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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 is a key aim, especially when these may have practical applications within the Southeast Asian region. The application of theoretical considerations to organizations, fields, and communities 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 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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Volume 22 No 3 December 2021
Volume 22 No 2 August 2021
Volume 22 No 1 April 2021
Volume 21 No 4 December 2020
Volume 21 No 3 September 2020
Volume 21 No 2 June 2020
Volume 21 No 1 March 2020
Volume 20 No 4 December 2019
Volume 20 No 3 September 2019
Volume 20 No 2 June 2019
Volume 20 No 1 March 2019
Volume 19 December 2018 *(HBDS)*
Volume 18 August 2018 (*Catalyst*)
Volume 17 April 2018
Volume 16 December 2017
Volume 15 June 2017
Volume 14 December 2016
Volume 13 June 2016
Volume 12 December 2015
Volume 11 June 2015
Volume 10 December 2014
Volume 9 July 2014
Volume 8 December 2013
Volume 7 December 2012
Volume 6 December 2011
Volume 5 December 2010
Volume 4 November 2009
Volume 3 November 2008
Volume 2 November 2007
Volume 1 November 2006

From the Editor

Human Behavior, Development and Society (HBDS) is an international, open-access, interdisciplinary peer-reviewed journal published three issues a year by Asia-Pacific International University (AIU). *HBDS* publishes academic research articles in humanities, education, business administration, religion, health, public administration, development, tourism, and other social sciences areas that contribute to development of concepts and theories, as well as new knowledge for developing communities and society. The journal's scope is to advance knowledge through the use of classical methods of investigation and to foster 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.

This is the last issue for 2021. It contains 10 articles, eight of which were written by researchers external to the university, and two that were authored by AIU researchers. We are delighted to see reports and findings from various disciplines including liberal arts, business, education, and health. Most articles in this issue reflect studies conducted in Asian contexts including China, Indonesia, Malaysia, 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 achievement a reality.

Assistant Professor Dr. Damrong Sattayawaksakul, Editor

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Innovative Banking Challenges in ASEAN-5 Countries and Their Effects on Cost-Income Reduction

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Abstract

Marx-Schumpeter-Christensen parallelism posits that the need for prudent innovation management poses business challenges. By contrast, the entrepreneurship cycle holds that disruptive innovation does not pose great challenges. The main issue addressed in this study was what and how innovation challenges were evaluated in order to achieve better banking performance. To answer these questions, secondary data, non-parametric statistics, and the Delphi method of deriving meaning from interviews were utilized. The largest listed banks were surveyed in five Association of Southeast Asian Nations countries, or the ASEAN-5, which includes Indonesia, Malaysia, Philippines, Singapore, and Thailand. The presence of ASEAN financial technology companies, lack of manpower, unbanked populations, and lack of self-efficacy in digital technology challenged development among ASEAN-5 innovative banking institutions. Other findings indicated an association between the ASEAN-5 largest listed banks' financial performance indicators and cost-income ratio reduction, and revealed that Singapore and Indonesia were the leading regional banking innovators. Recommendations made were that ASEAN banks should continue to pursue the formulation and implementation of sustainable innovation practices to combat ongoing disruptive innovation posed by financial technology companies. They might also be actively engaged in the ASEAN Banking Integration Framework in order to optimize innovative banking.

Keywords: *ASEAN banking innovation, cost-income reduction, expertize challenges*

Introduction

The Association of Southeast Asian Nations, or ASEAN countries, are home to 645 million people with a total GDP of US$ 7,908 billion in 2017. The region represents huge opportunities for the banking industry. ASEAN banking has been rapidly progressing with the adoption of digital technology in their innovative banking systems. The successful use of AliPay, PayPal, e-wallets in ASEAN banking, online-only banks in India (2016), along with Malaysia's CIMB Group Holding digital banks in Vietnam and the Philippines, are enriching the banking landscape.

Enders et al. (2006) reminded readers of the progressive shift from traditional banking practices to those of e-banking. For example, manual transactions at the Nordea Bank of Scandinavia showed a declining growth rate (9.7%), while Internet payments grew at a rate of 21.2% after the introduction of financial technology, or FinTech. This revolution has been outlined by Alt et al. (2018) in a simple set of milestones (Figure 1).

The challenges introduced by innovation must be addressed by the ASEAN banks. There are now fewer traditional bank customers, while smartphones and Internet banking pose exceptional challenges in a region where there is uneven digital banking penetration. In addition, FinTech startup companies are mushrooming, and this poses another challenge. FinTech investments in the ASEAN region grew from less than US$ 10 billion in 2012 to US$ 332 billion in 2018. In general, awareness of disruptive innovation in the banking industry is limited (Wilson, 2017). The FinTech companies in the ASEAN-5 region have forecasted more than 10% yearly growth in the next five years for a variety of products (Figure 1).

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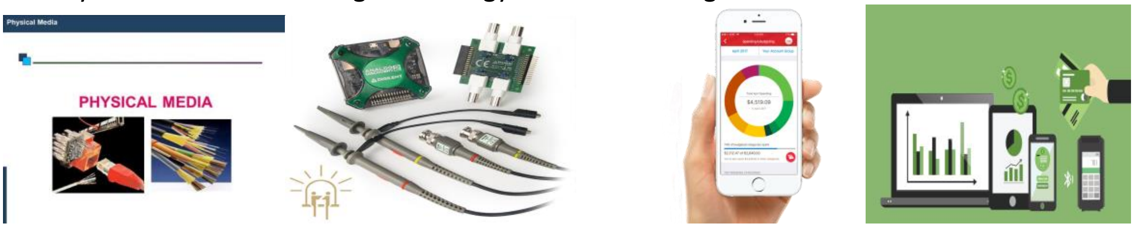
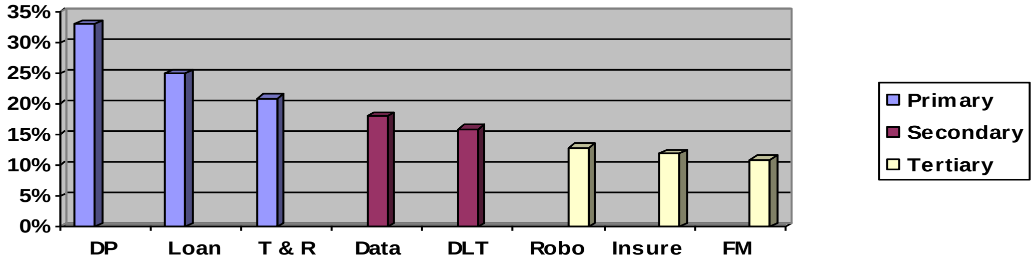
Figure 1 *Financial Technology Transformation in the Banking Industry Since 1500*



Three of the largest FinTech companies have offered digital payment systems, alternative loan disbursement, and transfers/remittances since 2018, accounting for 33%, 25%, and 22% of FinTech business transactions respectively (Figure 2). In addition, data analytics and blockchain distributed ledger technology represented some 18% and 16% of trade, respectively.

Figure 2 *ASEAN FinTech Company Transactions in Percent (2018)*



Note: DP = Digital Payments, Loan = Loan Applications, T&R = Transfers & Remittances, Data = Data Analytics, DLT = Blockchain, Robo = Robo Advisory, Insure = Insurance Tech, FM = Funds Management

Even though FinTech companies' pseudo-banking transactions are considered challenges, banking systems must strive for sustainable innovation (Achimba et al., 2014; Cajayon, 2019). Kurup (2018) confirmed that digitalization has fundamentally changed the way banking systems offer their services to customers. World mobile payment revenue earned US$ 450 billion and nearly US$ 1 trillion in 2015 and 2019, respectively. Smartphone payments with apps have empowered banking customers with real-time advantages in making transactions. He estimated that about 40% of the world's population would own a smartphone by 2021, making payment transactions easier. Competitive e-banking practices in Ghana have pointed to the importance of customer satisfaction in electronic banking (Ameme & Wireko (2016).

Underlying Theoretical and Conceptual Framework

Theoretical Framework

Several economic theories have inspired the thoughts behind disruptive innovation and innovation challenges. They represent building blocks of innovative economics that have led to a strong emergence of entrepreneurship. The thoughts of Marx-Schumpeter-Christensen parallelism on innovation challenge theories focused on wealth annihilation, creative destruction, and disruptive innovation (Table 1).

Marx-Schumpeter-Christensen theories focus on how capitalism and entrepreneurship are related. Drucker (1985) affirmed that innovation continuously reinforces entrepreneurship; it is hard to separate the two. Elliott (1980) clearly linked Marxian disruptive innovation with Schumpeterian creative destruction. Schumpeter (2003) concluded that entrepreneurship was supported by continuous research and development leading to the generation of new products, the creation of new markets, and the consequential displacement of old products. This is how the creative destruction concept works.

Table 1 *Theories Associated with Innovation Challenges*

Economic Theories	Year	Economist	Linkage with the Concept
Key Theories *			
Marxian Economics	1987	Karl Marx	Wealth annihilation
Schumpeterian Economics	1950	Joseph Schumpeter	Creative destruction
Disruptive innovation	1995	Clayton Christensen	Disruptive innovation
Diffusion of innovation	1962	Everett M. Rogers	Innovation diffusion (spread)
Technology acceptance	1989	Fred Davis	Self-efficacy of ease to use

*Referred to as the Marxian, Schumpeterian, and Christensen, or MSC parallelism

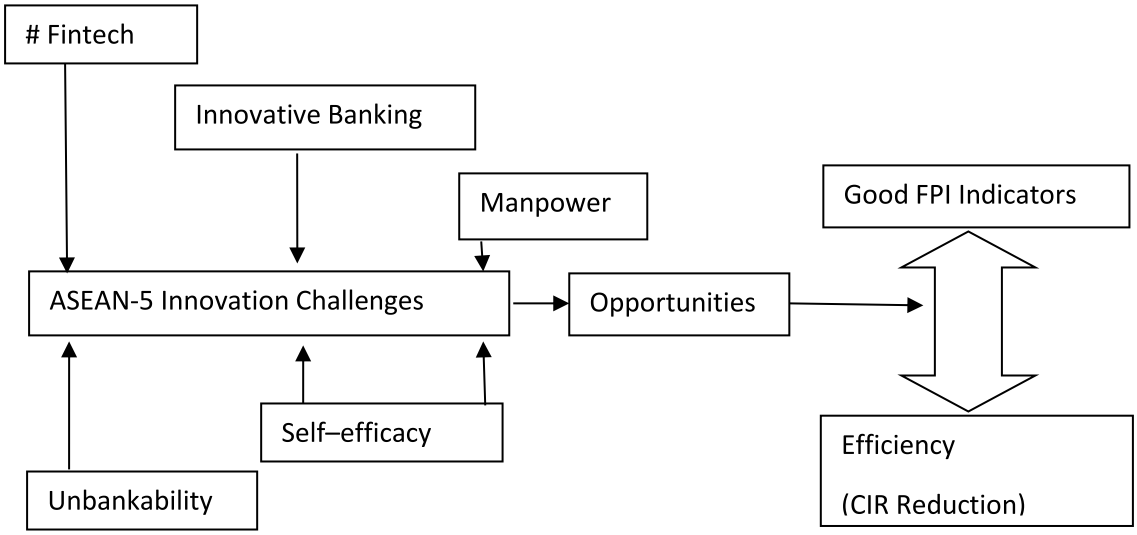
Parallelism has given rise to four important concepts. First, wealth accumulation routinely develops in uptrend business cycles, but wealth annihilation occurs in downtrend business cycles due to new market and product development. Second, innovation represents dead capital that is being resurrected. Third, wealth accumulation through good entrepreneurship leads to sustainable innovation. Fourth, wealth annihilation is realized through creative destruction and disruptive innovation. Khan (2015) noted the Schumpeterian concept that "change was essential for growth, which had triggered market and product development." This was when creative destruction was conceptualized. McCraw (2007) mentioned Schumpeter's saying that "creative destruction is the driving force of capitalism." Landstrom (2005) commented that the "entrepreneur is the key figure due to his ability as a creative organizer and whose role is to develop innovations and initiate new activities." However, these entrepreneurs have indeed caused "lost jobs, ruined companies and vanishing industries at the cost of growth, because of creative destruction coined by Schumpeter" (Alm & Cox, 1999). Hanusch and Pyka (2006) and Festre and Nasica (2009), in response to the emergence of this concept, formed what came to be known as Comprehensive Neo-Schumpeterian Economics, a branch of innovation economics that addressed how creative destruction must be overcome through the routine process of entrepreneurship.

Conceptual Framework

Stemming from Marx-Schumpeter-Christensen parallelism, these innovation challenges generally bear the fruits of opportunities that lead to sustainability and efficiency in banking performance (Figure 3). Laurenco et al. (2012) showed how market capitalization reflected the sustainability performance of an organization, including that of a banking system. In their study, market capitalization was associated with the percentage of the country's Gross Domestic Product (GDP). Market capitalization always comes with improved bank interest income as the upper line and net income as the bottom line. They referred to the financial performance indicators (FPI) indicators. The latter were supported by Laton et al. (2015), who empirically analyzed how innovation resulted in improved efficiency in the non-bank sector in terms of cost savings. In their study, cost saving was expressed in terms of reduced cost-income (CIR).

In banking and finance, disruptive innovation posed by FinTech companies is a great challenge (Figure 3). Nowadays, customers use mobile phones to make payments, check balances, and perform other banking transactions without going to the bank. Gada (2018), a financial adviser, shared that his clients used their smartphones when dealing with banks to avoid queuing in their premises. This allows seamless online shopping, transfers, and investments. He also shared the benefits of other FinTech transactions using chatbots and artificial intelligence for fraud detection. Those benefits included that of omni-channel banking, biometric uses, and blockchain databases for digital transactions.

Figure 3 *Conceptual Framework on ASEAN Innovation Challenges*



These disruptive innovation practices introduced by FinTech companies have generally motivated ASEAN-5 bank managers toward innovative banking (Table 2). Their efforts have been directed to two main financial objectives, better financial performance indicators (FPI) and cost: income ratio (CIR) reduction. FPIs involve the following indicators—increased market capitalization as a percentage of GDP, compounded annual interest income growth, net income plus depreciation and amortization, and Research and Development (R & D).

Constant reduction of Cost to Income Ratio, which is mostly comprised of banks' operational costs, can result from implementing innovative banking. It is comparable with the use of robots in place of manpower, and the expected reduction in manpower cost.

Table 2 *Disruptors and Disruptees in the Commercial Banking Transactions*

Disruptee Banking Transaction	**Disruptor Banking Transaction**
Inconvenient traditional banking	Innovative mobile banking
Cash/cheque/debit card/credit card	Mobile payment/remittance
Traditional remittances	Open GAFA* based banking using APIs
Desk customer service queries	Chatbots for financial advice
Money laundering human investigation	Artificial intelligence for money laundering detection
In the bank premise banking	Omni-digital channel banking
Traditional consumers bank credits	Peer-to-peer financing
Photo studio pictures	Biometric identification
Teller payment and money transfers	Cryptocurrencies with DLS
Excel-based financial analysis	Web-based financial planning tool

Source: FinTech (2017) *Note. *GAFA = Google, Amazon, Facebook, Apple application programming interfaces*

Research Problems, Questions and Methodology

The main problems addressed in the present study were what and how innovation challenges were evaluated in order to achieve better innovative banking performance (Kjellman et. al., 2019). The following research questions were asked:

1. What innovation challenges generally are faced by the ASEAN-5 banking system, and how could these challenges be turned into opportunities?

2. Was reduced CIR associated with selected ASEAN-5 listed banks' financial performance indicators: Market capitalization per GDP (purchasing power parity), compounded annual interest income growth (CAIIG), and net income plus depreciation, amortization, and R&D growth?
3. During the past decade, how have the ASEAN-5 listed banks positioned themselves in terms of leadership in innovative banking management?

To answer these research questions, three points were addressed: innovation challenges, innovation effects on CIR, and an innovation leadership matrix involving the selected banks. A descriptive research method was adopted, supported by secondary data analyzed with non-parametric statistics. Secondary data were gathered from the annual reports of selected listed banks from the ASEAN-5 nations. The Bankers Association of the Philippines (2017) added important information on financial inclusion needed in innovative banking development facilitated by the ASEAN Financial Innovation Network (AFIN). De Jesus and Torres (2017) studied innovative banking development by qualified ASEAN banks, and Ernst & Young (2017) offered FinTech products as the best strategy to turn challenges into opportunities.

Using a convenience sample, the author interviewed managers at the Oversea-Chinese Banking Corporation Bank (Singapore), Bank Central Asia (Indonesia), and Metro Bank (Philippines) separately to confirm the validity of the secondary data. The first research question was addressed using observations from the secondary data. The second research question was answered by investigating the association between CIR reduction with the banks' selected financial performance indicators using Spearman's rank order non-parametric statistics. It was noted that Weiers (2014) reaffirmed Spearman's rank order correlation as valid to measure the strength of association of variables with each other. He formulated the following expression to test the strength of the association:

$$r\text{ (observed)} = 1 - \frac{6\,(\sum d^2)}{n\,(n^2 - 1)}, \text{ where}$$

$\sum d^2$ = the sum of the squared differences between the ranks, and
n = number of observations.

The H_0 is rejected if the r (observed) is larger than that of the r (critical, at $p = < .05$ and a certain number of degrees of freedom).

The third question was answered by using a four-quadrant matrix to determine the leadership position of innovative banking of the ASEAN-5's largest listed banks. The position was designated from the (x, y) coordinate as leader (upper right), challenger (lower right), follower (upper left), and potential innovator (lower left). The x-axis or financial performance indicators ranks were scaled (0–2 *highest*, 2–4 *high*, 4–6 *middle*, 6–8 *low*, and 8–10 *lowest*), and the y-axis or the ASEAN-5 banks' total income were scaled as follows: < US$ 6 billion, US$ 6–12 B, US$ 12–18 B, US$ 18–24 B, and US$ 24–30 B.

The third question on position was raised in response to the concern of Arnaboldi and Rossignoli (2015) on the level of financial innovation challenges felt in the field of financial economics. In innovative banking, efficient gadgets are sought to reduce operating costs. Morgan (2018) cited examples of innovations used by the world's leading commercial/investment banks, i.e., Bank of America with its artificial intelligence powered chatbot, Chase with its self-serve teller kiosks and express branches, Sberbank in Russia with its artificial intelligence-based Tips in customer behavior analysis, and many others (Koffi, 2016; Syahullah, 2018).

Results and Discussion

As indicated previously, three points were addressed: innovation challenges, innovation effects on CIR, and an innovation leadership matrix of the selected banks.

1st Question—Innovation Challenges

In addressing innovation challenges, a number of factors were considered—the presence of FinTech startup companies, degree of integration in innovative banking, lack of manpower with needed IT expertise, bankability of people in the ASEAN region, and lack of self-efficacy in the use of technology. Opportunities in innovative banking were further explored based on these challenges.

Presence of FinTech Companies

A total 1,191 FinTech companies in the five original ASEAN countries generated some US$ 75 billion on transactions from their US$ 332 billion investments in 2018, earning a handsome return on investment of 22.6%, even though ASEAN banks earned between 30%–34% gross profit margin (Nguyen, 2018). This author also reported that angel investors, venture capital firms, and private high-powered equity families financed FinTech industries in the ASEAN region in the proportion of 33%, 22%, and 45%, respectively. Table 3 gives their performance in 2018.

Table 3 *ASEAN-5 FinTech Companies' Investments and Transactions in 2018*

Description	Indonesia	Malaysia	Philippines	Singapore	Thailand
A - FinTech investments (US$ billion)	26	75	78	141	12
B - FinTech transactions (US$ billion)	32	11	7	12	13
C - Number of FinTech companies	262	196	115	490	128
Effects of FinTech deals:					
*FinTech deals/company (US$ billion)	0.12	0.06	0.06	0.02	0.10
**FinTech investments:					
- Investment per firm (US$ billion)	0.10	0.38	0.68	0.29	0.09
- Investment turnover (times)	1.2	0.15	0.09	0.09	1.1
Digital payment/user (US$)	220	520	150	3016	332

Source. ASEAN FinTech Census (2018) *Note.* *B/C, **A/C (per firm) and B/A (turn overs)

The ASEAN-5 countries have achieved a credible performance where FinTech have been introduced in the region. Singapore, with 490 FinTech companies, represented some 41.1% of the total in the ASEAN-5 region as of 2018. Cekindo (2020) reported that Indonesia (second in FinTech growth) had generated some 416 million mobile subscriptions, 130 million active social media users, and 143 million Internet users, in spite of 51% of the population not banking.

Malaysia, the Philippines, and Thailand came behind those two countries. Particularly in Thailand, with the second highest FinTech deals of US$ 0.1 billion per company in 2018, the giant companies located in the ASEAN region motivated the ASEAN banking to compete against these FinTech companies. Nevertheless, the ASEAN banking industries must not be complacent with what they have achieved. Nevertheless, these total ASEAN FinTech investments of US$ 332 billion in 2018, with total transactions of US$ 75 billion by the 1,191 FinTech firms, was still considered low compared to the US$ 3,315 billion total banking system investments in the ASEAN-5 region.

Integration of Innovative Banking System

Internalizing innovative banking systems versus those of traditional banking seemed to be a challenge in the ASEAN region. The ASEAN Banking Integration Framework (ABIF) was established in 2015 by ASEAN central banks; its objectives were to develop a larger number of qualified ASEAN banks with innovative banking systems, and to address FinTech threats. But the internalization process has taken time to implement. How is the innovative banking progressing? Has the banking system adopted cross-border payment interoperability network among countries, the real-time retail payment system, real time gross settlement, and automated clearing-house? These questions are worth pondering.

Lack of Manpower

The innovation challenges do not stop at the point of creating more FinTech startup companies. Manpower requirements seem to be a concern as well, in spite of the lower average shortages of 29% and 28% in Singapore and the Philippines, respectively. Technology and software skills were in demand in Indonesia, Malaysia, and Thailand as talent shortages represented some 71%, 73%, and 75%, respectively (Mittal, 2018). Several attempts to recruit foreign talent faced difficulty as well.

Bankability in the ASEAN Region

Another challenge is the status of the unbanked population, which varied among countries. Van de Werff et al. (2013) in the context of financial inclusion argued that "social factors are important part of the highly unbanked population," a point reinforced by the Global Findex of the World Bank (2017). This source affirmed that most respondents in unbanked populations offered the following explanations. They did not have accounts because they lacked sufficient money, while other family members had bank accounts already. Their educational level was low, and they were not in the labor force, etc. According to the World Bank, as of the end of 2017, the percentage of the population having bank accounts was as follows: Indonesia (36%), Malaysia (81%), Philippines (28%), Singapore (96%), and Thailand (78%).

Lack of Self-Efficacy in the Use of Digital Devices for Transactions

Several studies have indicated that the use of technologies to support innovative banking in the ASEAN-5 region show a relatively high level of self-efficacy. For example, Winarno et al. (2021) discovered that even rural banking consumers in East Java, Indonesia, were familiar and confident in using Bank Central Asia's mobile payment service, as well as other service providers like OVO, Go-Pay, TCash, Klikpay, and Doku wallet. Oh (2016) argued that higher self-efficacy correlated with acceptance and diffusion of innovation services. Davis (1989), known for introducing the technology acceptance model, previously had reinforced this correlation. He added that perceived usefulness and ease of use were important parts in the correlation. In the ASEAN-5 region, the use of smartphones and broadband respectively were recorded by the World Bank as follows: Indonesia (39%, 13%), Malaysia (35%, 10%), Philippines (15%, 4%), Singapore (85%, 26%), and Thailand (38%, 9%).

Opportunities in Innovative Banking

As described in the methodology, opportunities were explored based on challenges encountered by these ASEAN-5 banking. First, opportunities were taken advantage of through synergistic tie-ups with ASEAN FinTech firms, as American and European banks had been doing. Arnold (2018) has summarized the participation of European and US banks in merger and acquisition FinTech schemes with Asian banks. Second, opportunities are created when physical banking is combined with digital banking through open banking Application Programing Interfaces (APIs) and cloud technologies. Marous (2019) brought forward the idea of phygital branch banking (using technology to connect the digital world with the physical world), with four types of workable solutions. These included box branch (fully digital), standard branch (digital and one bank clerk), segment branch (relationship officers with specific psychographic segments like lifestyle, values, mind sets and aspiration), and flagship branch (full service on-premise branch system). Third, the adoption of Google, Amazon, Facebook, and Apple APIs was seen as another opportunity. Beliunas (2017) stressed the importance of this innovative personalization. Fourth, optimal implementation of the cross-border payment interoperability network was deemed to offer other opportunities in the ASEAN region. Fortunately, the ASEAN banking system has been operating cross-border payment interoperability network among countries. Real-time retail payment systems, real time gross settlements, and automated clearing houses have been actively pursued as reported by KPMG (2018). Please refer to Table 4.

Table 4 *Summary of Banking Innovation Challenges and Opportunities in the ASEAN Region*

Innovation	Challenges	Opportunities
Innovative banking	1. Use of APIs (culture and bureaucracy) 2. Lack of regulation/knowledge in APIs 3. High banks' operating cost with no mobile banking system	Improved business/operational models Product and market development (APIs) Lower operating cost & lesser fees Psychographic branch banking position GAFA-approach APIs for millennials XB-PIN system maximization
FinTech product dev.	Increased number of FinTech companies	FinTech-based banking products Synergistic M&A with FinTech firms
FinTech-based T & D	Manpower shortages	Improved operations at lower CIR
Financial inclusion	Unbanked population	Expanded bank market development Video teller machines Mobile banking systems
Financial diffusion	Lack of self-efficacy	Massive banking KYC with T&D programs

Note. T&D = Training & development; KYC = Know your customers, and train them on an MB system; M&A = Merger & acquisition; GAFA = Google, Amazon, Facebook, and Apple (to reach millennials); XB-PIN = Cross-border payment interoperability network

2nd Question—Innovation Effects on Reduced Cost to Income Ratios

From the innovation-driven financial performance indicators; specifically, the market cap/GDP, net income plus depreciation, amortization, and R & D growth, and Compounded Annual Interest Income Growth, only CAIIG would have a certain degree of dependency with the reduction of cost-income ratio in the past decade (2008–2018). After further evaluation, it was discovered that the impacts of innovative banking of the ASEAN-5 selected largest listed banks recorded significant CIR reduction per year; i.e., CIMB in Malaysia (1.6%), Siam Commercial Bank in Thailand (1.5%), Metrobank in the Philippines (1.1%), Bank Central Asia in Indonesia (1.1%), Krung Thai Bank in Thailand (0.3%), and Bank Rakyat Indonesia (0.2%). Surprisingly, none of the largest Singaporean listed banks implementing advanced innovative banking demonstrated these impacts.

The degree of association between each innovation-driven Financial Performance Indictors (FPI) with the CIR reduction is presented in Table 5. First, the Spearman correlation between market capitalization/GDP and CIR indicated that there was no significant positive association between the two as shown by the R (15) = .168 or lesser than the critical R = .456 (df = 14) at p < .05. The reduction of operating expenses would definitely affect profitability, whether it was return on investment or return on assets as empirically discovered, but it did not have any association with the market cap/GDP.

Table 5 *Spearman Association between CIR, and Growth of Financial Performance Indicators*

Variable	Statistics	CIR	Mkt. Cap/GDP	CAIIG	NIDAR&D
CIR	*R* (observed)	1.000	0.168	0.803	-0.038
	R (critical)	0.456	0.456	0.456	0.456
	Sig. (2 tails)	0.05	0.05	0.05	0.05
	N	15	15	15	15
Mkt. Cap/GDP	*R* (observed)	0.168	1.000		
CAIIG	*R* (observed)	0.803		1.000	
NIDAR&D	*R* (observed)	-0.038			1.000

Note. Market Capitalization/GDP (Mkt Cap/GDP), Compounded Annual Interest Income Growth (CAIIG), Net Income plus Depreciation, Amortization, and Research and Development NIDAR&D)

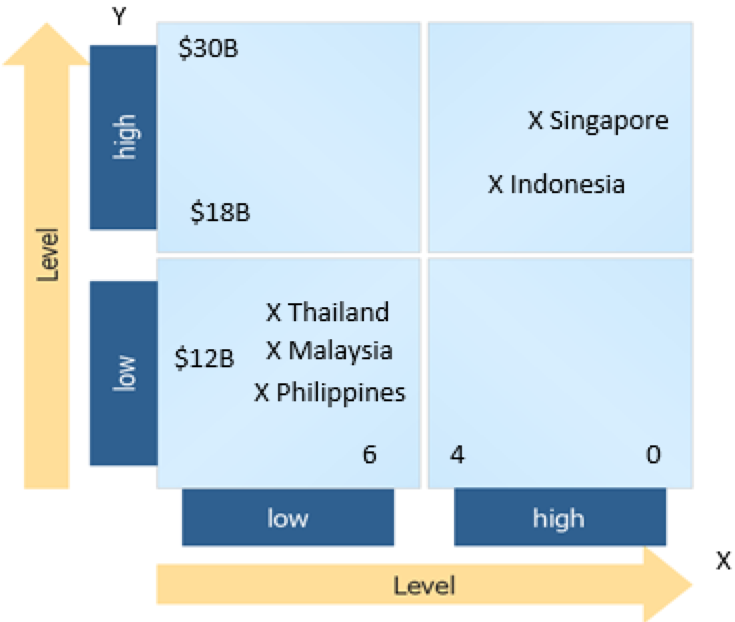
Musara and Fatoki (2010) reaffirmed that an innovation-driven operation would tend to generate efficiency and cost savings. Akhisar et al. (2015) reinforced this finding by revealing that innovative banking in the European Union, United Arab Emirates, and parts of Latin America had generated a good return on investment and return on assets due to reduced operating expenses.

Second, unlike market cap/GDP, CAIIG was significantly associated since R (15) = .803 was higher than the critical R = .456 (df = 14) at $p < 0.05$. The higher the CAIIG due to the excellent practice of innovative banking, the higher the possibility of CIR being reduced. Third, net income plus depreciation, amortization, and R&D growth did not indicate any degree of association [R (15) = -.0375 at $p < .05$].

3rd Question—Leadership Matrix of the Largest Asean-5 Banks' Innovative Banking

The innovation-driven leadership of selected ASEAN-5 listed banks were positioned as shown in Figure 4. Singapore (3.0, 26.5) and Indonesia (4.0, 17.8) were positioned as leaders in innovative banking as innovation-driven Financial Performance Indicators revealed convincing coordinates for the year 2018. This situation could change if these banks do not continue their innovative banking practices.

Figure 4 *Innovation-driven Leadership Matrix of ASEAN-5 Banks in 2018*



Note. The x-axis scales (FPI rank: 0–2 *highest*, 2–4 *high*, 4–6 *middle*, 6–8 *low*, & 8–10 *lowest*) and y-axis scales for ASEAN-5 banks' total income (< USD $6 B, USD $6–12 B, USD $12–18 B, USD $18–24 B, & USD $24–30 B). Upper right = leader innovator, lower right =challenger, upper left = follower, and lower left = potential innovator

First, the three largest Singaporean listed banks reported combined total income of US$ 26.5 billion and an average rank order of 3.0. They were the Development Bank of Singapore, Ltd., Oversea-Chinese Banking Corporation, Ltd., and United Overseas Bank. The Development Bank of Singapore had particularly excelled in all growth FPIs, as they were ranked number one. Second, the three largest Indonesian listed banks (Bank Mandiri, Bank Rakyat Indonesia, and Bank Central Asia) were positioned at the borderline at the (4.0, 17.9) coordinate in the leader innovator quadrant. Bank Central Asia showed the best FPIs among the three. Third, in another quadrant, Thailand (8.4, 11.4), Philippines (6.3, 5.8), and Malaysia (8.0, 10.0) were positioned as potential innovators in the ASEAN-5 region.

This leadership position was particularly obvious with Singapore, as it achieved a more advanced level of innovative banking, including teaming up arrangements with FinTech firms to capture unbanked and uninsured markets. Choudhury (2019) further reported that Singaporean banks have enabled the integration of various FinTech products in their divisions. In the Philippines, the

Philippine Long Distance Telephone group entered into a US$ 215 million merger deal with Voyager Innovations in 2017.

Summary of Findings, Implications, Conclusion and Recommendations

Based on the analysis of the research questions, the findings of the study are broken down into major components and their implications considered.

Major Findings

First, prime challenges seemed to be the presence and growth of FinTech firms in the ASEAN region since 2012. Second, the biggest opportunity seemed to be further development of innovative banking systems, with special emphasis on training and development of FinTech experts in the banking system. Third, the innovative banking system adopted in the ASEAN-5 region has shown the capability to reduce CIR growth, particularly with an improved CAIIG. Fourth, based on evaluation of selected large ASEAN-5 listed banks' Financial Performance Indicators and interest income capacity, Singaporean and Indonesian banking systems were positioned as leading innovators, though Indonesia was positioned at the border line. The remaining original ASEAN-5 banks were positioned as potential innovators.

Implications

The ASEAN banking industries should observe these innovation challenges not as threats but as opportunities, including not being complacent with the progress that they have achieved, including that of reduced CIR. Innovation must be continually pursued, though the implications of labor rationalization must be given first priority. Other implications are further development of opportunities in sustainable innovations that would combat disruptive challenges. These must be taken into account in the ASEAN-5 banking system strategic plan, including that of determining the innovation-driven leadership position of the ASEAN-5 banking system toward innovative banking. It would be beneficial for the ASEAN-5 banking system to maintain–if not to step up–their initiatives, including those of other ASEAN members.

Conclusion

Based on the above findings, it was concluded that challenges of the ASEAN-5 region's banking sector seemed to be mainly in the area of improvements in innovative banking. This applies particularly to the banks' efficiency expressed in terms of the reduced CIR, increase in the level of CAIIG in the region, the sustainability of market capitalization growth in the past decade (2008-2018), and financial inclusion in banking development in general.

Recommendations

It is thus recommended that innovative banking systems continue to be developed in ASEAN-5 and other countries, targeting greater efficiency and sustainability. Here are some possible action plans.

First, develop a closer tie up between the Financial Innovation Network, ASEAN central banking industries, ASEAN Bankers Association, and the EU/US/Singapore/Japan central banks for developing rules and regulations on sustainable innovative banking to combat disruptive trends. Second, still in the spirit of cooperation, it is time for the ASEAN central banks to enhance the effectiveness of the regulatory sandbox system for ASEAN Financial Inclusion Programs. Third, initiate the formation of a FinTech skill training and development program within the ASEAN-5 or regional banking systems. Fourth, by virtue of close interaction with the ASEAN Banking Integration Framework, it would be beneficial to form mentoring programs to assist other ASEAN countries' banking systems to formulate, implement, and develop innovative banking practices.

References

Achimba, C., Ongonga, J. O., Nyarondia, S. M., Amos, A. L., & Okwara, M. (2014). Innovation in banking industry: Achieving customer satisfaction. *Open Journal of Business Management, 2*(4), 261–274. https://doi.org/10. 4236/ojbm.2014.24031

Alt, R., Beck, R., & Smits, M. (2018). Fintech and transformation of the financial industry. *Electronic Markets, 28*(4), 1–9. https://www.researchgate.net/publication/326991488_FinTech

Akhisar, I., Tunay, K. B., & Tunay, N. (2015). The effects of innovations on bank performance: The case of electronic banking services. *Procedia – Social and Behavioral Sciences, 195*,369–375. https://doi.org/10.1016/j.sbspro. 2015.06.336

Alm, R., & Cox, W. M. (1999). *Creative destruction.* The Library of Economics and Liberty. https://www.econlib.org/ library/Enc/CreativeDestruction.html.

Ameme, B., & Wireko, J. (2016). Impact of technological innovations on customers in the banking industry in developing countries. *The Business and Management Review, 7*(3), 388–397.

Arnaboldi, F., Rossignoli B. (2015) Financial innovation in banking. In E. Beccalli & F. Poli (Eds.), *Bank risk, governance and regulation* (pp. 127–162). Palgrave Macmillan. https://doi.org/10.1057/9781137530943_5

Arnold, M. (2018, November 12). Five ways banks are responding to FinTech threat. *Financial Times*. https://www.ft.com/content/d0ab6b84-c183-11e8-84cd-9e601db069b8

ASEAN FinTech Census. (2018). *Building a better working world*. Ernst & Young. https://www.ey.com/en_sg/ financial-services/asean-fintech-census-2018

Bankers Association of the Philippines. (2017, September 8). *Banking industry spurs discussions on AFIN industry sandbox advocacy*. https://bap.org.ph/advocacy/banking-industry-spurs-discussions-afin-industry-sandbox/

Beliunas, L. (2017, June 28). *The GAFA approach to banking. Part III.* International School Technology-LinkedIn. https://www.linkedin.com/pulse/gafa-approach-banking-part-iii-linas-beli%C5%ABnas

Cajayon, A. N. (2019, May 6). *Banks and FinTech: The next step.* Business World. https://www.bworldonline.com/ banks-and-fintech-the-next-step/

Cekindo. (2020). *Important points that you need to know about FinTech in Indonesia*. Cekindo's open-source publication. https://www.cekindo.com/blog/fintech-indonesia

Choudhury, S. (2019, July 3). Virtual banks could be bad news for small lenders in Singapore, Moody's says. CNBC Watchlist. https://www.cnbc.com/2019/07/03/virtual-banks-will-be-bad-news-for-small-lenders-in-singapore-moodys.html#:~:text=Banks-,Virtual%20banks%20could%20be%20bad%20news,lenders%20in%20Singapore%2C%20Moody%27s%20says&text=Singapore%27s%20decision%20to%20issue%20new,in%20a%20note%20on%20Tuesday.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

De Jesus, F., & Torres, E. (2017). Analysis of the ASEAN Banking Integration Framework: The Philippines as a looking glass for consumer preference. *Journal of Global Entrepreneurship Research*, 7(24). https://doi.org/10.1186/ s40497-017-0082-2

Drucker, P. F. (1985). Innovation and entrepreneurship: Practice and principles. https://papers.ssrn.com/sol3/ papers.cfm?abstract_id=1496169

Elliott, J. E. (1980). Marx and Schumpeter on capitalism's creative destruction: A comparative restatement. *The Quarterly Journal of Economics, 95*(1), 45–68. https://doi.org/10.2307/1885348

Enders, A., König, A., Jelassi, T., & Hungenberg, H. (2006). The relativity of disruption: E-Banking as a sustaining innovation in the banking industry. *Journal of Electronic Research.* http://www.jecr.org/node/180

Festre, A., & Nasica, E. (2009). Schumpeter on money, banking and finance: An institutionalist perspective. *European Journal of the History of Economic Thought, 16*(2), 325–356. https://doi.org/10.1080/09672560902 891101

FinTech. (2017). *Unleashing the potential of FinTech in banking*. Ernst & Young. https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/banking-and-capital-markets/ey-unleashing-the-potential-of-fin-tech-in-banking.pdf

Gada, D. (2018, March 5). *Five ways FinTech is disrupting financial services industry*. Finextra. https://www.finextra. com/blogposting/15105/five-ways-fintech-is-disrupting

Global Findex–World Bank. (2018). *The unbanked*. Open source publication. https://globalfindex. worldbank.org/sites/globalfindex/files/chapters/2017%20Findex%20full%20report_chapter2.pdf

Hanusch, H., & Pyka, A. (2006). *Manifesto for comprehensive neo-Schumpeterian economics*. Volkswirtschaftliche Diskussionsreihe, No. 289. University of Augsburg, Institute for Economics. https://www.econstor.eu/ bitstream/10419/22812/1/289.pdf

Khan, L. (2015). *Schumpeter, entrepreneurship, and creative destruction*. https://papers.ssrn.com/sol3/papers. cfm?abstract_id=2558433

Kjellman, A., Björkroth, T., Kangas, T., Tainio, R., & Westerholm, T. (2019). Disruptive innovations and challenges for banking. *International Journal of Financial Innovation in Banking, 3*(2), 232–249. https://doi:10.1504/ IJFIB.2019. 10023963

Koffi, H. W. S. (2016). The FinTech revolution: An opportunity for the West African financial sector. *Open Journal of Applied Sciences, 6*(11). https://doi.org/10.4236/ojapps.2016.611068

KPMG. (2018). Cross-bordered payment interoperability network. https://assets.kpmg/content/dam/kpmg/sg/ pdf/2018/11/xbpin-feasibility-study.pdf

Kurup, N. (2018, May 30). *Digital disruption: How FinTech pushing banks to change*. Finextra. https://www.finextra. com/blogposting/15407/digital-disruption-how-fintech

Landstrom, H. (2005). *Pioneers in entrepreneurship and business research*. Springer. https://www.springer.com/ gp/book/9780387236018

Laton, M. Z., Yunus, H., & Abdul, R. M. A. (2015). Innovation and organizational cost saving: A case from Malaysia innovation projects. *Mediterranean Journal of Social Sciences, 6*(5), 499. https://doi.org/10.5901/mjss.2015. v6n5s2p495

Laurenco, I., Branco, M. C., Curto, J. D., & Eugénio, T. (2012). How does the market value corporate sustainability performance? *Journal of Business Ethics, 108*(4), 417–428.

