentioned by three teachers (17.6%). Two teachers (11.8%) each mentioned that they were not familiar with the applications, job rotation prevented the necessary time investment, and these applications could not be used in real lessons. These can be considered minor factors that hindered the use of technology in the classroom. One teacher each (5.9%) mentioned that because of a great deal of teaching work, problems with classroom management, and students lacking focus, they preferred more paper-based work. Relevant interview excerpts regarding some of these points were as follows:

> When I used applications, I could not control students' use of the smartphone. Some of them were unfocused by playing games and surfing on the Internet like Instagram, Line, Facebook, etc. (Participant 6)

> I preferred to use paper-based work more than use these applications. I think these applications can be used as an activity in the classroom, but they cannot be used in real lessons. Finally, students have to do and submit paperwork to teachers. (Participant 7)

When compared with the study by Khamprem and Boonmoh (2019), the results were very different. The results from the previous study showed major factors that hindered the use of technology were problems with the Internet and Wi-Fi connectivity, students not owning their own smartphones, and students guessing the answers, while these problems were not mentioned in the current study. Some unpublished comments from the first study were as follows:

> Internet connection is a big problem, the Wi-Fi is quite low speed and does not cover all areas. (Participant 1)

> The problem that I found is about the Internet. The Wi-Fi is very slow, and it does not cover all parts of the college, including some classrooms. (Participant 3)

Discussion

In assessing the results, we need to bear in mind extraneous variables in the two educational contexts. Nonetheless, because the teachers from both settings underwent very similar training in using technology in their classrooms, it provided a research opportunity with high external validity to examine whether they applied skills and knowledge from the workshop conducted in their own classrooms (even if the research does not have strong internal control over the numerous factors that are occurring in the two "real-life" contexts).

The study's findings showed that all the teachers had integrated technologies in their classrooms. The most used programs were PowerPoint followed by YouTube, MS-Word, MS-Excel, Line, and Facebook, in descending order of use. For technological applications, the most used applications were Kahoot, followed by Quizizz, Jeopardy, Crossword, and Padlet. The Plickers application was used by one teacher. The rationale that the teachers' reported for using the mentioned technological applications was because they helped to encourage and motivate students. Moreover, these technological applications were easy to use, helped the teachers in changing their teaching technique, reduced paper usage, could be used to record students' scores, and could be applied in other teaching

processes. The findings of this current study correspond with those of the study done by Wright and Wilson (2011) in that technologies in the classroom were seen as helping to motivate and support students' learning. Some teachers adopted technologies that allowed students to take control of their own learning. In addition, the results of Cote and Milliner's study (2018) were also supported in that most teachers were willing to learn and facilitate more classroom technology because they saw the potential for improving their teaching and enhancing students' learning. These findings are consistent with those of Saenkhot and Boonmoh (2019), who reported on teachers integrating technologies in their classes. Certain types of tools were already used by all the teachers, while some cutting-edge tools are only now being integrated in the classrooms.

However, the study also identified some factors that hindered the teachers' use of technology. For example, a time limitation was one of the most often mentioned factors. Other aspects were school rule limitations, teachers not being familiar with applications, job rotation, and the perception that the applications could not be used in real lessons. In addition, there were factors less often mentioned that hindered the use of technology in the classroom, such as teaching loads, problems with classroom management, students lacking focus, and some teachers preferred more paper-based work. Some of these factors are consistent with Kotrlik and Redmann's (2009) study. They found that the perceived barriers for teachers were a lack of technical support in the teaching and learning process, as well as a lack of time to develop lessons that use technology. However, the recent findings are contrary to the studies by Merc (2015), Solano et al. (2017), and Zehra and Bilwani (2016) that mainly focused on technology courses. They indicated poor use of technology was on account of lack of basic facilities in schools, not enough facilities to incorporate in the classroom, a lack of Internet access, and insufficient availability of computers, laptops, and other equipment. Moreover, Khamprem and Boonmoh (2019) pointed out that some teachers did not use technology to facilitate classroom learning because of a lack of Internet connectivity and Wi-Fi, as well as students not having their own smartphones.