Marous, J. (2019, November). Gaining a competitive edge during digital disruption. *Digital Banking Report, Special Edition*. https://www.opentext.com/file_source/OpenText/en_US/PDF/opentext-digital-banking-report-jm.pdf

McCraw, T. K. (2007). *Prophet of innovation.* Harvard University Press. http://www.hup.harvard.edu/catalogphp? isbn=9780674034815

Mittal, V. (2019, January). *ASEAN FinTech census 2018*. Ernst & Young. https://doi:10.13140/RG.2.2.27523.96804

Morgan, B. (2018, October 11). *10 examples of customer experience innovation in banking*. Forbes. https://www.forbes.com/sites/blakemorgan/2018/10/11/10-examples-of-customer-experience-innovation-in-banking/?sh=61654639729d

Musara, M., & Fatoki, O. (2010). Has technological innovations resulted in increased efficiency and cost savings for banks' customers? *African Journal of Business Management, 4*(9), 1813–1821. https://academicjournals.org/ journal/AJBM/article-full-text-pdf/C5541BC31993

Nguyen, T. L. (2018). Diversification and bank efficiency in six ASEAN countries. *Global Finance Journal, 37*, 57–78. https://doi.org/10.1016/j.gfj.2018.04.004

Oh, H. Y. (2016). Innovativeness or confidence? The effects of consumers' innovativeness and self-efficacy on the acceptance and diffusion of innovative technologies. *International Journal of Software Engineering and Its Application, 10*(8), 117–126.

Schumpeter, J. A. (2003). *Capitalism, socialism and democracy*. Taylor & Francis e-Library.

Syahullah, M. (2018). ASEAN banking efficiency review facing financial services liberalization: Indonesian perspective. *ADB Policy Review, Asian Economic and Social Society Journal, 6*(2), 88–99.

Van de Werff, A. D., Hogarth, J. M., & Peach, N. D. (2013). A cross-country analysis of financial inclusion within the OECD. *Consumer Interests Annual, 59*(1), 1–12. https://digitalcommons.georgefox.edu/cgi/viewcontent.cgi? article=1003&context=gfsb

Weiers, R.M. (2014). *Introduction to business statistics*. Cengage Learning Asia.

Wilson, J. D. (2017, April). *Is FinTech a threat or an opportunity?* Mercer Capital's Bank Watch. https://mercercapital.com/article/is-fintech-a-threat-or-an-opportunity/

Winarno, W., Mas'ud, I., & Palupi, T. (2021). Perceived enjoyment, application self-efficacy, and subjective norms as determinants of behavior intention in using OVO application. *The Journal of Asian Finance, Economic and Business, 8* (2), 1189–1200. https://www.koreascience.or.kr/article/JAKO202104142283653. view?orgId=kodisa

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The Influence of Social Media on Exercise Intention: A Case Study of Millennials in Taiwan

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Abstract

In this study the impact of social media on the intention of millennials to exercise was explored. Factors including social norms, recognition, exercise imagery, and subjective exercise knowledge, viewed from a social media context, can influence the intention to exercise. Subjective norms, attitude, perceived behavioral control, and intention were variables considered under the Theory of Planned Behavior. An online survey was used to collect information from 440 respondents comprising both university students and members of public sport centers in Taipei, Taiwan. Structural Equation Modeling was used to analyze the data. The results indicated that social norms, recognition, and subjective exercise knowledge from social media positively impacted millennial's intentions to exercise. These findings can be used to develop effective marketing strategies in the fitness industry by customizing for the different factors listed previously. Future studies should determine the differences that may exist among members of different demographic groups and in different forms of social media.

Keywords: *Social media, exercise intention, planned behavior, millennials*

Introduction

With the constant improvement of technology, new developments–as well as inventions–are infiltrating our lives, including the ways that we shop, the jobs we undertake, and even the ways we communicate with friends. Undoubtedly, technology is changing the ways we behave. According to recent research, 3.8 billion people are already active social media users, nearly 49% of the world's population. The highest social media penetration in the world is in Eastern Asia (Kemp, 2020), which contains 71% of the population. And Eastern Asia is also where Taiwan is located. Up to 88% of the population in Taiwan is active on social media. On average they spend two hours per day using social media. In Taiwan, YouTube and Facebook are ranked the top two frequently used platforms with 89% of Internet users, while Line is ranked third with 86% of users. Instagram is in fifth place, being used by 54% of individuals, and is gaining popularity among young people (Kemp, 2020). For Taiwanese users, videos and image-related postings are two of the most frequently shared content types on social media platforms (Leads to Success, 2020). People aged 25 to 34 and 35 to 44 are the two top age groups which are active on social media in Taiwan. Hence, millennials aged 20 to 40 years old are the major users engaged in social media activities in Taiwan.

Many researchers have pointed out that media usage has a significant impact on health and exercise-related beliefs and perceptions, especially for those who frequently use social network sites (Burke & Rains, 2018). Social networking sites provide a great channel for people to share their messages with diverse and creative features (Bolton et al., 2013). For example, exercise and health-related content is shared, such as people's fitness habits, skills, and diet plans (Burke & Rains, 2018). These researchers' study showed that those who regularly came into contact with fitness-related social media content had an increased awareness of weight control.

Social media has become a user-generated content platform to search and create information. Many fitness companies have begun to adopt social media marketing within their marketing plans. According to research findings, 65% of people are inclined to visual learning (Bradford, 2004). Most people believe that they need to witness the correctness of the promoted content. Visual presentation helps the memorizing and learning process. Thus, most content on social media is presented in the form of videos or short clips to catch viewers' attention and make it easier to fix messages and ideas in the audience's brains. Therefore, more and more companies in the fitness industry transmit fitness-related video content via social media. They hope to increase people's awareness of health and exercise to make people more willing to engage in exercise activities.

The purpose of this study was to find answers to the following research questions:

1. How does social media influence the exercise intention of millennials?
2. What is the relationship among exercise intention, subjective norms, attitude, and perceived behavioral control?

The main objectives of this study were as follows:

1. To examine how social media factors (social norms, recognition, exercise imagery, subjective exercise knowledge) influence millennials' subjective norms, attitude, and perceived behavioral control in exercise.
2. To investigate how subjective norms, attitude, and perceived behavioral control affect the exercise intention of millennials.

Literature Review

The Usage of Social Media on Millennials

A generation is usually known as a group of individuals who display a set of similar characteristics. Each generation usually has a similar perspective toward certain issues or events (Bolton et al., 2013). Millennials are commonly mentioned in studies. They are mostly students or recent entrants to the workplace. We define a millennial as an individual born between 1980 and 2000 (Tan & Ng, 2015). Millennials are also called "Generation Y," "Digital Natives," "Echo Boomers," or "iGeneration," since they were the first group of people that really grew up in the digital environment (Radzi et al., 2018). They are considered masters of using technology and the Internet. The members of this group spend most of their time using all these technologies to finish multiple tasks in their everyday lives.

One of the most significant phenomena displayed by millennials is the wide usage of social media platforms. Members of this generation use social media for many reasons, such as receiving information, fulfilling their casual or entertainment demands, and as a tool for socializing. Due to the convenience of using these techniques, millennials are influenced in their purchasing behavior through these digital channels. Therefore, as a result they may show a higher spending power than other generations on items that are advertised creatively through these media using wording that resonates with their values (Kim et al., 2017). Millennials have also been shown to be prone to maintaining strong connections with friends, family members, and reference groups through offline and online channels (Koufie & Kesa, 2020). They are eager to express their opinions, knowledge, and even emotions through sharing information and experiences online. Millennials also have been shaped and influenced in their social media use and purchasing behavior. For example, their behavior is influenced and expectations are changed regarding certain products or services, loyalty toward brands or companies, fashion trends, or topics of conversations within consumer groups. The phenomenon also influences the decisions toward organizations and even a whole industry. Therefore, millennials' social media use may significantly influence social norms and the mainstream behavior of society. They are also considered as a harbinger of how people will behave in the future.

Social Norms

The impact of social media is one of the biggest research topics in the field of social cognitive sciences. It is a field of study that investigates the standards of behavior and major beliefs of society, and how these influence information processing in certain situations (Fehr & Fischbacher, 2004). People tend to obey social norms generated by family, friends, colleagues, organizations, and social cultures. The pressure exerted can directly influence one's intentions and change behavior. Social media is one significant factor that could affect social norms (Bolton et al., 2013). Many researchers have used the Theory of Planned Behavior (TPB) as a theoretical structure to predict human behavior. They also have adopted the social norm factor as a predictor of subjective norms (Lu et al., 2010). We could also learn from Lu et al. (2010), who showed that the stronger one's social norms, the more positive one’s attitude turn out to be. In this study, we predicted that social norms would positively affect attitude and subjective norms.

H_1: Social norms derived from social media have a positive effect on subjective norms.
H_2: Social norms derived from social media exert a positive effect on attitude.

Recognition

A departure from the past is noted among millennials in that they will not only search for information on the Internet, but also collect opinions from others on their own initiative. This is due to the development of social media. Moreover, with the availability of the function “like” on social media, users have started to do everything to gain “likes” or receive positive comments. This is noted especially when a person is planning to change a stubborn habit. Therefore, people use social media as a method to get themselves motivated. Recognition is one of the significant motivators according to a previous study (Hamari & Koivisto, 2015). People share and post content on social networking sites and also comment on postings from other people every day. It is not only a way for them to express their thinking, values, and moods, but also is an important medium for them to receive attention and recognition from others, especially from people that they care about (Kim & Um, 2016). By gaining recognition from others, people feel connected with the social community. According to the research of Hamari and Koivisto (2015), social networking sites provide an environment that exposes people to values and comments from others, which unconsciously has a powerful impact on people’s attitude toward certain issues or behaviors. Thus, we predicted that recognition influences both subjective norms and attitudes toward exercise intention.

H_3: Recognition received from social media has a positive effect on subjective norms.
H_4: Recognition received from social media has a positive effect on attitude.

Exercise Imagery

Mental imagery is one of the influential tools that can support humans to develop certain behaviors, including learning new languages, skills, or improving performances on particular activities (Giacobbi et al., 2003). A recent study also showed that mental imagery could also exert similar cognitive and motivational effects on exercisers, as well as impacting the behavior of athletes (Giacobbi et al., 2003). Three methods can be used when adopting exercise imagery–namely, energy imagery, appearance imagery, and technique imagery. Energy imagery is about energy building and stress relief, while appearance imagery focuses on body shape building and a healthier appearance. As for technique imagery, it refers to the proper way to engage in exercises. More and more people like to share their fitness progress or fitness-related content and knowledge on social media, such as YouTube, Facebook, or Instagram (Talbot et al., 2017). From the research of Talbot et al. (2017), it is evident that the direct impact of social media on human health and sports imagery is quite significant. There are other studies claiming exercise imagery can evoke the awareness of healthy behavior (Cameron & Chan, 2008). This evidence could lead readers to presume that exercise imagery affects exercise behavior through changing one’s attitude toward exercise. Another effect on exercise behavior comes from the increased perception of self-efficacy, often referred to as perceived behavioral control (Giacobbi et al., 2003). With the development of exercise imagery, people are able to build up self-confidence in their participation in exercise activities on account of their enhanced perception of ability to control their exercise. In this study we also predicted that exercise imagery can affect perceived behavioral control.

H_5: Exercise imagery from social media exerts a positive effect on attitude.
H_6: Exercise imagery from social media exerts a positive effect on perceived behavioral control.

Subjective Exercise Knowledge

As mentioned earlier, one purpose of using social media is gaining needed information from other people’s content (Zhu & Chen, 2015). Modern people are used to getting knowledge and information for specific purposes through the Internet–for example, health and exercise-related knowledge. Knowledge of the correct techniques to adopt in exercise routines, without incurring risks, and the required equipment for certain exercise activities are pieces of useful information needed by those about to start exercising (Rhodes et al., 1999). From previous research reports, it is evident that subjective knowledge of certain issues can influence an individual's self-confidence level when undertaking a relevant activity (Brucks, 1985). Social media provides an excellent opportunity for people to gain various kinds of information in different fields (Kwahk & Park, 2016), as well as providing platforms for two-way communication and open-ended feedback. Thus, social media is one of the most important means people use to expand their knowledge in designated areas. The study of Dumitrescu et al. (2011) was used to predict the impact of attitudes, knowledge, and current behavior on oral health behavior. The result of this study showed that knowledge of oral health significantly affected the attitude towards certain behaviors. Another study, conducted by Rhodes et al. (1999), also indicated that gaining enough exercise knowledge to reduce the risk of injury can be an important factor in the initial adoption of exercise by individuals. In a research paper written by Chiou (1998), we can also find a strong connection between certain knowledge and perceived behavioral control of associated behavior. As a result, we also predicted that subjective exercise knowledge has a direct influence on attitudes and perceived behavioral control.

H_7: Subjective exercise knowledge from social media exerts a positive effect on attitude.
H_8: Subjective exercise knowledge from social media exerts a positive effect on perceived behavioral control.

Theory of Planned Behavior

A number of theories have been developed to explain the reasons for changing human behavior. Researchers can conveniently adopt these to determine the most influential factors influencing a particular human behavior (Godin & Kok, 1996). The Theory of Planned Behavior (TPB) is one of the most widely used models and was designed by Ajzen (1991) to understand human behavior as influenced by three motivational factors. That theory was extended using the theory of reasoned action (Godin & Kok, 1996). Many researchers apply TPB to human behavior in a variety of fields, such as behavioral tendencies that contribute to physical and psychological growth. Therefore, TPB is widely used to study the factors influencing people's health behaviors. Hausenblas et al. (1997) and Ahmad et al. (2014) applied TPB to analyze the interrelationship among factors influencing human intentions regarding exercise behavior.

Subjective Norms toward Exercise Intention: In the theoretical framework of TPB, it is understood that subjective norms are the perception of expectations received from important others. From past research, it is known that the opinions or encouragements received from families and friends are very helpful for the development of a behavioral tendency towards exercise (Godin & Kok, 1996). The results of further studies have shown that subjective norms, or social pressure, has a significant effect on intention (Ahmad et al., 2014). This present study assumed that subjective norms have a direct impact on exercise intention.

H_9: Subjective norms exert a positive effect on regular exercise intention.

Attitude toward Exercise Intention: It is known from TPB that attitude is the most important factor in people's behavioral intentions, so it can be considered the basis of this theory (Ajzen, 1991). It has been confirmed from past studies that there is a direct correlation between attitudes and behavioral images (Hausenblas et al., 1997; Godin & Kok, 1996). If persons have a more positive attitude towards sporting activities, they will also have a higher tendency to exercise. Previous findings have also indicated that attitudes help increase a person's health behavioral intention (Povey et al., 2000). Hence, in this study we also adopted this concept in the research structure.

H_{10}: Attitude exerts a positive effect on regular exercise intention.

Perceived Behavioral Control toward Exercise Intention: Many people cannot start or maintain specific athletic behavior because they think it is a difficult task that they cannot do on their own. Many previous studies have pointed out that perceived behavioral control has a particularly significant influence on intention concerning a particular behavior (Godin & Kok, 1996; Hausenblas et al., 1997; Povey et al., 2000). And it can also change one's attitude toward a certain behavior (Ajzen, 1991). In this study, we considered that perceived behavioral control directly affected exercise intention.

H_{11}: Perceived behavioral control has a positive effect on regular exercise intention.

The theoretical framework for this research study, which incorporates the hypotheses generated, is illustrated in Figure 1; the operational definitions and other features used are shown in Table 1.

Figure 1 *Theoretical Framework Adopted*

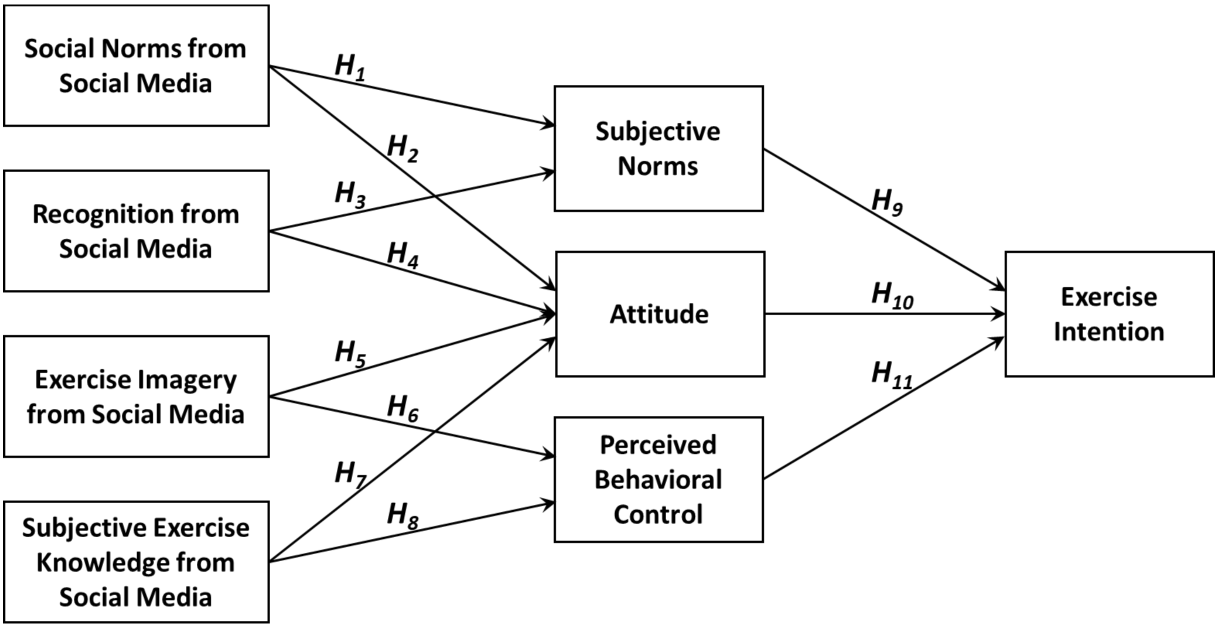

Table 1 *Definitions and Operational Definitions of Variables Used in This Study*

Variables	Definition	Operational Definition
Social Norms from Social Media	Standards of behavior that are based on widely shared beliefs concerning how individual group members ought to behave in a given situation. (Fehr & Fischbacher, 2004)	Standards of behavior on how individual group members ought to behave in doing exercises that are based on widely shared beliefs from social media.
Recognition from Social Media	The value that a participant derives from gaining acceptance and approval from other members. (Hernandez et al., 2011)	The value that a social media user derives from gaining acceptance and approval from other members' replies or comments toward their postings on social media.
Exercise Imagery from Social Media	Creation/re-creation of an experience generated from memorial information; has quasi-sensorial, quasi-perceptual, and quasi-affective characteristics; is under the imager's volitional control, and may occur in the absence of real stimulus antecedents normally associated with an actual experience. (Morris et al., 2005)	Creation or re-creation of an exercise experience generated from memorial information from social media; has quasi-sensorial, quasi-perceptual, and quasi-affective characteristics; is under the imager's volitional control, may occur in absence of real stimulus antecedents normally associated with an actual exercise experience.

Table 1 *Definitions and Operational Definitions of Variables Used in This Study (Cont.)*

Subjective Exercise Knowledge from Social Media	Individuals' perceptions of how much they know. (Park & Lessig, 1981)	Individuals' perceptions of how much they know about an exercise that was gained from social media.
Subjective Norms	An individual's perception of the likelihood that the potential referent group or individuals approve or disapprove of performance of a given behavior. (Fishbein & Ajzen, 1977)	An individual's perception of the likelihood that the potential referent group or individuals will approve or disapprove of regular exercise.
Attitude	The evaluative effect of a positive or negative feeling of individuals in performing a particular behavior. (Fishbein & Ajzen, 1977)	The evaluative effect of positive or negative feelings held by individuals involved in regular exercise.
Perceived Behavioral Control	Given the presence or absence of requisite resources and opportunities, such control involves the individual's perception of the ease or difficulty in performing the behavior of interest. (Ajzen, 1991)	Given the presence or absence of requisite resources and opportunities, the individual's perception of the ease or difficulty in undertaking regular exercise.
Exercise Intention	The perception an individual holds towards performance of a particular behavior. (Fishbein & Ajzen, 1977)	The perception of an individual towards regular exercise.

Research Methodology

Millennials in Taiwan were the target group of this study. The researchers collected data through online surveys (Google forms) from different social networking sites that were set up for students in colleges or members of fitness centers in Taipei city. The target group included young adults whose age was from 20 to 40 and with different educational levels, occupations, and salaries. Using the advice of Ajzen (2006), qualitative data was collected first from a representative population sample to enable the refinement of the questionnaires. Hence, a pilot test was completed on 30 individuals to identify the validity and reliability of the measurement items.

The questionnaires were developed according to the standard methodology used for TPB components (Ajzen, 2006). Five to six items were formulated to assess each of the major constructs in the theory. A five-point Likert scale was used to measure different perceived response levels. English and Chinese versions of the questionnaire were developed. The back-translation technique was applied in questionnaire development to ensure that both the English and Chinese versions of the questionnaire assessed the same concept. For the main study, the questionnaires were distributed among 484 respondents. Finally, 440 responses were used for data analysis after removing invalid questionnaire returns.

The final data analysis was completed in three steps. First, Cronbach's Alpha was calculated to make sure the reliability of all scale items performed well. Second, the data was analyzed using Confirmatory Factor Analysis (CFA) to assess the validity of the instruments. For the last step, Structural Equation Modelling (SEM) techniques were used to analyze the conceptual model (Figure 1) and the appropriateness of the suggested hypothesis paths.

Analysis Results

Since the data and materials were collected from open cyberspace, it was necessary to identify the demographic characteristics of the respondents. Factors included in the survey instrument were gender, age group, occupation, marital status, highest education level, and frequency of exercising per week. For the aspect of gender, females accounted for 62%, which was higher than for males (38%). After deleting invalid responses from people not from the target group (people aged between 20 and 40), the respondents were divided into four age groups—20 to 24, 25 to 29, 30 to 34, 35 to 40. Among these, 20 to 24 and 25 to 29 accounted for the top two age groups. All but 10% of respondents were single. In terms of occupation, students constituted the largest category of respondents (33%). When it came to education level, most respondents were at the undergraduate level (67%), while others were master's degree level or above (31%). A few were at the high school level or below (2%).

According to the definition of regular exercise, people should exercise at least three times a week and thirty minutes each time. Hence, the research also categorized the frequency of the exercising time of respondents. We found that 35% of respondents exercised three or more times per week, which matched the definition of regular exercise. As for respondents who exercised one or two times per week, both groups together accounted for 26%. Only 13% of respondents exercised less than once per week.

Cronbach's alpha was adopted to make sure the reliability of all the scale items performed well. The results are shown in Table 2 below. All of the variables were higher than .70, which was represented as a valid outcome.

Table 2 *Cronbach's Alpha Reliability Results of Framework Scale*

Variables	Cronbach's Alpha	Number of Items
Social Norms from Social Media	.718	5
Recognition from Social Media	.873	5
Exercise Imagery from Social Media	.863	6
Subjective Exercise Knowledge from Social Media	.815	5
Subjective Norm	.739	5
Attitude	.838	6
Perceived Behavioral Control	.890	5
Intention	.937	5

Confirmatory Factor Analysis (CFA) was applied to analyze the three constructs mentioned in the model—independent variables (social norms, recognition, exercise imagery, and subjective exercise knowledge), mediators (subjective norms, attitude, and perceived behavioral control), and dependent variables (intention). The model was modified according to the modification index obtained from the CFA results. Finally, 40 scale items were used to measure eight variables. Most measurement model details fitted with the key criteria based on the overall results of CFA; only the Chi-square (χ^2) ratio of mediators construct (3.30) did not fit with the criteria (Table 3). However, from the study of Hair et al. (2006), the Chi-square ratio is sensitive to sample size, especially when the sample size is more than 200. Thus, it is recommended not to rely solely on the Chi-square statistics, but also on other indices as well. Accordingly, the indexes of the three constructs reached the standardized level to indicate the model's goodness of fit.

Table 3 *Summary of Confirmatory Factor Analysis Results*

Items	χ^2/df	GFI	CFI	RMSEA	SRMR
Criteria	<3	>.90	>.90	.05–.08	<.08
CFA of Independent Variables	2.28	.92	.95	.05	.03
CFA of Mediators	3.30	.92	.93	.07	.04
CFA of Dependent Variables	1.39	.99	.99	.03	.01

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

Structural Equation Modeling (SEM) was applied to investigate the hypothesized relationships among variables. The goodness of SEM fit indices for the model are shown in Table 4; they met the standardized values. To ensure a good model, the χ^2/df index should be lower than three (Bryne, 2016). From the suggestion of Hair et al. (2014), GFI values should be higher than .90, and those of CFI should also be higher than .90. If the RMSEA values fall between .05 and .08, an acceptable fit to the model is indicated. As for SRMR, the values obtained should ideally exceed .08 (Hu & Bentler, 1999). Thus, according to the results obtained, the data fitted into the model well.

Table 4 *Summary of Structural Equation Modeling Results*

Model Fit	Criteria	SEM Model
χ^2/df	< 3.00	2.12
GFI	> .90	.91
CFI	> .90	.95
RMSEA	.05–.08	.05
SRMR	< .08	.05

The results of hypothesis path testing are presented in Table 5; eight hypothesized relationships were accepted and three were rejected. The influence of social norms was quite significant on both subjective norms ($p < .001$) and attitude ($p < .01$), thus supporting H_1 and H_2. Subjective exercise knowledge also had significant effects on attitude ($p < .001$) and perceived behavioral control ($p < .001$); hence H_7 and H_8 were supported. We can also learn that intention was significantly influenced by subjective norms ($p < .05$), attitude ($p < .001$), and perceived behavioral control ($p < .001$); as a result, H_9, H_{10} and H_{11} were also supported. As for recognition, it exerted a significant influence on subjective norms ($p < .001$), but not on attitude ($p > .05$). Therefore, H_3 was supported, but H_4 was rejected. Finally, exercise imagery was revealed to have significant negative impacts on both subjective norms ($p < .05$) and attitude ($p < .01$). As a consequence, H_5 and H_6 were not supported.

Table 5 *Summary of Hypothesis Path Testing Results*

	Hypothesis Path	Beta	CR	Sig. (*p*)	Testing Result
H_1	Social Norms → Subjective Norm	.38	5.18	***	Supported
H_2	Social Norms → Attitude	.27	2.81	.005**	Supported
H_3	Recognition → Subjective Norm	.20	3.31	***	Supported
H_4	Recognition → Attitude	.10	0.94	.349	Not Supported
H_5	Exercise Imagery → Attitude	-.53	-2.48	.013*	Not Supported
H_6	Exercise Imagery → Perceived Behavioral Control	-.92	-3.15	.002**	Not Supported
H_7	Subjective Exercise Knowledge → Attitude	1.02	5.99	***	Supported
H_8	Subjective Exercise Knowledge → Perceived Behavioral Control	1.70	5.52	***	Supported
H_9	Subjective Norm → Intention	.09	2.25	.024*	Supported
H_{10}	Attitude → Intention	.23	3.46	***	Supported
H_{11}	Perceived Behavioral Control → Intention	.61	8.84	***	Supported

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

Discussion

This study was carried out to consider two main research objectives. The first objective was to examine the factors operating through social media that influenced millennials' subjective norms, attitude, and perceived behavioral control concerning exercise. The results revealed the significant influence that social norms have on millennials' subjective norms and attitude toward exercise. Hence, H_1 and H_2 were supported by the findings and were also aligned with Lu et al.'s (2010) study, where it was claimed that the stronger one's social norms were, the greater one's subjective norms and positive attitude would be. According to our analyses, hypotheses H_7 and H_8, were consistent with Dumitrescu et al. (2011) and Chiou's (1998) studies, which indicated that attitude, as well as perceived behavioral control, could be influenced by subjective knowledge. As for recognition, the results revealed significant influence on subjective norms, while the opposite was found for attitude. The findings supported H_3 (recognition from social media has a positive effect on subjective norms), which was also supported by Kim & Um's (2016) study. But the data did not support H_4 (recognition from social media has a positive effect on attitude) and hence were contrary to the study of Hamari & Koivisto (2015). It is assumed that millennials' attitude toward exercise may not be influenced by gaining recognition from social media. But receiving feedback from other people may generate millennials' perception of the likelihood that their potential referent group or individuals approve of regular exercise. Lastly, exercise imagery was the only factor that was verified as negatively influencing both attitude and perceived behavioral control. The findings were not consistent with Giacobbi et al.'s (2003) study. As a result, H_5 and H_6 were not supported. From the study of Pearla et al. (2015), it is suggested that this phenomenon might result from low self-esteem or body dissatisfaction among those who have had previous experience with weight stigmatization. The research of Robinsona et al. (2015) also suggests that athletic images might oversell the attainability of ideal body shape through fitness planning. Thus, it might cause failure to maintain a healthy lifestyle while increasing pressure to exercise.

The second objective was to investigate how subjective norms, attitude, as well as perceived behavioral control, affected exercise intention among millennials. The evidence showed that millennials' subjective norms, attitude, and perceived behavioral control significantly and positively influenced their exercise intention. Therefore, H_9, H_{10} and H_{11} were all supported by the results and were also in line with previous studies (Ajzen, 1991; Ahmad et al., 2014; Povey et al., 2000).

Theoretical Contribution and Managerial Implications

This study contributes to the literature examining the influence of social media on people's intention toward exercising. The framework of the study extended the Theory of Planned Behavior by applying four different factors (social norms, recognition, exercise imagery, and subjective exercise knowledge) in investigating how social media influences one's exercise intention in different psychological dimensions. Lastly, the impact of social media was shown to be significant on the exercise intention of Taiwanese millennials.

The findings from the study can be helpful in developing a comprehensive Social Media Marketing program to raise millennials' exercising intention and further promote fitness activities. Specifically, marketing managers may consider four different influential factors being used in the social media. According to the results, in order to increase the subjective norms of millennials, marketers should firstly focus on generating social norms of exercise or fitness-related activities. From Wainaina's (2019) study, people rely heavily on information from social media and electronically conveyed "word of mouth." It is also influential in the adoption of fitness or health behaviors. Social media also has helped build fitness communities by attracting new members. Fitness influencers are considered to be an important element when making marketing plans (Wainaina, 2019). Marketers should also consider the power of Internet celebrities as part of the marketing strategy to create enhanced social norms toward exercise issues.

Secondly, once millennials gain substantial recognition from their postings on social media, their subjective norms may also be improved. Thus, Hirscha and Sundar's (2015) study suggested encouraging users to provide more fitness-related content on social media to increase their involvement and interest toward such activities. Marketers should encourage millennials to share their own experiences or fitness-related content from other individuals or groups. It is necessary to increase the subjective exercise knowledge of millennials to increase their perceived behavioral control toward exercise. According to Wainaina's (2019) study, content with good qualities leads to more active engagement toward fitness activities. The audience suggested that information should be valuable and user-generated so that they can mostly rely on social media as the main source of fitness information. Besides, content generators also are urged to update information constantly, and they should also respond to questions from the audience quickly and efficiently. Thus, marketers should also be careful in their social media content planning. With the increase of social norms and subjective exercise knowledge, millennials' attitude might also be positively influenced.

Lastly, the results of this study showed that exercise imagery has no positive impact on exercise intention. However, from the study of Raggatt et al. (2018), it is evident that the influence of fitness-related images can be different depending on how images are presented. If the images emphasize ideal appearance, not the benefit of fitness, it might cause low self-esteem and body dissatisfaction for audience members. As a result, marketers should carefully choose images or description on social media.

Limitations and Recommendations

There were some limitations inherent in this study. The population of this study only targeted millennials in Taiwan, and the age range was from 20 to 40 years old. The study did not compare different generations. In terms of occupation, students were the largest category of respondents. These factors impose some limits on making generalizations in regards to the findings. In addition, the research results are only representative of people in Taipei, Taiwan where the study was conducted. The study also did not consider different kinds of social media platforms; this might represent a barrier to the identification of distinctive effects from different social network sites. Future researchers might consider enlarging the scope of investigation to survey different age groups, especially different generations. It is also recommended that research be conducted in different countries to compare different geographical features and also incorporate different cultural backgrounds. Besides, researcher could also conduct a comparative survey involving different kinds of social media platforms.

References

Ahmad, M. H., Shahar, S., Teng, N. I., Manaf, Z. A., Sakian, N. I., & Omar, B. (2014). Applying theory of planned behavior to predict exercise maintenance in sarcopenic elderly. *Clinical Interventions in Aging, 9*, 1551–1561. https://doi.org/10.2147/CIA.S60462

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2006). *Constructing a TPB questionnaire: Conceptual and methodological considerations.* http://chuang.epage.au.edu.tw/ezfiles/168/1168/attach/20/pta_41176_7688352_57138.pdf

Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Loureiro, Y. K., & Solnet, D. (2013). Understanding generation Y and their use of social media: A review and research agenda. *Journal of Service Management, 24*(3), 245–267. https://doi.org/10.1108/09564231311326987

Bradford, W. (2004). Reaching the visual learner: Teaching property through art. *The Law Teacher, 11*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=587201

Brucks, M. (1985). The effects of product class knowledge on information search behavior. *Journal of Consumer Research, 12*(1), 1–16. http://www.jstor.org/stable/2489377

Bryne, B. M. (2016). *Structural equation modeling with AMOS* (3rd ed.). Routledge.

Burke, T. J., & Rains, S. A. (2018). The paradoxical outcomes of observing others' exercise behavior on social network sites: Friends' exercise posts, exercise attitudes, and weight concern. *Health Communication, 34*(4), 475–483. http://dx.doi.org/10.1080/10410236.2018.1428404

Cameron, L. D., & Chan C. K. (2008). Designing health communications: Harnessing the power of affect, imagery, and self-regulation. *Social and Personality Psychology Compass, 2*(1), 262–282. https://doi.org/10.1111/j.1751-9004.2007.00057.x

Chiou, J. S. (1998). The effects of attitude, subjective norm, and perceived behavioral control on consumers' purchase intentions: The moderating effects of product knowledge and attention to social comparison information. *Proceedings of the National Science Council, Republic of China, 9*(2), 298–308.

Dumitrescu, A. L., Wagle, M., Dogaru, B. C., & Manolescu, B. (2011). Modeling the theory of planned behavior for intention to improve oral health behaviors: The impact of attitudes, knowledge, and current behavior. *Journal of Oral Science, 53*(3), 369–377. https://doi.org/10.2334/josnusd.53.369

Fehr, E., & Fischbacher, U. (2004). Social norms and human cooperation. *Trends in Cognitive Sciences, 8*(4), 185–190. https://doi.org/10.1016/j.tics.2004.02.007

Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. *Philosophy and Rhetoric*, *10*(2), 130–132. https://www.jstor.org/stable/40237022

Giacobbi, P. Jr., Hausenblas, H., Fallon, E., & Hall, C. (2003). Even more about exercise imagery: A grounded theory of exercise imagery. *Journal of Applied Sport Psychology, 15*(2), 160–175. http://dx.doi.org/10.1080/10413200305391

Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion, 11*(2), 87–98. https://doi.org/10.4278/0890-1171-11.2.87

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (Pearson New International ed.). Pearson Education Limited.

Hamari, J., & Koivisto, J. (2015). ''Working out for likes'': An empirical study on social influence in exercise gamification. *Computers in Human Behavior, 50*, 333–347. https://doi.org/10.1016/j.chb.2015.04.018

Hausenblas, H. A., Carron, A. V., & Mack, D. E. (1997). Application of the theories of reasoned action and planned behavior to exercise behavior: A meta-analysis. *Journal of Sport & Exercise Psychology, 19*(1), 36–51. http://dx.doi.org/10.1123/jsep.19.1.36

Hernandez, B., Montaner, T., Sese, F. J., & Urquizu, P. (2011). The role of social motivations in e-learning: How do they affect usage and success of ICT interactive tools? *Computers in Human Behavior, 27*(6), 2224–2232. https://doi.org/10.1016/j.chb.2011.07.001

Hirscha, A. O., & Sundar, S. (2015). Posting, commenting, and tagging: Effects of sharing news stories on Facebook. *Computers in Human Behavior, 44*, 240–249. https://doi.org/10.1016/j.chb.2014.11.024

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Kemp, S. (2020, February 18). *Digital 2020: Taiwan.* DataReportal – Global Digital Insights. https://datareportal.com/reports/digital-2020-taiwan

Kim, S., & Um, N. H. (2016). Recognition in social media for supporting a cause: Involvement and self-efficacy as moderators. *Social Behavior and Personality, 44*(11), 1863–1877. https://doi.org/10.2224/sbp.2016.44.11.1863

Kim, S., Choe, J. Y., & Lee, S. (2017). How are food value video clips effective in promoting food tourism? Generation Y versus non–Generation Y. *Journal of Travel & Tourism Marketing, 35*(3), 377–393. https://doi.org/10.1080/10548408.2017.1320262

Koufie, G. E., & Kesa, H. (2020). Millennials motivation for sharing restaurant dining experiences on social media. *African Journal of Hospitality Tourism and Leisure, 9*(1). http://hdl.handle.net/10210/416409

Kwahk, K. Y., & Park, D. H. (2016). The effects of network sharing on knowledge-sharing activities and job performance in enterprise social media environments. *Computers in Human Behavior, 55*(Part B), 826–839. https://doi.org/10.1016/j.chb.2015.09.044

Leads to Success. (2020, March 28). *7 facts on Taiwan digital marketing and social media.* https://leadstosuccess.me/2020/03/28/7-facts-on-taiwan-digital-marketing-and-social-media/

Lu, C. T., Huang, S. Y., & Lo, P. Y. (2010). An empirical study of on-line tax filing acceptance model: Integrating TAM and TPB. *African Journal of Business Management, 4*(5), 800–810. https://www.researchgate.net/publication/267839012

Morris, T., Spittle, M., & Watt, A. P. (2005). *Imagery in sport.* Human kinetics.

Park, C. W., & Lessig, V. P. (1981). Familiarity and its impact on consumer decision biases and heuristics. *Journal of Consumer Research, 8*(2), 223–230. https://doi.org/10.1086/208859

Pearl, R. L., Dovidio, J. F., Puhl, R. M., & Brownell, K. D. (2015). Exposure to weight-stigmatizing media: Effects on exercise intentions, motivation, and behavior. *Journal of Health Communication, 20*(9), 1004–1013. https://doi.org/10.1080/10810730.2015.1018601

Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (2000). The theory of planned behaviour and healthy eating: Examining additive and moderating effects of social influence variables. *Psychology & Health, 14*(6), 991–1006. https://doi.org/10.1080/08870440008407363

Radzi, N. A., Harun, A., Ramayah, T., Kassim, A. W., & Lily, J. (2018). Benefits of Facebook fan/brand page marketing and its influence on relationship commitment among Generation Y: Empirical evidence from Malaysia. *Telematics and Informatics, 35*(7), 1980–1993. https://doi.org/10.1016/j.tele.2018.07.002

Raggatt, M., Wright, C. J., Carrotte, E., Jenkinson, R., Mulgrew, K., Prichard, I., & Lim, M. S. (2018). "I aspire to look and feel healthy like the posts convey": engagement with fitness inspiration on social media and perceptions of its influence on health and wellbeing. *BMC Public Health*, *18*, 1002. https://doi.org/10.1186/s12889-018-5930-7

Rhodes, R. E., Martin, A. D., Taunton, J. E., Rhodes, E. C., Donnelly, M., & Elliot, J. (1999). Factors associated with exercise adherence among older adults. An individual perspective. *Sports Medicine, 28*(6), 397–411. https://doi.org/10.2165/00007256-199928060-00003

Robinsona, L., Prichardb, I., Nikolaidisa, A., Drummondb, C., Drummond, M., & Tiggemann, M. (2017). Idealised media images: The effect of fitspiration imagery on body satisfaction and exercise behaviour. *Body Image*, *22*, 65–71. https://doi.org/10.1016/j.bodyim.2017.06.001

Talbot, C. V., Gavin, J., Steen, T., & Morey, Y. (2017). A content analysis of thinspiration, fitspiration, and bonespiration imagery on social media. *Journal of Eating Disorders, 5*, 40. https://doi.org/10.1186/s40337-017-0170-2

Tan, C. L., & Ng, S. H. (2015). Motivation to start a small business: A study among generation Y in Taiwan. *Problems and Perspectives in Management, 13*(2), 320–329. https://businessperspectives.org/images/pdf/applications/publishing/templates/article/assets/6740/PPM_2015_02spec.issue_M_Tan.pdf

Wainaina, A. K. (2019). *Effectiveness of content marketing through social media towards the growth of the fitness industry in Nairobi* [Master's thesis, United States International University–Africa]. http://erepo.usiu.ac.ke/11732/5218

Zhu, Y. Q., & Chen, H. G. (2015). Social media and human need satisfaction: Implications for social media marketing. *Business Horizons*, *58*(3), 335–345. https://doi.org/10.1016/j.bushor.2015.01.006

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The Relationship among Academic Dishonesty, E-learning Readiness, and Procedural Justice

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Abstract

There has been a recent growth in the use of e-learning in response to rapid changes in higher education. With this switch to online learning, there has been a growing concern over students' ethical behavior concerning academic matters. The purpose of this study was to understand the relationships between academic dishonesty (cheating on exams) and the independent variables of e-learning readiness, procedural justice (fairness in the classroom), gender, major, and class level. From a sample size of N = 112, descriptive analysis and multiple regression were employed to understand the relationship between the dependent variable of academic dishonesty and the study's other variables. Descriptive statistics found that the participants disagreed with academic dishonest behaviors; however, senior students agreed more with these behaviors when compared to freshmen. Similar differences were found in procedural justice, with freshmen perceiving the teaching as fairer compared to seniors. The relationship among the variables was weak, with only a significant relationship between academic dishonesty and procedural justice. Understanding student views of ethical behavior in the context of e-learning in a non-Western context provides an opportunity to present findings from an underrepresented group.

Keywords: *e-learning, academic dishonesty, regression, procedural justice*

Introduction

Among higher education institutions, there has been a strong embrace of e-learning. Moving to e-learning has meant developing assessments for this new context. As e-learning has grown in popularity, academic dishonesty has also become a problem. Students have a general disinterest in taking exams online (Elsalem et al., 2021). One concern that students have is that they do not want to participate in online assessment unless they think it is fair (Kaufmann & Tatum, 2018).

Within Asia, there are concerns with e-learning, academic dishonesty, and fairness (Abusafia et al., 2018; Olivier, 2017). If students lack the skills needed to participate online, and believe that the teacher is unreasonable in their expectations, there may be some temptation to resort to dishonest academic practices (Kaufmann & Tatum, 2018; Lemons & Seaton, 2011). Furthermore, within some parts of Southeast Asia, there is a permissiveness towards cheating that makes it more of a pressing problem (Bokosmaty et al., 2019).

Therefore, the purpose of this study was to examine the relationship between e-learning readiness, classroom procedural justice, and academic dishonesty. Investigating these constructs within the context of Southeast Asia will help bring insights to teachers and administrators searching for information and analysis of the problem of academic dishonesty in the context of e-learning. Moreover, understanding student views of ethical behavior in the context of e-learning in a non-Western context provides an opportunity to present findings from an underrepresented group.

E-Learning Readiness

E-learning is training and knowledge acquisition through an electronic medium, primarily a computer or other internet-capable device (Ungaretti & Tillberg-Web, 2016). There are several forms of e-learning based on the manner of interaction with the teacher. For example, some forms of e-learning are fully online and asynchronous, which means there is no real-time interaction with the teacher or other students that is required (Roskvist et al., 2020). Synchronous e-learning involves learning online with real-time interaction with the teacher and or other students. Blended learning involves asynchronous and/or synchronous learning while also providing a traditional face-to-face learning experience in a classroom (Dziuban et al., 2018).

Online assessment is one of many challenges educators face when it is necessary to move to e-learning. Students prefer exams or quizzes to more authentic assessments such as reports or written assignments (Elsalem et al., 2021). However, traditional exams in the e-learning context are often plagued with academic dishonesty. Measures have been taken, such as online proctoring, multiple exams of the same content, and test preparation, yet these have not been found to fully alleviate this problem (Elsalem et al., 2021; McDonald et al., 2018).

Despite the shortcomings of assessment in the e-learning context, several studies have found that e-learning has helped students to become self-evaluators, that multimedia use boosts thinking skills, and that e-learning can be beneficial for low-performing students in rural areas (Kwangmuang et al., 2021; McDonald et al., 2018; Panyajamorn et al., 2018). The current challenge involves the complexity of academic dishonesty as students can initiate this behavior with a reduced likelihood of the teacher determining that dishonest acts took place.

Readiness of the students and institution could be a factor in academic dishonesty as students who believe they are unprepared for e-learning may commit academic dishonesty as a coping mechanism (Al-araibi et al., 2019; Kaufmann & Tatum, 2018). Several studies indicate that culture, identity, and social media practices play a role in e-learning readiness of students (Njenga, 2018; Salloum et al., 2019). Students are often blamed when academic dishonesty occurs; however, if the teacher and institution are not providing the quality, support, teaching, and maintaining ease of use, students may develop frustration with their e-learning experience (Al-Fraihat et al., 2020).

Within Thailand, e-learning has been found to boost thinking skills (Kwangmuang et al., 2021). In addition, students have shared that they feel uncomfortable studying online with direct guidance from the teacher as they lack self-discipline for e-learning and prefer working in groups (Olivier, 2017). Furthermore, Faderogaya and Chantagul (2019) found a relationship between learning style and attitudes toward e-learning. However, what is missing from the current body of research is an examination of academic dishonesty and its relationship with e-learning. This aspect is explored here.

Procedural Justice

Classroom procedural justice is defined in terms of the fairness of the distribution of outcomes, the process of outcome distribution, the quality of interpersonal relationships, and the communication of rules and policies in the classroom that shape the ideas of fairness (Rasooli et al., 2019). These concepts are critical in that if students have a perception that assessment in the classroom is unfair, they will search for means to overcome this (Lemons & Seaton, 2011). What is unique in the context of e-learning is the need to communicate all these concepts electronically rather than in a traditional classroom meeting. Kaufman and Tatum (2018) have already found that students do not want to take online courses if they believe they are unfair.

When students perceive that there is procedural injustice, the reactions are often in the form of anger, disappointment, and challenging authority in ways that may include academic dishonesty (Chory, 2007; Rasooli et al., 2019). When the classroom is perceived as fair, there is often greater engagement (Rasooli et al., 2019). However, these studies refer again to the traditional classroom and not to an e-learning context.

The teacher is one of the strongest factors in the student's view of classroom procedural justice in that when the students have some trust in the teacher, there is often a more positive perception of justice in the classroom (Argon & Kepekcioglu, 2016). The teacher's actions and behaviors are associated with justice in the classroom (Sabino et al., 2019). If a teacher is unjust in their classroom management, it can also lead to a decrease in respect the students have for the teacher (Ehrhardt-Madapathi et al., 2018). When students have contempt for the authority of a teacher, there could be issues with obedience to rules during exams. However, how these complex relations happen online is not as clearly studied as discussed with literature from a traditional classroom context.

Several studies indicate differences based on gender regarding classroom procedural justice (Sabino et al., 2019; Varela et al., 2020). Studies conducted in China found that students' procedural fairness was associated with their perception of the fairness of their scores, and students who perceive injustice may resort to knowledge hiding behaviors (Ghani et al., 2020; Wallace & Qin, 2021). In the Philippines, the students who thought a teacher was fair positively associated this attitude with how the teacher treated them (Clemente, 2018).

Academic Dishonesty

Academic dishonesty is often defined in terms of concrete behaviors such as cheating, plagiarism, falsification of academic assignments, and deception in completing various assessments (Bashir & Bala, 2018). Plagiarism is more narrowly defined as taking credit for the works of others and often happens when a student fails to cite sources when authoring a paper (Pecorari, 2018). Cheating comes in many different forms. Examples include independently planned cheating, such as when a student brings notes to an exam, socially active and socially passive, involving a student actively helping another student cheating or unknowingly allowing a student to cheat (Garavalia et al., 2007).

Major factors in motivating students to commit academic dishonesty include poor time management, opportunity, and a lack of understanding of the seriousness of academic dishonesty (Harji et al., 2017; Khathayut et al., 2020). Studying online often leads to difficulty with time management, and there are often many opportunities for academic dishonesty, given the unmonitored nature of online assessment. Culture has also been found to play a role in admitting plagiarism, as individualism mediates the association between cultural background and admitting plagiarism (Kasler et al., 2020).

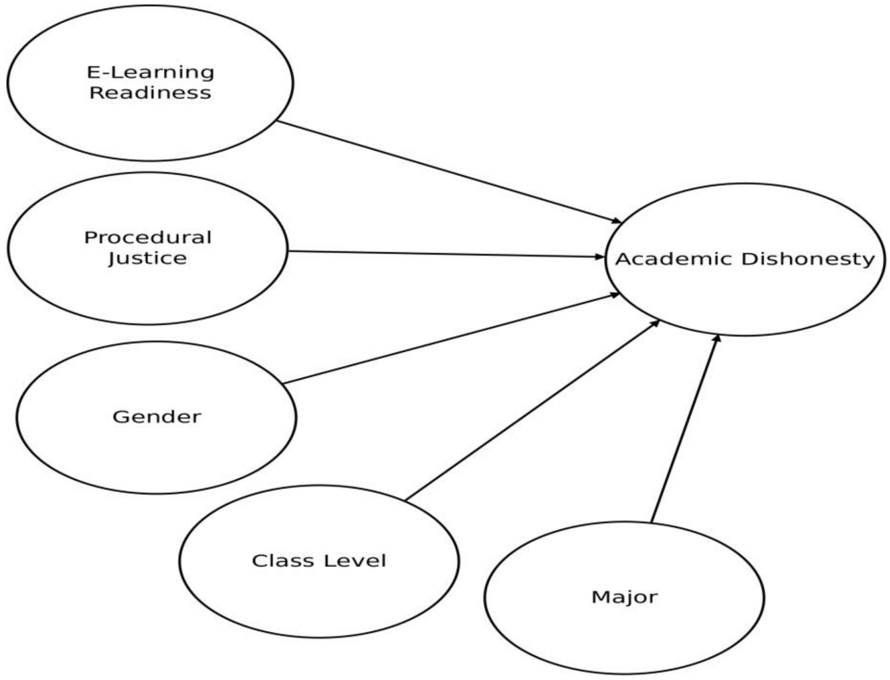
There is conflicting research involving differences by gender for academic dishonesty. Bokosmaty et al. (2019) found no difference, while Zhang et al. (2018) found some difference when accounting for gender. However, looking at academic dishonesty differences by gender in the context of e-learning should be looked at as the studies cited were all in a traditional context of face-to-face teaching and learning.

Studies in Asia have indicated that the punishment for academic dishonesty is often insignificant to discourage the behavior, at least in China (Zhang et al., 2018). A study conducted in Southeast Asia found that almost 100% believed academic dishonesty was wrong, yet half had committed at least one act of dishonest academic behavior (Bloomfield et al., 2021). Studies in Malaysia and Indonesia indicate that most Malaysian nursing students have committed academic dishonesty, and among Indonesian students, there was a relationship between moral integrity and acts of academic dishonesty (Abusafia et al., 2018). Lastly, inconsistencies have been found between policies and practice in Thailand when dealing with academic dishonesty (Bowen & Nanni, 2021). For example, due to poor English skills, there sometimes is tolerance of Thais copying from the Internet to complete assignments (Nagi & John, 2020).

Based on the review of literature, the following research questions were investigated. Figure 1 provides the conceptual framework that guided this study.

1. What are participants' perceptions of academic dishonesty, classroom procedural justice, and e-learning use?
2. What are the relationships of classroom procedural justice, gender, major, class level, and e-learning use with academic dishonesty?

Figure 1 *Conceptual Framework*



Methodology

Sample/Setting

The setting of this study was a university located in Thailand that utilized a full online learning approach. Stratified sampling was used based on gender as the criterion. The sample size was *N* = 112 drawn from a population of approximately 1,000 undergraduate students. Demographic results indicate the following within the sample: 50% were male, and 50% were female. For class level, 35% were freshmen, 21% were sophomores, 25% were juniors, and 19% were seniors. For major, 19% studied business, 31% studied education, 19% were English majors, 10% studied Information Technology, 4% were nursing majors, 10% were enrolled as religion majors, and 6% were science majors.

Research Design

A cross-sectional survey design was employed in this study. The two-part survey consisted of a demographics section which as the respondents indicated their major, class level, and gender. The second section consisted of 41 Likert items using a five-point scale 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, and 5 = *Strongly Agree*. The researcher at the site performed data collection. Surveys were given to students and collected. The reliability scores reported below were derived from the data that was collected.

The academic dishonesty scale was developed by Bolin (2004). This scale measures respondents' perceptions towards dishonest academic actions. Sample items included "It's fine to copy from another student during a test" and "It's okay to turn in work done by someone else." The 12-item scale had a Cronbach alpha of .93.

The e-learning readiness scale was developed by Alem et al. (2016). This scale measures respondents' perceptions of their readiness for e-learning. Sample items included "Using online learning enhances my effectiveness in my studies" and "Even in the face of technical difficulties, I am certain I can learn the material presented in online learning." The 14-item scale has a Cronbach alpha of .85.

The classroom procedural justice scale was developed by Chory-Assad and Paulsel (2004). This scale measures respondents' perceptions of the fairness of the teacher. Sample items included "The grading scale for the course is fair" and "The types of questions on exams are fair." The 15-item scale has a Cronbach alpha of .94.

Data Analysis

Percentages were calculated to describe the categorical variables of the sample. Means, standard deviations, and confidence intervals were calculated for the continuous variables taken from the responses to the survey. Correlation and regression were also calculated to explain the relationship between academic dishonesty, e-learning use, and classroom procedural justice. The dependent variable academic dishonesty was found to be strongly left-skewed and thus violate the assumption of normality. To rectify this concern with normality, a log transformation of academic dishonesty was performed.

Results

For academic dishonesty, students indicated that they disagree with actions that demonstrate the practice of duplicitous scholarly behavior (*M* = 1.73, *SD* = 0.72, 95%CI [1.61-1.86]). For example, students indicated that they strongly disagree that "It's fine to copy from another student during a test." Moreover, students also indicated that they disagree that "It's OK to turn in work done by someone else." However, students only disagreed that "It's all right to collaborate on an assignment when the instructor asked for individual work." Table one provides the descriptive data for academic dishonesty and the items mentioned in this paragraph.

For e-learning readiness, students indicated they were neutral in terms of the perception of their readiness to study online (*M* = 3.52, *SD* = 0.51, 95%CI [3.42-3.62]). For example, students shared that "[They are] confident with computers." Students also mentioned that "[They] feel confident in [their] knowledge and skills of how to manage software for online learning." Table one provides the descriptive data for e-learning readiness and the items mentioned in this paragraph.

For procedural justice, students stated that they agree with items indicating fairness in the classroom (*M* = 3.70, *SD* = 0.55, 95%CI [3.60-3.81]). For example, the students shared that "the course's schedule of topics" was fair. In addition, students also mentioned that "the course attendance policy for online lectures" was also fair. However, students also shared that they were neutral towards the late work policy. Table 1 provides the descriptive data for procedural justice and the items mentioned in this paragraph. The items in this table provide an overview of responses to each scale, though not all items are shown. Table 2 provides summary statistics for all items in each scale.

Table 1 *Descriptive Statistics*

	M	***SD***	**95%CI**
Academic Dishonesty	1.73	0.72	1.61–1.86
It's fine to copy from another student during a test	1.49	0.8	1.34–1.63
It's okay to turn in work done by someone else	1.44	0.8	1.30–1.58
It's all right to collaborate on an assignment when the instructor asked for individual work	2.35	1.11	2.14–2.57
E-learning Readiness	3.52	0.51	3.42–3.62
I am confident with computers	3.49	0.83	3.33–3.65
I feel confident in my knowledge and skills of how to manage software for online learning	3.43	0.91	3.25–3.61
Procedural Justice	3.7	0.55	3.60–3.81
The course attendance policy for online lectures is fair	3.86	0.69	3.73–4.00
The course schedule of topics is fair	3.93	0.62	3.81–4.05
The late work policy is fair	3.4	0.72	3.26–3.54

Table 2 shares the correlation among the variables of this study.

Table 2 *Means, Standard Deviations, and Correlations with Confidence Intervals*

Variable	*M*	*SD*	1	2
1. Academic Dishonesty	1.78	0.72		
2. E-learning Readiness	3.53	0.51	.02 [-.17, .20]	
3. Procedural Justice	3.72	0.55	-.10 [-.28, .08]	.26** [.08, .42]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

Table 3 provides the regression analysis. The results indicated that there was a difference at the class level between seniors and freshman. If a student was a senior there is a 22% increase in the geometric mean of academic dishonesty in comparison to freshman (b = 0.20, $t(96) = 2.10$, $p < .10$). This indicates that seniors agree more with academically dishonest actions compared to freshmen. Another difference was found among majors. If a student was an education major there was a 16% decrease in the geometric mean of academic dishonesty when compared to business majors (b = -0.16, $t(96) = -1.76$, $p < .10$). This means that business majors agree more with academically dishonest actions when compared to education majors. Lastly, there was a 15% decrease in academic dishonesty for every one-unit increase in procedural justice. This implies that when the classroom is perceived as being fairer there, academic dishonesty is less acceptable.

Table 3 *Regression Results Using the Log of Academic Dishonesty as the Criterion*

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2
(Intercept)	1.44**	[0.80, 2.08]	
E-Learning Readiness	-0.10	[-0.23, 0.03]	.02
Procedural Justice	-0.16*	[-0.28, -0.03]	.05
Class Level: Junior	0.02	[-0.16, 0.20]	.00
Class Level: Senior	0.20*	[0.01, 0.39]	.04
Class Level: Sophomore	0.07	[-0.12, 0.25]	.00
Gender: Male	0.03	[-0.11, 0.18]	.00
Major: Education	-0.17	[-0.35, 0.02]	.03
Major: English	-0.06	[-0.28, 0.15]	.00
Major: Info Tech	-0.17	[-0.41, 0.07]	.02
Major: Nursing	-0.15	[-0.52, 0.21]	.01
Major: Religion	-0.11	[-0.35, 0.13]	.01
Major: Science	-0.13	[-0.42, 0.17]	.01
		R^2 = .218* 95% CI[.01,.27]	

Note. A significant *b*-weight indicates the semi-partial correlation was also significant. *b* represents unstandardized regression weights. sr^2 represents the semi-partial correlation squared. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates p < .05. ** indicates p < .01.

The group means for class level are recorded in Table 4. The results indicate that there was an increase in the acceptance of academic dishonesty by class level. There was also a decline in procedural justice, with freshmen having the most positive views of fairness followed by a decline when compared to seniors. The values for e-learning readiness showed no trend.

Table 4 *Group Means*

Class	Academic Dishonesty	Procedural Justice	E-learning Readiness
Freshman	1.56	3.81	3.50
Sophomore	1.85	3.75	3.60
Junior	1.66	3.68	3.43
Senior	2.08	3.52	3.51

Discussion

Several conclusions can be made from the results of this study. First, the participants disagreed with behaviors associated with academic dishonesty. This could be due to the study context, as the data were collected from a Christian university. In this context, an emphasis is placed on morals and values that support honesty, and discourage deceitful and other morally questionable behaviors (Abusafia et al., 2018). However, most, if not all universities, are united in condemning academic dishonesty, which means the religious setting of the school may not have mattered (Thomas, 2020). In an academic setting, students are expected to avoid academic dishonesty and to condemn such behavior. Therefore, there may be a normative pressure to indicate on a survey that academically dishonest behaviors are bad when a student may not agree (Nagi & John, 2020).

Second, the relationships between the variables were weak. E-learning readiness was not related to academic dishonesty, but it did have a weak relationship with procedural justice. This implies that preparation for the online context does not matter when addressing challenges with academic dishonesty, but it does matter in terms of how students perceive the fairness of their learning experience. In addition, the relationship between academic dishonesty and procedural justice was weak, implying that fairness is not associated with how students perceive academic behaviors that are questionable (Rasooli et al., 2019). Literature indicates that if a classroom is unfair, students will respond through dishonesty to try and rebalance the perceived injustice (Lemon & Seaton, 2011). In this study, this concept was not corroborated (Elsalem et al., 2021).

A third finding was that senior students agreed more with academic dishonesty behaviors and perceived the school as less fair when compared to freshmen who disagreed more with dishonest academic behaviors and thought the classroom was fairer. The conclusion that these behaviors change over time cannot be made because this was not a longitudinal study. However, it is interesting that older, more experienced students show a decline in their perception of morally accepted academic behaviors when they have been under the guidance of the university for a longer period of time. This implies a breakdown in the moral training as students appear to be more open to questionable behavior even though they have been guided longer by the institution, or it may mean that older students are less prepared to study online (Al-araibi et al., 2019). The connection may be procedural justice. After negative experiences in the fairness of the classroom, students become more jaded and search for ways to return the balance of fairness academically through accepting questionable academic behaviors (Wallace & Qin, 2021). This implies a loss of optimism in the fairness of the academic system.

Recommendations

The results of this study lead to the following recommendations. First, schools should support fairness or procedural justice in the classroom through clear policies and consistent enforcement of those policies. When students are aware of the expectations and that they will be held to them, this can help in developing a climate of fairness (Ghani et al., 2020).

The second recommendation flows out of the first one. Schools need to define academic dishonesty in the local context and explain the expectations for acceptable behaviors and the consequences for dishonest academic behaviors (Harji et al., 2017; Khathayut et al., 2020). Communication of norms of behavior is critical in most organizations, and an academic setting is generally not any different regarding this matter.

For further study, exploring the differences between freshmen and seniors regarding the changing perceptions of academic dishonesty and procedural justice is worthy. The question to consider is whether the difference noted was because there were different students in each group, or if one group were tracked for several years, would this change still be present. The cross-sectional nature of this study prevents this question from being answered, but a longitudinal study would help clarify this.

A second study should explore religion in the context of academic dishonesty. This study was conducted at a Christian institution but comparing the results here to a secular institution can help develop a conclusion as to whether religion affects moral actions regarding academic dishonesty.

Limitations

The sample size for this study was adequate but still small (*N* = 112) given the number of variables involved. In addition, the cross-sectional nature of the research design means that longitudinal conclusions are not possible. There is also an assumption of truthfulness in terms of the responses. Topics such as academic dishonesty deal with ethical issues, and since respondents were aware that such behavior is unacceptable, this could have influenced their responses. Lastly, correlation does not imply causation. The relationship of academic dishonesty with procedural justice does not mean that one causes the other.

Conclusion

This study aimed to explore the relationship between academic dishonesty, e-learning readiness, and procedural justice. The results indicated that the relationship among these variables were non-existent or weak. Differences were found in terms of class level for academic dishonesty. It was also found that there was a decline in rejecting academically dishonest behaviors over time, while there was also a decline in perceptions of procedural justice.

References

Abusafia, A. H., Roslan, N. S., Yusoff, D., & Nor, M. (2018). Snapshot of academic dishonesty among Malaysian nursing students: A single university experience. *Journal of Taibah University Medical Sciences*, *13*(4), 370–376. https://doi.org/10.1016/j.jtumed.2018.04.003

Al-araibi, A. A. M., Mahrin, M. N. bin, & Yusoff, R. C. M. (2019). Technological aspect factors of E-learning readiness in higher education institutions: Delphi technique. *Education and Information Technologies*, *24*(1), 567–590. https://doi.org/10.1007/s10639-018-9780-9

Alem, F., Plaisent, M., Zuccaro, C., & Bernard, P. (2016). Measuring e-Learning readiness concept: Scale development and validation using structural equation modeling. *International Journal of E-Education, e-Business, e-Management and e-Learning*, *6*(4), 193–207. https://doi.org/10.17706/ijeeee.2016.6.4.193-207

Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior*, *102*, 67–86. https://doi.org/10.1016/j.chb.2019.08.004

Argon, T., & Kepekcioglu, E. S. (2016). The relationship between university students' instructors' credibility and perceptions of justice in the classroom. *The Anthropologist*, *24*(1), 347–353. https://doi.org/10.1080/09720073.2016.11892024

Bashir, H., & Bala, R. (2018). Development and validation of academic dishonesty scale (ADS): Presenting a multidimensional scale. *International Journal of Instruction*, *11*(2), 57–74.

Bloomfield, J. G., Crawford, T., & Fisher, M. (2021). Registered nurses' understanding of academic honesty and the perceived relationship to professional conduct: Findings from a cross-sectional survey conducted in Southeast Asia. *Nurse Education Today*, *100*, 104794. https://doi.org/10.1016/j.nedt.2021.104794

Bokosmaty, S., Ehrich, J., Eady, M. J., & Bell, K. (2019). Canadian university students' gendered attitudes toward plagiarism. *Journal of Further and Higher Education*, *43*(2), 276–290. https://doi.org/10.1080/0309877X.2017.1359505

Bolin, A. (2004). Self-control, perceived opportunity, and attitudes as predictors of academic dishonesty. *The Journal of Psychology*, *138*(2), 101–114. https://doi.org/10.3200/JRLP.138.2.101-114

Bowen, N., & Nanni, A. (2021). Piracy, playing the system, or poor policies? Perspectives on plagiarism in Thailand. *Journal of English for Academic Purposes*, *51*, 100992. https://doi.org/10.1016/j.jeap.2021.100992

Chory, R. M. (2007). Enhancing student perceptions of fairness: The relationship between instructor credibility and classroom justice. *Communication Education*, *56*(1), 89–105. https://doi.org/10.1080/03634520600994300

Chory-Assad, R. M., & Paulsel, M. L. (2004). Classroom justice: Student aggression and resistance as reactions to perceived unfairness. *Communication Education*, *53*(3), 253–273. https://doi.org/10.1080/0363452042000265189

Clemente, J. (2018). Interpersonal justice in the classroom: The role of respectful treatment and nature of teacher-student relationships on teacher and student outcomes. *Philippine Sociological Review*, *66*, 61–90.

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: The new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, *15*(1), 3. https://doi.org/10.1186/s41239-017-0087-5

Ehrhardt-Madapathi, N., Pretsch, J., & Schmitt, M. (2018). Effects of injustice in primary schools on students' behavior and joy of learning. *Social Psychology of Education*, *21*(2), 337–369. https://doi.org/10.1007/s11218-017-9416-8

Elsalem, L., Al-Azzam, N., Jum'ah, A. A., & Obeidat, N. (2021). Remote E-exams during Covid-19 pandemic: A cross-sectional study of students' preferences and academic dishonesty in faculties of medical sciences. *Annals of Medicine and Surgery*, *62*, 326–333. https://doi.org/10.1016/j.amsu.2021.01.054

Faderogaya, S. L. M., & Chantagul, N. (2019). Learning styles and attitude towards e-Learning among university undergraduate students in international program in Bangkok Thailand. *Scholar: Human Sciences*, *11*(1), 118–118.

Garavalia, L., Olson, E., & Christensen, L. (2007). How do students cheat? In E. Andaman (Ed.), *Psychology of academic cheating* (pp. 33–58). Elsevier.

Ghani, U., Zhai, X., Spector, J. M., Chen, N.-S., Lin, L., Ding, D., & Usman, M. (2020). Knowledge hiding in higher education: Role of interactional justice and professional commitment. *Higher Education*, *79*(2), 325–344. https://doi.org/10.1007/s10734-019-00412-5

Harji, M. B., Ismail, Z., Chetty, T. N., & Letchumanan, K. (2017). Technical and non-technical programme students' attitudes and reasons for plagiarism. *English Language Teaching*, *10*(11), 141–155.

Kasler, J., Zysberg, L., & Gal, R. (2020). Culture, collectivism-individualism, and college student plagiarism. *Ethics & Behavior*, *31*(7), 488–497. https://doi.org/10.1080/10508422.2020.1812396

Kaufmann, R., & Tatum, N. T. (2018). Examining direct and indirect effects of classroom procedural justice on online students' willingness to talk. *Distance Education*, *39*(3), 373–389. https://doi.org/10.1080/01587919.2018.1476838

Khathayut, P., Walker-Gleaves, C., & Humble, S. (2020). Using the theory of planned behaviour to understand Thai students' conceptions of plagiarism within their undergraduate programmes in higher education. *Studies in Higher Education*. https://srhe.tandfonline.com/doi/abs/10.1080/03075079.2020.1750584

Kwangmuang, P., Jarutkamolpong, S., Sangboonraung, W., & Daungtod, S. (2021). The development of learning innovation to enhance higher-order thinking skills for students in Thailand junior high schools. *Heliyon*, *7*(6), e07309. https://doi.org/10.1016/j.heliyon.2021.e07309

Lemons, M., & Seaton, J. (2011). Justice in the classroom: Does fairness determine student cheating behaviors. *Journal of Academic Administration in Higher Education*, *7*(1), 17–24.

McDonald, E. W., Boulton, J. L., & Davis, J. L. (2018). E-learning and nursing assessment skills and knowledge – An integrative review. *Nurse Education Today*, *66*, 166–174. https://doi.org/10.1016/j.nedt.2018.03.011

Nagi, K., & John, V. K. (2020). Plagiarism among Thai students: A study of attitudes and subjective norms. *2020 Sixth International Conference on E-Learning (Econf)*, 45–50. https://doi.org/10.1109/econf51404.2020.9385427

Njenga, J. K. (2018). Sociocultural paradoxes and issues in e-learning use in higher education Africa. *Globalisation, Societies and Education*, *16*(1), 120–133. https://doi.org/10.1080/14767724.2017.1390664

Olivier, G. D. (2017). Students' attitudes toward learning English through e-learning at a Thai university. *Journal of Liberal Arts Prince of Songkla University*, *9*(2), 1–27.

Panyajamorn, T., Suanmali, S., Kohda, Y., Chongphaisal, P., & Supnithi, T. (2018). Effectiveness of e-Learning design in Thai public schools. *Malaysian Journal of Learning and Instruction*, *15*(1), 1–34. https://doi.org/10.32890/mjli2018.15.1.1

Pecorari, D. (2018). Can plagiarism be defined? In D. Pecorari & P. Shaw (Eds.), *Student Plagiarism in Higher Education: Reflections on Teaching Practice*. Routledge.

Rasooli, A., DeLuca, C., Rasegh, A., & Fathi, S. (2019). Students' critical incidents of fairness in classroom assessment: An empirical study. *Social Psychology of Education*, *22*(3), 701–722. https://doi.org/10.1007/s11218-019-09491-9

Roskvist, R., Eggleton, K., & Goodyear-Smith, F. (2020). Provision of e-learning programmes to replace undergraduate medical students' clinical general practice attachments during COVID-19 stand-down. *Education for Primary Care*, *31*(4), 247–254. https://doi.org/10.1080/14739879.2020.1772123

Sabino, K., da Cunha, J., Colauto, R., & de Souza Francisco, J. (2019). Influence of academic performance on perceived academic justice in the learning environment. *Revista de Educação e Pesquisa Em Contabilidade*, *13*(4), 437–456. https://doi.org/10.17524/repec.v13i4.2382

Salloum, S. A., Al-Emran, M., Shaalan, K., & Tarhini, A. (2019). Factors affecting the E-learning acceptance: A case study from UAE. *Education and Information Technologies*, *24*(1), 509–530. https://doi.org/10.1007/s10639-018-9786-3

Thomas, D. (2020). Academic dishonesty and religious fundamentalism at a religious university. *International Forum Journal*, *23*(1), 126–138. https://internationalforum.aiias.edu/images/vol23no01/8DThomas.pdf

Ungaretti, A., & Tillberg-Web, H. (2016). Assurance of learning: Demonstrating the organizational impact of knowledge management and e-learning. In J. Liebowitz & M. Frank (Eds.), *Knowledge Management and E-Learning* (pp. 41–60). CRC Press.

Varela, K. S., King, S., Peguero, A. A., & Rusoja, A. (2020). School procedural justice and being pushed out: Examining the intersection of sex and race/ethnicity. *Sociological Spectrum*, *40*(4), 247–268. https://doi.org/10.1080/02732173.2020.1763878

Wallace, M. P., & Qin, C. Y. (2021). Language classroom assessment fairness: Perceptions from students. *LEARN Journal: Language Education and Acquisition Research Network*, *14*(1), 492–521.

Zhang, Y., Yin, H., & Zheng, L. (2018). Investigating academic dishonesty among Chinese undergraduate students: Does gender matter? *Assessment & Evaluation in Higher Education*, *43*(5), 812–826. https://doi.org/10.1080/02602938.2017.1411467

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Employment during the COVID-19 Pandemic by the Class of 2020 in Thailand

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Abstract

The COVID-19 pandemic has created havoc throughout the world that is demonstrated clearly in the tremendous global impacts on economies, businesses, schools, employment, and the way of life. The purpose of this study was to explore the challenges the graduating class of 2020 had encountered in their job search and employment experiences in Thailand, and to gain an understanding as to why they had succeeded in gaining employment amidst the pandemic. Ten university graduates participated in a qualitative study involving in-depth interviews conducted through LINE application calls that lasted between 30 to 45 minutes. Half the participants found job hunting very challenging and stressful, and while some had no problems getting a job, the remainder found it much more difficult. Working remotely, on-site, or in hybrid mode during the pandemic, the majority experienced job security, while the amount of mentorship provided varied. The ability to obtain employment during the pandemic was attributed strongly to their fields of study, working in positions of high demand, and employment gained in low-risk/booming businesses. On top of that, being referred for a job opportunity opened doors for some participants, making it easier for them to get a job when compared with other candidates.

Keywords: *COVID-19, employment, 2020 graduating class, jobs, Thailand*

Introduction

Like every other country in the world, Thailand had been trying to come up with numerous measures to cope and battle with the ongoing COVID-19 nightmare. In order to contain the virus, Thailand, like the United States of America, implemented the shutdown of “schools, businesses, and public places across the country,” and every industry has been affected, either favorably, or more frequently, unfavorably (Williams, 2020 p. 13). The early signs of employment disruption in Thailand started at the beginning of the first quarter in 2020 (COVID-19 Employment, 2020) and unemployment became a big concern for Thailand as 8.4 million jobs were estimated to be at risk in the second and third quarters of 2020 (COVID-19 Impact, 2020). With approximately 300,000 Thai graduates who had graduated in 2020, combined with the 500,000 jobless graduates competing in a highly competitive job market during the pandemic outbreak, job opportunities were truly bleak, with few job openings and rampant layoffs. Some jobs had disappeared, new jobs emerged, while others were growing (Boonlert, 2020). The purpose of this study was to explore the challenges experienced by 2020 graduates in gaining employment, their employment experiences during the pandemic, and why they had managed to be among the few who succeeded in getting employed despite the pandemic crisis. This study will be a significant contribution to the scant literature available on the very new and recent COVID-19 pandemic, especially pertaining to the employment of 2020 university graduates in Thailand. This study will be beneficial to readers who are interested in this phenomenon and those in the academic domain as well.

Literature Review

COVID-19 Pandemic

Originating in 2019, the Coronavirus disease (COVID-19) affected people throughout the world resulting in more than 179.6 million infections and more than 3.8 million deaths as of June 24, 2021 (John Hopkins University of Medicine, 2021). In the early months of 2020, world history was altered with the COVID-19 crisis leaving an everlasting impact on almost every sector of the global economy (Eaton & Heckscher, 2021; Kecojevic et al., 2020). The International Labor Organization reported that up to 94% of the countries in the world had experienced some kind of shutdown, and the countries that were hit the hardest were developing countries (International Labor Organization, 2020). The COVID-19 pandemic brought about a tremendous transformation in the lives and futures of people of all ages, as things will never be the same again. As people experience the new normal, it is expected that some elements of change will continue into everyday life after the pandemic has moderated (Ilie et al., 2020). According to the World Economic Forum, the pandemic has greatly affected “travel, trade, financial markets, workforce, medicine, and media” and “businesses that offer ‘non-essential services’ were disrupted most: fitness & health, restaurants, clothing & retail, hair & lifestyle, theatres, culture & entertainment venues” (World Economic Forum, 2020).

Thailand’s first stringent lockdown lasted from mid-March till June 2020 with closure of all shopping malls and the majority of businesses, with the exception of banks, supermarkets, and take-away food delivery restaurants (Boonlert, 2020). As one of the world’s few countries to have successfully contained the epidemic after the first lockdown, the high price tag that accompanied its victory against COVID-19 had created a tremendous negative impact on jobs and workers in the second quarter of 2020, leading to an economic recession (Boonlert, 2020; Hirunyatrakul, 2020; Signs Point to Higher Job Losses, 2021). In fact, the Tom Yum Kung financial crisis of 1997 paled in comparison to the economic strain caused by the COVID-19 pandemic (Boonlert, 2020). Small businesses were earning 80% less and the pandemic situation worsened dramatically during the third wave at the beginning of April 2021, with the highest record of infection cases and deaths (COVID-19 Impact, 2020; Signs Point to Higher Job Losses, 2021).