Looking at the similarities and the differences between the kinds of technological applications used by teachers from the private school and the public technical college (see the previous study by Khamprem & Boonmoh, 2019), only some teachers from the public technical college used at least one of the mentioned applications in their classroom. They cited poor Internet connectivity as the rationale for not using the applications, while all the teachers from the private high school used technological applications in the classroom. This is a very interesting result; although access to the Internet and availability of facilities seemed to be the main issues at the public technical college, more than half of the teachers were able to incorporate applications (Kahoot and Plickers) in the classroom. This may suggest that teachers at the technical college struggled more than teachers at the private school when it came to teaching with technology. However, teachers at the private school may enjoy the luxury of access to the Internet and technology with fewer issues. It was not a surprise that all the teachers in that context used applications in their classrooms.

It can be concluded that the number of teachers from the private school who used applications was more than the number of teachers from the public technical college who used applications. Also, when a variety of technological applications were facilitated in the classroom, teachers from the private school used more varied applications than teachers from the public technical college. The reasons that all the teachers from this wealthy private school used all the applications may reflect the fact that the classrooms were better equipped with facilities to aid the teachers in incorporating them in classes. Students and teachers may have also had more or easier access to them as educational aids.

Another interesting point is that the Kahoot application seemed to be the most popular for teachers in both the private school and public technical college. Moreover, Quizizz and Padlet were secondary applications used by teachers from the private school, and none of the teachers from the public technical college used these applications. When using Kahoot, teachers have an option to choose between a "classic mode" or "team mode." The team is different from the classic mode in that it allows five seconds for the team to discuss issues with each other after a question is asked, and only one device is needed for each team. Not all students need to have a smart device to play. This may

explain why Kahoot was popular for teachers in the public technical college. Quizziz and Padlet, by contrast, do not have a function similar to team mode. Each student needs her/his own device to play. This could explain why teachers at the public technical college did not use them.

When comparing teachers from the private high school and the public technical college regarding the hindrance factors for using the technological applications in the classroom, the current study found that time limitation was the most mentioned hindering factor for using technological applications, while the most mentioned hindering factor of teachers from the public college was problems with Internet and Wi-Fi connectivity. In addition to the time limitation, some additional hindering factors of teachers from the private school were school rule limitations, lack of familiarity with applications, job rotation, unusable applications in a real classroom, lots of teaching work, problems with classroom management, students lacking in focus, and some teachers' preference for paper-based work. In contrast, the teachers from the public college reported students not having their own smartphones and students guessing answers from applications, which were less often mentioned as hindering factors for them.

Implications and Recommendations

The goal of the research was not to identify all the similarities and differences between the teachers but rather to focus on how their practices changed after completing the same technology workshop and the rationales behind those changes.

Kahoot was the application used the most by teachers from both the public and private schools because it was easy to use and the teachers were familiar with it. However, Plickers was an application that was used the most by teachers from the public technical college, whereas there was only one teacher in the private school who used this application in the classroom. The reason for this difference was related to problems with Wi-Fi and Internet connectivity. Therefore, they could more easily use the Plickers application, which facilitated students in the classroom, instead of using applications that needed Internet and Wi-Fi connectivity.

Technology is always changing. What is considered cutting edge today will be commonplace in the near future. A major implication of this research is that there are various contexts in which technology is implemented in education. This study (and the data from Khamprem and Boonmoh, 2019) focused on the impact of a technology in two specific contexts. Even with that narrow focus, the practise of teachers diverged quickly due to technology availability and the perceptions of the teachers as to what they thought would be beneficial, what application involved the expenditure of too much effort, or those that would encounter too many obstacles. In this particular instance, the teachers at the wealthy school had more options from which to choose due to a better infrastructure. However, other hindrances, such as school rules, may still interfere. In contrast, the teachers at the public school were very aware of the lack of resources but were adept at identifying tools that would work (for example, technology integration does not necessarily require a device or Internet connection for every student). With regards to technology, this might be the most important lesson that "one size does not fit all." Future success in technology integration will likely involve a balance between the extremes of too little and too much investment in technology.

There are a few gaps in our knowledge about public involvement in research that follow from our findings, and this research topic would benefit from further study. A future study could also explore the students' role in addition to the teachers' role; for example, studying students' stated needs regarding the use of technology would help to improve and facilitate the use of appropriate and useful student applications. How other online applications can be integrated into teaching and learning during the ongoing COVID-19 pandemic in addition to Kahoot, Padlet, Plicker, and Quizizz applications would also be valuable. Finally, it would also be helpful to explore the use of online applications in other specific fields, such as mathematics, science, social pedagogy, and so on.

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Life Insurance Buying Decisions: Word-of-Mouth Effects on Thai People

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Abstract

Word of mouth can prompt a consumer to consider a brand or product in a way that incremental advertising spending cannot. The life insurance market in Thailand is one of the toughest to penetrate. The aims of this study were to determine whether word of mouth affected life insurance policy buying decisions among Thais, and whether satisfaction or trust exerted an additional influence on word of mouth regarding life insurance. An online questionnaire was used together with convenience and quota sampling to collect data from 200 men and 200 women who had experience buying life insurance. Descriptive analysis was utilized with the demographic information. The effect of word of mouth on the decision to buy life insurance was assessed by simple linear regression. Multiple linear regression was used to determine the effect of satisfaction and trust on the effectiveness of word-of-mouth recommendations. Word of mouth had a significant effect ($p \leq .1\%$) on the decision of Thais to buy life insurance. Moreover, satisfaction and trust had significant effects ($p \leq .1\%$) on acceptance of word-of-mouth recommendations. Surprisingly, satisfaction had a greater effect on uptake of word-of-mouth recommendations than did trust.

Keywords: *Life insurance, buying, word mouth, satisfaction, trust*

Introduction

Life insurance is a two-sided contract between the insurer and the insured. The insurer guarantees to pay cash and/or cash installments in the event that the insured passes away. The guarantor receives a premium from the insured during an agreement period. The risk for the insurer is the death of the insured during the period of agreement specified in the contract (Andersen & Sorensen, 1999).

Life insurance is one of the most important financial instruments in that it provides benefits to people in various ways. Most importantly, it protects the family unit if the breadwinner unexpectedly and prematurely dies. It can be used to cover some mortgages and loans in the deceased's name. Therefore, it helps to secure the family's financial future. Such a policy also gives assurance while the insured is still alive. For example, it can assist the family to achieve their long-term financial goals, such as buying a home or planning retirement. Moreover, it is also an investment alternative that comes with some returns and offers a guaranteed tax-saving.

According to Chandrashekar (2016), worldwide life premiums were expected to grow by 2.9% per year for 2019 to 2020, much more than the average growth of 0.6% per year for the previous 10 years. The main driver was emerging markets, where premiums were forecast to grow by 8.7% per year. China was expected to contribute nearly half of the increment in worldwide life premium growth during 2019 to 2020. In emerging markets, favorable policies such as tax benefits would conceivably increase the demand for life insurance. For developed markets, life premiums were estimated to increase by 1.2% in the same period. The US and Canada would lead, based on strong development in the annuities business and an increase in employment. In the developed section of the Asia-Pacific region, the aging society and rising individual wealth would bolster premium growth (Christdoulides et al., 2012). On the other hand, the old saving business strategy remains unattractive to customers due to low interest rates. Therefore, profitability of the insurance sector will remain strong.

However, in Thailand, statistics show that more than 90% of households do not have life insurance. According to Unprasert (2020), 8.9% of Thai households reported life insurance premium expenses. This shows that just a minority of Thai households have life insurance. In terms of the rate of life insurance holders per the total population, Thailand has a rate of life insurance holders equal

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to 39% (Unprasert, 2020). Compared to other countries in the region, Malaysia has 40% of life insurance holders per total people, while Singapore has 267% of life insurance holders per total population, which indicates that in Singapore a person holds more than one life insurance policy.