Turning to the USA, many states issued stay-at-home orders, while non-essential establishments were shut down in order to reduce the spread of COVID-19 (Dey & Loewenstein, 2020). The six sectors that were directly affected by the shutdown orders included Restaurants and Bars, Travel and Transportation, Entertainment (e.g. casinos and amusement parks), Personal Services (e.g. dentists, daycare providers, barbers), sensitive Retail (e.g. department stores and car dealers), and sensitive Manufacturing (e.g. aircraft and car manufacturing) (Vavra, 2020). The majority of firms under shutdown orders were small ones, but a substantial number of affected employees worked in large firms. States that rely heavily on tourism were affected the most, and this produced a ripple effect on supplier sectors. The pandemic-caused recession created permanent business deaths that could be widespread, and possibly lead to unfavorable consequences on the US economy (Arshad, 2020; Crane et al., 2020). Most closures involved small firms belonging to industries that were the most sensitive to social distancing. Restaurants in particular were severely disrupted, with statistics indicating that up to 50% of restaurants had reported a permanent exit (Crane et al., 2020).

In a study that explored the positive changes experienced during the national lockdown, the majority of the sample “had more time to spend on activities they value” such as “more quality time with their partner,” “more time doing enjoyable things, spend more time in nature or the outdoors, and increase their physical activity,” “time to reflect,” and they were now “more appreciative of things usually taken for granted.” Some negatives of the health crisis included adverse mental health issues such as self-harm, abuse, and suicidal thoughts (Williams et al., 2021, p. 8).

Employment during the Pandemic

The employment sector was greatly affected by the pandemic with the closure of many offices, and with the majority of the workforce working remotely. New management tools were introduced to deal with employees working from home (WFH); a downside resulting from WFH arrangements was the emerging work-family conflicts experienced. Low tech companies found themselves pressured to embrace computer technology, while other firms used technology at an accelerating pace to facilitate and manage operations and accommodate WFH employees. There was also a large spurt in the use of collaborative tools to enable flexible teaming, meetings, and communication (Eaton & Heckscher, 2021). In a survey conducted in Thailand, almost every organization in Thailand (94%) had to implement multiple HR changes, with approximately 52% of staff working remotely. Such arrangements have had a negative impact on employees’ well-being and engagement. In fact, the quality of life was reported to have dropped substantially from a high 90% to 58% since the pandemic started. Organizations were also facing difficulties that came along with remote work, such as technology usage problems and reduced teamwork effectiveness. Up to 36% of the survey participants had experienced "a reduction in staff remuneration," including suspension of salary increases (21%) and bonus payments (18%), and reduced staff salaries (20%) (Maintaining Business Continuity, 2020).

Aside from prolonged unemployment and economic disparity for some (Inskeep et al., 2020), the pandemic had "extreme socio-psychological, physical, and technical consequences for employees as they want to change to [*sic*] their severely distorted work environments" (Ilie et al., 2020, p. 667). The mental well-being of those who had experienced job losses was significantly impaired, while some who were still employed during the pandemic did not escape depression. However, they experienced depressive thoughts to a much lower extent when compared to those who were laid off (Posel et al., 2021). Leading employee worries included: "job security, personal health, childcare and homeschooling, personal finances, remote work, visibility of their employer, stress and mental health, work-life balance, family health, productivity, social isolation, managing schedule" (Butler & Rivera, 2020). The professions largely impacted were lower-paying jobs that employed low-skilled workers. They were at a high risk of unemployment (Dey & Loewenstein, 2020; Eaton & Heckscher, 2021), while the wealthy were doing well because of the strong stock market (Eaton & Heckscher, 2021). These trends further increased the existing inequalities in society (Blundell et al., 2020; COVID-19 Impact, 2020), and the number of reported unemployed women was higher than men (International Labor Organization, 2020).

Employers, on the other hand, had difficult decisions to make regarding their operations: How many workers would be needed, and how many employees could work remotely to prevent further spreading of the virus. Many companies had to comply with state and local mandates, meaning they were completely closed during the shutdown, and they experienced mounting COVID-19 related costs with the continued spread of the virus (Schriefer & Born, 2020). The pandemic also resulted in lower demands for apparel, resulting in canceled orders that caused many employees in developing countries in the global apparel supply chain to be temporarily suspended or permanently terminated. This caused diminished income, and for those who experienced the loss of their jobs, it also resulted in widespread hunger (Kyritsis & LeBaron, 2021). The two developments arising from this crisis in the area of employment were a dramatic increase in reliance on virtual work in almost every field, and new job opportunities abroad that did not require relocation, as many jobs in the world can be done remotely (JobsDB, 2021).

Impacts of the Pandemic on University Students

The class of 2020 would never forget their final year which was filled with many disruptions in their lives, from the sudden switch to online learning, long-awaited but less joyful graduation ceremonies, and unpredictable and unpromising employment opportunities (Stahl, 2021). To prevent the transmission of the COVID-19 virus on campuses, universities were locked down and students had to switch to a completely new online learning experience. The pandemic created extremely high levels of psychological distress for students, and they were affected physically, academically, financially, and psychologically (Gewin, 2020). US students were reported to have lost their study focus (73.5%) and experienced e-learning difficulties (58.6%), with some students not having access to computers or the Internet at home. Other problems included getting medications and hygiene supplies (59.3%), food (22%), unemployment/reduced wages/work hours (56.8%), and COVID-19 anxieties (66.7%) (Kecojevic et al., 2020). Students were also suffering from "depression, anxiety, somatization, and perceived stress" (Kecojevic et al., 2020, p. 21). Many US students were severely impacted as they lost their means of self-support with the prolonged closures of retail or service industries in which they were employed. It was reported that one out of every four students lost their jobs during the pandemic. These job losses created financial difficulties for four out of five college students, leading to problems in paying loans and feeding themselves. To temporarily resolve this, they had to take additional loans and were amassing more credit card debt, with Black and Hispanic students experiencing more financial problems than others (Student Loan Hero, 2020).

In Thailand, too, educational institutions had to make the sudden switch to online learning in March 2020. A male Thai student described the online learning experience as “uncharted territory for students and teachers alike because there were many technical problems with applications and distractions. To be honest, I didn’t understand the lessons and did not do well in an online exam” (Boonlert, 2020, p. 2). As for regular students in the US, e-learning proved to be less favorable as it was harder to understand the lessons taught, and this was particularly so for courses that were visual or required hands-on learning facilitated by one-on-one learning with a professor. In the US, businesses and communities were again disappointed in the summer as the pandemic continued. This had severe impacts on students, who had problems getting internships and employment, and had concerns regarding their careers and future education (Gay, 2020). About 49% of 2020 US graduates predicted that they would have problems getting jobs due to the pandemic (Student Hero, 2020).

The Job Market in Thailand during the Pandemic

The first lockdown in Thailand caused a tremendous impact on jobs and workers in the second quarter of 2020 (Boonlert, 2020; Hirunyatrakul, 2020), with employees falling into the following categories: Working reduced hours, remote work, hybrid arrangements to combat the virus, or terminated (COVID-19 Impact, 2020). According to a job market survey that was conducted in February 2021 by JobsDB, Thai employment opportunities were reported to have increased after the second wave by 24.65%. Positions that were considered essential to the Thai economy included e-commerce, technology, and e-learning (Signs Point to Higher Job Losses, 2021). The jobs that topped the job search list on job search platforms and other channels in the first quarter of 2021 included: Sales, Customer Service, and Business Development (16%); IT (14.7%); and Engineering (9.8%) (JobsDB, 2021). A total of 758,000 were unemployed in the first quarter of 2021, and this number was expected to increase with the continual shutdown of businesses. Employers had been adopting various hiring techniques to cope with the situation, such as hiring more freelancers, not hiring full-time employees, and relying more on digital technology. Thailand’s pandemic situation worsened dramatically during the third wave, which resulted in a record high in deaths and daily infection cases and threatened further unemployment (Signs Point to Higher Job Losses, 2021). A Suan Dusit poll conducted in the first quarter of 2021 showed that the sharp rise in unemployment had caused financial problems, stress, increased crime (robbery and theft), and family problems (COVID-19 Takes a Heavy Toll, 2021). The tourism industry, which generates a substantial amount of income, was hit the hardest. The pandemic is expected to cost more than six million lost jobs, and the prolonged tourism slump is predicted to take until mid-2022 to recover (Signs Point to Higher Job Losses, 2021). The impacts on other industries were at different levels, with restaurants suffering from unpredictable and sudden lockdowns that lasted for different periods (COVID-19 Impact, 2020). In a report released by the National Statistics Office, the reasons for unemployment were due to business closures (35%), resignations (24.6%), terminations (16%), expired labor contracts (6%), expired employment contracts (1.6%), and others (0.5%) (Signs Point to Higher Job Losses, 2021).

Aviation graduates were highly affected as “the coronavirus outbreak has devastated a once-secure airline business” and “the aviation industry has been hit hard as air travel restrictions were imposed to curb the spread of the disease” (Boonlert, 2020, p. 1). This caused aviation graduates to pursue completely new career opportunities and goals. Tourism graduates, too, faced a similar situation, knowing that they would not be hired in the hospitality business with a drop of 16 million tourists (60%). New medical graduates, on the other hand, were in high demand as they were mobilized–together with soldiers and health officials–to help provide much-needed healthcare for increasing COVID-19 cases in Bangkok and its vicinity (Health Personnel from Provinces, 2021). Lockdown policies deprived graduates of job offers through job cancelations and indefinite postponements. This also included graduates who had opportunities to work abroad, but due to immigration and travel restrictions between countries, everything had to be canceled (Mongkol, 2020). This pandemic lessened opportunities for graduates to apply to companies of their choice. However, skilled candidates with excellent performance still had a chance of landing good jobs in companies that were seeking capable employees to help drive their organizations (Signs Point to Higher Job Losses, 2021).

Objectives and Research Questions

The COVID-19 pandemic brought about not only chaos, but also a huge transformation to this world. Amongst those greatly affected by the crisis was the graduating class of 2020, as they had to compete for the scarce jobs available in the midst of business closures and lockdowns. The main objectives of this study were to explore the challenges that the graduates encountered in their job searches for employment during the pandemic and to gain an understanding as to why they were able to gain employment amidst the pandemic. The research questions that guided this study included:

1. What were the challenges involved in looking for a job during the pandemic period?
2. What portals were used in job searches, and how difficult was the hiring process?
3. Did the participants experience fear of being laid off?
4. Did the participants start working online or at the office, and how much mentoring did they receive?

Methodology

A qualitative research method using in-depth interviews was selected for this study. The data received were then clustered into themes according to the commonality of the participants' experiences. As with most qualitative research studies, purposive sampling was used to align with the intent of the research study, which was to study the employment challenges experienced by Thai university graduates during the COVID-19 pandemic. The selection criteria included two main items: A university student who had *graduated* during the pandemic period, and was *employed* during the pandemic. An e-survey of eight questions was sent to each interested participant to collect demographic and basic employment data prior to the interview. A total of 11 structured open-ended questions were used in in-depth interviews conducted from March 13 to April 28, 2021 through LINE application calls that lasted for approximately 30 to 45 minutes per participant. The interview protocol included a total of four parts (11 questions):

Part 1: Job Application (three questions);
Part 2: The Challenges, Stress, & Difficulties in Job Hunting (three questions);
Part 3: The Hiring Process (two questions); and
Part 4: Experiences during Employment (three questions).

The targeted subjects were university students who had graduated in 2020 during the COVID-19 pandemic and were employed in 2020–2021. A total of ten university graduates who participated in this study had graduated at different times in 2020, with nine participants representing universities in Thailand and one from the USA.

Results

As participants were from different universities with different academic calendars, they completed their studies at different times in 2020. Therefore, their job searches started at various months in 2020, with six participants beginning their job searches prior to completion of their studies, while the other four started upon completion of their studies. The demographics and current employment of the participants are highlighted in Table 1. Nine of the participants graduated with degrees in Business Administration, but were from different majors, and one graduated with an Engineering degree.

Table 1 *Demographics and Employment*

Participant	Gender	Age Range	Nationality	Major	Current Employment
Participant 1	Female	21–25	Thai	International Business Management	Case team assistant
Participant 2	Female	21–25	Thai	Finance	Credit analyst
Participant 3	Female	21–25	Thai	Finance	Business consultant
Participant 4	Female	21–25	Thai	International Business Management	Coach recruiter
Participant 5	Male	21–25	South African	International Relations	English second language instructor
Participant 6	Male	Below 21	Thai	International Relations	Freelance
Participant 7	Male	26–30	Thai	Entrepreneurship	Client solution professional
Participant 8	Female	21–25	Thai	International Business Management	Associate
Participant 9	Female	21–25	Thai	Electrical Engineering	IT consultant
Participant 10	Male	21–25	Thai	Marketing	Digital marketer

Four themes emerged from the interviews conducted: -(a) Theme 1: Challenges and Stresses Experienced in the Job Hunt; (b) Theme 2: Job Applications and the Hiring Process; (c) Theme 3: Fears/Threats of Being Laid Off; and (d) Theme 4: Working Remotely/Onsite and Mentorship.

Theme 1: Challenges and Stresses Experienced in the Job Hunt

Half of the participants experienced high levels of stress and challenges in their job searches due to various reasons. Participant 1 shared that "the recruiters got a lot of applications and they might not have even gone through mine." Aside from competing domestically for jobs during the pandemic, there was also increased competition with graduates who were coming back from abroad. This group not only had "better degrees," but also had internships abroad, making them more marketable with better job opportunities compared to local graduates. As for Participant 10, he said that:

> It was very challenging as there were a lot of graduates when I graduated, and many were looking for jobs. Most companies were looking for applicants with one or two years of working experience and so, it was very hard for new graduates to get a job.

Participant 3 was stressed out because "most students in finance started looking for a job pretty quickly and received job offers in auditing at the beginning of the fourth year in the university." Many job applicants experienced similar treatment, getting no response from employers. A very disappointed Participant 6 stated that he had sent out 100 resumes and only received one response. Participant 1, who was applying for a job towards the end of the term, mentioned that:

> I was feeling very stressed with the initial job search as the professors were piling work on us towards the end of the term, and everyone was looking for a job at that time. Moreover, those with good connections would have higher job opportunities.

Although concerned, Participant 4 did not feel particularly stressed out because "I understood about the pandemic and that companies were not accepting a lot of applications and not many positions were open." Participant 8 was very positive and did not feel too stressed out because it was a known fact that jobs were hard to come by these days. In fact, it took her only a month to get a job compared to her prior expectation of three months. Participant 5, who had graduated from Thailand and was looking for job opportunities in his field of International Relations, encountered many employment barriers as non-governmental organizations (NGO) prefer local hires (Thais), and COVID-19 created limited options as they had to downsize. So he shared that "I was not feeling stressed but there was just a lack of options. But I have the benefit of a few years of teaching experience behind me, and so, it was simple to get a stable teaching job." Another very positive participant (Participant 7), who was an Entrepreneurship major, applied for an IT job as he had been working in the field of IT for two years prior to undergraduate studies. Since an IT position is one of the most sought-after jobs, particularly during the pandemic, the participant did not feel that it would be difficult to get a job and, therefore, did not experience any stress. A US Electrical Engineering graduate (Participant 9) stated that job hunting was normal and "not difficult because of the high demand for IT personnel, but then, there's a high supply too. I had six months of working experience as an IT specialist, so it was a comparative advantage I had."

Theme 2: Job Applications and the Hiring Process

Multiple job portals were utilized by participants in their job searches such as www.JobsDB.com, LinkedIn, www.jobthai.com, www.jobtopgun.com, Facebook groups, Company Websites, Ajarn.com, and UN websites. Aside from digital applications, a few participants applied through University or Government job fairs, and interestingly enough, five job offers were made through referrals. It was interesting to note that none of the companies that the participants had interned with offered them a job, but one participant (Participant 8) received a job offer through a referral from a previous internship. She shared that "I was lucky. I had interned at Bosch and joined HR at Lazada. I kept in touch with my supervisor, and when she needed an assistant for a project contract, she contacted me, and since I didn't have a job then, I took that job." Another example of a referral was by Participant 4, who was referred by a friend at the university. Participant 7, on the other hand, said that "I did a lot of research to find out about start-ups and applied to them through JobsDB, company websites, LinkedIn." In the meantime, Participant 5 who was seeking a UN job, stated that, "I searched for UN postings through their own platform, applied through Linkedin, and some websites for teaching such as Ajarn.com.

The hiring process for each participant ranged from one week to four months, with the interviews ranging from one to three rounds. Half of them were not required to take any selection tests while the others took the following tests: Case Study, Assessments in Math, Case Studies, and Business Process, Teaching demo via Video, Mathematical and Logic Test, and an Online Business Assessment Test. Participant 3 stated that the tests she had taken were not really stressful and that "I was involved in one whole day of assessments. They included a Math assessment (multiple choice), an essay question in the form of a case study, and I had to draw a business process." Participant 2 had a different experience, as she was given some test questions during her third interview. She stated that "there were three interviewers from three different functions who asked me a lot of different questions. Some were finance, accounting, and less technical, compared to the first company that I had interviewed at."

Theme 3: Fears/Threats of Being Laid Off

The majority did not experience any fears or threats of being laid off during the pandemic for multiple reasons. A couple of them were working for large firms that were unaffected and were–in fact–doing better during the pandemic, such as IT and online businesses. Other companies were well backed up financially and money was not a problem. One participant (Participant 2) said that being an entry-level employee has its benefits, as the ones in danger of getting laid off were those in senior positions. Another participant (Participant 3) shared that "I was not scared because the company did a restructure and needed more people in the business consultant department," while Participant 8 said that "with the online business booming, there is no fear in job loss. I was needed and even had to frequently work extra hours at night." Other answers were, "I had no fears as the boss really liked me and I knew the first week, I was set to stay" (Participant 6), "there are no threats as the company is doing great" (Participant 4), and "I didn't feel threatened about losing a job because my family would support me if I lost my job. The focus was more on learning as much as possible" (Participant 10).

Theme 4: Working Remotely/Onsite and Mentorship

Depending on when each participant started working and the pandemic's seriousness, participants were either working completely remotely, on-site, or in hybrid mode. When the pandemic was not serious with few COVID-19 cases, the majority worked at the office, but when the second and third waves started, they had to work remotely. Working remotely was attractive for one participant during the first month because she could wake up late and not have to travel, but then in the second month, remote work became boring and unproductive. In certain cases, the participants started out working at the office, and then remotely or hybrid; the reverse also happened, with work starting remotely, and then back to the office when things got better or went hybrid. A few participants had no choice but to work completely at the office owing to the nature of the business. A participant who had been given the option of either working from home or on site said that "I prefer to work at the office because it was easier to communicate with other departments due to the nature of the job" (Participant 4).

The amount of mentorship provided varied from one participant to another. Three of the ten participants who needed to be onsite received good mentorship, and they were very happy. The ones who were hit the hardest were those who started working remotely with no mentorship and had to figure things out by themselves. One participant was given past work examples to go by and it was difficult. But then working at the office did not guarantee mentorship. Participant 8 who was working on a team did not receive any help from team members, but instead received guidance from members of another team. According to a participant who was a contract worker (Participant 4), "there was hardly any mentorship for contractual workers, but full-time employees would benefit from proper training." Working in a small start-up company has its advantages. According to Participant 6, "my boss gave me guidance and arranged for external training to equip me with the skills necessary for the job." Things were completely different for Participant 7, who did not receive any training because the company did not have any such funds. He said that:

> I had to figure things out, observe, and ask a lot of questions. I treated it as a challenge and felt the pressure to pass probation. As I am a fast learner, I grasped all the concepts well and was fully immersed in one to two months.

When given the choice to either work remotely or on site, Participant 7 specifically stated that "my preference was to go to the office as it was easier to learn." An IT employee (Participant 9) shared that "I had to work at the office, and I received mentorship from the person who was leaving, and then from another person who came in at the same time but was more experienced."

Discussion

Theme 1: Challenges/Stresses Experienced in the Job Hunt and Theme 3: Fears/Threats of Being Laid Off

It is normal for graduates to feel some sense of anxiety about getting a job offer, and while some managed to obtain employment prior to graduation, others eventually got one after a couple of months. The pandemic crisis resulted in shutdowns and layoffs in a majority of industries, unemployment was experienced at increasing levels, and few job opportunities were available. Being a new graduate, particularly one with little or no prior working experience, made it even more difficult to compete for the much prized and scarce positions. Therefore, it was normal for graduates to experience challenges and stress associated with job hunting during the pandemic. Competing for a job with domestic students was already a challenge by itself, and having overseas graduates and those with prior working experience made getting a job a whole lot more difficult.

However, it was interesting to learn that only half of the participants felt highly stressed out and challenged in looking for a job during the pandemic, while the others felt otherwise. Those who understood the pandemic situation knew and accepted the fact that it would be difficult to get a job, and others who had a job waiting for them prior to graduation had no reason to panic. Participants who landed a job soon after graduation did not find it stressful or challenging, but those who applied to numerous companies and had to wait for a couple of months felt otherwise. A few participants who felt that their current job was an imperfect fit were successful in obtaining job offers elsewhere during the pandemic crisis. This is an indication that, despite the pandemic, participants were still capable of getting jobs. The ability to obtain employment during the pandemic was partially attributed to their fields of study, nine of which were in Business, and one in Engineering. They were able to seek employment in businesses that were essential to the Thai economy in booming industries such as e-commerce, technology, e-learning, and business development. Moreover, they were applying for positions where their skills were in demand and would drive organizations (Signs Point to Higher Job Losses, 2021; JobsDB, 2021). On top of that, being referred for a job opportunity opened doors for some participants, making it easier for them to get a job compared to others who did not have a networking advantage.

Work experience counted and was well demonstrated in three instances. An International Relations graduate realized the impossibility of landing a desired NGO job, but was successful in getting a teaching job based on his three years of English teaching experience. A male Entrepreneurship graduate with two years of IT experience prior to undergraduate studies decided to fall back on his past experience to apply in a hot IT job market, and was successful. The half-year working experience for the US Engineering graduate also proved to be advantageous when she was successful in obtaining a job offer.

Different organizations had varying lay-off policies during the crisis; some laid off older employees who were more expensive to maintain and kept the newer employees who were much cheaper. One participant indicated that this was her experience; consequently, job security also came with her organization's policy. However, that did not apply across the board, as some companies actually laid off the newest employees while retaining the older ones. Working for large firms also provided more job security, and being in an Asian country with a collectivist culture like Thailand, families were usually there to support their children when in trouble or going through a difficult time (Luthans & Doh, 2021). One participant belonged to that category, as he mentioned that his family would be there for him if he was terminated. All these reasons contributed to the fact that the participants experienced little fear of being threatened by potentially being laid off.

Theme 2: Job Applications and the Hiring Process

The subjects of the study applied for jobs through normal job portals where organizations were recruiting online (e-recruitment) (Mondy & Martocchio, 2016). Digital applications have served job applicants well, particularly during the pandemic, as it removed any necessary human contact. Moreover, technology played an enormous role in facilitating virtual interviews when the pandemic was too severe to conduct them face-to-face. Some participants were unsuccessful in getting a job at companies where they had originally interned. This demonstrated the severity of the pandemic situation, as some interns would usually be capable of getting at jobs where they had had internships. It came as a big surprise to learn that the number of job opportunities received through referrals amounted to approximately 50% of all jobs received. This demonstrated the power of networking, particularly in Thailand. The hiring process was normal with the number of interview rounds being between two to three, and the selection period ranged from between a few weeks to a few months. Only half of the applicants were required to undergo selection tests, and that was solely dependent on each company's selection policy. Organizations currently utilize online selection assessments that are easy to take, process, and use to evaluate an applicant's technical abilities (Mondy & Martocchio, 2016); they were truly ideal during this pandemic.

Theme 4: Work Remotely/Onsite and Mentorship

Working remotely, hybrid, on site, or in shifts, depending on the pandemic situation, aligned with the current trends observed throughout the world (Eaton & Hecksher, 2021; Maintaining Business Continuity, 2020). Providing mentorship to new employees, particularly those new to the workplace, was significant in not only boosting productivity, but also in improving employee morale. It was truly a disappointment to find that not all organizations have embraced the importance of much-needed mentorship. Not receiving any mentorship was hard enough for those who worked at offices. However, they could at least observe others while working, or get assistance when they needed it on the spot. It was more difficult for those who started working remotely and had to figure things out for themselves. The more fortunate ones were able to work at the office and receive much-needed mentorship.

Conclusions

This study provided insights from ten 2020 graduates who had to go through most challenging times in seeking jobs during the COVID-19 pandemic. Aside from the normal challenges of seeking employment while competing with other graduates and active job seekers, they had the additional stress of business closures that resulted in fewer available positions, many of which required prior work experience. One thing that University lecturers could do to help students in their job searches would be to lessen their workloads in the final year at university, as students would be busy job hunting then. It is truly commendable that these participants had been successful in obtaining job offers while their peers might not have been as fortunate. The pandemic brought about many sudden transformations in demand for employees in different industries, some of which vanished overnight such as tourism and aviation. Worldwide lockdowns had also left many without work, signaling no guaranteed employment. The COVID-19 pandemic and its impact on employment for new graduates with little or no work experience, particularly in negatively affected industries, would make an excellent case study. Students could discuss how they would cope if they were the victims to help them prepare for an unforeseeable future that might include unemployment. Fortunately for the participants in this study, they were in the right industries and were needed, which played a significant role in obtaining employment. Referrals also played an essential role in half of the hires, thus demonstrating the importance that networking in Thailand plays in helping candidates obtain job offers.

A tremendous jump in technology utilization took place in almost every industry. The changes occurred at amazing speed in order to enable quick adaptation and allow productivity to be maintained. Although virtual interviews existed prior to the pandemic, most interviews had to be conducted online when the outbreak was deemed too dangerous for candidates to appear in person for face-to-face interviews. Despite the pandemic's negatives, employees had a new experience of working remotely, which would not have previously happened in Thailand. This was an opportunity that does not come easily in a developing country like Thailand, but as remote working is currently experienced worldwide, it has brought Thailand's workforce in line with the rest of the world. The high levels of job security and the successful attempts in not only securing a job during an economic crisis but also moving on to another job when needed demonstrated the capabilities of this study's participants. Millennials are infamous for switching jobs (Ngotngamwong, 2019), and this trend of changing jobs by Gen Zers suggests that job hopping will continue to occur despite the pandemic and a period of scarce job opportunities.

The new normal has transformed the world of work for both organizations and employees. Things will never be the same again, even once the pandemic is over. With this in mind, educators might need to adjust their curricula in order to be better aligned with the new ways in which organizations function, and to prepare their students for the new workplace.

Limitations and Recommendations for Further Study

Two main limitations of this study were identified. The first limitation was the difficulty in getting more subjects to participate in the study, as it was challenging to get subjects who met the two main criteria: a 2020 graduate who was employed. The second limitation was the scarce amount of literature available in Thailand, as COVID-19 is still a very recent event, and the researcher had to rely on Thai online news reports. Recommendations for further study include a study of how 2020 graduates in similar fields of study from other countries would compare with the results of this study. Another interesting study would be an investigative study of the types of jobs to which hospitality and aviation graduates (who were most affected by the pandemic) have moved.

References

Arshad, A. (2020). The impact of COVID-19 on the economy of New Mexico: Three scenarios. *International Journal of Business & Economics Perspectives, 15*(1), 62–75.

Blundell, R., Costa Dias, M., Jounce, R., & Xu, X. (2020). COVID-19 and inequalities. *Fiscal Studies, 41*, 291–319.

Boonlert, T. (2020, May 3). COVID-19 crisis casts shadow over graduate futures. *Bangkok Post*. https://www.bangkokpost.com/business/1911732/COVID-19-crisis-casts-shadow-over-graduate-futures

Butler, M., & Rivera, K. (2020, March 6). Seven key actions business can take to mitigate the effects of COVID-19. *Strategy+Business, 99.* https://www.strategy-business.com/blog/Seven-key-actions-business-can-take-to-mitigate-the-effects-of-COVID-19?gko=4c0d1

COVID-19 employment and labour market impact in Thailand. (2020, June 15). *International Labor Organization*. https://www.ilo.org/asia/publications/labour-markets/WCMS_747944/lang--en/index.htm

COVID-19 impact on Thai labor market. (2020, October 11). *Open Development Thailand*. https://thailand.opendevelopmentmekong.net/topics/COVID-19-impact-on-thai-labor-market/

COVID-19 takes a heavy toll on employment, economy: Poll. (2021, March 21). *Bangkok Post*. https://www.bangkokpost.com/thailand/general/2087251/COVID-19-takes-heavy-toll-on-employment-economy-poll

Crane, D., Decker, A., Flaaen, A., Hamins-Puertolas, A., & Kurz, C. (2020). Business exit during the COVID-19 pandemic: Non-traditional measures in historical context. Working Papers – *U.S. Federal Reserve Board's Finance & Economic Discussion*, Series 2020-089. Washington: Board of Governors of the Federal Reserve System. https://doi.org/10.17016/FEDS.2020.089

Dey, M., & Loewenstein, A. (2020). How many workers are employed in sectors directly affected by COVID-19 shutdowns, where do they work, and how much do they earn? *Monthly Labor Review,* 1–19.

Eaton, A., & Heckscher, C. (2021). COVID's impacts on the field of labour and employment relations. *Journal of Management Studies, 58*(1), 275–279. https://doi.org/10.1111/joms.12645

Gay, H. (2020). A summer like no other: COVID-19 pandemic affects internships, employment, and return to school. *U.S. Black Engineer & Information Technology, 44*(3), 12–15.

Gewin, V. (2020, March 24). Five tips for moving teaching online as COVID-19 takes hold. *Nature, 580*, 295–296. https://doi.org/10.1038/d41586-020-00896-7

Health personnel from provinces, new graduates may be drafted to Bangkok. (2021, June 24). *Bangkok Post.* https://www.bangkokpost.com/thailand/general/2137927/health-personnel-from-provinces-new-graduates-may-be-drafted-to-bangkok

Hirunyatrakul, P. (2020). The costs of lockdown: Assessing the employment and livelihood impacts of lockdown in Thailand during the COVID-19 pandemic. *TDRI Quarterly Review, 35*(1), 17–32.

Ilie, M., Ilie, C., & Marin, R. (2020). Human resources and communication management after changes due to COVID 19 pandemic. *Ovidius University Annals, Series Economic Sciences, 20*(1), 665–669.

Inskeep, S., Horsley, S., & Zarroli, J. (2020, September 4). *Fed's Jerome Powell: Jobless rate better than expected; recovery to take a long time, Nat'l Pub.* NPR Radio. https://www.npr.org/2020/09/04/909627932/feds-jerome-powell-jobless-rate-better-than-expected-recovery-to-take-a-long-tim.

International Labor Organization. (2020, September 23). *ILO Monitor: COVID-19 and the world of work (6th ed.).* Updated estimates and analysis. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_755910.pdf

JobsDB shares post-crisis labor market outlook. (2021, March 30). *JobsDB.com*. https://th.jobsdb.com/en-th/articles/jobsdb-share-post-crisis-market-outlook/

John Hopkins University of Medicine. (2021, June 24). *Tracking.* http://coronavirus.jhu.edu/map.html

Kecojevic, A., Basch, H., Sullivan, M., & Davi, K. (2020). The impact of the COVID-19 epidemic on the mental health of undergraduate students in New Jersey, cross-sectional study. *PLoS ONE, 15*(9), 1–16. https://doi.org/10.1371/journal.pone.0239696

Kyritsis, P., & LeBaron, G. (2021). Hunger at the end of the supply chain. *Dissent (00123846), 68*(2), 51–55. https://doi.org/10.1353/dss.2021.0043

Luthans, F., & Doh, J. (2021). *International Management: Culture, strategy, and behavior* (11th ed.). McGraw-Hill.

Maintaining business continuity during COVID-19. (2020, November 17). *JobsDB.com.* https://th.jobsdb.com/en-th/articles/maintaining-business-continuity-during-COVID-19/

Mongkol, C. (2020, June 9). From graduation to unemployment: Challenge that doesn't end with the pandemic. *Prachatai English*. https://prachatai.com/english/node/8572

Mondy, W., & Martocchio, J. (2016). *Human resource management* (14th ed.). Pearson Education.

Ngotngamwong, R. (2019). Why do Millennials leave? *Human Behavior, Development and Society, 20*(4), 7–17.

Posel, D., Oyenubi, A., & Kollamparambil, U. (2021). Job loss and mental health during the COVID-19 lockdown: Evidence from South Africa. *PLoS ONE, 16*(3), 1–15. https://doi.org/10.1371/journal.pone.0249352

Schriefer, C., & Born, H. (2020). Expanding paid leave programs in the wake of COVID-19. *Journal of Insurance Regulation, 39*(12), 1–15.

Signs point to higher job losses. (2021, May 31). *Bangkok Post.* https://www.bangkokpost.com/business/2124255/ signs-point-to-higher-job-losses

Stahl, A. (2021, June 8). The outlook on the job market for college grads in 2021. *Forbes.* https://www.forbes.com/ sites/ashleystahl/2021/06/08/the-outlook-on-the-job-market-for-college-grads-in-2021/?sh=3337764747ef

Student Loan Hero. (2020, April 15). 4 out of 5 college students face troubles due to corona virus pandemic. *PR Newswire*. https://www.prnewswire.com/news-releases/4-out-of-5-college-students-face-financial-troubles-due-to-coronavirus-pandemic-301041312.html

Vavra, J. (2020, March 27). *Shutdown sectors represent large share of all U.S. employment*. Becker Friedman Institute for Economics at the University of Chicago. https://bfi.uchicago.edu/insight/finding/shutdown-sectors-represent-large-share-of-all-us-employment/

Williams, A. (2020, March 19). COVID-19 could be deadly for American small business. *New York Amsterdam News.* http://m.amsterdamnews.com/news/2020/mar/19/COVID-19-could-be-deadly-american-small-business/

Williams, L., Rollins, L., Young, D., Fleming, L., Grealy, M., Janssen, X., Kirk, A., MacDonald, B., & Flowers, P. (2021). What have we learned about positive changes experienced during COVID-19 lockdown? Evidence of the social patterning of change. *PLoS ONE, 16*(1), 1–10. https://doi.org/10.1371/journal.pone.0244873

World Economic Forum. (2020). *COVID-19.* Strategic Intelligence. https://intelligence.weforum.org/topics/ a1G0X000006O6EHUA0?tab=publications

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The Iban of Sarawak, Malaysia: Ethnic Language Losing Ground to English and Sarawak Malay[1]

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Abstract

Language use by the Iban people in Sarawak, Malaysia, was studied and the focus was on the following specific objectives: (a) to describe the language use patterns of the Iban people in Iban dominant and non-Iban dominant areas in nine domains and (b) to identify the stable domains of language use for the Iban language. The data were from 84 Iban respondents, elicited using a questionnaire designed based on the UNESCO framework. The percentage of Iban usage was higher in Iban-dominant areas (30%–70%) than in non-Iban dominant areas (10%–60%). The results revealed that there was intergenerational language transmission but English was encroaching into family communications involving spouse and children. Furthermore, the usage of Iban was dwindling outside the family domain. In particular, Iban was losing ground to English in four domains (friends, classmates, workmates, and prayers) and to Sarawak Malay in two domains (public places, and market). In non-Iban dominant areas, the results on languages used in public places and in new domains (social media communication) indicate that domains of language use currently occupied by Iban may be taken over by English and Malay in the future with more ethnically-mixed family, friendship, work, and public spaces.

Keywords: *Iban use, domain dominance, social media communication*

Introduction

In the complex multilingual ecosystem of Malaysia, indigenous languages are gradually losing their domains to other more dominant languages (Brenzinger et al., 2003). These languages are under the threat of economically and politically powerful languages, namely, Malay and English (McLellan, 2014). Research has shown a shift in indigenous language use towards Malay and English among the various minority groups in Malaysia, such as the Tindal in Sabah (Kijai et al., 2012), Mah Meri in Selangor (Coluzzi et al., 2017), and the Kejaman (Joan & Ting, 2016), Kayan (Wan et al., 2015), Bidayuh (Coluzzi, 2016), and Sihan (Mohamed & Hashim, 2012) in Sarawak. In neighbouring Brunei, the same language shift patterns can be seen among the Lun Bawang (Coluzzi, 2010) and Dusun (Chuchu & Noorashid, 2015). Given that the indigenous groups have small populations, the shift away from their ethnic language is expected.

A question arises whether numerically dominant indigenous groups also experience a shift away from their indigenous language. Sociolinguistic studies on numerically large groups, such as the Iban in Sarawak, are rather limited. Thus far, only Ting et al. (2020) have studied the language use of Iban in an Iban-dominant town, Song, located on the upper reaches of the Rejang River. In Song, where 87.18% of the population is Iban, the Iban language has medium vitality, measured using objective indicators (population, institutional support, and status) and subjective ethnolinguistic vitality from the Iban people's perspective.

The concept of ethnolinguistic vitality (ELV) was first proposed by Giles et al. (1977, p. 308), and groups with strong ELV are "likely to behave as a distinctive and collective entity within the inter-group setting." A group's vitality can be objectively measured based on these three main factors: demographic variables, institutional support, and status (Giles et al., 1977). A group with low vitality

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most probably experiences linguistic assimilation and is not perceived as a collective group, whereas a group with high vitality is seen as maintaining its language and distinctive features in multilingual settings (Bourhis et al., 1981). On the other hand, the vitality of a group can also be subjectively measured by taking people's perceptions and representations of vitality as mediators of linguistic behaviour (Landry & Allard, 1994). The construct of subjective vitality stems from the need to take into account individuals' perceptions of the societal conditions impinging upon them as members of their own group relative to salient outgroups, often credited as a better predictor of language behaviour (Bourhis et al., 1981; Hamers & Blanc, 1989).

In the study carried out in an Iban-dominant area, Ting et al. (2020) found that Iban is still the main language for communication in family, friendship, transactions, and religious domains in Song. At the time of the study, a majority of the Iban speak Iban in the friendship (85.9%) and transactions domains (shops, 82.8%; market, 88%), showing that Iban was some form of lingua franca for the people of Song. However, 75.3% of the 200 Iban people surveyed spoke Malay with their teachers and 61.6% spoke Malay with their superiors. The Malay language occupies the education and employment domains, indicating a shrinking of functional domains for the Iban language. The stable domains of language use of Iban, based on Ting et al.'s (2020) findings, were family, friendship, transactions, and religious domains. This indicated a reduction of functional domains once dominated by the ethnic language and the disappearance of strict domain separation that signals eminent language shift (Tsunoda, 2005). However, Ting et al.'s (2021) findings are applicable to an Iban-dominant area.

Little is known about Iban language use in areas that do not have a concentrated population of Iban people, such as Kuching, Miri, and other towns further away from the Rejang River hinterland. Despite its numerical dominance in certain areas in Sarawak, research findings indicate that Iban has only a medium vitality (Ting et al., 2021). The vitality and the use of the Iban language in non-Iban dominant areas have not been studied due to the focus on smaller groups. However, larger indigenous groups may also experience eminent language shift, particularly in town areas where there are fewer speakers of the indigenous language and there is a compulsion to use more widely understood languages for communication. Thus, in the face of the growing dominance of standard languages over the indigenous languages (Brenzinger et al., 2003), it is vital to identify the stable domains of language use for the Iban language.