The researcher believes that it is important to encourage Thai people to have life insurance because it will benefit the nation in the long term. Life insurance helps to reduce the national burden for public welfare, and also allows the government to use taxes to invest in infrastructure and develop other important services such as education, healthcare, employment; this includes improve agricultural innovation, which affects many people since it is the dominant occupation among Thais. These initiatives will lead to an increase in Thailand's GDP and quality of life for people in the nation. Therefore, the researcher desired to find the factors affecting the decision to buy life insurance among Thai people.

In terms of the key characteristics of Thai people, Thai society is a kinship system in which the family is given top priority. National and individual characteristics of outstanding value include being considerate of others, showing an interdependent and collaborative orientation towards others, and according importance to the patronage system (Komin, 1990). Hence, Thai people are likely to give importance to their relationships with other people. Therefore, the current researcher was curious as to whether recommendations/suggestions or comments from other people (word of mouth) affected decisions to buy life insurance, which is a kind of personal product. What if word of mouth affects life insurance buying decisions, and if so, what is the level of its impact? Moreover, the researcher also desired to study what factors affected the impact of word of mouth, such as confidence and trust in the individual providing a statement. The researcher believes that the results of this study could provide valuable information to relevant parties in the life insurance industry, and could be used to encourage Thai people to take out more life insurance policies.

Objectives

To identify whether word of mouth affected the decision by Thai people to buy life insurance, and what factors affected the seriousness given to word-of-mouth recommendations.

Research Questions
1. How does word of mouth affect the decision of Thai people to buy life insurance?
2. What are the primary factors affecting acceptance of word-of-mouth recommendations?

Research Hypotheses

H_1: Satisfaction has a significant effect on acceptance of word-of-mouth recommendations by Thai people.

H_2: Trust has a significant effect on acceptance of word-of-mouth recommendations by Thai people.

H_3: Word of mouth has a significant effect on the decisions of Thai people to buy life insurance.

Literature Review
Word of Mouth (WOM)

Word of mouth is a kind of informal communication between consumers toward the performance of a product or service (Anderson, 1998; Arndt, 1967; Dichter, 1966; Wee et al., 1995). Customers could find the information regarding new products by observation, experience, asking other persons who are specialists, or those who have had experience in using the product of interest (Shi & Chow, 2015; Day, 1971). Customers usually accept word of mouth because people who give it are the ones they feel are trustworthy, such as specialists, friends, relatives, family, and media publication contributors (Burnkrant and Cousineau, 1975; Hogan et al., 2004). Moreover, the customer tends to believe information that arises outside the company more than marketing communication made by the company. Besides, customers accept word of mouth as a reference because it is difficult for them to assess and evaluate the performance of things that they have not bought or had experience with

before (Schiffman & Kanuk, 1997; Anderson, 1998; Wee et al., 1995). According to Husin et al. (2016), agents and employees of insurance companies use word of mouth as a reference to communicate with non-policyholders. Word of mouth from them still impacts non-policy holders' buying decisions, although it is generally known that word of mouth is a part of their jobs. The study by Woo (2015) showed that word of mouth had a positive significant effect on the buying decision of life insurance policies based on household income. Therefore, it seemed possible that positive word-of-mouth recommendations would aid Thai people in making decisions to buy life insurance.

Buying Decision and Word of Mouth

Arriving at a buying decision involves a process of evaluation and selection of the choices that match with the decision maker's interests, and that are perceived to provide the most profitable investment (Webster & Wind, 1972; Borghini et al., 2006; Manjeshwar, 2013). According to Borghini et al. (2006) and Woo (2015), finding precise information is a step in the assessment and selection process that comes before actually making a purchase. Consumers require information before they purchase high complexity products as well as low complexity products (Brossard, 1998; Stenroos & Makkonen, 2014; Makkonen et al., 2012). The information can come from various sources, which includes personal accounts from other consumers who have had experience with those products of interest. Other sources can be articles, vendors, advisors, newspapers, magazines, including TV commercials, and radio (Woo, 2015; Stenroos & Makkonen, 2014). According to Puttaiah et al. (2019), people in United Kingdom and China can be influenced directly in their buying decisions by word of mouth. Those in the United Kingdom were more sensitive to negative electronic word of mouth, while Chinese people were sensitive to electronic word of mouth. Moreover, the study of Kim and Song (2010), conducted in the United States, showed that word of mouth was the second most significant factor in the information gathering process before making a buying decision. This was followed by information gleaned from the Internet. Therefore, in this study the aim was to find out whether word of mouth affected buying decisions of life insurance by Thai people.

Satisfaction and Word of Mouth

Satisfaction is a customer's assessment after purchasing when compared with expectations (Kotler, 1991; Casalo et al., 2008). According to Geyskens et al. (1999), there are two viewpoints of satisfaction. First, satisfaction comes from psychological elements, such as a good relationship between sellers and buyers. Second, satisfaction comes from economic considerations, such as getting discounts and volume. For the service sector, customer feedback on the relationship between service providers and consumers can be the way to gauge customer satisfaction levels (Casalo et al., 2008). According to Gounaris et al. (2010), Kau and Loh (2006), and Kassim and Abdullah (2010), their studies showed that for online service transactions, satisfaction had a positive effect on word-of-mouth recommendations. For the banking industry, satisfaction also had a positive significant effect on positive word-of-mouth statements being given (Casalo et al., 2008). Moreover, Triantafillidou and Siomkos' (2014) study showed that, in the entertainment industry, satisfaction had a positive effect on word-of-mouth statements. Thus, the author suspected that in the life insurance sector in Thailand, a positive relationship would exist between satisfaction and word-of-mouth recommendations.

Trust and Word of Mouth

In the context of trust in regards to word of mouth, the reference is to a customer's trust in the service provider. Trust is a kind of relationship between sellers and buyers that helps to reduce uncertainty from sales and purchases (Soares et al., 2012; Mayer et al., 1995). According to Johnson and Grayson (2000), there are many aspects of trust in the service sector, such as caring, emotion, effectiveness, and competence. Kim and Song (2010), Mortazavi et al. (2014), and Shi and Chow (2015) found that regarding online services, trust had a positive and direct effect on word-of-mouth statements. Terres et al. (2015) found that trust had a positive effect on word-of-mouth communications in the hospital industry. Moreover, the results from Santos and Basso's study (2012)

showed that trust had a positive relationship with word-of-mouth statements. Therefore, it was suspected that trust would have an effect on word-of-mouth recommendations in the life insurance industry in Thailand.

Conceptual Framework

In a previous study by Amron et al. (2017), buying decisions were investigated in the marketing of Sharia life insurance in Indonesia. The framework used indicated that two main factors, satisfaction (SAT) and trust (TRS), affected word-of-mouth (WOM) effectiveness. The framework showed that WOM affected buying decisions (BD) for life insurance policies. The research results showed that SAT and TRS had effects on WOM. Moreover, WOM had a significant effect on the BD of customers who purchased the Sharia life insurance product.

Therefore, the conceptual framework adopted in the present study in Thailand was based on the previous research as follows.

Figure 1 *Conceptual Framework Adopted*
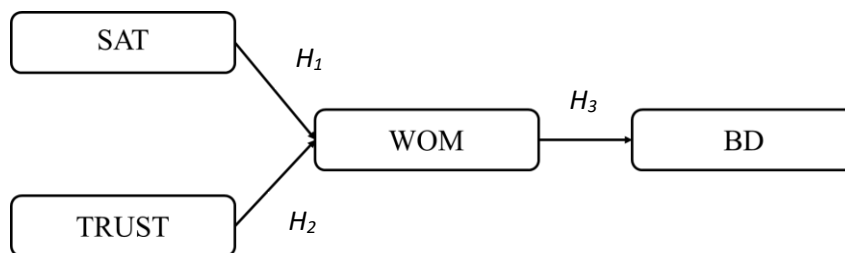
Research Methodology

This research was conducted based on a quantitative approach involving an online questionnaire. Convenience and quota sampling, which are non-probability in nature, were used for collecting data from 200 men and 200 women who had bought life insurance.