In this study, the language use patterns of the Iban people in Iban dominant and non-Iban dominant areas in Sarawak were examined in nine domains based on UNESCO's framework of vitality/endangerment, namely, family, friends, neighbours, classmates, workmates, public places, market, religion, and social media communication. Describing these language use patterns of the Iban is important at this point in time when Iban may still be extensively used in certain localities, so that the findings can be used as a benchmark for future comparisons to assess the extent of language shift in future.

Background on the Iban in Sarawak

The Iban people are the largest ethnic group in Sarawak, encompassing 28.59% of the state's 2.8 million population (Department of Statistics Malaysia, 2017). The Iban are also known as the "Sea Dayaks," a designation given by James Brooke to the ethnic group in the late 19th century due to their close connection with the sea (Sutlive, 1994). To date, the Iban are found mainly in Sri Aman, Betong, Sibu, and Kapit. In these Iban dominant areas, people of other ethnic groups speak the Iban language in the transactions and friendship domains, such as in Song and Kapit (Ting et al., 2021).

The Iban people are also found in neighbouring Brunei and Borneo Kalimantan. According to Sutlive (1994), the Iban language is also spoken in Kalimantan by the Iban who live in the north bank of the Kapuas River. Although Iban belongs to Western Austronesian family, it is not readily intelligible to a speaker of the Peninsular or Indonesian Malay (Omar, 1981).

There is little regional variation in the Iban language because dialect words are few and differences between areas of settlement are mostly in the accent or details in customs and rituals.

Iban does not have a writing system of its own, but through efforts of Christian missionaries, the Latin alphabet has been adopted for it. Due to the absence of a written tradition, the Iban literature consists largely of oral tradition; nevertheless, there are some efforts in codifying the language. For example, the Borneo Literature Bureau in Kuching has worked on the written form of the oral literature. Currently, there are Iban language textbooks for the secondary school (Forms 1 to 5), which were recently revised in 2014. There are also books on the Iban language or written in Iban.

The Iban language has been taught in school as early as the 1940s during the Brooke era. Iban has been included in the school curriculum in some primary schools since 1968 and in a few secondary schools since 1988, but there are no Iban-medium schools in Sarawak (Ting & Tensing, 2010). Teacher education programmes were in place to train teachers to teach Iban. In 1968–1969, Iban was offered as an elective subject in a teacher's training college, but it was not until 1988 that the central Curriculum Committee formalised it as part of the national curriculum. The next advancement was when the Iban language was offered as a minor to Iban students enrolled in the Malay Studies degree programme in Universiti Pendidikan Sultan Idris. Later, the Iban language undergraduate programme was introduced in two teachers' institutes in Sarawak (Philip, 2017).

Methodology of the Study

This descriptive study on the language use patterns of the Iban people in Iban dominant and non-Iban dominant areas involved 84 Iban speakers, who resided in Iban dominant and non-Iban dominant areas in Sarawak, Malaysia. Table 1 shows the demographic background of Iban respondents (*N* = 84). The respondents were government servants, business owners, students, housewives, and the unemployed. Iban was the language they first learned as a child for 94.0% of the respondents, while 96.4% of them first learned Iban from their parents.

Table 1 *Demographic Background of Iban Participants (N = 84)*

Demographic Variable		**Percentage (%)**
Gender	Female	54.8
	Male	45.2
Age	19 years old and below	8.3
	20–39	34.5
	40–59	53.6
	60 years and above	3.6
Ethnic group of spouse	Iban	39.3
	Bidayuh	9.6
	Other indigenous	9.5
	Chinese	6.0
	Malay	2.4
	Indian	1.2
	Not married	32.1
Highest qualification	Primary 6 or lower	3.6
	Form 3	2.4
	Form 5	7.1
	Form 6	2.4
	Certificate	3.6
	Diploma	11.9
	Degree	42.9
	Master's degree	21.4
	Ph.D	4.8
Monthly Income	Less than RM2000	16.7
	RM2,000–RM3,999	13.1
	RM4,000–RM5,999	14.3
	RM6,000–RM7,999	14.3
	RM8,000–RM9,999	13.1
	RM12,000 and above	28.6

Table 1 *Demographic Background of Iban Participants (Cont.)*

Religion	Christian	88.1
	Muslim	9.5
	Hindu	1.2
	No religion	1.2
Residence in Iban dominant areas	Sri Aman	13.1
	Betong	14.3
	Miri	13.1
	Sibu	3.6
	Limbang	2.4
	Kapit	1.2
	Lubok Antu	1.2
	Sarikei	1.2
Residence in non-Iban dominant areas	Kuching	29.8
	Kota Samarahan	11.9
	Selangor	4.8
	Kuala Lumpur	3.6

A 87-item questionnaire in English and Malay was formulated based on UNESCO's evaluative factors of language vitality (Brenzinger et al., 2003). The nine factors were as follows, but in this paper, the results of only Factors 1, 4, and 5 are reported.

Factor 1: Intergenerational language transmission
Factor 2: Absolute numbers of speakers
Factor 3: Proportion of speakers within the total population
Factor 4: Loss of existing language domains
Factor 5: Response to new domains and media
Factor 6: Materials for language education and literacy
Factor 7: Governmental and institutional language attitudes and policies
Factor 8: Community members' attitudes towards their own language
Factor 9: Amount and quality of documentation.

A scale from 0 to 5 was assigned for all the factors, except for absolute numbers of speakers (Factor 2). The questionnaire was found to be internally consistent, with a Cronbach's alpha value of .722, which was more than the recommended cut-off value α = .700 (Igbaria et al., 1994). The Total Variance Explained test (with an eigenvalue of 1.00 or higher), on the item-grouping or pattern loadings, was 80.81%. As the variance exceeded 60%, the data in the study were useful and reliable (Hair et al., 2014).

In October 2020, the first researcher sent the link to an online Google questionnaire to potential respondents through phone, email, and WhatsApp messages. The data on the nine factors of vitality were analysed and reported using frequencies and percentages.

Results

The results on the respondents' language use patterns in the nine domains were classified into family, other domains, and new media.

Intergenerational Language Transmission in Family Domains

Table 2 shows that Iban was the main language used in the home domains. Whether they were living in Iban- or non-Iban dominant areas made no difference because Iban was used for family communication, from grandparents to parents, siblings, and relatives (over 87.5%). However, Iban usage with spouse and children showed the encroachment of English into the family domain. In Iban-dominant areas, 45.8% spoke Iban with their spouse and 37.5% spoke Iban with their children. In non-Iban dominant areas, the pattern was similar: 46.7% and 33.3%, respectively. Overall, there was still a strong intergenerational transmission of Iban regardless of whether Iban was the majority group in the area.

Table 2 *Frequencies and Percentages on Language Use in the Family Domains*

Domain	Language	Iban Dominant Areas		Non-Iban Dominant Areas	
		Frequency *n = 24*	Percentage %	Frequency *n = 60*	Percentage %
Parents	Bidayuh	0	0.0	1	1.7
	English	1	4.2	5	8.3
	Iban	22	**91.7**	54	**90.0**
	Standard Malay	1	4.2	0	0.0
Spouse	Not married	8	33.3	20	33.3
	Chinese Dialect	0	0.0	1	1.7
	English	3	12.5	7	11.7
	Iban	11	**45.8**	28	**46.7**
	Sarawak Malay	1	4.2	0	0.0
	Mandarin	0	0.0	1	1.7
	Standard Malay	0	0.0	3	5.0
	Other Ethnic Language	1	4.2	0	0.0
Children	No children	8	33.3	22	36.7
	Chinese Dialect	0	0.0	1	1.7
	English	6	25.0	13	21.7
	Iban	9	**37.5**	20	**33.3**
	Mandarin	0	0.0	1	1.7
	Standard Malay	0	0.0	3	5.0
	Other Ethnic Language	1	4.2	0	0.0
Siblings	Bidayuh	0	0.0	1	1.7
	English	1	4.2	5	8.3
	Iban	21	**87.5**	54	**90.0**
	No brothers and sisters	2	8.3	0	0.0
Grandparents	Iban	24	**100.0**	60	**100.0**
Relatives (e.g. cousins, uncles, and aunts)	Bidayuh	0	0.0	1	1.7
	English	1	4.2	5	8.3
	Iban	21	**87.5**	54	**90.0**
	Sarawak Malay	1	4.2	0	0.0
	Standard Malay	1	4.2	0	0.0

Language Use in Other Domains

Table 3 (please see following page) shows that more respondents spoke Iban in Iban-dominant areas than in non-Iban dominant areas. In the Iban-dominant areas, Iban was the most frequently used language in six out of seven domains studied: Religion (66.7%), followed by friendship (54.2%), market (41.7%), neighbourhood (41.7%), education (41.7%), employment (33.3%). The results indicate the Iban was hardly used in public places (8.3%), indicating that their contacts were not Iban and other languages were needed for inter-ethnic communication. Public places in this study refer to post offices, hospitals, and restaurants.

In non-Iban dominant areas, Table 3 shows that Iban was the most frequently used language only with neighbours (35%). It is interesting that in non-Iban dominant areas, the respondents still had many opportunities to speak Iban with Iban neighbours. These results suggest that they may be inclined to live in areas with Iban people or befriend Iban neighbours.

However, the Iban respondents actually spoke the most Sarawak Malay in three other domains, that is, with friends (Sarawak Malay, 33.3%; Iban, 30%), in the market (Sarawak Malay, 45%; Iban, 28.3%), and in public places (Sarawak Malay, 38.3%; Standard Malay and English, 26.7% each; Iban, 6.7%). These domains probably had more people from various ethnic groups, which necessitated the use of Sarawak Malay, which is spoken by Malays and many indigenous people. In the more formal domains, English was the most frequently used language with classmates (English, 35%; Sarawak Malay, 30%; Iban, 20%), workmates (English, 30%; Sarawak Malay, 25%; Standard Malay, 18.3%; Iban, 13.3%), and for prayers (English, 58.3%; Iban, 35%). Results show a differentiation of language use in non-Iban dominant areas into Iban in the neighborhood domain, Sarawak Malay in friendship and transactions domains, and English in the education, employment, and religious domains.

Table 3 *Frequencies and Percentages on Language Use in Other Domains*

Domain	Language	Iban Dominant Areas		Non-Iban Dominant Areas	
		Frequency ***n = 24***	**Percentage %**	**Frequency** ***n = 60***	**Percentage %**
Neighbours	Chinese Dialect	0	0.0	2	3.3
	English	1	4.2	15	25.0
	Iban	10	**41.7**	21	**35.0**
	Sarawak Malay	7	29.2	16	26.7
	Standard Malay	4	16.7	4	6.7
	Other Ethnic Language	2	8.3	2	3.3
Friends	Chinese Dialect	0	0.0	1	1.7
	English	1	4.2	15	25.0
	Iban	13	**54.2**	18	30.0
	Sarawak Malay	7	29.2	20	**33.3**
	Mandarin	0	0.0	1	1.7
	Standard Malay	3	12.5	5	8.3
Classmates	**English**	3	12.5	21	**35.0**
	Iban	10	**41.7**	12	20.0
	Sarawak Malay	7	29.2	18	30.0
	Mandarin	0	0.0	2	3.3
	Standard Malay	4	16.7	7	11.7
Workmates	**English**	6	25.0	18	**30.0**
	Iban	6	25.0	8	13.3
	Sarawak Malay	8	**33.3**	15	25.0
	Mandarin	0	0.0	2	3.3
	Standard Malay	1	4.2	11	18.3
	Not Working	3	12.5	6	10.0
Prayers	Bidayuh	0	0.0	1	1.7
	English	3	12.5	35	**58.3**
	Iban	16	**66.7**	21	35.0
	Sarawak Malay	2	8.3	1	1.7
	Standard Malay	3	12.5	2	3.3
Public Places (e.g., post office, hospital, restaurant)	Chinese Dialect	0	0.0	1	1.7
	English	7	29.2	16	26.7
	Iban	2	8.3	4	6.7
	Sarawak Malay	9	**37.5**	23	**38.3**
	Standard Malay	6	25.0	16	26.7
Market	Chinese Dialect	0	0.0	1	1.7
	English	0	0.0	3	5.0
	Iban	10	41.7	17	28.3
	Sarawak Malay	11	**45.8**	27	**45.0**
	Standard Malay	3	12.5	12	20.0

One of the main differences in language use in the two areas was in the religious domain. In the Iban-dominant areas, the most frequently used language for praying was Iban (66.7%), but in the non-dominant areas, it was English (58.3%). The dominance of Iban in the religious domain in Iban-dominant areas was consistent with Ting and colleagues (2021) findings, who reported that a majority of the Iban respondents in Song used Iban in the religious domain. In the present study, the Iban respondents living in Iban-dominant areas attend church services conducted in Iban. However, in non-Iban dominant areas such as Kuching, Samarahan, and Sibu divisions, where the Iban people were not the majority, church services are usually conducted in English to cater to other ethnic groups (e.g., Chinese and Bidayuh, who are also Christian).

Language Use in New Domains and Media

Social media communication is a new domain of language use that has grown in the last two decades. Table 4 shows that English was the dominant language in new domains and in media, regardless of whether the participants were living in Iban or non-Iban dominant areas. The percentages of English usage in descending order involved watching YouTube contents, searching or reading internet information, social media communication, writing emails for work communication, and writing SMS messages. It is understandable that a great deal of YouTube contents and internet information are in English and that work communication has to be in a formal language, and in a language that is understood by other ethnic groups.

Table 4 *Frequencies and Percentages on Language Use in New Domains and Media*

Domain	Language	Iban Dominant Areas		Non-Iban Dominant Areas	
		Frequency *n = 24*	Percentage %	Frequency *n = 60*	Percentage %
Emails for work communication	**English**	15	**62.5**	43	**71.7**
	Sarawak Malay	4	16.7	1	1.7
	Standard Malay	5	20.8	16	26.7
Searching or reading internet information	**English**	20	**83.3**	52	**86.7**
	Sarawak Malay	1	4.2	1	1.7
	Standard Malay	3	12.5	7	11.7
Social media communication (e.g., FB, Twitter, Instagram, Tik Tok, etc.)	**English**	17	**70.8**	41	**68.3**
	Iban	3	12.5	9	15.0
	Sarawak Malay	1	4.2	2	3.3
	Mandarin	0	0.0	1	1.7
	Standard Malay	3	12.5	7	11.7
Watching YouTube contents	**English**	21	**87.5**	55	**91.7**
	Iban	0	0.0	1	1.7
	Sarawak Malay	1	4.2	0	0.0
	Mandarin	0	0.0	1	1.7
	Standard Malay	2	8.3	3	5.0
Writing SMS messages	**English**	6	25.0	33	**55.0**
	Iban	**10**	**41.7**	20	33.3
	Sarawak Malay	4	16.7	2	3.3
	Standard Malay	4	16.7	5	8.3

The only sub-domain where Iban still had a function was writing SMS messages (41.7% in Iban dominant areas and 33.3% in non-Iban dominant areas). SMS messages are more private and are sent to family and friends who may be mostly Iban. The more frequent use of English for writing SMS messages among Iban respondents living in non-Iban dominant areas indicated that their social network may be more ethnically diverse and comprised more contacts from other ethnic groups, thereby requiring the use of English.

In comparison, social media communication in Facebook, Twitter, Instagram, and Tik Tok reaches a wider audience who may not be Iban, which is why the percentages of Iban use was below 15%. As social media communication will continue to grow in prevalence, it is likely that even communication among Ibans will take place increasingly in English, Sarawak Malay, and Standard Malay. The use of standard languages (English and Standard Malay) ensures ease of communication.

The emergence of Sarawak Malay is indicative of the potential for the Malay dialect to develop into a lingua franca, particularly with many indigenous people having mastery of the dialect.

Discussion

The study produced two noteworthy findings on the Iban language losing ground to English and Sarawak Malay in non-Iban dominant areas and the growth of English in the new domains and media. These two findings will be discussed next.

First, using UNESCO's evaluative factors of language vitality, the study showed that there is intergenerational transmission of Iban but even in the family domain, English is used in communication with spouse (11.7%-12.5%) and children (21.7%-25%). The results also showed that the use of Iban is dwindling outside the family domain, particularly in non-Iban dominant areas where the interaction is mostly with people of other ethnic groups. The results of the present study on the use of Iban in Iban-dominant areas concur with Ting et al.'s (2020) findings because their study was also conducted in an Iban-majority area. In Song, Iban is still somewhat a lingua franca because Iban people made up 87.18% of the population. However, in the present study, the respondents were from several localities where the Iban population is large but not as numerically strong as in Song. In these areas (Sri Aman, Betong, Miri, Sibu, Limbang, Kapit, Lubok Antu, and Sarikei) the percentage of the Iban population ranges from 25.18% to 87.38%.

The concern is concerning the decline in language use patterns of Ibans living in non-Iban dominant areas. The Iban respondents reported using more Sarawak Malay and/English than Iban in six out of seven domains of language use studied, with the exception of the religious domain. Many Iban people have moved out of Iban longhouses to study and work in the urban areas. This brings them into contact with ethnically-diverse social and work networks with Chinese and Malay from different dialect groups, and other Indigenous groups—not only from Sarawak but also from Sabah. Among the Sarawak indigenous groups, the Iban is the largest group but there are already signs that Sarawak Malay and English are sharing space with Iban in the friendship, education, employment, religious, and transactions domains in non-Iban dominant areas. In this respect, the Iban language use pattern in non-Iban dominant areas reflects those of smaller indigenous groups. While there is intergenerational transmission of the ethnic language to the youngest generation of speakers, the use of the language in the society with other ethnic groups is minimal for the Bidayuhs in Sarawak (Coluzzi, 2016), the Iban and Lun Bawang in Temburong of Brunei (Coluzzi, 2010), and the Mah Meri in Selangor (Coluzzi et al., 2017). Although the transmission of the heritage language to the next generation is a salient factor for evaluating a language's vitality (Brenzinger et al., 2003; Fishman, 1997; Lewis & Simons, 2010), these results may give a false sense of security to the communities, such as in the case of the Iban in Sarawak. According to the Expanded Graded Intergenerational Disruption Scale, the vitality is acceptable only if more than 80% of the children are acquiring the heritage language (Lewis & Simons, 2010). In the present study, only about one-third of the Iban respondents spoke Iban with their children in both Iban-dominant (37.5%) and non-Iban dominant (33.3%) areas. While not conclusive, the results indicate that less than 80% of the children are acquiring Iban. Intermarriages or mixed racial backgrounds of parents cause other languages to be used in family conversations (Umbat, 2020). There is supporting evidence in the present study on the high percentage of intermarriages because 39.3% of the respondents (out of 67.9% married respondents) had Iban spouses. A comparison of this percentage with the results on parents' use of Iban with children indicates that in some Iban families, Iban may not be the family language. Umbat (2020) attributed the younger Ibans' lack of motivation to learn Iban to the negative effects of mass media (shortening of words when sending short text messages that affects spelling and structure), community migration from rural to urban areas, and the overpowering influence of Sarawak Malay. Umbat's (2020) point on the migration is backed up by the empirical results in the present study, whereby there is less Iban usage among Iban respondents in non-Iban dominant areas (usually urban areas) compared to Iban-dominant areas (usually rural areas). Besides, Standard Malay and Sarawak

Malay are emerging as the lingua franca among the Sarawak indigenous for interethnic communication (Ting & Campbell, 2017).

Second, the growth of the new domains and media (social media communication) is a phenomenon that affects the use of Iban, regardless of whether the respondents were living among Iban people. Whether it is for personal use (accessing internet information, watching YouTube videos, communicating in social media platforms), or work purposes (emails), English is the main language. A great deal of internet information and YouTube material is in English. Brenzinger et al. (2003, p. 10) stated that the use of English in the new domains and media signifies the "mesmerising power" of the language, which is no surprise considering its status as the global language. Moreover, "schools, new work environments, new media, including broadcast media and the Internet, usually serve only to expand the scope and power of the dominant language at the expense of endangered languages" (Brenzinger et al., 2003, p. 11). "Speakers may consider the dominant language to be the language of social and economic opportunity" (Brenzinger et al., 2003, p. 10), which leads to these languages being favoured. Iban lacks instrumental value as a language for wider communication. The present study showed that the only sub-domain where Iban is still used more than English is writing SMS messages and this is only for respondents living in Iban-dominant areas. The results indicate that in future, with less of the younger Iban people speaking their ethnic language and with more social and work contacts who are non-Iban, it is expected that the space for Iban use in social media communication may decline further.

In the present study, we did not investigate whether respondents accessed radio and television programmes through the internet. In Malaysia, the mainstream radio and television programmes are aired by the government-owned agency, Radio Televisyen Malaysia (RTM). However, now there are many live internet radio channels offered by entertainment portals established by the private sector such as FM Radio. The online non-mainstream channels still serve listeners or viewers who like the idea of radio and television. Even though the mode may be called old media (as opposed to the "new media" such as Tik Tok or IG), these non-mainstream entertainment portals are online making them also a part of the "new" social media. The popularity of live internet radio channels should be further investigated, particularly their role in perpetuating the use of Iban.

Conclusions

The study on the language use of the Iban of Sarawak, Malaysia showed that the Iban language is losing ground to English and Sarawak Malay, particularly in urban areas where the Iban is not the dominant ethnic group. Iban is still frequently used in the family, neighbourhood, education, employment, religious and transactions domains in Iban-dominant areas such as Sri Aman, Betong, Miri, Sibu, Limbang, Kapit, Lubok Antu, and Sarikei in Sarawak. However, the frequent use of Iban is restricted to the Iban community, and communication with other ethnic groups, in these Iban-dominant areas, largely take place in English, Sarawak Malay, and Standard Malay. One domain of language use where Iban is almost excluded is social media communication, but at the present time, a portion of the Iban people still write SMS messages in Iban.

The present study is significant in showing that the numerical dominance of the Iban people in the geographical vicinity determines the extensiveness of Iban use and this is linked to the number of Iban people in their family, social, and work networks. By comparing the patterns of Iban use in Iban-dominant and non-Iban dominant areas, the study has shown that indirectly, intermarriage and migration from Iban to non-Iban dominant areas caused a decrease in the use of Iban. Using direct evidence based on the language use results, the study has pinpointed the religious and education domains "suffer" the most dramatic drop in the use of Iban when Iban people move from Iban-dominant areas to non-Iban dominant areas. The friendship, employment and transactions domains are less affected, but the rise in the use of English, Sarawak Malay, and Standard Malay is inevitable due the presence of other ethnic groups in these spaces. The most stable domains of language use for the Iban language seems to be the neighbourhood and public places, probably because these are public domains with their own constellations of interactants. The situation is different for interactions with friends, workmates, and shop vendors because one can choose who to interact with. The snapshot of Iban language use is captured at this point in time. In future, family, friendship, work, and public spaces will become more ethnically-mixed, and language use patterns will change. The present findings can serve as a benchmark for future comparisons to assess the extent of language shift. Further studies are needed to examine the vitality of the Iban language, as reflected in the use of Iban in various domains, in relation to density of Iban people in the various spaces. The presence of more Iban in the family, social, and work networks may result in greater Iban use, and this may be an underlying factor that can explain the extensiveness of Iban language use. Such studies will lead to a better understanding of the language dynamics of ethnic minority communities that live among more dominant linguistic communities.

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References

Bourhis, R. Y., Giles, H., & Rosenthal, D. (1981). Notes on construction of a “subjective vitality questionnaire” for ethnolinguistic groups. *Journal of Multilingual and Multicultural Development, 2*, 145–155. https://doi.org/10.1080/01434632.1981.9994047

Brenzinger, M., Dwyer, A. M., Graaf, T., Grinevald, C., Krauss, M., Miyaoka, O., Ostler, N., Sakiyama, O., Villalón, M. E., Yamamoto, A. Y., & Zapeda, O. (2003, March 10–12). *Language vitality and endangerment.* International Expert Meeting on UNESCO Programme Safeguarding of Endangered Languages; Paris, France. https://pure.mpg.de/rest/items/item_1468187/component/file_1468185/content

Chuchu, F., & Noorashid, N. (2015). The vitality and revitalisation of minority languages: The case of Dusun in Brunei Darussalam. *International E-Journal of Advances in Social Sciences*, *1*(1), 34–46. https://doi.org/10.18769/ijasos.28921

Coluzzi, P. (2010). Endangered languages in Borneo: A survey among the Iban and Murut (Lun Bawang) in Temburong, Brunei. *Oceanic Linguistics, 49*(1), 119–143. https://doi.org/10.1353/ol.0.0063

Coluzzi, P. (2016). Levels of vitality and efforts to maintain Bidayuh and Mah Meri. *Southeast Asia: A Multidisciplinary Journal, 16*, 39–47. https://fass.ubd.edu.bn/SEA/vol16/SEA-v16-coluzzi.pdf

Coluzzi, P., Riget, P. N., & Wang, X. (2017). Language vitality among the Orang Asli of Malaysia: The case of the Mah Meri on Telo’ Gunjeng (Carey Island, Selangor). *International Journal of the Sociology of Language, 244*, 137–161. https://doi.org/10.1515/ijsl-2016-0060

DOSM (Department of Statistics, Malaysia). (2017). *Sarawak population by district 2017.* https://data.sarawak.gov.my/home/data/resource_download/709

Fishman, J. A. (1997). The sociology of language. In N. Coupland & A. Jaworski (Eds.), *Sociolinguistics* (pp. 25–30). Springer.

Giles, H., Bourhis, R.Y., & Taylor, D. M. (1977). Towards a theory of language in ethnic group relations. In H. Giles (Ed.), *Language, ethnicity and intergroup relations* (pp. 307–348). Academic Press. https://www.researchgate.net/publication/265966525

Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Pearson Education.

Hamers, J. H., & Blanc, M. H. (1989). *Bilinguality and bilingualism.* Cambridge University Press.

Igbaria, M., Parasuraman, S., & Badawy, M. K. (1994). Work experiences, job involvement, and quality of work life among information systems personnel. *MIS Quarterly, 18*(2), 175–201.

Joan, A., & Ting, S. H. (2016). Hierarchies of language status: Of Kejaman, Iban, Malay and English. In M. Basri, M. S. M. Salleh, & S. B. Ahmad (Eds.), Proceedings of the *4th International Conference on Social Sciences Research 2016 (ICSSR 2016)* (pp. 32–41). Kuala Lumpur, Malaysia: World Conference Resources.

Kijai, J., Lampadan, R., & Loo, D. B. (2012). Factors related to language shift among the Tindal population in Ratau, Kota Belud, Sabah. *Catalyst*, *7*(1), 4–13. https://so01.tci-thaijo.org/index.php/hbds/article/download/ 172410/123739

Landry, R., & Allard, R. (1994). Ethnolinguistic vitality: A viable construct. *International Journal of the Sociology of Language, 108*, 5–13. https://icrml.ca/en/research-and-publications/references/item/78633-introduction-ethnolinguistic-vitality-a-viable-construct

Lewis, M. P., & Simons, G. F. (2010). Assessing endangerment: Expanding Fishman’s GIDS. *Revue Roumaine de Linguistique/Romanian Review of Linguistics, 55*(2), 103–120.

McLellan, J. (2014). Strategies for revitalizing endangered Borneo languages: A comparison between Negara Brunei Darussalam and Sarawak, Malaysia. *Southeast Asia: A Multidisciplinary Journal*, *14*, 14–22. https://fass.ubd.edu.bn/SEA/vol14/SEA-v14-mclellan.pdf

Mohamed, N., & Hashim, N. H. (2012). Language vitality of the Sihan community in Sarawak. *Kemanusiaan, 19*(1), 59–86. http://web.usm.my/kajh/vol19_1_2012/KAJH19_1_2012_4.pdf

Omar, A. H. (1981). *The Iban language of Sarawak: A grammatical description.* Dewan Bahasa dan Pustaka.

Philip, B. (2017). Trajectories in the development of the Iban language of Sarawak: In retrospect and looking beyond. In N. T. E. Unting, & N. Belawing (Eds.), *International Conference on Iban Language and Ethnography (ICILE 2017): "Ngenegap ka jaku enggau daya idup Iban"* (pp. 72–85). Institut Pendidikan Guru Kampus Sarawak.

Sutlive, V. (1994). *Handy reference dictionary of Iban & English.* Tun Jugah Foundation.

Ting, S. H., & Campbell, Y. M. (2017). The role of indigenous languages in schools: The case of Sarawak. In M. Samuel, M. Tee, & L. Symaco (Eds.), *Education in Malaysia: Development and challenges* (pp. 119–136). Springer Nature. https://doi.org/10.1007/978-981-10-4427-4_8

Ting, S. H., & Tensing, F. (2010, July 5–7). *Focal points of grammar teaching in secondary school Iban textbooks* [Paper presentation]. In the 10th Biennial Borneo Research Council (BRC 2010) International Conference, Miri, Sarawak, Malaysia.

Ting, S. H., Tinggang, A., & Metom, L. (2021). Language use and attitudes as indicators of subjective vitality: The Iban of Sarawak, Malaysia. *Language Documentation and Conservation, 15,* 190–218. https://scholarspace.manoa.hawaii.edu/bitstream/10125/24973/ting_et_al.pdf

Tsunoda, T. (2005). *Language endangerment and language revitalization: An introduction.* Mouton de Gruyter.

Umbat, J. (2020, November 21). *Punca kemerosotan bahasa Iban* [Audio podcast]. *Sarawak Voice*. https://sarawakvoice.com/2020/11/21/punca-kemerosotan-bahasa-iban/

Wan, R., Renganathan, S., & Philip, B. (2015). What is the point of us talking? Ethnic language and ethnic identity in Northern Borneo, Malaysia. *Humanities and Social Sciences Review, 4*(1), 109–120. https://www.researchgate.net/publication/277013818_WHAT_IS_THE_POINT_OF_US_TALKING_ETHNIC_LANGUAGE_AND_ETHNIC_IDENTITY_IN_NORTHERN_BORNEO_MALAYSIA

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Bidayuh Proverbs with Animal and Plant Elements: A Reflection of Culture and Philosophy[1]

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Abstract

Indigenous communities refer to animals and plants extensively in their folk proverbs. In this study an examination was conducted involving Bidayuh proverbs, with animal and plant elements, of the Bau Jagoi community in Sarawak, Malaysia by (a) categorising them according to the type and frequency of animal and plant elements used, and (b) analysing their implied and implicit meaning using inquisitive semantics approach. Data were collected from interviews with 12 Bidayuh informants aged 23 to 84 who lived in the same village. A total of 33 Bidayuh proverbs were elicited comprising 20 with animal elements and 13 with plant elements. The behaviours of the animals were associated with mostly negative behaviours in human whereas the characteristics of the plants were used to describe desirable human traits and appearance. The proverbs were also used to describe complex situations, teach moral values and good manners, express intense feelings, and give advice about life. Their deep meaning was related to the people's living environment and way of life, their thinking and ethics, their beliefs, and customary practices, which reflect their culture and philosophy.

Keywords: *Bidayuh proverbs, elements, inquisitive semantics, culture, philosophy*

Introduction

Proverbs are widely used common expressions by a society to communicate meaning and intention literally or figuratively. Mieder (2004, p. 3) defined proverbs as "a short, generally known sentence of the folk which contains wisdom, truth, morals and traditional views in a metaphorical, fixed, and memorizable form and that are handed down from generation to generation." Proverbs are a form of oral tradition of a society, and they serve many purposes such as imparting knowledge and life lessons, giving warning and advice, teaching moral values, expressing feelings and attitudes, and encouraging others. Ideas for folk proverbs are drawn from everyday experiences and common observations in various situations and contexts. Indigenous people who live close to nature such as in remote villages and forests generate creative proverbs by observing their natural environment, including animals and plants they encounter in their daily activities, to communicate their society's way of life, culture, and world view. Animals and plants are usually used symbolically or metaphorically in proverbial utterances. Despite the importance and prevalence of these natural elements in the formation of folk proverbs, there is little research and documentation in this field (Shamsutdinova et al., 2017).

The present study focused on proverbs of Bidayuh, the fourth largest ethnic group in Sarawak, a Malaysian state on the island of Borneo. Bidayuh are mostly found in the western end of Sarawak and they originally lived in the hinterland of Borneo as they were mostly swidden farmers and practiced communal living in a long house. As such, the traditional Bidayuh way of life, customs, and practices were impacted by the forest environment (Ridu et al., 2001). However, by 2010, only 25% of the Bidayuh population were still engaged in agriculture, of which 81.4% are Christians, and while most still live in rural areas, they have better access to nearby cities (Kheung & Adruce, 2018). This illustrates that modern Bidayuh are becoming more educated and working in various economic sectors. Furthermore, many younger generation Bidayuh, particularly those who are educated, do not speak Bidayuh at home (Kayad & Ting, 2021). One reason is because the Bidayuh language has

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many distinct varieties, which are mutually unintelligible (Noeb & Ridu, 2006). Since Bidayuh proverbs represents its oral tradition and the ideas for the proverbs are drawn from traditional living environment and way of life, those who no longer live in close proximity to the traditional environment may be unaware of their folk proverbs. Consequently, modern Bidayuh may not understand the Bidayuh culture and philosophy reflected through proverbs. To the authors' knowledge, there is little documentation of Bidayuh proverbs, much less study on their function and meaning. For folk proverbs to become an intangible cultural heritage, they need to be recognised and used widely in the society (UNESCO, 2003).

The objectives of the present study were to: (a) categorise Bidayuh proverbs according to the type and frequency of animal and plant elements used, and (b) analyse their implied and implicit meaning using inquisitive semantics approach. The findings of this study will add to the documentation of Bidayuh folk proverbs and offer insights for their meaning and interpretation.

Literature Review

Proverbs with animal and plant elements play an important role in the life of indigenous folks. Pareek and Trivedi (2014) found that Indian folk proverbs of Rajasthan reflect the common folk's deep insight, common sense, and practical wisdom. Rajasthan folk proverbs with plant elements are used to show plant-animal associations, tell fortune, give advice, demarcate the regions, and forecast the weather.

Folk proverbs with animal and plant elements are commonly found in many cultures of the world and they play an important role in society. Lauhakangas (2019) noted that animal metaphors are used frequently in proverbs to reflect human behaviours, usually negative and unacceptable behaviours. This is affirmed by a study on folk proverbs of Semai, an indigenous tribe who live in the forests in West Malaysia (Nornis & Saamah, 2013). The 22 types of animals commonly found in Semai proverbs were domestic and wild animals they frequently encounter, impacting their daily lives. All except one Semai animal proverbs symbolised negative human traits and behaviour. It was noted that the Semai people were able to capture the behaviours of the animals vividly for comparison with human behaviours because they are keen observers of their natural environment. The animals and plants used in the Semai proverbs are those relevant to their ethnic way of life and world view. When compared to Malay proverbs and sayings reflecting the same concept, the animal and plant used in Semai proverbs may differ but the role and function such as to educate, to provide reminder and warning on customary practices and beliefs remain.

The type and function of animals used in proverbs from the same region may be similar or different according to determining factors such as physical environment, sub-cultural heritage, linguistics, and religious sub-cultures as noted by Salamh and Maalej (2018) in comparing animal proverbs of the two dialects of Arabic: Saudi Arabia and Tunisia. They found that most of the proverbs showed a negative evaluation of human behaviours and characteristics through the choice of animals and the selected target concepts. While the two Arabic dialects may use the same animal names, the focus differed. They noted that animal proverbs are salient in the socio-physical environment of Saudi Arabia and Tunisia.

Studies on proverbs focus on comparing proverbs across languages and cultures for purposes such as inter-cultural communication and cultural awareness, and language education. Comparative studies of proverbs would involve translation of proverbs across languages, which has been shown to be challenging as linguistic and cultural knowledge and skills are required. Zhang (2016) emphasised that because language and culture are intertwined, cultural context is important to understand a proverb. He compared Chinese and English proverbs to determine their cultural sources and cultural implications. It was revealed that both Chinese and English proverbs draw their sources from their respective living environments, literary traditions, religious beliefs, customs, and habits. Zhang (2016) called for a dynamic view of the culture transmitted in proverbs, as old proverbs may portray traditional and past cultural values rather than current ones. However, Shamsutdinova et al. (2017) showed that proverbs, even traditional ones, are still used widely at the present time and in this technological era, and that they can be updated while retaining their original meaning. They compared proverbs in English, Arabic, and Tatar used in the press and found that proverbs appear in three main forms, namely in fixed form, in variation as an input for creating proverbial expression, and in a notably new form such as modified words and order. They concluded that traditional referents in proverbs and sayings may be adjusted to suit the needs of the context, situation, and purpose of communication. This proves that proverbs and sayings, even the traditional ones, are still relevant today but they need more effort to be appreciated.

The uniqueness of the language of proverbs: concise, symbolic, and expressively memorable, makes it a potential resource in education. Syzdykov (2014) compared English and Kazakh proverbs and sayings that are similar or completely different when translated and found that proverbs can be used as a stimulating resource in language teaching. Thus, the effort of translating and using the proverbs in the language classroom provides opportunities for teaching language skills and developing creativity, as well as cultural awareness. Folk proverbs are a rich resource of linguistic and cultural knowledge of a society. They demonstrate the ingenuity of the speakers in generating proverbs and sayings to reflect their wisdom, culture and philosophy in life. Knowing the function and meaning of folk proverbs will contribute to a better understanding of the people's language, their way of life and thinking, and beliefs.

Tosam (2014) argued that oral tradition such as folk proverbs are important sources of philosophy of a culture. He emphasised that while definitions of philosophy vary, philosophy is related to a way of life, and a form of thinking for guiding behaviour, broadening intellectual horizon, and scrutinising beliefs and values. He demonstrated how critical analysis of traditional values and ideals, some of which are embedded in proverbs can help in the understanding and resolution of contemporary issues. Thus, the aim of the present study was to analyse Bidayuh proverbs containing animal and plant elements to determine their implied and implicit meaning that reflect Bidayuh culture and philosophy as depicted in their customs and practices, values and beliefs, way of thinking, and ethics. An understanding of the functions and meanings of the Bidayuh folk proverbs will enhance understanding of Bidayuh culture and philosophy, which will in turn make documentation and dissemination of the oral tradition more meaningful especially to the younger generation.

Methodology of the Study

Data in this qualitative study on Bidayuh proverbs was obtained from interviews with 12 informants who were native speakers of the Bau Jagoi Bidayuh language variety. The sampling method was purposive and convenient sampling, making use of the snowball effect. The informants were selected based on the following criteria: they lived in the village and were active members of the community, they were willing and able to spend time to be interviewed, they were able to communicate and provide information in their native language to obtain the Bidayuh proverbs in their original form and language, and they were able to translate or explain the proverbs in their own language and, if necessary, in another language such as Malay or English.