The questionnaire was taken from a previous study conducted in Indonesia (Amron et al., 2017), but the question structure was modified to fit with the study region, Thailand. The questionnaire was separated into three sections which were (a) screening questions, (b) general/demographic questions, and (c) questions answered on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5) to assess the variable of interest.

Estimate Sample Size Technique

The margin of error for the research was 5% or the confidence level was 95%. The following formula was used to calculate the sample size required (Khuanbai, 2019).

$$n = \frac{Z2*p(1-p)}{d2}$$
$$\text{When } p = \frac{1}{2} (0.5)$$
$$n = \frac{Z2}{4d2}$$

n = sample size
z = level of confidence (z = 1.96 for a level of confidence 95%)
p = estimated proportion of population (p = .5)
d = margin of error (d = 5%)
Therefore, n = (1.96)2 / 4(0.05)2 = 384.16 or around 400 participants

Reliability Test

The reliability of the questionnaire was assessed by using 30 respondents so as to identify its strengths before distributing it to the target group. The results were analyzed using SPSS as shown in

the Table 1. All variables had Cronbach's alpha coefficient values higher than .90, which meant that they were reliable (Cortina, 1993).

Table 1 *Reliability Test* (*N* = 30)

Variables	Number of Items	Cronbach's Alpha
Satisfaction	4	.948
Trust	4	.930
Word of Mouth	3	.978
Buying Decision on Life Insurance	4	.916

Results

In this research, information was collected from 400 respondents via an online questionnaire. All were Thais who had experience in buying life insurance. The summary of general data about respondents is shown in Table 2. First of all, the data indicated that 68.3% of respondents were in the age range of 22 to 39 years old, followed by 19.8% in the range of 40 to 54 years. Just over 50% of respondents had monthly incomes over 30,000 Baht. Those with a monthly income in the range of 30,001 to 50,000 Baht (29.5%) just exceeded (25.8%) those who earned 50,001 to 100,000 Baht. A relatively small percentage of respondents drew small incomes (refer to Table 2). In terms of the number of life insurance policies they currently possessed, 55.5% of respondents held one insurance policy, while the remainder possessed two or more. The data also showed that only 7.5% of respondents owned more than three life policies.

Table 2 *Demographics*

Respondent Information	Characteristics	Frequency (*N* = 400)	Percentage (%)
Age	< 22 years old	32	8.0
	22–39 years old	273	68.3
	40–54 years old	79	19.8
	> 54 years old	16	4.0
Gender	Male	200	50.0
	Female	200	50.0
Monthly Income	< 15,000 Baht	34	8.5
	15,001–30,000 Baht	95	23.8
	30,001–50,000 Baht	118	29.5
	50,001–100,000 Baht	103	25.8
	> 100,000 Baht	50	12.5
Life Insurance Policies	1 life insurance policy	222	55.5
	2 policies	105	26.3
	3 policies	43	10.8
	> 3 policies	30	7.5

Multiple Linear Regression

According to the research hypotheses, H_1 and H_2, satisfaction and trust had a significant impact on insurance policy uptake by Thais following wordofmouth communication (Table 3). The result of the multiple linear regression analysis returned values as follows: R^2 = .718, and adjusted R^2 = .716. This meant that 71.6% of the dependent variable (word of mouth) variation could be explained by the two independent factors.

Table 3 *Multiple Linear Regression Results*

Hypothesis	Variable	Standardized Coefficients Beta	*p*-Value (Sig.)	VIF
H_1	Satisfaction	.671	.000	4.46
H_2	Trust	.194	.001	4.46

The *p*-values of the two independent variables were less than .05. Therefore, the results could be interpreted confidently to mean that, with Thai people, both satisfaction and trust had a significant effect on word of mouth recommendations.