The informants were community members of the second researcher's village, and they were recommended by her relatives. The village is about 50 km from the city and is surrounded by the forest and a river. Decades ago, before a road was built, villagers had to walk eight hours to reach the village. There were six female informants aged 23 to 80, and six male informants aged 29 to 84. Apart from a 55-year-old housewife and an 84-year-old man, who stated that they did not have any formal education, all the informants had a secondary school education. The interviews were conducted in the Bidayuh Bau Jagoi language and audio recorded with their consent. Open ended questions were used to elicit information on what Bidayuh proverbs involving animals and plants they could recall or use. They were also asked to explain the meaning of the proverbial expression and how it is used in a sentence. Interviews were conducted in a non-threatening environment, such as at the informants' place and at their convenience like in the evenings or during weekends. Data collection was considered complete when no new proverbs were elicited from the informants in the time given for the study.

The data were transcribed and analysed using inquisitive semantics approach (Jalaluddin, 2014) to interpret the meaning of the proverbial statements at multiple levels namely, logic, cognitive, and philosophy. The principle of relevance (Sperber & Wilson, 1986), which makes use of context and assignment of referent in the statements, facilitated the interpretation of implied meaning. In this approach, relevance is maximised with more cognitive effects for less processing effort. Bridging Cross Reference allows the dependence on context from antecedents found in the utterances, as well as additional premises obtained from the context. The proverbial utterances were examined further by probing the philosophy of the speaker as reflected in the choice of words or terms used, which can be related to various aspects including culture, geographical location, environment, and world view. In the inquisitive semantics approach, issues are defined in terms of what it takes to resolve them (Ciardelli et al., 2019).

Results and Discussion

A total of 33 Bidayuh proverbs were elicited from the 12 informants in the study: 20 with animal elements in and 13 with plant elements. The distribution of the proverbs according to type of animal and plant elements used and their frequency of use are presented in Table 1.

Table 1 *Distribution of Bidayuh proverbs and sayings according to animal and plant type*

Type of Animals	Type of Plants
Birds (11)	Leaves (3)
Crocodiles (2)	Sour/Dayak eggplant (2)
Dogs (2)	Tapioca (1)
Insects (2)	Banana stem (1)
Rat (1)	Coconut leave's rachis (1)
Goat (1)	Bamboo (1)
Mosquito (1)	Flower (1)
	Yam (1)
	Chili (1)
	Rattan (1)
Total: 20	Total: 13

While animal related proverbs were used more frequently (*n* = 20), they were less in types of animals (*n* = 7) compared to types of plants used (*n* = 10). Both domestic and wild animals were used to reflect and compare human conditions and behaviour. The plants ranged from local vegetables and fruits to flowers and wild plants (rattan and bamboo) to describe mostly appearance or condition for comparison. The animals and plants are familiar to the Bidayuh who lived in the village or who were familiar with the traditional Bidayuh living environment.

The animal related proverbs could be categorised according to their functions concerning behaviour, appearance, and senses as listed below:

Behaviour:

1. *Towoh in sikukuak* (Laughing like a *sikukuak*—bird of omen)
   Ungraceful behaviour of women who laugh or talk too loudly.
2. *Busit in bobak konang* (Talkative like a magpie)
   Hyperactive behaviour like an inquisitive and talkative child.
3. *Mun siyuak ja, jam bitokak jam bituluah* (Like a hen cackling when laying eggs)
   Negative behaviour of women who make a big fuss when doing chores.
4. *Kutiang sowok bisawot- bisawot* (Tailorbirds calling incessantly)
   Negative behaviour of gossiping and slandering, usually of womenfolk.
5. *Kodak tikuwan tanon tanduk a* (Like a hornbill showing its horn/casque)
   Negative behaviour of boastfulness.
6. *Bobak kutiang* (Tailorbird mouth)
   Negative behaviour of talking recklessly (lest the evil spoken will happen).

7. *Man mun bu'ai* (Eating like a crocodile)
   Negative behaviour of a being greedy or clumsy.
8. *Akan mun kosuang madas* (Just like a dog)
   Negative behaviour of being stubborn or unashamed.
9. *Kosuang lamang* (Restless dog/dog in heat)
   Negative behaviour of uncontrolled passion (usually among young people)
10. *Sinok raja koming* (Huge goat)
    Negative behaviour of an unhygienic person who does not like to take a bath.
11. *Bidaluag in sidonging* (Noisy like a mosquito)
    Negative behaviour of nagging and speaking senseless or hurtful things.
12. *Jaat-jaat bu ai, ja at iyoh aluak ponai lagi jaga onak a* (Even a ferocious crocodile can take care of its baby)
    A surprising, good behaviour in a bad person: a reminder that everyone is capable of doing good.
13. *Silow ponu mun siguduah* (Walking slowly like a millipede)
    Behaviour—doing things slowly can be good (perseverance) or bad (missing deadlines).
14. *Sikolah duoh badong* (Going to school with a beetle)
    Behaviour—while it is admirable to attempt the impossible, it can be futile.

Behaviour/Appearance:

15. *Mun tukuk sisip* (Mouth like hummingbird beak)
    Negative behaviour of sulking for a long time.
16. *Siyuak mutut* (Chicken farting)
    Looking sickly and unspirited.
17. *Mun monig* (Like a flowerpecker—tiny bird)
    Small (petite) in size but smart and lively.

Appearance:

18. *Kodak itik ponu* (Like a duck walking)
    Funny way of walking due to big heavy buttocks; effeminate man.
19. *Mun jipon babu* (Like rat teeth)
    Appearance—bad teeth but don't judge people by their looks.

Appearance/Senses:

20. *Boton buak* (Owl eyes)
    A person with big eyes; good and sharp eyesight.

From the literal meaning, most of the animal related proverbs focus on the negative behaviours of certain animals, which can be compared to negative behaviours in humans. The main purpose of the comparison is to remind human beings to avoid such negative behaviours. The implied meaning is to practice good manners and acceptable behaviour that reflect the moral values of the community. Nonetheless, from the Bidayuh perspective, there is a good side of a seemingly negative behaviour in (2), (13), and (14). For instance, in (13) a person who is slow moving can be considered foolish or diligent, depending on the context and outcome. Using animals to imply undesirable looks, such as having bad teeth (19), moves the focus from the target person to the animal for an impersonal effect, in line with Bidayuh ethics of being discreet to save face. The following is an example of how the implied and implicit meaning of an animal related proverb is analysed using the inquisitive semantics approach to reflect Bidayuh culture and philosophy:

Doik gik	*nya'a*	*muji*	***ulah***	***mu***	*kodak*	***tikuwan***	***tanon***	***tanduk***	***a***
No	people	praise	behaviour	your	like	hornbill	saying	horn	its

Nobody approves of your behaviour (which is) like a hornbill showing its horn.

Literally, this proverbial statement means that showing off is not an acceptable behaviour. Using Bridging Cross Reference, the hornbill's behaviour is connected to the antecedent, which is the addressee's behaviour. The information that "nobody approves" reinforces the interpretation that it is a negative behaviour. Thus, the imagery of a hornbill flaunting its horn depicts boastfulness, which is a detestable behaviour in a human and, in this case, a member of the Bidayuh community. To probe further why the hornbill and not any other bird is used in the comparison, analysing and connecting other aspects such as scientific information on hornbills (biology, geography) with Bidayuh culture and way of life will facilitate a deeper understanding of the folk proverb.

Tikuwan is the Bidayuh name for the rhinoceros hornbill (*Buceros rhinoceros*), a very large species (c.90–100cm) of forest hornbill found on the Borneo Island. This majestic bird has a pitch-black body and neck that holds an enormous bright orange bill with a prominent red horn-shaped casque. It is the state bird of Sarawak and a protected species. Rhinoceros hornbills are usually seen in pairs, and smaller birds, including smaller hornbill species, will not eat together with them. Bidayuh people who live in villages close to the forests recognise and revere this bird for its beauty and uniqueness; its tail feathers are prized possession and cultural adornment worn during special occasions and rituals. However, the image of the iconic bird flaunting its horn, particularly in a congregation with other birds that are smaller and less impressive, signify unnecessary boastfulness. In this context of the forest and other birds, the great hornbill has a flaw, which is a tendency to flaunt itself. Moreover, according to a Bau Jagoi fable, the hornbill was a proud bird that refused to mingle with other animals in the forest. The other animals disliked the hornbill because he would boast of his beauty and greatness by flaunting his horn during their gatherings. Flaunting the obvious reflects boastfulness, which is unacceptable in the Bidayuh culture and way of life that emphasise the values of humility and kindness.

In the traditional setting, Bidayuh live a communal lifestyle, everyone must respect one another and help each other, especially the poor and the weak in the community. Similar to the Kom people in Africa (Tosam, 2014), Bidayuh practice communitarian ethics whereby a person is essentially interdependent and is expected to live, interact, and share with other members of the community. Although according to science, it is natural for hornbills to keep to their own species and that other birds prefer not to eat at the same time with them, Bidayuh ethics require members of the community to practice communal living values, such as humility and consideration. As exaggeration is usually employed in proverbs, the hornbill is the most obvious and effective type of bird to convey this proverbial message.

Next, plant related Bidayuh proverbs can also be categorised according to their functions concerning behaviour, appearance, and senses as listed below:

Behaviour:

1. *Kodak boid duoh bunyuah* (Like betel leaf and chalk)
   Positive behaviour: good collaboration is productive and effective.
2. *Bilayar kodak dowon kapal* (Sailing like kapal leaf)
   Positive behaviour: the importance of perseverance in any situation in life.

Appearance (for warning or advice):

3. *Bogok lolu dowon koyuh* (Many traces/marks of leaves)
   Warning: beware of unseen dangers; to be careful and vigilant.
4. *Idip di tijuk saang* (Living at the tip of chilli)
   Being in a difficult situation such as making a difficult decision.
5. *Mun tiung moduak* (Like rotten sour brinjal—*Solanum lasiocarpum* Dunal.)
   Reminder that beauty is fleeting.
6. *Kodak buak tiung duoh abu* (Like sour brinjal and *abu* fruit—looks like brinjal)
   Reminder that looks can be deceiving.

Appearance:

7. *Mopuk suik mun isin banuak* (White like the flesh of tapioca root)
   Flawless beauty: ideal smooth skin and white complexion of a woman.
8. *Tulang umbut* (Inner stem of banana tree)
   Soft and gentle; usually to describe a woman.
9. *Mun ilieng butan* (Like the rachis—thin stalk of a coconut leaf)
   Skinny but not necessarily weak.
10. *Bunga kupuak* (Village flower—beauty)
    Most beautiful woman in the village.
11. *Trodan jadin jojak* (Wild creepers with thorns that can be smoothed as material for making baskets)
    Positive transformation, particularly related to raising children: a weakness or poor attitude can be changed/improved.

Senses:

12. *Nyam tilobied toling* (Feels like cut by sharp bamboo)
    Excruciating pain.
13. *Tiik-tiik kuduk* (Itch from yam)
    An intense and persistent itch

From the literal meaning, most of the plant related proverbs focus on appearance for the purpose of describing a complex situation or ideal condition that warrants advice or warning. For example, in (6), the fleeting nature of beauty is described vividly by the changes in the local eggplant from smooth bright skin when ripe to shrivelled dry skin when rotten. Such an image of a vegetable that is easily planted and commonly eaten by Bidayuh is a practical reminder that outer beauty does not last and so the implied meaning is to be humble, which reflects inner beauty. For the Bidayuh, ideal physical beauty is described as having a white smooth complexion like the flesh of the tapioca root (no 8) and an exotic local flower (no 11). While the latter is universal, the former is unique to traditional Bidayuh culture where tapioca is a staple food when rice is scarce. Unlike animal related proverbs, Bidayuh proverbs with plant elements denote the positive characteristics of plants for humans to emulate. For instance, the characteristics of leaves (no 1–2), as they interact with other natural elements, reflect the positive attitude and behaviour human beings should have to succeed. Further, plant elements can be used to describe intense feelings such as pain (no 12). Bidayuh who experienced a cut by wild bamboo or an itch from yam can appreciate the intensity of the feeling described by the use of such an image. The following is an example of how the implied and implicit meaning of a plant related proverb is analysed using the inquisitive semantics approach to reflect Bidayuh culture and philosophy:

Nakit-nakit *ngek <u>ponu</u> neh ngan mu'u noh mala jak a <u>doik tronah mun idip mu</u>,*
Careful walk because you always no direction in life your
<u>nak ngek pu'an</u> a ***bogok lolu dowon koyuh*** *bih.*
not know many traces leaves

Walk carefully as you tend to lack direction in your life, watch for traces of leaves.

Literally, this proverbial statement serves as a warning about hidden dangers along life's path. The danger signs are provided by the (many) marks or traces of leaves. Using Bridging Cross Reference, the image of many traces of leaves can be connected to the premise of walking carefully along life's path. To understand why leaves, and not any other plant parts, are used to symbolise danger signs, relevant aspects such as geographical (natural) environment, local customs and practices are considered. Traditional Bidayuh communities live in villages close to the forests where they hunt for food or plant crops like hill paddy, or even enjoy a bath in the river. Thus, the natural environment is part of their daily life, making them keen observers of nature. For example, a pile of leaves in their path or in the water is recognised as a potential hiding place for harmful animals such as snakes. The customary practice in such situation would be to avoid the pile of leaves and take a different path or move to other areas of the river. This practice shows that they are not only aware of the danger signs provided by nature, but also keep the harmony with nature by not disturbing the potential harm that lies under the pile of leaves. The underlying philosophy is to "live and let live" in that even if the animal under the pile of leave is dangerous, there is no need to 'disturb' it as there is enough room in nature for all living creatures. Besides, when left alone, the animal under the pile of leaves cannot pose any danger to the human being. Traditional Bidayuh belief is animistic whereby all living things including plants and animals have a spirit and so the philosophy is mutual respect. In other words, a peaceful co-existence among all living things is emphasised. This seemingly simple proverbial expression, which describes a condition of leaves, reflects the people's living environment, their daily activities, their practical wisdom, their customary practices, and their world view.

The study corroborates other studies on folk proverbs (Nornis & Saamah, 2013; Pareek & Trivedi, 2014) whereby the negative and positive behaviours of the animals and characteristics of the plants are associated with desirable and undesirable behaviours in human. Furthermore, the symbolic use of animal and plant elements in folk proverbs provides vivid and creative reflections of folk wisdom and way of life. The implied and underlying meaning reflects the culture and philosophy of the community. Although the animal and plant elements found in the proverbs are more relevant to the traditional setting, the culture and philosophy as reflected in the moral values, ethics, way of thinking, and customary practices are timeless (Tosam, 2014). The practical wisdom, such as being vigilant and the virtue in respecting all living things, is relevant for peace and harmony in the contemporary globalised world. Thus, Bidayuh proverbs can facilitate the younger generation of Bidayuh to know their language and understand their culture and philosophy, which form a part of their Bidayuh identity.

Conclusions

As in other indigenous cultures around the world, animal and plant elements are widely used in Bidayuh proverbs to teach good behaviours and moral values, to give advice, warning and encouragement concerning life's journey, and to express strong feelings. The inquisitive semantics approach is useful to uncover deep meaning of the proverbs and sayings, providing insights into the people's way of life, customs and beliefs that reflect their culture and philosophy. However, the study would benefit from a more detailed description of the animal or plant used in the proverb, particularly the ones that are seldom encountered by modern Bidayuh such as hornbills and *trodan.* Directions for further studies include documenting and analysing Bidayuh proverbs from other Bidayuh sub-groups such as Rara and Serian for comparison. Bidayuh proverbs can also be compared to proverbs from dominant language cultures such as Malay and English. In the comparative study process, Bidayuh proverbs can be translated and used to teach language and culture in formal and informal settings. Lastly, folk proverbs should be safeguarded as an intangible cultural heritage through proper documentation and dissemination.

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References

Ciardelli, I., Groenendijk, J., & Roelofsen, F. (2019). *Inquisitive semantics.* Oxford University Press.

Jalaluddin, N. H. (2014). *Semantik dan akal budi Melayu* [Malay semantics and common sense]. Penerbit UKM.

Kayad, F., & Ting, S. (2021). Attitudes towards Bidayuh language kindergartens in Sarawak, Malaysia. *International Journal of Social Science Research, 3*(2), 14–26.

Kheung, L., & Adruce, S. (2018). The demographic profile and sustainability growth of the Bidayuh population of Sarawak. *International Journal of Academic Research in Business and Social Sciences*, *8*(14), 69–78.

Lauhakangas, O. (2019). The functions of animal metaphors in proverbs. In R. Soares & O. Lauhakangas (Eds.), *12th interdisciplinary colloquium on proverbs, ACTAS ICP18 Proceedings* (pp. 582–594). https://www.researchgate.net/publication/337593008_THE_FUNCTIONS_OF_ANIMAL_METAPHORS_IN_PROVERBS

Mieder, W. (2004). *Proverbs: A handbook*. Greenwood Press.

Nornis, S., & Saamah, M. R. (2013). Haiwan sebagai perlambangan dalam peribahasa orang Semai [Animals as a symbol in the proverb of the Semai people]. *GEMA Online Journal of Language Studies, 13*(1), 83–98.

Pareek, A., & Trivedi, P.C. (2014). Common folk proverbs in relation to environment and plants in Rajasthan, India. *Journal of Indian botanical Society, 93*(1 & 2), 100–104.

Ridu, R. S., Jitab, R., & Noeb, J. (2001). *King Siliman and other Bidayuh folk tales*. University Malaysia Sarawak: The Institute of East Asian Studies.

Ridu, R. S., Jitab, R., & Noeb, J. (2006). Language development in Bidayuh: Past, present and future. In C. R. Rensch, C. M. Rensch, J. Noeb & R. S. Ridu (Eds.), *The Bidayuh language: Yesterday, today and tomorrow* (pp. 1–27). Dayak Bidayuh National Association.

Salamh, S. B., & Maalej, Z. A. (2018). A cultural linguistics perspective on animal proverbs, with special reference to two dialects of Arabic. *Arab World English Journal for Translation & Literary Studies*, *2*(4), 21–40.

Shamsutdinova, E. K., Martynova, E. V., Eremeeva, G. R., & Baranova, A. R. (2017). Proverbs and sayings related to animals in Arabic, English and Tatar Press. *The Turkish Online Journal of Design, Art and Communication TOJDAC, Special Edition,* 799–804. https://doi.org/10.7456/1070ASE/085

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition.* Blackwell.

Syzdykov, K. (2014). Contrastive studies on proverbs. *Procedia - Social and Behavioral Sciences, 136,* 318–321.

Tosam, M. J. (2014). The philosophical foundation of Kom proverbs. *Journal on African Philosophy*, *9*, 1–27. https://www.researchgate.net/profile/Mbih-Tosam/publication/281115695_The_Philosophical_Foundation_of_Kom_Proverbs/links/5d4f9b27a6fdcc370a8c30b4/The-Philosophical-Foundation-of-Kom-Proverbs.pdf

UNESCO. (2003). *Convention for the safeguarding of the intangible cultural heritage.* http://unesdoc.unesco.org/ images/0013/001325/132540e.pdf

Zhang, X. (2016). Language as a reflection of culture: On the cultural characteristics of Chinese and English proverbs. *Intercultural Communication Studies, 25*(3), 275–291

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Speaking in English: Oral Communication Apprehension and Self-Perceived Communication Competence among Marketing Undergraduates in Malaysia[1]

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Abstract

In this study perceptions of final year marketing undergraduates were investigated at Universiti Malaysia Sarawak towards the feeling of anxiety they experienced when speaking in English. Specifically, the objectives of the study were to determine (a) the level of oral communication apprehension; (b) the level of self–perceived communication competence; and (c) to identify the relationship between the students' English oral communication apprehension and self-perceived communication competence. A quantitative research design was adopted and McCroskey's well-known questionnaire was used to measure communication apprehension levels in four communication contexts (group discussion, meeting, interpersonal and public speaking). The Self-Perceived Communication Competence questionnaire by the McCroskeys' was used to measure communication in various contexts (public, meeting, group, and dyad) and from different receivers (stranger, acquaintance and friend). The results showed that the final year marketing undergraduates had moderate levels of oral communication apprehension. Their level of self-perceived communication competence was also at the moderate level. Results also indicated a significant correlation between communication apprehension and self-perceived communication competence among the students.

Keywords: *Oral communication apprehension, self-perceived competence, marketing undergraduates*

Background of the Study

English is the language of international communication and the medium of instruction in most public universities in Malaysia, such as at Universiti Malaysia Sarawak (UNIMAS)–the context of this study. English communication skills are also considered a pre-requisite for many jobs, thus making it necessary for students to learn and master the language, especially for communication purposes. As the second most important language in Malaysia, English is extensively used in the education system.

Although English is taught from the level of primary school until university, many students at the tertiary level still have difficulty when communicating in English (Mustapha et al., 2010). Many studies have revealed that students fear the thought of speaking in English and seem to display signs of being ill at ease when communicating in the language (Subramaniam & Harun, 2013). These findings are of concern, especially since universities are partially responsible in preparing students be able to deliver information and express thoughts, feelings, and opinions competently. These communication skills are important as it improves students' chances at employment in the future (Abdullah et al., 2010). Given these observations, in this study the aim was to analyse UNIMAS marketing students' oral communication apprehension and their self-perceived communication competence. Findings from this study will add to current knowledge regarding Malaysian students' ability in oral communication, which will be of value for the planning of language curricula at the higher education level.

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Communication and Communication Apprehension

DeVito (1986) defined communication as "the process of transmitting a message from a sender to a receiver, through a channel and with the interference of noise" (p. 61). Wood (2015) expanded the definition of communication by stating that "communication is a systematic process in which people interact with and through symbols to create and interpret meanings" (p. 9). Communication involves verbal, nonverbal and electronic means of human interaction, and is an integral aspect of social life. A study by Adler et al. (2001) revealed that adults spent at least 30% of their time speaking, 45% listening, 16% reading, and nine% writing.

Communication, however, is not a process that is necessarily without issues. At times, people may find themselves in situations where they are nervous to communicate. This may be referred to as communication apprehension (CA), which is the predisposition to avoid communication, or the experience of anxiety when forced to communicate (Kim, 2015). Communication apprehension can be found in different settings where evaluation, or the perception of evaluation, is taking place. These settings may be classrooms, schools, universities, organizations, meeting, or even in group discussions. Among the causes of the fear or anxiety to communicate are lack of proficiency in the target language, the lack of practice, and even insecurity (Devi & Feroz, 2008).

Extensive studies have examined CA and its relation to foreign language (FL) anxiety. Such anxiety is a complex, multidimensional phenomenon referring to "the feeling of tension and apprehension specifically associated with second language [L2] contexts, including speaking, listening, and learning" (MacIntyre & Gardner, 1994, p. 2). Horwitz et al. (1986, p. 127) identified three components of FL anxiety: communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension is "a type of shyness characterized by fear of or anxiety about communicating with people." People who typically have trouble speaking in groups are likely to experience a greater difficulty speaking in an FL class where they have little control over the communicative situation and where their performance is constantly monitored (Liu & Jackson, 2008).

Oral Communication Apprehension (OCA)

From Horwitz et al.'s (1986) conceptualization of FL anxiety, we can see how OCA is inherently related. This understanding has persisted in the broader field of applied linguistics (Arnold, 2007). While there are beliefs that one is the sub-set of the other, there are scholars who consider CA and FL anxiety as conceptually similar or even synonymous (MacIntyre et al., 2002; MacIntyre & Charos, 1996). Communication apprehension may be further defined, such as that seen in the work of McCroskey (1970), who categorized oral communication apprehension (OCA) into two types, namely, a state communication apprehension (State CA) and a trait communication apprehension (Trait CA). A state CA refers to a specific oral communication situation, such as giving a speech to a group of strangers or interviewing with a prospective employer for a desired position. On the other hand, a trait CA refers to individuals who experience fear or anxiety in virtually all oral communication encounters (McCroskey, 1970). Rasakumaran and Devi (2017) reported that OCA existed moderately among the freshmen of the Medical Faculty at the University of Jaffna, Sri Lanka. In a study by Ilias et al. (2013) at Universiti Tenaga Nasional, Malaysia, it was revealed that most students faced anxiety or fear when asked to participate in various communication contexts such as meetings and group discussions. Furthermore, the study by Devi and Feroz (2008) reported a correlation between OCA and the academic performance of Mechanical Engineering undergraduates at Universiti Teknikal Malaysia, Melaka, in their Malaysian University English Test (MUET) speaking assessment. Taha and Rezeq (2017) revealed that the degree of OCA among English senior majors at Al-Quds Open University in Palestine was moderate. Nevertheless, Jordanian postgraduate students had high levels of OCA, as reported by Huwari and Hashima (2010).

Self-Perceived Communication Competence (SPCC)

According to Dilbek et al. (2009), there are several views of how a group views communication competence (CC). This involves understanding what is orally competent as well as proficiency to create a competent oral communication outcome (Morreale et al., 2000). Self-perceived communication competence (SPCC) refers to learners' perceptions of their "adequate ability to pass along or give information" (McCroskey & McCroskey, 1988, p. 109). Durak (2020) found that self-perceived communication competence is thus perception of the ability to pass along or give information through communicative means. Lockley (2013) noted that speaking self-perceived communication competence (SPCC) is how individuals perceive their own competence in spoken communication.

Statement of the Problem

Possessing good oral communication skill will benefit marketing undergraduates to increase their prospect of employability. Most employers value the ability of communication skills for group discussions, conducting meetings, and interpersonal and public speaking. Learning oral communication and having good proficiency thus should be a priority for marketing graduates since they are expected to engage in various teamwork collaborations with other English-speaking customers. Furthermore, the marketing industry needs marketers who can communicate effectively with people from diverse backgrounds, to deal with multiple stakeholders, the government, private industries, and the public at large. In addition, to work in a global context, marketing undergraduates must be proficient communicators in English. Despite having proficiency in English oral communication, other requirements sought by employers include the ability to present ideas, explain issues and problems, to speak in a constructive manner, to resolve problems, to understand issues and problems faced by costumers and to come up with workable solutions to problems. For instance, Schlee and Harich (2010) stated that conceptual knowledge, technical skills, and communications skills are among the job requirements that marketing undergraduates should fulfil. Although studies regarding OCA and SPCC are available, studies on students taking a marketing major remain minimal. Existing studies have examined students from engineering, medicine, accounting, and those studying English as a second language (Aeni et al., 2017; Dar & Khan, 2014; Devi & Feroz, 2008; Ilias et al., 2013; Taha & Rezeq, 2018; Rashidi et al., 2012).

Objectives of the Study

This study aimed to determine the level of OCA and SPCC among final year marketing undergraduates in UNIMAS. In this study an attempt was made to identify the relationship between the students' OCA and SPCC.

Methodology

This study utilized a quantitative approach. Data were collected through a questionnaire and was statistically analysed to describe trends in the responses to questionnaire items. Two sets of survey instruments were administered to collect data from final year marketing undergraduates.

The total number of marketing undergraduates at the Faculty of Economics and Business for academic year 2019/2020 was 390. While the number of final year marketing undergraduates at UNIMAS was 123 students. The sample size adopted for this study was 100 final year students from the Marketing program. This number (N = 100) is adequate because the appropriate number lies between 30 and 300 people (Sekaran, 2000).

To determine the level of CA, this study utilized McCroskey's (1982) PRCA-24 survey instrument. The PRCA-24 is currently the most widely established instrument available for the measurement of CA. The questionnaire contained 13 statements concerning the students' uncomfortable feelings about communication in English. Examples of the items are: "I dislike participating in group discussions," "I am tense and nervous while participating in group discussions," "I am afraid to express my feelings at meetings." There were 11 statements that focused on the students' enjoyment when communicating in English. Some are examples are: "I feel relaxed while giving a speech," "I have no fear of speaking up in conversations," and "I like to get involved in group discussion."

Besides the PRCA-24 questionnaire, this study also used the SPCC survey instrument, which was also introduced by McCroskey and McCroskey (2013). The instrument consisted of 12 statements representing various communication contexts (public speaking, talking in large meetings, talking in small groups, and talking in dyads) and three types of receivers (strangers, acquaintances, and friends). It is utilized to investigate people's perception of their own competence in various types of communication contexts. Responses from both instruments were fixed to a five–point agreement scale with 1 = *strongly agree* and 5 = *strongly disagree*. In a pilot test, Cronbach Alpha values of .91 (PRCA-24) and .88 (SPCC) were observed. Based on these results, it was anticipated that stable and consistent results would be obtained.

The questionnaire was emailed to 123 participants in March 2020. Only 100 sets were returned, which yielded a response rate of about 81.3%. The demographic data from the 100 respondents indicated that about 46% are Malays, followed by Chinese (27%), Iban (12%), and others (15%). Female respondents (74%) exceeded the males (26%). With regards to academic achievement, 49 respondents (49%) were in the range of 3.00–3.49 CGPA points, whereas 38 respondents were in the range 2.5–2.99 CGPA points, followed by 12% in the 3.5–4.00 CGPA point range, and 1% in the 2.00–2.49 CGPA point range.

Scoring for the PRCA-24 Instrument

For this instrument, the respondents answered 24 statements, which were scaled to five points of agreement. From this instrument, scores should range between 24 and 120. Individuals with scores between 24 and 55 were considered to have a low level of CA, scores between 55 and 83 were moderate, while scores between 83 and 120 indicated a high level of CA.

Scoring for the SPCC Instrument

In this study, respondents completed the SPCC questionnaire by indicating their level of competence in different communication contexts. Each context indicated a possible range of level of communication competence. Zero was the lowest score and 100 was the highest score.

To compute the four different communication contexts (group discussions, meetings, interpersonal conversations, and public speaking) and three receivers in dyadic interactions (stranger, acquaintance, friend), the scores for certain questions were added and the total scores were divided by the numbers accordingly. The total SPCC scores should range between zero and 100. It was determined that zero was considered as completely incompetent, while 100 was highly competent. Overall, individuals who scored < 51 are considered competent whereas those who scored > 93 were held to have high competence.

Data collected from the two questionnaires was analysed using SPSS. A descriptive analysis was performed to compute the means and standard deviations for each item. The numerical aspects of this study included means, percentages, and standard deviations. The statistical analysis included calculation of Pearson Correlation Coefficient, which analyses the relation between the variables.

Results

The first objective of this study was to investigate the level of OCA among the final year marketing undergraduates. Results indicated that most respondents (69%) had a moderate level of OCA. This is followed by 24% who obtained low level of OCA, and only 7% scored a high level of OCA. In short, the overall level of OCA among the final year marketing undergraduates was at the moderate level.

Table 1 shows that the overall mean score was 65.22. The data revealed that the final year marketing undergraduates were most apprehensive in public speaking with a mean of 17.81. This was followed by Interpersonal, Meeting, and group discussion.

Table 1 *Oral Communication Apprehension Scores*

Score	*N*	Minimum	Maximum	Mean	Std. Dev.
Overall Communication Apprehension	100	24.0	120.0	65.22	15.49
Group Discussion		6.0	30.0	15.02	4.88
Meeting		6.0	30.0	15.74	4.50
Interpersonal		6.0	30.0	16.65	4.77
Public Speaking		6.0	30.0	17.81	4.04

Based on the 24 questions regarding the four communication contexts, Table 2 reveals that respondents scored high mean values on items "I dislike participating in group discussions" (3.75); "Communicating at meetings usually makes me uncomfortable" for Meetings context (3.51); "I am afraid to speak up in conversation" in Interpersonal context (3.30); and "I have no fear of giving a speech" in Public Speaking context (3.06). It is also interesting to note that some of the statements which were reverse coded had a rather high mean, such as "I have no fear of giving a speech" (3.06), and "I dislike participating in group discussion" (3.75).

Table 2 *The Four Different Communication Contexts*

Questions	Mean
GROUP DISCUSSION	
I dislike participating in group discussions	3.75
Generally, I am comfortable while participating in group discussions.	2.38
I am tense and nervous while participating in group discussions.	3.38
I like to get involved in group discussions.	2.5
Engaging in a group discussion with new people makes me tense and nervous.	3.18
I am calm and relaxed while participating in group discussions.	2.55
MEETINGS	
Generally, I am nervous when I have to participate in a meeting.	3.15
Usually, I am calm and relaxed while participating in meetings.	2.6
I am very calm and relaxed when I am called upon to express an opinion at a meeting.	2.56
I am afraid to express myself at meetings.	3.26
Communicating at meetings usually makes me uncomfortable.	3.51
I am very relaxed when answering questions at meeting.	2.60
INTERPERSONAL	
While participating in a conversation with a new acquaintance, I feel very nervous.	3.26
I have no fear of speaking up in conversations.	2.98
Ordinarily I am very tense and nervous in conversations.	3.20
Ordinarily I am very calm and relaxed in conversations	2.77
While conversing with a new acquaintance, I feel very relaxed	2.78
I'm afraid to speak up in conversations.	3.30
PUBLIC SPEAKING	
I have no fear of giving a speech.	3.06
Certain parts of my body feel very tense and rigid while giving a speech.	2.91
I feel relaxed while giving a speech.	2.82
My thoughts become confused and jumbled when I am giving a speech	3.03
I face the prospect of giving a speech with confidence.	2.81
While giving a speech, I get so nervous I forget facts I really know.	2.93

The second objective of the study was to analyse the level of SPCC**.** Table 3 shows that overall value was 75.34. It also shows that the marketing undergraduates were moderately competent in all four sub-scores. The highest mean among the four communication contexts was the Dyad (77.44). This was followed by Public speaking, the Group setting, and finally the Meeting.

Table 3 *The Overall Self-Perceived Communication Competence Score*

Score	*N*	Mean	Std. Dev.
Overall Self-Perceived Communication Competence	100	75.34	13.51
Public		74.82	14.68
Meeting		72.25	16.03
Group		77.23	14.18
Dyad		77.44	13.63

In terms of SPCC level for each respondent, this study identified that most of the respondents (63%) have a moderate competency, as shown in Figure 1. Based on these results, it may be assumed that the overall level of SPCC among the final year marketing undergraduates was at a moderate level.

Figure 1 *Self-Perceived Communication Competence Levels of Final Year Marketing Undergraduates*

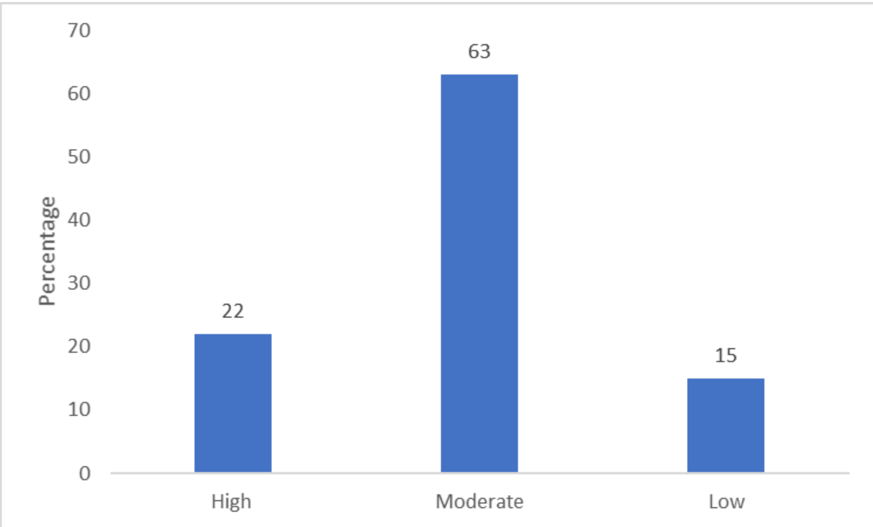

Table 4 indicates the mean values for each item in the SPCC instrument. For the Public context, the highest score (81.4) was for the item "Talk in a group of friends." The lowest score (73.8) was for the item "Talk in a small group of strangers." For the Meeting context, the item "Talk in a large meeting of friends" had the highest mean, and the item "Talk in a large meeting of strangers" had the lowest mean value. The item with the highest mean value for the Group context was "Present a talk to a group pf friends" (79.3) and the item with the lowest mean is "Present a talk to a group of strangers" (68.8). For the Dyad context, the highest mean value was seen in the item "Talk with a friend" (86.8) while the lowest with a 70.7 mean value is from the item "Talk with a stranger." Table 4 also shows the percentages of competency according to each statement of the different communication contexts. Although all scores concentrate in the moderate level for the public context, the highest percentage came from the item "Talk in a small group of acquaintances" (46% competency). This was followed by "Talk in a large meeting of friends" (53% competency) for the Meeting context. For Group situations, the highest percentage was for "Present a talk to a group of acquaintances" (50% competency). Moreover, "Talk with an acquaintance" (52% competency) was the highest score for Dyad situations.

Table 4 *Four Different Communication Contexts of SPCC Scores*

Questions	Mean	Competency % (Low)	Competency % (Moderate)	Competency % (High)
PUBLIC				
Talk in a small group of strangers.	73.8	35	42	23
Talk in a small group of acquaintances.	75.5	31	46	23
Talk in a small group of friends.	81.4	18	41	41
MEETING				
Talk in a large meeting of friends.	75.6	8	53	39
Talk in a large meeting of acquaintances.	73.5	14	50	36
Talk in a large meeting of strangers.	66.6	29	46	25
GROUP				
Present a talk to a group of strangers.	68.8	26	48	26
Present a talk to a group of friends.	79.3	10	44	46
Present a talk to a group of acquaintances.	75.9	12	50	38
Table 4 *Four Different Communication Contexts of SPCC Scores (Cont.)*				
DYAD				
Talk with an acquaintance.	75.1	28	52	20
Talk with a friend.	86.8	13	26	61
Talk with a stranger.	70.7	39	40	21

Table 5 shows the SPCC scores for different communication receivers. For communication receivers, Stranger showed a moderate mean score, as did Acquaintances and Friend. Essentially, these three scores indicated a moderate level of communication competence. Based on the 12 questions from the SPCC, Table 5 shows that the respondents reported high competency in item "Talk with a friend" with a mean of 86.7 and "Talk in a small group of friends" with a mean of 81.4. Moreover, the respondents felt least competent in items "Talk in a large meeting of strangers, and "Present a talk to a group of strangers.

Table 5 *Self- Perceived Communication Contexts in Three Different Receivers*

	Mean	Competency % (Low)	Competency % (Moderate)	Competency % (High)
STRANGER	70.05			
Present a talk to a group of strangers.	68.8	5	58	37
Talk in a small group of strangers.	74.3	2	50	48
Talk with a stranger.	70.6	4	54	42
Talk in a large meeting of strangers.	66.7	9	53	38
ACQUAINTANCE	75.13			
Talk with an acquaintance	75.12	28	61	11
Talk in a large meeting of acquaintances.	73.2	34	53	13
Talk in a small group of acquaintances.	75.5	29	55	16
Present a talk to a group of acquaintances.	75.8	28	53	19
FRIEND	80.85			
Talk in a large meeting of friends.	75.6	53	39	8
Talk with a friend.	86.7	24	48	28
Present a talk to a group of friends.	80.0	38	48	14
Talk in a small group of friends.	81.4	37	40	23

This study's final objective was to investigate if there was a relationship between OCA and SPCC. From a Pearson Correlation Coefficient analysis, the *r* score between the two variables was -.302, with $p < .05$, indicating that there was significant inverse relationship between the two variables (Table 6).

Table 6 *Correlation between the PRCA-24 and SPCC*

		PRCA-24	SPCC
PRCA-24	Pearson Correlation	1	-.302**
	Sig. (2-tailed)		.002
	N	100	100
SPCC	Pearson Correlation	-.302**	1
	Sig. (2-tailed)	.002	
	N	100	100

Note. ** represents $p < .01$

Discussion

In this study the levels of OCA, SPCC were examined and their relationships among final year marketing students at UNIMAS. Overall, the level of OCA was moderate. This finding is equivalent to the study conducted by Isa and Tamam (2012), which reported that a great number of students from Polytechnic Port Dickson, Malaysia had a moderate level of CA. Moreover, this study also revealed that the marketing undergraduates in this study were most apprehensive about speaking in public. This finding is also reflected in the study by Stewart and Tassie (2011), who reported that public speaking classroom was among the activities that create a sense of stress and nervousness among students. In a study done by Tom et al., (2013), they discovered that among the causes for students to experience anxiety and apprehensive in public speaking are the fear to be laughed at and the inability to pronounce English words properly.

On the other hand, this study reported findings where students were less apprehensive in group discussion, similar to the study by Hasni et al., (2017). This may be due to students being more comfortable talking with friends, even in the context of academic activities. This finding contrasts with the study by Taha and Rezeq (2021), where they reported that students at Al-Quds were afraid of communication in groups as they were required to be involved in open discussions.

Furthermore, findings from this study showed that the final year marketing undergraduates experienced a moderate level of SPCC. This is supported by Subekti's (2020) study which indicated learners' medium level of SPCC. It is worth noting that the respondents in this study felt most competent when having dyadic conversation and group discussion with friends as receivers. This could be perceived as they might feel they were being supported by their peers during these two events (Sabri & Qin, 2014). The finding also supports the concept from Morreale et al. (2000), who explained that CC is the ability to share messages to achieve goals while maintaining social acceptance. In this regard, respondents believed that they had high competency when talking to friends because they are confident that they could adapt to their respective goals to produce smooth and productive dialogues.

This study also showed that respondents felt the least competent when communicating with strangers in meetings. This may be because undergraduates are not familiar with the formalities and settings of meetings, let alone conducting the meeting in English. Students may feel more apprehensive when the meeting is attended by strangers, and this apprehension may be felt even when talking in groups with unfamiliar classmates (e.g., Mustapha et al., 2010).

Finally, the findings from this study indicated that there was a negative relationship between OCA and SPCC among the participants. A Pearson's correlation analysis revealed a negative relationship for both variables (SPCC and PRCA-24), including the four communication contexts. It shows that there is an "inverse" relationship between the OCA and SPCC. For instance, if the respondents had low SPCC when communicating in group discussion they tended to have a high OCA and vice versa. This finding is supported by Devi and Feroz's (2008) study that claimed that the higher the students' perception of their communication competence, the more possible it is for a lower score for communication apprehension and vice versa. Subekti (2020) also noted that learners' OCA level tends to be lower when their SPCC level is higher.

Conclusions

The moderate level for both OCA and SPCC among the final year marketing undergraduates indicates that the students could be prepared for workplace communication. In the effort to reduce apprehension in English oral communication among the students, it is also hoped that the findings from this study can shed some insights of what managerial strategies can be done to improve English oral competency at the tertiary level. For instance, both course instructors and students can initially examine and acknowledge the challenges that affect oral communication in English. Moreover, the faculty can strategize activities that are conducive towards reducing OCA. Despite the possible contributions of the study of OCA and SPCC in the context of marketing undergraduates, this study also acknowledges a limitation, where it focuses only on quantitative data. The data obtained could not explain in-depth how respondents felt about each item in the questionnaire. Future research should consider adopting the mix-methods design.

References

Abdullah, K. I., Abdul R., & Nurul, L. (2010). *A study on second language speaking anxiety among UTM students* [Unpublished manuscript]. Universiti Teknologi Malaysia Institutional Repository. http://eprints.utm.my/id/eprint/10275/2/Nurul_Lina_Bt_Abdul_Rahman.pdf

Adler, R., Rosenfeld, L., & Proctor, R. (2001). *Interplay: The process of interpersonal communicating* (8th ed.). Harcourt College Publishers.

Aeni, N., Jabu, B., Rahman, M. A., & Strid, J. E. (2017). English oral communication apprehension in students of Indonesian maritime. *International Journal of English Linguistics*, *7*(4), 158–167.

Arnold, N. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System*, *35*(4), 469–486.

Dar, M. F., & Khan, I. (2014). Oral communication apprehension among undergraduate engineering students in Pakistan. *Journal of Education & Social Sciences*, *2*(2), 144–153.

Devi, S., & Feroz, F. (2008). Oral communication apprehension and communicative competence with electrical engineering undergraduates in UTeM. *Journal of Human Capital Development (JHCD*), *1*(1), 1–10.

DeVito, J. A. (1986). *Intrapersonal communication in interpersonal communication*. Pearson.

Durak, E. (2020). *Speech fright: A study into communication apprehension and self-perceived communication competence among upper-secondary Swedish ESL/EFL students* [Master's thesis, Stockholm University]. http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-179171

Hasni, B., Ismail, F., & Abdullah, T. (2017). Communication apprehension among polytechnic students. In A. Shaari, B. N. Morat, H. Musa, D. E. Nayab, S. A. Ngadmid, & S. Kulddas (Eds.), *Embracing the 21st century research on teaching and learning* (pp. 11–13). Pusat Pengajian Ilmu Pendidikan. https://www.researchgate.net/profile/Siti-Muhajir/publication/342509897_COMPILATION_OF_FULL_PAPERS_IPCORE_2017/links/5ef8486c4585 15505078b9bd/COMPILATION-OF-FULL-PAPERS-IPCORE-2017.pdf

Horwitz, E., Horwitz, M., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, *70*(2), 125–132.

Huwari, I., & Hashima, N. (2010, December 1–2). *Oral communication apprehension in English among Jordanian postgraduate students in Universiti Utara Malaysia* [Paper presentation]. The 3rd International Conference on International Studies (ICIS), Kuala Lumpur, Malaysia. http://repo.uum.edu.my/2498/

Ilias, A., Razak, M., & Yunus, N. (2013). Communication apprehension (CA): A case of accounting students. *International Journal of Independent Research and Studies, 2*(1), 16–27.

Isa, I., & Tamam, N. (2012). Communication apprehension among technical and commerce learners in Polytechnic Port Dickson. *Journal Online Jaringan Pengajian Seni Bina (JOJAPS)*, *3*, 7–13. http://www.geocities.ws/apacc/paper2_izawati.pdf

Kim, J. (2015). Communication apprehension. In M. J. Beatty & P. Pascual-Ferrá (Eds.), *The International Encyclopaedia of Interpersonal Communication*. Wiley. https://doi.org/10.1002/9781118540190.wbeic099

Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, *92*(1), 71–86.

Lockley, T. (2013). Exploring self-perceived communication competence in foreign language learning. *Studies in Second Language Learning and Teaching*, *3*(2), 187–212.

MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, *15*(1), 3–26.

MacIntyre, P. D., Clément, R., & Donovan, L. A. (2002, October). *Willingness to communicate in the L2 among French immersion students* [Paper presentation]. Second Language Research Forum, Toronto, Canada.

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning, 44*(2), 283–305.

McCroskey, J. C. (1970). Measures of communication-bound anxiety. *Speech Monographs*, 37(4), 269–277.

McCroskey, J. C. (1982). *An introduction to rhetorical communication* (4th ed.). Prentice-Hall.

McCroskey, J. C., & McCroskey, L. L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports*, *5*(2), 108–111.

McCroskey, J. C., & McCroskey, L. L. (2013). *Self-perceived communication competence scale (SPCC)*. Measurement Instrument Database for the Social Science.

Morreale, S., Osborn, M., & Pearson, J. (2000). Why communication is important: A rationale for the centrality of the study of communication. *Journal of the Association for Communication Administration, 29*, 1–25.

Mustapha, W. Z. W., Ismail, N., Singh, S. S. R., & Alias, S. E. (2010). ESL students' communication apprehension and their choice of communication activities. *Asian Journal of Teaching and Learning in Higher Education*, *2*(1), 22–29.

Rasakumaran, A., & Devi, S. I. (2017). Oral communication apprehension among freshmen: A case in the faculty of medicine. *Journal of Human Capital Development (JHCD), 10*(1), 19–32.

Rashidi, N., Yamini, M., & Shafiei, E. (2012). Oral communication apprehension and affective factors: Self-esteem and introversion/extroversion. *Journal of English Language Teaching and Learning, 3*(7), 145–174. https://www.semanticscholar.org/paper/Oral-Communication-Apprehension-and-Affective-and-Rashidi-Yamini/c759cce69a7b9f25e8bce15dc65b3b36420d35bb

Sabri, U., & Qin, T. Y. (2014). Communication apprehension among Nilai college students. *Advances in Language and Literary Studies*, *5*(5), 46–49.

Schlee, R. P., & Harich, K. R. (2010). Knowledge and skill requirements for marketing jobs in the 21st century. *Journal of Marketing Education*, *32*(3), 341–352.

Sekaran, U. (2000). *Research methods for business: A skill building approach* (4thed.). John Wiley & Sons, Inc.

Stewart, F., & Tassie, K. E. (2011). Changing the atmos'fear' in the public speaking classroom. *International Journal of Humanities and Social Science, 1*(7), 9–13.

Subekti, A. S. (2020). Self-perceived communication competence and communication apprehension: A study of Indonesian college students. *Journal of English Education, Literature and Culture, 5*(1), 14–31.

Subramaniam, G., & Harun, R. (2013). The ability of the polytechnics marketing student in using good English oral communication skills during industrial training. *English for Specific Purposes World*, *14*(39), 1–15.

Taha, M. A. A., & Rezeq, K. A. A. (2018). Oral communication apprehension among English senior majors at Al-Quds Open University in Palestine. *International Journal Research in English Education, 3*(1), 44–58. https://doi.org/10.29252/ijree.3.1.44

Tom, A. A., Johari, A., Rozaimi, A., & Huzaimah, S. (2013). Factors contributing to communication apprehension among pre-university students. *Academic Journal of Interdisciplinary Studies*, *2*(8), 665–669. https://doi.org/ 10.5901/ajis.2013.v2n8p665

Wood, J. T. (2015). *Interpersonal communication: Everyday encounters* (8th ed.). Cengage Learning.

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Cultivating State-of-the-Art Competencies and 21st Century Skills for Hospitality Management Students: A Learning and Development Model

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Abstract

In this study desired competencies were examined in relation to the 21st century skills of Hospitality Management students. The survey results revealed that students were competent in terms of being cooperative, following instructions, getting along with others, being dependable and productive, taking initiative, and displaying workplace competencies, but less competent in the quality of their work. The students' 21st century skills were also good or manifested to a great extent in their collaboration skills, personal and workplace skills, self-direction skills, thinking and reasoning skills, and creativity and innovation skills. However, their information and communication skills were not as strong. Correlation existed between desired competencies and students' 21st century skills, revealing that those with highly-desired competencies also manifested 21st century skills. Students experienced issues regarding management of the company and confusion about their work assignments. It can be concluded that students' lack of information and communication skills influenced their quality of work, and led to concerns with the company where on-the-job training was conducted. Hence, to cultivate state-of-the art skills, a learning and development model was formulated that focused on improving their quality of work, and strengthening their information and communication skills.

Keywords: *State-of-the-art competencies, 21st century skills, learning development model*

Introduction

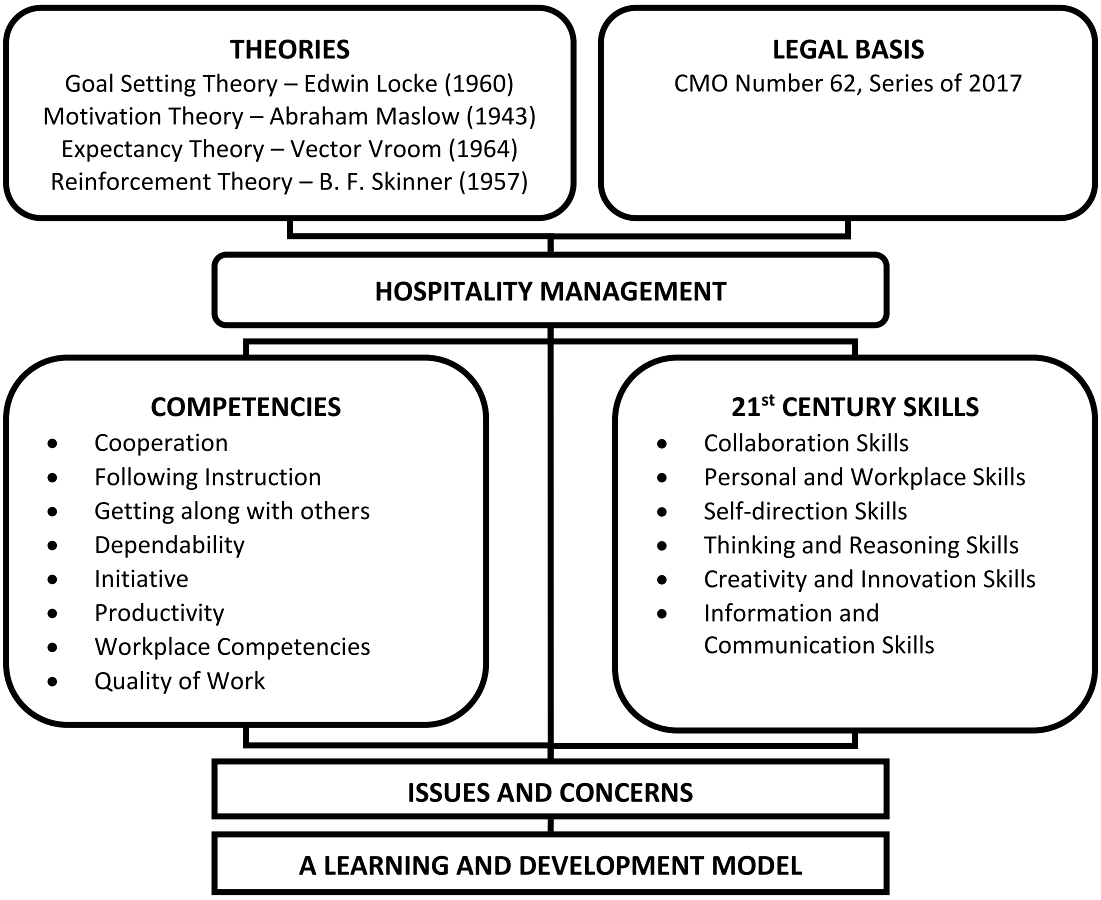
State-of-the-art work refers to a quality of work that is done with refinement and complexity, and performed to the best or fullest extent. Quality of work in a competency means that work has reached a degree of excellence or a state-of-the-art level. To attain this goal, one's focus must be on obtaining essential knowledge, understanding, skills, and capabilities related to hospitality management, which will create a strong foundation for work. When put into practice with dedication, students can attain predetermined standards, and the desire to succeed is a sign that a state-of-the-art level has been attained. Accordingly, 21st century teaching and learning has the following skills: critical thinking, collaboration, communication, creativity and innovation, self-direction, global connections, local connections, and technology (Ravitz, 2014). Students must be well-equipped since industrial establishments demand practical skills and experience, or preferably, both merged together. This facilitates higher graduate employment levels and more rapid career advancement.

It was observed that not all hospitality management students have adequate knowledge, skills, and information necessary to build a strong foundation for development of necessary competencies and 21st century skills. They need more practice and effort to develop and master the required competencies and 21st century skills. This is a gap that needs to be bridged by Hospitality Management students. This information was supported by a study on tourism among hospitality faculty members of the Lyceum of the Philippines University. It was found that teachers need to interact with students and practice equality and fairness to increase their levels of competence (Laguador et al., 2015). Another study investigated students' career expectations in the hospitality industry in Egypt. The respondents believed that language and communication skills were those most important for career development purposes (Saad & Ali, 2016).

As indicated in the Programme for International Student Assessment (PISA) results released by Juan (2019), the Philippines scored the lowest in reading comprehension among 79 participating countries. The Department of Education (2019) welcomed the PISA results and recognized the urgency of addressing issues and concerns regarding knowledge gaps to improve the quality of basic education in the Philippines. These studies support the notion that hospitality students must strengthen their language, communication, and work skills. Student competencies must be strengthened.

The rationale for this study was to widen students' horizons in regards to the development of essential competencies and the 21st century skills in the area of hospitality management. Customary assessment and evaluation is necessary to determine if students have acquired these competencies and to improve their employment potential. The objective of the research was to determine the extent to which students' competencies and 21st century skills were aligned with those of institutional and industry partners. It also examined the value of organizational placements in allowing hospitality students to develop both their soft and technical skills while interning in various hospitality firms, resulting in a well-rounded learning and development paradigm. Furthermore, the researchers realized that the essence of cultivating state-of-the-art competencies and 21st century skills for hospitality management students is related to their institution's progress in reaching its goals. The conceptual model adopted for the study is illustrated in Figure 1.

Figure 1 *Conceptual Framework of the Study*



Literature Review

Graduates have found employment very competitive in world markets. Employers were looking for professionals with excellent competencies who possessed both hard and soft skills. In hospitality management, developing skills such as cultural awareness, multitasking, customer service, and communications are necessary to effectively deliver outstanding customer experiences (EHL Insights, 2020). Students need simultaneously to develop their hard skills and soft skills, nurture friendly and approachable personalities, and also increase their visionary skills. Institutions must train their graduates to be competent and competitive to face work challenges (Benckendorff et al., 2010).

The top five characteristics desired from hospitality graduates are teamwork, effective communication skills, professionalism, grooming, and the ability to empathize with guests (Tesone & Ricci, 2006). These five top characteristics were emphasized because, according to Harkinson et al., (2011), knowledge gaps were present in the areas of communication skills, teamwork, and time management. Maher and Neild (2005) mentioned that differing stakeholder opinions caused knowledge gaps. Thus, knowledge gaps occurred because of a disconnection between education and industry requirements in relation to graduates' skills and industry needs (Alhelalat, 2015).

Aside from the observed knowledge gap, O'Mahony et al. (2001) claimed that other problems included different skill sets, kinds of training, and students' readiness to work. Due to these problems, Barrows and Johan (2008) recommended that schools offering Hospitality Management needed to adopt teaching and work strategies that offered quality instruction, along with practical research, as well as developing strong partnership with other schools and agencies.

A competency is described as a personal capability that enables the successful accomplishment of tasks. Accordingly, competencies are the outcomes produced in students (Borich, 1980). In fact, Razak et al. (2014) identified the importance of competency models in training and development, especially in identifying behaviors, determining necessary skills, and developing people for future roles and responsibilities. This model can also be used in identifying and developing employees with necessary competencies to equip them for managerial positions.

Acquisition of 21st century skills are intended to answer the inadequacies of learners in order to address existing needs. These skills include critical thinking, collaboration, communication, creativity and innovation, self-direction, global connections, and technology skills (Ravitz, 2014). Critical thinking skills refer to the capability to think and recall comprehensively and ability to comprehend, evaluate, and acknowledge arguments impartially. Collaboration refers to skills in working together in pairs, teams, or groups to analyze complex problems, gather data to solve problems, evaluate results, and make reasonable and appropriate conclusions. Communication skills are when students can gather information, organize and record data, and draw findings and conclusions. This information can be shared either in writing or orally. Creativity and innovation skills are the ability to find solutions and give explanations to complex problems based on analysis and synthesis of what they have learned. Self-direction skills refer to the ability of students to take responsibility in doing their own work and respond to feedback when asked. Local and global connections are when students are able to comprehend the complexities and diversities of community culture and geo-political issues such as history, culture, and the literature of local and foreign countries. Technology skills refer to students' investigative skills in gathering different sources of knowledge through the use of technology, and communicating the same to other information users effectively and efficiently (Ravitz, 2014).

Methodology of the Study

In the study a quantitative approach was employed utilizing a descriptive-correlational and descriptive-comparative design that involved three groups of respondents. The groups were chosen according to inclusion-exclusion criteria. The first set of respondents were 43 fourth-year Hospitality Management students who had undertaken an on-the-job training program. The second set of respondents were nine Hospitality Management teachers who acted as validators of student answers to prevent partiality or bias. Among the Hospitality Management teachers, five were working full time, and four were employed on a part-time basis. The third set of respondents were 18 industry partners. These were owners or managers of industrial establishments, food and beverage establishments, and hospitality management centers. A standardized questionnaire was used as the study's instrument. The questionnaire had three parts for all respondents to answer. Part One dealt with the eight competencies; these competencies were cooperation, following instructions, getting along with others, dependability, initiative, productivity, workplace competencies, and quality of work. Part Two examined six 21st century skills consisting of collaboration skills, personal and workplace skills, self-direction skills, thinking and reasoning skills, creativity and innovation skills, and information and communication skills. Part Three of the questionnaire dealt with the issues and concerns encountered by the students themselves.

Table 1 shows the inclusion-exclusion criteria that served as the basis for respondent selection.

Table 1 *Distribution of Respondents (N = 70)*

Respondent Groups	Frequency	Percentage (%)
Hospitality Management Students	43	61.43
Hospitality Management Teachers	9	12.86
Industry Partners	18	25.71

The questionnaire for competencies was based on the on-the-job evaluation form of the institution. The 21st century skills were based on the Partnership for 21st Century Skills, and A Survey for Measuring 21st Century Teaching and Learning (Ravitz, 2014), making the instrument reliable and valid. The information was obtained from respondents through online techniques. The distribution of the questionnaire and messages were sent online. This was to safeguard the health of all concerned in accordance with health protocol measures necessitated by the COVID-19 pandemic. Aside from these communication measures, debriefing and referrals were also observed.

The four statistical tests used were weighted means, simple percentages, one-way analysis of variance (ANOVA), and correlation coefficients. The weighted means utilized a five-point Likert scale to determine the extent of the competencies and 21st century skills as shown below.

Table 2 *Competency Ranges*

Mean Ranges	Response Options	Interpretation
4.21–5.00	Very Great Extent (VGE)	Represents an extraordinary level of competencies and 21st century skills. Students had exceeded the level for state-of-the-art.
3.41–4.20	Great Extent (GE)	Competencies and 21st century skills achieved expectations. Students had reached the level for state-of-the-art.
2.61–3.40	Moderate Extent (ME)	Competencies and 21st century skills did not achieve expectations. Students were below the established level for state-of-the-art.
1.81–2.60	Less Extent (LE)	Competencies and 21st century skills failed to meet expectations. Students were far below the established level for state-of-the-art.
0.00–1.80	No Extent (NE)	Competencies and 21st skills were consistently far below expectations. Students totally failed to meet expectations for state-of-the-art.

The simple percentages determined the prevalence of the issues and concerns experienced by students. One-way ANOVA was used in finding the perceptual differences among students, teachers, and industry partners regarding student competencies. The correlation coefficients determined the relationship between the competencies and 21st century skills of the students.

Results and Discussion

In this section, the data results are presented, analyzed, and interpreted in tabular summary form regarding the attainment of the desired competencies and 21st century skills for Hospitality Management students.

Desired Competencies

Eight competencies were expected from Hospitality Management students; these are discussed based on students' immersive on-the-job training prior to graduation. Table 3 shows a summary of the eight competencies, which were ranked according to their weighted means and descriptive equivalents. The results showed that the competencies were considered as valuable or important factors in achieving a state-of-the-art performance by the Hospitality Management students, as indicated by the average value of 3.67, which was equivalent to a great extent.

Table 3 *Summarized Data of Competencies (N = 70)*

Competencies	*M*	Response	Rank
Cooperation	4.01	GE	1
Following Instructions	3.89	GE	2
Getting Along With Others	3.82	GE	3
Dependability	3.64	GE	4
Initiative	3.57	GE	5
Productivity	3.53	GE	6
Workplace Competencies	3.52	GE	7
Quality of Work	3.44	GE	8
General Average	3.67	GE	

The Table 3 rundown revealed that students had high collaborative and cooperation skills, while the lowest rating was for their quality of work. They had higher ratings in terms of human-relation skills (dependability, following instructions and working with others), but lower for work-related skills (initiative, productivity, and workplace competencies). The students needed to focus more on job-related competencies, how to be more productive, and how to improve the quality of their work. This may indicate that soft skills are easier to cultivate than technical skills in hospitality management.

The significance of the work-integrated learning experience cannot be denied, as student trainees were exposed to the competencies required in their organizations (Rainsbury et al., 2002). The curriculum needs to be checked from the outcomes to be accomplished in work-integrated learning and teachers need to be aware of the competencies required when preparing student trainees ready to venture into employment (Yorke and Harvey, 2005), and their workability on execution of their qualifications. Hodges and Burchell (2003) suggested that those responsible for developing curricula must be perceptive, and make sure that they understand what workplace competencies are required by industry partners.

21st Century Skills

Six 21st century skills were expected from Hospitality Management students and are discussed based on students' immersive on-the-job training that was done prior to graduation. The data shown in Table 4 indicates how the six 21st century skills were manifested by the Hospitality Management students. Based on average scores, collaboration skills ranked first, followed by personal and workplace skills. Self-direction skills were third, and followed by thinking and reasoning skills, creativity and innovation skills, and the last were information and communication skills.

Table 4 *Summarized Data of the 21st Century Skills (N = 70)*

21^{st} Century Skills	*M*	Response	Rank
Collaboration Skills	3.81	GE	1
Personal and Workplace Skills	3.75	GE	2
Self-direction Skills	3.73	GE	3
Thinking and Reasoning Skills	3.61	GE	4
Creativity and Innovation Skills	3.56	GE	5
Information and Communication Skills	3.28	ME	6
General Average	**3.62**	**GE**	

Generally, students already possessed 21st century skills and were ready for their jobs after graduation, as the scores indicated possession "to a great extent" (M = 3.62), although some 21st century skills were not fully developed. Students should focus on developing these skills as individuals or as in groups in order to achieve higher proficiency levels.

The least developed skill was information and communication skills involving linguistic proficiency in dealing with other persons. These findings could be attributed to several students who had little or no connectivity, and so could not use technology as a learning tool, or may have not learned these skills yet because they were not formally taught. They may also have not realized the importance of verbal and non-verbal communication, or of both written and oral communication in the workplace.

Information and communication skills include the ability to use information technology properly. This involves the ability to access data and information, update technology tools, and effectively train students how to use them properly (Partnership for 21st Century Skills, 2008). There are many information, media, and technology learning skills related to information literacy, use and management of information, creating media products, and applying technology effectively. These skills are vital for students to be useful in their future chosen fields of specialization.

Appropriate 21st century skills are needed to develop employee capabilities in their fields of specialization so that they can respond to environmental changes and deal successfully with all upcoming difficulties. Kim et al. (2011) studied the importance of convention hotel employees' competencies and qualifications. Employees who developed 21st century skills were able to improve themselves in both their personal and work-related responsibilities. This means that benefits were realized not only by the employees themselves, but also by their convention hotel businesses. The convention hotel employees with comprehensive 21st century skills were able to perform their work well and competently. This made their hotels successful and provided satisfaction to visitors. Thus, these mutual benefits produced positive outcomes and results for all concerned: hotel employees, guests or visitors, as well as business owners. As a whole, competencies and 21st century skills have greatly helped Hospitality Management students. Development of their careers provides opportunities for self-development and improvement of their families and communities.

An ANOVA test was conducted to see if the three respondent groups had different perceptions of hospitality management student competencies. The data in Table 5 shows that out of eight competencies, only for productivity did the three groups have comparable ratings. The three groups composed of teachers, students, and industry partners did not differ significantly from one another in their mean ratings, which showed similar perceptions and observations of this competency. Productivity can be observed as students interact in classrooms or workplaces.

In terms of productivity, the three respondent group ratings were close to one another since they were based on students' output (f = 2.654; p = .111). It was evident that the Hospitality Management students tried their best to be more productive. They challenged themselves to accept the responsibilities between themselves and their work, between their work and the common good that is productivity in itself, maintaining professionalism and the spirit of service, and between the school and the community. The observations were based on student productivity results, especially in the production of hospitality goods and services. Student trainees should produce quality output in order to have effective productivity. Productivity refers to the ability of employees to complete their work within a given time frame. It is also the ability to manage and prioritize their own work.

Table 5 *Perceptual Differences of Three Respondent Groups of Desired Competencies (N = 70)*

Competencies	Group	Mean	Computed *f*	*p*-value	Remarks
Cooperation	Teachers	3.8680	17.077**	.000	Reject H_o
	Students	3.9080			
	Partners	4.4240			
Following Instruction	Teachers	3.5780	12.505**	.001	Reject H_o
	Students	3.8060			
	Partners	4.2880			
Getting Along with Others	Teachers	3.4660	18.076**	.000	Reject H_o
	Students	3.7240			
	Partners	4.3080			
Dependability	Teachers	3.3540	6.855**	.010	Reject H_o
	Students	3.7240			
	Partners	3.8680			
Initiative	Teachers	3.3080	5.255*	.023	Reject H_o
	Students	3.6120			
	Partners	3.7780			
Productivity	Teachers	3.3940	2.654^{ns}	.111	Do not Reject H_o
	Students	3.4480			
	Partners	3.6940			
Workplace Competencies	Teachers	3.2200	8.809**	.004	Reject H_o
	Students	3.5000			
	Partners	3.8220			
Quality of Work	Teachers	3.1320	20.396**	.000	Reject H_o
	Students	3.5000			
	Partners	3.6700			

Note. * $p < .05$; ** $p < .01$; ^{ns} not significant

To put it another way, when people are productive and committed to their jobs, the quality and quantity of their work improves. Hospitality interns with a high level of product and service quality are capable of meeting industry partners' expectations. Strachan (2016) indicated that embedding employability skills into courses enabled students to be aware of their importance to organizations.

An ANOVA test was conducted to compare the three respondent groups’ perceptions of students’ 21st century skills. Table 6 showed that out of six 21st century skills surveyed, information and communication skills failed to differ significantly from one another.

Table 6 *Perceptual Differences of Three Respondent Groups of 21st Century Skills (N = 70)*

21st Century Skills	Group	Mean	Computed *f*	*p*-value	Remarks
Collaboration Skills	Teacher Students Partners	3.51 3.68 4.24	14.227**	.001	Reject H_o
Personal and Workplace Skills	Teacher Students Partners	3.58 3.59 4.09	19.71**	.001	Reject H_o
Self-Direction Skills	Teacher Students Partners	3.49 3.66 4.04	13.279**	.001	Reject H_o
Thinking and Reasoning Skills	Teacher Students Partners	3.44 3.53 3.85	10.675**	.002	Reject H_o
Creativity and Innovation Skills	Teacher Students Partners	3.40 3.54 3.76	6.377*	.013	Reject H_o
Information/Communication Skills	Teacher Students Partners	2.98 3.14 3.48	1.249^{ns}	.321	Do not reject H_o

Note. * $p < .05$; ** $p < .01$; ^{ns} not significant

In terms of information and communication skills, the three groups had comparable observations of the students ($f = 1.249$; $p = .321$). This suggests that students were really quite weak in both their written and oral communication skills, which can be easily observed when they interacted with one another. This is an innate capacity of a person that cannot readily be changed. Hence, how they interacted or communicated with classmates was similar to their communication with teachers and people in the industry. The information and communication skills learned from the classroom may likewise be useful during their on-the-job training. It is important to learn communication skills so that they can express themselves effectively and efficiently when handling customers. Communication skills are essential abilities, and should be a focal point of consideration at universities (Umar, 2006).

The competencies of students were significantly related to their 21st century skills. Table 7 presents this relationship, showing that when one variable increased, the other variable also increased. Students with a high level of desired competencies were also those with a high level of 21st century skills, and similarly those with a low level of competencies also had a lower level of 21st century skills. This could be attributed to the areas in the two assessment tools. What the university expected of their hospitality management graduates was comparable to what was expected in regard to their 21st century skills. Both assessments measured the technical and soft skills of the students.

Table 7 *Correlation of Competencies and the 21st Century Skills* (*N* = 70)

Variables	Mean	*SD*	Computed *r*	*p*-value	Remarks
Competencies	3.68	0.405	.88**	.001	Reject *Ho*
21st Century Skills	3.61	0.686			

The students had varied experiences not only in their classes but also in their training experience at their assigned workplaces. Table 8 presents the issues and concerns mentioned by the three groups of respondents. It shows that the students had five issues and concerns during their on-the-job training, of which poor communication skills were ranked the highest. They admitted that their communication skills were poor, and this problem affected customer relationships, their critical thinking, and their relationships with owners and managers. Poor communication skills also affected their interpretation of company rules and regulations, and resulted in practices that led to disagreements between themselves and managers. This happened due to lack of practice in trying their best to speak in English.

Table 8 *Issues and Concerns of Hospitality Management Students* (*N* = 70)

Issues and Concerns	Frequency	%	Rank
Poor communication skills	62	88	1
Misunderstanding of company or industry memorandum of agreement	58	83	2
Confusing company rules	46	66	3
Proper handling and use of tools and equipment	45	64	4
Customer relationships	30	42	5

By identifying internship problems, Henry et al. (2001) attempted to describe how on-the-job training programs can be carried out efficiently and effectively. This involved both trainees and researchers; internship problems were categorized as "work place," "working hours," "insufficient supervision," "ignorance about importance of working," and "wages." Although carried out in different fields, it was noted that similar problems occurred in tourism-related internship programs (Busby & Gibson, 2010; Lee, 2006).

Despite these limitations experienced by the Hospitality Management students, still they looked forward to better job opportunities once their problems and mistakes were corrected and improved. They had a strong belief that these experiences would gradually improve them, their jobs, and their futures. Their experiences were the results of what they had learned at school and applied during their practicum activities. The on-the-job training was designed to acquire necessary experience for them. Internship programs enabled students to understand and examine possible careers and settle on a career choice. However, it cannot be denied that on-the-job students encountered challenges and difficulties during their training.

When the COVID-19 outbreak spread globally, wrecked the economy, and eventually halted the hospitality and tourism industries' economic activities in the early months of 2020, it was one of the most severe difficulties for hospitality interns. The highly contagious disease is still wreaking havoc on the sector, raising serious questions about its current and long-term survival (Kaushal & Srivastava, 2021). Internships are well-known for providing face-to-face opportunities for students to gain practical or hands-on experience in a real-world situation. Due to the pandemic, however, many industry partners and educational institutions hurried to find solutions, particularly for hospitality student interns under the new normal. The temporary termination of face-to-face internship programs and the change from traditional to digital internship programs instilled dread and anxiety among hospitality interns. They feared that not receiving practical training would restrict their competencies and skills. To avoid impeding the learning and growth of hospitality students, digital technologies and online internships became substitute options. With that in mind, educators have stressed the importance of using technology to foster virtual interactions in order to limit physical contact between people (Kaushal & Srivastava, 2021). However, according to Hora et al. (2021), it's a stretch to claim that schools and universities are undertaking large-scale experiments in which students do online internships. There is little evidence to support of their usefulness and success in contributing to good educational or employment outcomes after graduation.

Circumstances and changes can have a significant impact on students' personal and professional lives. Change is inherent in this world; it is the only constant. Adapting to change allows hospitality students to become more flexible, understanding, and well-prepared for the future.

Conclusions

This study concluded that students' lack of information and communication skills influenced their quality of work and their on-the-job training. Hence, to cultivate state-of-the art competencies and 21st century skills in Hospitality Management students, a learning and development model must be developed that focuses on improving their quality of work, along with information and communication skills. Learning modalities refer to a learner's individual learning style and preferences for how information is absorbed and processed (or modes). This model serves as an institutional platform for the growth and development of the hospitality management students, particularly in their weakest points. Its output is a learning and development model that is based on the competencies and 21st century skills that should be developed and strengthened in Hospitality Management students. This also comprises training, seminars, monitoring, mentoring, coaching, and learning and developmental activities. Proficiency and skill in the quality of work can be judged by the results of one's work. Information and communication skills can be harnessed through the proper use of technology and in written and oral communication.

The results suggest that competencies and 21st century skills must be specifically embedded or incorporated into different subjects or courses. The different issues, concerns and gaps should be addressed by providing a series of activities to enhance student development. University policies and practices must be regularly reviewed to meet the demands of the times. By doing this, teachers may be able to help students address whatever issues and concerns they have encountered, and enhance their workplace confidence. Regular communication and giving feedback to continue motivating and innovating each other will ensure that teachers, industry partners, and students are moving forward in the same direction. The hospitality management faculty, with the help and guidance of administrators and the support extended by industry partners through linkages, will guide and assist students in developing the necessary competencies and skills needed to achieved common goals.

Consequently, the goal of this study was to align students' competencies and 21st century skills with their institution's and industry partners' objectives, manage these competencies and skills on a daily basis, evaluate and monitor student performance, and stimulate individual development in order to improve student contribution to institutional success. Continuous learning, real-time feedback, and intuitive goals are the cornerstones of state-of-the-art operations, allowing hospitality management students to take charge of their own professional development. Furthermore, this study will be of value in guiding future researchers who wish to conduct studies on overcoming the barrier of skill mismatches among hospitality management students. It may also help to enable 21st century student life and work outcomes to be better embedded into curricular programs.

Limitations of the Study

This study was restricted to quantitative data, and focused on understanding how interactions among students, schools, and industry partners affected desired competencies and 21st century skills. Out of eight 21st century skills sets identified by Ravitz (2014), the study examined only the following: collaboration, personal/workplace skills, self-direction skills, thinking/reasoning skills, creativity/ innovation skills, and information/communication skills.

References

Alhelalat, J. A. (2015). Hospitality and non-hospitality graduate skills between education and industry. *Journal of Business Studies Quarterly, 6*(4), 46–55.

Barrows, C. W., & Johan, N. (2008). Hospitality management education. In B. Brotherton & R. C. Wood (Eds.), *The Sage handbook of hospitality management*. Sage. http://dx.doi.org/10.4135/ 9781849200417.n7

Benckendorff, P., Moscardo, G., & Pendergast, D. (2010). *Tourism and generation Y.* Cambridge, Centre for Agriculture and Bioscience International.

Borich, G. D. (1980). A needs assessment model for conducting follow-up studies. *Journal of Teacher Education, 31*(3), 39–42. https://files.eric.ed.gov/fulltext/ED189079.pdf

Busby, G. D., & Gibson, P. (2010). Tourism and hospitality internship experiences overseas: A British perspective. *Journal of Hospitality, Leisure, Sport and Tourism Education, 9*(1), 4–12.

Commission on Higher Education. (2017). Memorandum No. 62, Series of 2017. https://ched.gov.ph/cmo-62-s-2017/

Department of Education. (2019, December 4). *Statement on the Philippines' ranking in the 2018 PISA results*. https://www.deped.gov.ph/2019/12/04/statement-on-the-philippines-ranking- in-the-2018-pisa-results/

EHL Insights. (2020). *Hospitality industry: All your questions answered.* https://hospitalityinsights.ehl.edu/hospitality-industry

Harkison, T., Poulston, J., & Kim, J. J. (2011). Hospitality graduates and managers: The big divide. *International Journal of Contemporary Hospitality Management, 23*(3), 377–392.

Henry, J. S., Rehwaldt, S. S., & Vineyard, G. M. (2001). Congruency between student interns and worksite supervisors regarding critical elements of an internship experience. *Information Technology, Learning, and Performance Journal, 19*(1), 31–42.

Hodges, D., & Burchell, N. (2003). Business graduate competencies: Employers' views on importance and performance. *Asia-Pacific Journal of Cooperative Education, 4*(2), 16–22.