Moreover, standardized coefficient (Beta) values also showed that satisfaction had the highest positive effect on word of mouth acceptance (β = .671), while trust returned a β value of .194. Thus, the data can be interpreted to mean that for every 1-unit increase in satisfaction, the effectiveness of word of mouth will increase by 67.1%, and for every 1-unit increase in trust, confidence in word of mouth will increase by 19.4%.

Regarding the multicollinearity issue, which can be indicated by variance inflation factors (VIF), the VIF value for both variables was lower than 5.0. Therefore, the multicollinearity issue was not a significant problem in this research.

Simple Linear Regression

As shown in Table 4, the adjusted R^2 value indicated that 60.8% of the variation shown by the dependent variable (buying life insurance) can be explained by the independent variable, which was word of mouth.

Table 4 *Simple Linear Regression Results*

Variable	Standardized Coefficient (Beta)
R^2	.609
Adjusted R^2	.608

The word-of-mouth contribution to insurance policy buying decisions was significant at the .1% level. Therefore, hypothesis H_3 was accepted, which means that word of mouth had a telling effect on life insurance buying decisions among Thai people. Moreover, the standardized coefficient (Beta) was .78. This means that for every 1-unit increase in confidence in word of mouth, life insurance buying decisions will increase by 78%. For the multicollinearity issue, the VIF value was equal to 1, which being less than 5.0, indicated that it was not a significant problem in this research.

Discussion and Conclusions

Nowadays, life insurance is recognized as an important financial planning tool that enables people to reach their financial targets and reduce financial risks for their families. However, in Thailand, a minority of people have acknowledged these benefits by buying life insurance. Therefore, in this research, an effort was made to determine what factors could induce Thai people to buy life insurance. To make this study more reader sensitive, they were reminded that Thailand is a kinship society in which family, relatives, and friends are likely to be important to one's decision. Therefore, the focus of the research was on determining whether word of mouth had a significant effect on the decision of Thais to buy life insurance, and to understand what factors modified the effectiveness of word-of-mouth communications. Hence, it was hoped to gain useful information for the benefit of the life insurance industry and related parties such as the Thai government.

The research results supported previous studies undertaken by Amron et al. (2017), Kim and Song (2010), Santos and Basso (2012), and Woo (2015) in other countries. All found that satisfaction and trust had a statistical significant effect on the effectiveness of word of mouth. This was also the case for Thai people. Word of mouth had a significant impact on the decision of Thais to buy life insurance, as the *p*-value obtained from simple linear regression was less than .05.

Moreover, the results also showed that satisfaction has a much greater effect on word of mouth (Beta value .671) compared to trust (Beta value .194). Hence, customer satisfaction is one of the significant matters for Life Insurance companies to consider. Most respondents felt satisfied because they thought that they had made the correct decision to buy life insurance. They thought life insurance products could be trusted.

Recommendations

The results from this research can benefit insurance companies enabling them to reach more customers and to gain a greater market share. Moreover, the Thai Office of the Insurance Commission and the government could also gain benefits from this research in terms of information on what factors could affect buying decisions for life insurance policies. This information could be used to generate effective ways to encourage more people to buy life insurance, which will benefit to the nation in the long term because life insurance helps reduce the national burden such as in public welfare and it would also help increase the quality of life for Thai people.

According to the research results, word of mouth had a significant effect on the buying decisions for life insurance shown by Thai people. Word of mouth can have both positive and negative impacts on a business. Therefore, to encourage Thai people to buy life insurance, the government, the Office of the Insurance Commission, and insurance companies should aim to create positive word-of-mouth outcomes regarding life insurance. Moreover, the study results also showed that satisfaction and trust had a significant effect on word of mouth. Therefore, the researcher has provided some recommendations to insurance companies and related parties to improve satisfaction and trust levels so as to increase positive word-of-mouth outcomes, thus enabling the ultimate goal to be reached, which is to encourage more Thai people to buy life insurance.

First, insurance companies should find social influencers to act as brand representatives or brand ambassadors to promote their life insurance products. These individuals could be well-known experts, celebrities, and other influencers who have enjoyed good experiences from owning life insurance policies. Their recommendations can be viewed as a positive word-of-mouth initiative, which could help to increase demand for life insurance coverage.

Second, insurance companies should set strict standards for services provided to customers. These could include (a) all agents need to give correct information to customers and inform them of the conditions and constraints before letting customers make a purchase, and (b) the agents have to coordinate the claiming processes for customers when they make claims. Moreover, insurance companies should encourage customers to share their comments about the services received so as to enable a continuous increase in the quality of their services. This could increase customer satisfaction, which would lead to an increase in positive word-of-mouth output in favor of buying life insurance.

Third, the Thai government and Office of the Insurance Commission should impose serious penalties on insurance company agents and employees who do not follow the professional rules or act in ways that negatively impact customers. This will reduce the likelihood that employees or agents misbehave, which will help customers to perceive insurance company personnel as trustworthy.

Fourth, insurance companies should educate their agents to be fully knowledgeable about their life insurance products and train them how to communicate effectively with customers. When customers have a question about a product or process and receive a clear explanation from an agent, they will be satisfied and develop a greater trust in life insurance products and agents, which would also reduce the probability of negative word-of-mouth messages being given to other people.

Fifth, the government and insurance companies should create information related to life insurance in easy-to-understand ways, such as to list the benefits and drawbacks of products in short, sharp, and clear sentences, avoiding the use of legal words or specific terms that are hard to understand. Moreover, the information should be presented in a style that looks attractive and avoids terminology that is too academic. When people understand products, they will more readily recommend these products to others, which will help to increase sales of more life insurance policies.

Limitations and Further Study

The data for this research study was collected by a survey questionnaire, which was distributed through an online platform. Due to time constraints and the small sample size (400 surveys) used, the finding of this research cannot be generalized to the Thai population, but relate only to Thais who are able to access the Internet and have had experience buying life insurance.

For further investigation, the results of this study showed that 60.8% of the variation in decisions to buy life insurance could be explained by word of mouth, while the remaining 39.2% of the variation is unexplained. Also, 71.6% of word-of-mouth variation can be explained by satisfaction and trust, while the remaining 28.4% of variation will be explained by variables outside of this study's framework. Therefore, future researchers could potentially find other factors that affect word of mouth and insurance policy buying decisions among Thai people. This would benefit insurance companies, in terms of gaining more information, to design creative and appropriate marketing strategies to directly respond to customer needs. Besides, such initiatives would allow the Thai Office of the Insurance Commission and the government to gain more information to support generating new regulations or revising current regulations to stimulate a more effective and suitable response from the insurance industry. Such initiatives would help to encourage more Thai people to buy life insurance.

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1.4. Manuscripts should use Calibri font size 11.
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2.2. *HBDS* follows the APA guidelines for endnotes (preferred), in-text citations and references.
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5.1 In general, round decimals to two places with the exception of *p*-values (three decimal places is the limit—$p < .01$ or $.001$). Percentages are expressed as whole numbers or to one decimal place.
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5.3 When a statistical expression cannot exceed the value of 1, then the number reported is NOT preceded by a zero (e.g., with p-values—$p < .01$, also applies to correlations, Cronbach's alpha).
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5.5 Further information can be gained by consulting. James Cook University, Singapore. (n.d.). Numbers in APA. See https://www.jcu.edu.sg/__data/assets/pdf_file/0009/680085/Numbers-in-APA.pdf; Guadagno, R. (2010). Writing up your results – Guidelines based on APA style. Retrieved from https://ich.vscht.cz/~svozil/lectures/vscht/2015_2016/sad/APA_style2.pdf

6. Recommended Verb Tenses for APA Style Articles (p. 118)

Paper Section	Recommended Tense	Example
Literature review (or whenever discussing other researchers' work)	Past Present perfect	Quinn (2020) presented Since then, many investigators have used
Method Description of procedure	Past Present perfect	Participants completed a survey Others have used similar methods
Reporting results	Past	Results were nonsignificant Scores increased Hypotheses were supported
Discuss implications of results	Present	The results indicate
Presentation of conclusions, limitations, future directions, etc.	Present	We conclude Limitations of the study are