Hora, M., Lee, C., Zi, C., & Hernandez, A. (2021). *Exploring online internships amidst the Covid-19 pandemic in 2020: Results from a mixed-methods study*. Center for Research on College-Workforce Transitions (CCWT), University of Wisconsin-Madison. https://ccwt.wceruw.org/wp-content/uploads/2021/05/CCWT_report_Exploring-online-internships-amidst-the-COVID-19-pandemic-in-2020.pdf

Juan, R. S. (2019, December 4). DepEd welcomes PISA results, recognizes 'gaps' in education quality. https://www.philstar.com/headlines/2019/12/04/1974229/deped-welcomes-pisa-results-recognizes-gaps-education-quality

Kaushal, V., & Srivastava, S. (2021). Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International Journal of Hospitality Management 92,* 102707. https://doi.org/10.1016/j.ijhm.2020.102707

Kim, Z. Y., Kim, S. S., Seo, J., & Hyun, J. (2011). Hotel employees' competencies and qualifications required according to hotel divisions. *Journal of Tourism, Hospitality & Culinary Arts, 3*(2), 1–18.

Laguardo, J. M., Deligero, J. C., & Cueto, A. (2015). Students' evaluation on the teaching performance of tourism and hospitality management faculty members. *Asian Journal of Educational Research, 3*(3), 28–33.

Lee, S. (2006). *A comparison of student perceptions of learning in their co-op and internship experiences and the classroom environment: A study* [Doctoral dissertation, University of Central Florida]. https://stars.library.ucf.edu/etd/969

Maher, A., & Neild, K. (2005, January 27–28). *Enhancing student employability: Higher education and workforce development* [Paper presentation]. 9th Quality in Higher Education International Seminar, Birmingham, AL, United States.

O'Mahony, G., McWilliams, A. M., & Whitelaw, P. A. (2001). Why students choose a hospitality degree program. *The Cornell Hotel and Restaurant Administration, 42*(1), 92– 96.

Partnership for 21st Century Skills. (2008). *21st century skills, education & competitiveness: A resource and policy guide.* https://www.21stcenturyskills.org/documents/21st_century_skills_education_and_competitiveness _guide.pdf

Rainsbury, E., Hodges, D., Burchell, N., & Lay, M. (2002). Ranking workplace competencies: Student and graduate perceptions. *Asia-Pacific Journal of Cooperative Education, 3*(2), 8–18.

Ravitz, J. (2014). *A survey for measuring 21st century teaching and learning: West Virginia 21st Century teaching and learning survey (WVDE-CIS-28)* [Data set]. https://www.researchgate.net/publication/289377968__survey_for_measuring_21st_century_teaching_and_learning_West_Virginia_21st_Century_Teaching_and_Learning_Survey_WVDE-CIS-28

Razak, A. R., Zainol, N. A., & Shariff, N. M. (2014, November 5–6). *Hospitality management competencies: Identifying graduates' essential skills* [Paper Presentation]. Proceedings of the 2nd Tourism and Hospitality International Conference, Langkawi, Malaysia.

Saad, H. E., & Ali, H. (2016). Students' expectations towards careers in the hospitality industry in Egypt. *International Journal of Heritage, Tourism, and Hospitality, 8*(1). https://www.semanticscholar.org/paper/Students'-Expectations-towards-Careers-in-the-in-Saad-Ali/2d71c833a1b54bf745d25a28563f1970f2bc576a

Strachan, L. (2016). Teaching employability skills through simulation games. *Journal of Pedagogic Development, 6*(2), 8–17.

Tesone, D. V., & Ricci, P. (2006). Toward a definition of entry-level job competencies. *International Journal of Hospitality & Tourism Administration, 7*(4), 65–80.

Umar, R. (2006). *Modul pembangunan kemahairan insaniah (Soft Skills) untuk Institusi Pengajian Tinggi Malaysia* [Soft Skills development module for Malaysian Institutions of Higher Learning]. Penerbit Universiti Putra Malaysia. https://123dok.com/document/y623964z-modul-pembangunan-kemahiran-insaniah-soft-skills-untuk-malaysia.html

Yorke, M., & Harvey, L. (2005). Graduate attributes and their development. *New Directions for Institutional Research, 128*, 41–58.

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Reading Comprehension of Thai Students Improved by Extensive Reading When Learning English as a Foreign Language

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Abstract

The present study had three purposes: (a) to examine students' reading comprehension after they participated in an extensive reading program for 10 consecutive weeks; (b) to explore if there were any gender differences in the outcomes, and (c) to examine students' reading motivation after they completed the program. Thirty-three first-year students from a university in Thailand participated in the study. The study used a quasi-experimental research design to determine whether extensive reading impacted the students' ability to learn English. A pre-test was given before the program/intervention and a post-test after the intervention. In addition, the students responded to a questionnaire on their reading motivation. The results showed that students' English reading comprehension improved after taking part in the reading program. All students reported improvement in their English reading comprehension. There were no gender differences in the post-test, even though female students spent more time reading than their male counterparts. The study highlighted a need for further research in extensive reading, specifically using control groups to ascertain how much ER contributes to reading comprehensive improvement.

Keywords: *Extensive reading, reading comprehension, reading motivation*

Introduction

Reading is a skill that is important for improving students' learning of English as a Foreign Language (EFL). In addition to being a source of information, reading in a language class is an activity to be enjoyed (Dechant, 1991). Reading can also reinforce writing and reading skills, which are essential for facilitating comprehension. If students' reading skills are poor, they are likely to struggle to improve or make progress in their studies. For Thai students, a study from the Program for International Student Assessment (PISA) (2018) showed that they are weak readers owing to a lack of interest in reading, low motivation, and poor reading habits (Sawangsamutchai & Rattanavich, 2016). Furthermore, Thai students may read a text, but they do not comprehensively understand what they read (Chomchaiya & Dunworth, 2018). One of the reasons for this unsatisfactory reading outcome is a result of the teaching methodology. Hayikaleng et al. (2016) said that there are teachers of English in Thailand who use traditional teaching methods, where passages are read aloud for students and students are then assigned to answer comprehension questions. This teaching strategy encourages students to be passive learners and does not promote the skills necessary to become proficient in a new language. Hence, Thai teachers must try new teaching methods, and students should also find other ways of learning English as a foreign language (EFL).

Extensive Reading (ER) is one strategy that has been successful in increasing reading comprehension. Bamford and Day (2004) describe ER as "an approach to teach language in which learners read a lot of easy material in the new language" (p. 1). Extensive reading is a powerful tool that improves students' ability to learn English while having fun at the same time. Over the last 10 years, Thailand has encouraged schools to use this program by creating Self Access Learning Centers (SALC) equipped with many books and other reading materials. These SALC facilitate ER programs. Sadly, at least one report has indicated that these facilities were not utilized (Noom-ura, 2009). This could be due to a number of things such as students not being aware of such facilities or teachers not being confident enough to let students explore other books besides the ones they know.

In this study, the researchers made use of a SALC at a Language Institute. The Language Institute (LI) provides English courses to undergraduate students at a local university in Thailand. It has a learning center that subscribes to an extensive reading software that aims to promote students' reading ability and can increase their reading motivation. The LI centre has a wide range of books at different reading levels, ranging from easy to challenging. Based on previous studies, ER and SALC have made contributions to undergraduate performances (Gromik, 2015; Kagar, 2012; Pongstornpipat, 2021). Thus, the researchers used SALC to examine the impact of ER on students' English reading comprehension and whether there were gender differences in reading ability.

The following were the research questions:

1. Does extensive reading affect students' reading comprehension in learning English?
2. Are the scores of English reading comprehension abilities between the male students and female students significantly different?
3. Does extensive reading give the students a higher motivation toward reading comprehension in English?

Definition of Extensive Reading

Extensive reading can help students develop their foreign language reading skills and motivate them to read. Day (2015) explained that ER teaches reading via reading for pleasure and information. The idea of ER is that readers must read as much as possible without concern about unknown vocabulary or expressions in the text. The main goal of ER is to build readers' fluency, reading speed, and a general understanding of the reading materials (Bamford & Day, 1997). The texts should be authentic and convey real-world experiences because students are then able to learn how to use the language in real life (Guo, 2012). Day and Bamford (2002) and Day (2015) agree that an extensive reading program is critical for reading comprehension. They proposed 10 successful principles for teaching ER as follows: (a) easy reading material, (b) various topics on reading material, (c) learners' choice in reading, (d) learners to read a lot, (e) reading should be for enjoyment, information, and general knowledge, (f) reading is itself the reward, (g) increase reading speed because student read texts that are easy and interesting, (h) silent reading, (i) teachers' guidance in reading, (j) teacher is a reading role model for students.

Related Studies about Extensive Reading

Researchers from various countries are interested in ER (Liu & Young, 2017; Maipoka & Soontornwipast; 2021; Yen, 2017). Kargar (2012) conducted a study on 67 Iranian EFL students who had failed in their reading courses. These students were divided into two groups: An experimental group that underwent an extensive reading program and a control group without an ER program. The experiment lasted for 10 weeks. After the experiment, the post-test revealed that the experimental group achieved better proficiency because their post-test scores improved.

Burgh-Hirabe and Feryok (2013) conducted an extensive reading on nine adolescent students in high school aged from 10–19 years old. They studied Japanese as a foreign language in New Zealand. The students were highly encouraged to read easy and interesting Japanese books for five to seven months. They were requested to finish at least one book a week and keep a journal entry. At the end of the experiment, the result showed that motivation for extensive reading, defined as a commitment, depends on the number of books read and the time spent reading. The motivation of four students increased, three decreased, and two remained stable. Some of the significant factors influencing the Japanese foreign language learners' motivation for extensive reading were identified as (a) a desire to develop their Japanese language, (b) feelings of success, (c) intrinsic values, (d) availability of extensive reading books, (e) beliefs about L2 learning, (f) a sense of autonomy, (g) external demands, and (h) distractions. This study shows that ER can be applied to learning any second language, not just English.

Pongsatornpipat (2021) conducted ER study on Thai undergraduate students for 10 consecutive weeks. The study investigated the improvement of students' reading ability and explored their opinion regarding reading development through ER. The study was a mixed-methods research involving 30 willing students. The pre-test score was (M = 13.17, SD = 4.58), and the post-test was (M = 20.73, SD = 6.28). The post-test showed that that ER can significantly increase students' reading ability. Furthermore, the qualitative interview analysis showed that participants felt positivily toward their reading development and self-autonomous skills.

Gender Differences as a Factor in Reading Improvement through Extensive Reading

In research on ER, a variable that is often examined is gender. Takase (2011) conducted a study to determine gender differences in students' performing in ER. There were 40 students (20 females and 20 males) who participated in this study for 10 months of an academic year. In this study, the Edinburgh Project on Extensive Reading (EPER) test was administered for pre-test and post-test to determine students' reading ability development. At the end of the experiment, students self-reported their reading ER experience and the materials they read. A post-test gender comparison showed no gender differences between the male and female students. However, comparing pre-test to post-test scores within each gender showed that females improved their reading performance. The reason given was that the female participants embraced ER more positively and started by reading lower level picture books, which encouraged them to keep reading and take on more challenging books. Consequently, the female students read more than their male counterparts.

A similar study by Lui and Young (2017) used online community-based English extensive reading to explore the extrinsic, intrinsic, and interpersonal motivation and gender differences in the reading of 501 (216 males and 285 females) Taiwanese high school students. The results showed that the female students had a stronger intrinsic motivation while the male students had stronger interpersonal motivation. Moreover, the female students had higher average scores on comprehensive tests than the male students. However, based on the interactivity tests, the male students' scores were higher than those of female students.

Second Language Learning Theories

Although reading is an important skill necessary for improving second language learning, it is hard to enjoy reading when the purpose is merely to obtain knowledge. It is difficult for students to read for long periods of time even though the reading materials are easy and exciting. They find it difficult to finish reading a whole book, let alone read and finish several books. They only read when the teacher assigns homework or because of course requirements (Laufer, 2001). Motivation is the best way students can accomplish their language learning goals.

Gardner's motivation theory (1985) classifies motivation as integrative motivation and instrumental motivation. Integrative motivation reflects the learners' willingness to be part of other language communities or wanting to communicate with those groups. Kato (2016) explained that integratively motivated students develop their language proficiency to interact with the native speakers or fit in with their communities. On the other hand, instrumental motivation reflects a need for social recognition or for economic benefit as a result of knowing a second language. Students try to enhance their language ability because they may be rewarded with a higher salary, power, or a better career. Ghomali et al. (2012) indicated that students with instrumental motivation could easily pass the university entrance examinations or language tests, apply for a job, get higher pay, or achieve higher social status.

Deci and Ryan's (1985) Self Determination Theory (SDT) classifies motivation into extrinsic and intrinsic motivation. Extrinsic motivation is defined as doing something because it leads to external outcomes such as rewards, trophies, money, social recognition, or even praise. This is similar to Gardner's instrumental motivation. Ryan and Deci (2000) stated that students with strong extrinsic motivation could easily accomplish their learning goals for a reward. On the other hand, intrinsic motivation refers to individual inner pleasure, fun gained from the activity, and the ability to challenge oneself (Ryan & Deci, 2000; Legault, 2016). Singh (2016) suggested that students with intrinsic motivation could lead to an innate psychological need for competence, autonomy, and desire to perform meaningful work.

According to these theories, motivation is a key factor, as seen by Huang (2015), who used ER to check students' motivation in English reading. He conducted a study with 258 high school students in Taiwan. The participants were encouraged to read 30 minutes a day. The data collection was done via an interview on randomized student selection. The result revealed that extensive reading positively affected students' motivation toward reading English and develops English reading ability.

Research Methodology

A quasi-experimental quantitative research design was used to estimate the causal impact of an intervention on a target group without random assignment. The ER was used for 10 consecutive weeks in one semester to examine whether the intervention impacted reading comprehension and motivation. A pre-test and post-test were used at the beginning and the end of the intervention. Students began reading at the elementary level, and after receiving the intervention, they were expected to reach the upper-intermediate level.

Participants

The participants were 33 Thai university students from a Thailand university department of education. They were freshmen in the second semester of study, and their ages ranged from 17–19 years old. Their English comprehension proficiency level was at A1 (starter level). After taking English classes, they were expected to improve and move from the current level to level B2 (upper-intermediate level) and pass the university's exit examination.

The Instrument

The first instrument had two parts: (a) demographics data collection of participants' personal information such as gender, age, academic status, and students' college major of study, and (b) pre-test questions at the beginning of the study and post-test questions given to students after the intervention.

Part b of the first instrument measured students' comprehension at an intermediate level. The research instrument consisted of 50 multiple choice questions assessing reading comprehension (five passages comprised 10 questions per passage). The main idea of the questions was to identify the meaning of the words and specific details in the passages. The overall timeframe for pre-test and post-test was 60 minutes for 50 items. The students were informed about the ER program at the beginning of the semester. The pre-test and post-test were adapted from the Cambridge English Exam for beginners' free reading comprehension practice test. These tests are known as the A2 KEY or KET tests for reading, listening, speaking, and writing skills. They are a reliable and valid test for basic elementary written and spoken English. The pre-test and post test scores were made available to the students after each test.

The second instrument was a questionnaire using a Likert scale of 1 to 5, given at the end of the intervention to check students' level of motivation in reading comprehension via the extensive reading program. The questionnaire adapted from Sawangsmutchai's and Rattanavich's (2016) comprised two sections. The first section collected participants' demographic data such as gender, age, academic status, and student's college major of study. The second section consisted of 20 questions on motivation in reading comprehension after the intervention.

Procedure

The experiment was held in the English class, Fundamental English 2. Once a week for three hours, the students met and learned online via the Zoom platform. The three-hour class was divided into two sessions. The first session of the class was spent on a lesson from the English course. The second session was devoted to extensive reading activities such as game, quiz, or book reflection. The time for this activity varied from 30-40 minutes.

During the second session for ER, students were required to read English books via the ER software. The software had a variety of books from level 1 (*easy level*) to level 14 (*difficult level*). The lower-level books had fewer words, while the higher-level books were more challenging. The beginner level had the ranked words from 51–300, the elementary level from 301–800, the intermediate level from 801–1,500 words, the upper intermediate from 1,501–2,400, and the advanced level from 2,001–3,600 words. Students were informed at the beginning of the program to choose any book they wished to achieve a 200,000 word target or 50 hours of reading. In addition, students were encouraged to start reading from a lower level incrementing to a higher level each consecutive week, as Takase (2011) highlighted. Students, after reading, were also required to make a short oral presentation or reflection, as well as answer four to five comprehensive, open-ended questions. Each week students were given a one-point score for reading at a higher level or for oral presentations.

The software recorded the number of hours or words the students read, enabling the teacher through access to the records, monitor their progress. The Teacher—a facilitator and role model—picked exciting books to model comprehension reading to students. This approach was chosen as it has been shown that constant supervision and guidance in reading and reading in class helps with ER success (Day & Bamford 2002). As an incentive, students were given extra scores for improving their reading comprehension and for their active involvement in the extensive reading program. Specifically, students were given incentives and rewards with extra scores if they actively got involved in the ER and increased their reading comprehension skills. The scores also were used to replace the English course test of reading skills, which accounted for 10% of the course requirement.

Data Analysis

Descriptive statistics and *t*-tests were used to analyze the data. For this study, responses to the reading motivation questionnaire were interpreted as reported in Table 1.

Table 1 *Scale for Interpreting Quantitative Data from Reading Motivation Questionnaire*

Scale	Interpretation	Motivation Level	Score Range
5	Strongly Agree	Very High	4.50–5.00
4	Agree	High	3.50–4.49
3	Moderate	Average	2.50–3.49
2	Disagree	Low	1.50–2.49
1	Strongly Disagree	Very Low	1.00–1.49

Research Findings

Improvement of Students' Reading Comprehension Ability

To investigate whether ER improved the students' reading comprehension ability, a paired *t*-test was used to compare the overall mean scores of the pre-test and post-test. The results of the analysis are reported in Table 2.

The comprehension means a score of the 33 students at pre-test was 17.76 (SD=3.80) while their post-test mean score was 33.40 (SD = 9.56) for an increase in comprehension level of 14.64 (SD = 9.68). This increase was statistically significant ($t(32) = -8.68$, $p < .001$, ES(d) = -1.51). This result suggests that the reading intervention significantly increased the comprehension level of the students. With a Cohen's d of 1.51, it is apparent that the reading intervention had a large effect on improving reading comprehension.

Table 2 *Paired t-test Result Comparing Pre-Test and Post-Test Comprehension (n = 33)*

Measure	*M*	*SD*	*t*	*df*	*p*	ES(*d*)
Pre-test	17.76	3.80	-8.68	32	<.001	-1.51
Post-test	32.40	9.56				

Gender Differences in Reading Comprehension

Gender differences in reading comprehension are reported in Table 3. At the pre-test, males (*M* = 19.27, *SD* = 3.07) reported only slightly higher scores than female students (*M* = 17.00 *SD* = 3.96). This difference was not statistically significant ($t(31) = 1.66$, $p = .11$) with a moderate effect size (Cohen's $d = 0.61$). At the post-test, female students (*M* = 32.95, *SD* = 9.41) reported slightly higher comprehension scores than males (*M* = 31.27, *SD* = 10.23). Nevertheless, the difference was not statistically significant ($t(31) = -0.47$, $p = .64$) and had a small effect size (Cohen's $d = -0.17$). Another Analysis of Covariance to examine gender differences using the pre-test as the covariate was conducted. The adjusted post-test mean for males and females was 30.48 (*SE* = 2.99) and 33.35 (*SE* = 2.09), respectively. No statistically significant gender difference ($F(1,56) = 0.60$, $p = .45$, $\eta^2 = .02$) were found. These results indicate that reading intervention was similar for both sexes.

Table 3 *Paired t-test of Male and Female Post Tests*

Measure	Group	*N*	*M*	*SD*	*t*	*df*	*p*	ES(*d*)
Pre-test	Male	11	19.27	3.07	1.66	31	.11	0.61
	Female	22	17.00	3.96				
Post-test	Male	11	31.27	10.23	-.47	31	.64	-0.17
	Female	22	32.95	9.41				

Students had to log in their time spent reading. Overall, the students reported spending 31.23 hr (*SD* = 16.53) during this study. There appears to be a reasonably significant variation in the time spent reading, some spending less than an hour to as much as 80 hr. Table 4 reports time spent in reading (in hr) by gender. Males reported an average of 27.39 hr (*SD* = 11.93) reading compared to 33.16 hr (*SD* = 18.32) among female students. However, this time difference was not statistically significant ($t(31) = -0.94$, $p = .35$), and the difference is small (Cohen's $d = -0.35$).

Table 4 *Reading Time by Gender*

Group	*N*	*M*	*SD*	*t*	*df*	*p*	Male
Male	11	27.39	11.93	-0.94	31	.35	-.35
Male	22	33.16	18.32				

Student's Motivation in Reading Comprehension toward Extensive Reading

At the end of the reading intervention study, students were asked to complete a motivation scale to examine their motivation levels to read. Statements and item statistics of the scale are found in Table 5. Internal consistency reliability (Cronbach's alpha) for the motivation scale was .96, which is excellent. The overall scale mean was 3.85 (*SD* = 0.67), which indicates a high level of motivation for reading. Scale score for females was 3.86 (*SD* = 0.73) and 3.85 (*SD* = 0.58) for males. No significant gender motivational differences were detected, $t(31) = -0.02$, $p = .98$, ES(d) = -.007).

Statements and item statistics for the motivation scale are reported in Table 5. Item mean range from a high of 4.12 for "find what my weak point in reading skills is and try to improve," (*SD* = 0.93) and "important and a skill worth retaining in the long term" (*SD* = 0.86) to a low of 3.27 (*SD* = 0.91) for "reading activities make me bored." On 17 of the 20 items, students reported a high ($M \geq 3.5$) level of motivation for reading.

Table 5 *Motivation Item Descriptive Statistics (n = 33)*

Item	Range	*M*	*SD*
q19. I will find what my weak point in reading skills is and try to improve it.	3.00	4.12	.93
q20. Reading is important and a skill worth retaining in the long term.	2.00	4.12	.86
q06. I only try to read more to improve my grades.	2.00	4.09	.84
q02. I like to search for more information if I don't understand important lines in the reading text.	2.00	4.06	.83

Table 5 *Motivation Item Descriptive Statistics (Cont.)*

q01. I try to finish reading the whole text.	2.00	4.00	.75
q09. I try to complete reading assignments or tests by myself to check my understanding.	2.00	3.97	.85
q04. I try to learn the definitions of any words I don't understand.	3.00	3.94	1.00
q10. I try to find details in the reading text to answer questions.	3.00	3.94	.90
q18. Although I get bad reading grades, I continue to improve my reading skill.	3.00	3.91	.84
q17. It is important for me to find the main idea in each reading text.	2.00	3.91	.72
q05. I try to find ways to read faster.	3.00	3.91	.88
q12. If I don't understand the text, I will read it again.	2.00	3.88	.78
q07. I have to read because the teacher assigns me to work to do.	3.00	3.88	.93
q14. I am willing to work hard to read better.	3.00	3.85	.91
q13. I set and achieve my reading goals.	3.00	3.85	.87
q15. If a text is interesting, I don't care how hard it is to read.	3.00	3.82	.98
q03. I like to help my friends with their reading assignments	3.00	3.70	.85
q16. I always quit reading when I have to read difficult texts.	3.00	3.42	.97
q08. I don't like reading anything with too many paragraphs.	3.00	3.42	.75
q11. Reading activities make me feel bored.	3.00	3.27	.91

Discussion

Improvement in Students' English Reading Comprehension

Regarding the first research question, the effectiveness of extensive reading on students' English reading comprehension was recorded. After the intervention, there was a reading comprehension increase of 14.64 (*SD* = 9.68), which was statistically significant ($t(32) = -8.68$, $p < .001$, ES(d) = -1.51. The large Cohen value suggests the intervention played a role in this increase in reading comprehension. The large difference between the post-test and pre-tests suggests that initially students had problems with comprehending the passages they read. After the intervention, they were confident enough with the words and language to answer the questions sufficiently. This finding agree with that of Puangmaliwan's (2005). He also showed that ER could help students achieve higher vocabulary recognition and reading comprehension scores if they spend more time reading excessively. In other contexts, Suk's (2016) study involving Korean students learning English showed that extensive reading also improved students' reading rate, vocabulary acquisition, and reading comprehension, as well as fluency (Oakley, 2005). A Japanese study by Yoshizawa et al. (2017), which had 431 participant students in ER, also showed Improvement in reading rates and grammar acquisition.

Extensive reading, by its nature, is about continual reading, which helps to improve comprehension (Nuttall, 1996) and enhances the learners' grammatical development (Sheu, 2003; Mason, 2006). The books used for the experiment are written based on what learners need. These types of books motivate students to read (Bell & Campbell, 1997) because there is sufficient repetition of new language items in reading, therefore helping to cement previously learned language (Wodinsky & Nation, 1988).

Regarding research question two, there were no differences in reading comprehension between male and female students, despite female students spending more hours on reading activities (females 33.16 male student 27.39 hr). The difference is also small (.35). Other studies have observed that female students have better reading comprehension, read more frequently, and enjoy reading, while male students enjoy mathematics (Logan & Johnston, 2009; Martinez & Gil, 2020). Takase (2011) and Liu and Young (2017) also observed that females performed better in ER, as they put more effort into reading and had a higher motivation to read. However, even in these studies, no significant differences were observed in the post-test scores between the genders. These research findings also echo the findings in the current study. One explanation could be that the students used in this research have to take an English exit exam, and both genders were motivated to improve in order to pass this exam.

Students’ reading motivation revealed that they had an overall positive motivation through the extensive reading program, even though the last two questions had a negative sentiment toward reading. The responses in Table 5 show this. The overall scale mean was 3.85 (*SD* = 0.67), which indicates a high level of motivation for reading, showing unsurprisingly that students were motivated to read. An explanation for this could be that extensive reading was for pleasure. Students chose the books to read themselves and the onus was on them to read and enjoy the books (Maass & Shimada, 2018). The students also had to summarize the book and share their ideas and feelings about the stories they read. This possibly instilled new meaning in the students and made them aware of their role as active agents in the reading process (Gamboa-González 2017). The questions in the motivation questionnaire were based on the students’ involvement with the books they read. Since all of them were rated highly, that data suggest that the students were motivated to do their part. Even the least rated question, “Reading activities make me feel bored,” had a rating of above three. Nutalak (2019) and Fongpaiboon (2017) showed a positive correlation between extensive reading and reading motivation because there is increased reading comfort and less reading anxiety. Students are not stressed about getting better grades because they are reading for fun (Yen, 2017).

It is possible that in this study, students were motivated because of the incentives provided during the ER sessions. Students who increased their reading skills by reading interesting materials and challenged themselves to read books at higher levels during the ER program earned 10% of the entire grade. Because of this, students devoted most of their time and effort to the extensive reading program to improve their reading ability.

Limitations

Control groups for experimental studies are often used. However, there was no control group for this study. The study only dealt with the experiment group who received the pre-test and post-test. In addition, claiming absolute improvement from the extensive reading experiment alone can be difficult. Other factors for the improvement of reading might be the result of the teacher’s encouragement to read and the incentives of the 10% score given to students for the course grade. The results might have been different if the students were fully responsible for their reading without much guidance from the teacher.

In addition, it is hard to measure different kinds of individual students’ proficiency, such as their vocabularies, grammar, spelling, or general knowledge about the books they were reading. In fact, this was not part of this study, but such results would help greatly in gleaning more insights into the aspects that improved. With these variables not being equally represented in the students, extensive reading may not predicate English language comprehension when learning English as a foreign language. Furthermore, the duration of the experiment was short. Therefore, the reading accuracy and reading speed which are the essential elements of ER were ignored.

Recommendations from the Study

This study mirrors other studies of a similar nature done elsewhere. The ER practice significantly improved the students’ reading comprehension. This would be a great tool to add in classes where students learn English as a second language.

Three major recommendations arise from this study. Teachers need to conduct ER in a real classroom because it is easier to control and motivate students. In this study, students chose their reading material. In addition, male and female students should read the same books from the experiment’s beginning until its end to compare gender differences in reading and comprehension ability. In the future, perhaps teachers could group students by comprehension levels and assign books accordingly. Studies should also be conducted to determine if students face any difficulties or challenges in ER programs. If possible, researchers should conduct ER that has both experimental and control groups. Such experiments can help students to know if they can improve their reading comprehension from extensive reading. Furthermore, the ER experiment could include first-year students in other schools with the same English comprehension level to compare the outcomes.

Conclusion

This study was conducted to explore whether ER can improve students' reading comprehension in English and determine whether there were score differences between male and female students participating in the ER program. In addition, the study also explored students' reading motivation in the ER program. The result revealed that students' reading comprehension in English improved significantly at the end of the experiment. There were no significant gender differences at the end of the experiment. However, female students put more effort and spent more time reading compared to male students. Finally, students had positive reading motivation via ER. According to the result, ER is essential for motivating students to improve their reading comprehension. More teachers might employ ER to promote English reading and comprehension.

References

Bamford, J., & Day, R. (1997*). Extensive reading: What is it? Why bother?* The Language Teacher. https://jalt-publications.org/old_tlt/files/97/may/extensive.html

Bamford, J., & Day, R. (2004). Extensive reading activities for teaching language. *Cambridge University Press.*

Bell, T., & Campbell, J. (1997). Promoting good reading habits part 2: The role of libraries. *Network, 2*(4), 26–35.

Burgh-Hirabe, R., & Feryok, A. (2013). A model of motivation for extensive reading in Japanese students as a foreign language. *Reading in a Foreign Language, 25*(1), 72–93.

Chomchaiya, C., & Dunworth, K. (2008). *Identification of learning barriers affecting English reading comprehension instruction, as perceived by ESL undergraduates in Thailand*. https://ro.ecu.edu.au/ceducom/10

Day, R. (2015). Extending extensive reading. *Reading in a Foreign Language, 27*(2), 294–301.

Day, R., & Bamford, J. (2002). Top ten principles of teaching extensive reading. *Reading in a Foreign Language, 14*(2), 1–6.

Dechant, E. (1991). *Understanding and teaching reading: An interactive model*. Lawrence Erlbaum.

Deci, E., & Ryan, R, (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Publishing.

Fongpaiboon, A. (2017). *A study of extensive reading and flow experience among EFL Thai university students* [Doctoral dissertation, Language Institute, Thammasat University]. http://grad.litu.tu.ac.th/assets/public/kcfinder/upload_grad_web/public/5_2017_ARIYADHORN%20FONGPAIBOON_4-6-18.pdf

Gamboa-González, Á. M. (2017). Reading comprehension in an English as a foreign language setting: Teaching strategies for sixth graders based on the interactive model of reading. *Folios*, 45, 159–175.

Gardner, R., & Lalonde, R. (1985, August 23–27). *Second language acquisition: A social psychological perspective* [Paper presentation]. Annual convention of the American Psychological Association, Los Angeles, California, United States.

Gholami, R., Allahyar, N., & Galea, R. (2012). Integrative motivation as an essential determinant of achievement: A case of EFL high school students. *World Applied Science Journal, 17*(11), 1416–1424.

Gromik, N. (2015). Self-access English learning facility: Areport of student use. *JALT CALL Journal, 11*(1), 93–102. https://files.eric.ed.gov/fulltext/EJ1107995.pdf

Guo, S. (2012). Using authentic materials for extensive reading to promote English proficiency. *English Language Teaching, 5*(8), 196–206. http://dx.doi.org/10.5539/elt.v5n8p196

Hayikaleng, N., Nair, S. M., & Krishnasamy, H. (2016). Thai students' motivation of English reading comprehension. *International Journal of Education and Research, 4*(6), 1–10*.*

Huang, Y. (2015). Why don't they do it? A study on the implementation of extensive reading in Taiwan*. Cogent Education, 2,* 1–13. https://doi.org/10.1080/2331186X.2015.1099187

Kargar, A. (2012). The efficiency of extensive reading project (ERP) in an Iranian EFL context*. Theory and Practice in Language Studies, 2*(1), 165–169. https://doi:10.4304/tpls.2.1.165-169.

Kato, F. (2016). Enhancing integrative motivation: The Japanese-American collaborative learning project. *Cogent Education, 3*(1). https://doi.org/10.1080/2331186X.2016.114236

Laufer, B. (2001). Reading, word-focused activities and incidental vocabulary acquisition in a second language. *Prospect, 16*(3), 1–11.

Legault, L. (2016). Intrinsic and extrinsic motivation. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–4). Springer International Publishing. https://doi:10.1007/978-3-319-28099-8_1139-1

Liu, I. F., & Young, S. S. C. (2017). An exploration of participative motivations in a community-based online English extensive reading contest with respect to gender difference. *Interactive Learning Environments*, *25*(1), 48–61.

Logan, S., & Johnston, R. (2009). Gender differences in reading ability and attitudes: Examining where these differences lie. *Journal of Research in Reading, 32*(2), 199–214.

Maass, M., & Shimada, Y. (2018). Promoting motivation in an extensive reading class: Using active learning strategies. *The Journal of Seigakuin University, 30*(2), 1–17.

Maipoka. S., & Soontornwipast, K. (2021). Effects of intensive and extensive reading instruction on Thai primary students' English reading ability. *LEARN Journal, 14*(1), 146–175. https://so04.tci-thaijo.org/index.php/ LEARN/article/view/248687

Martinez, C., & Gil, M. (2020). Gender difference in school performance and attitudes toward school. *Ensaio: Avaliação e Políticas Públicas em Educação, 28*(108). http://dx.doi.org/10.1590/s0104-403620190027 02235

Mason, B. (2006). Free voluntary reading and autonomy in second language acquisition: Improving TOEFL scores from reading alone. *The International Journal of Foreign Language Teaching*, *2*(1), 2–5.

Noom-ura, S., (2009). Can a self-access learning center really help language learners? A study of the achievements of SALC users and non-users in learning an English course. *Language Institute Journal, 4,* 42–60.

Nutalak, P. (2019). The effects of extensive reading on English reading ability and attitude of business English major students. *Southeast Bangkok Journal, 5*(1), 1–15.

Nuttall, C. (1996). *Teaching reading skills in a foreign language*. Heinemann.

Oakley, G. (2005). Reading fluency as an outcome of a repertoire of interactive reading competencies: How to teach it to different types of dysfluent readers (and how ICT can help). *New England Reading Association Journal*, *41*(1), 13–21.

Pongstornpipat, W. (2021). Interactive group in extensive reading to enhance reading ability of Thai undergraduate students. *LEARN Journal: Language Education and Acquisition Research Network, 14*(2). 342–371.

Puangmaliwan, P. (2005). *Enhancing reading comprehension, vocabulary recognition and attitude towards extensive reading: A case study of the first-year English majors in the academic year 2004 at Nakhon Ratchasima Rajabhat University* [Master's thesis, Suranaree University of Technology]. http://sutir.sut.ac. th:8080/sutir/bitstream/123456789/2926/2/pisit_full.pdf

Ryan, R., & Deci, E. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions*. Contemporary Educational Psychology, 25*, 54–67.

Sawangsmutchai, Y., & Rattanavich, S. (2016). A comparison of seventh grade Thai students' reading comprehension and motivation to read English through applied instruction based on the genre-based approach and the teacher's manual. *English Language Teaching, 9*(4), 54–63. https://doi:10.5539/elt. v9n4p54

Sheu, S. P. H. (2003). Extensive reading with EFL learners at the beginning level. *TESL Reporter, 36*(2), 8–26.

Singh, R. (2016). The impact of intrinsic and extrinsic motivations on employee engagement in information organizations. *Journal of Education for Library and Information Science, 57*(2). https://doi:10.12783/issn. 2328-2967/57/2/11

Suk, N. (2016). The effects of extensive reading on reading comprehension, reading rate, and vocabulary acquisition. *Reading Research Quarterly*, *52*(1), 73–89.

Takase, A. (2011). Gender differences in extensive reading. *Kinki University English Journal* [*近畿大学英語研究会紀要*], *7,* 55–72.

Wodinsky, M., & Nation, P. (1988). Learning from graded readers. *Reading in a Foreign Language, 5*(1), 155–161.

Yen, T.T.N. (2017, August 4–7). *The benefits of extensive reading for Vietnamese EFL learners*. In M. Brierley & T. E. Bieri (Eds.), *Proceedings of the Fourth World Congress on Extensive Reading*, (pp. 64–72). https://jalt-publications.org/content/index.php/jer/article/view/70

Yoshizawa, K., Takase, A., & Otsuki, K. (2017, August 4–7). *How does extensive reading help Japanese EFL learners develop grammatical knowledge and reading fluency?* In M. Brierley & T. E. Bieri (Eds.), Proceedings of the Fourth World Congress on Extensive Reading (pp. 1–11). https://jalt-publications.org/content/index.php/ jer/article/view/70

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A Macroeconomic Correlation Analysis of Foreign Direct Investment in Indonesia

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Abstract

Indonesia has natural resources that can be utilized. Foreign direct investment (FDI) can be used to manage these natural resources to increase economic growth. However, Indonesia has a relatively low level of FDI as a developing country compared to the five major countries in ASEAN. This study was conducted to see if FDI, as the dependent variable, can be increased by taking into account the investment interest of foreign investors through macroeconomic factors such as inflation (INF), gross domestic product (GDP), interest rate (7th day, repo rate) (IR), and exchange rate (ER) as independent variables. The data for this study was obtained from governmental sources through the *Badan Pusat Statistik* (Statistics Indonesia), Bank of Indonesia, *Badan Koordinasi Penanaman Modal* (Investment Coordinating Board), and *Portal Statistik Perdagangan* (Trade Statistics Portal) from the second quarter of 2016 to the third quarter of 2021. This research used descriptive and explanatory methods based on a quantitative approach, with multiple linear regression analysis to test its hypotheses. The results showed that GDP and ER had no significant correlation with FDI in Indonesia; however, INF and IR were significantly correlated with FDI.

Keywords: *FDI, inflation, GDP, interest rate, exchange rate*

Introduction

The purpose of the Indonesian state as stated in the 1945 Constitution is to protect the entire nation of Indonesia and all Indonesians, as well as promote the general welfare (Sekretariat Jenderal DPR RI, 2016). Indicators of a country's prosperity can be seen from the community's welfare, which is influenced by various factors, one of which is economic development (Sulistiawati, 2012).

Indonesia has many natural resources that can be utilized to improve its economic development. The use of domestic funds alone is not enough to manage existing natural resources. Therefore, foreign funds are needed to finance the management of natural resources in Indonesia (Nurmasari & Arifin, 2018). Foreign financing can come from debt as well as foreign investment. However, if debt continues to grow, it could accumulate over a long period, which ultimately would becomes a burden to the national budget (Dewi & Cahyono, 2016).

The endogenous theory says that domestic and foreign investments play a role in long-term economic development (Barro, 1990). Foreign investment may be divided into two categories, namely Foreign Direct Investment (FDI) and Foreign Indirect Investment. FDI is foreign investment in a nation's economic sectors. At the same time, Foreign Indirect Investment refers to investing financial assets in capital markets, such as purchasing stocks and bonds. FDI has more benefits compared to indirect investment. The influx of FDI into a country is usually followed by the inclusion of new technologies, engineering skills, experience in organizing, market information, advanced production techniques, product renewal, as well as training the local workforce in new skills (Permana & Rivani, 2013). Foreign investors who invest foreign direct capital by building companies or factories in Indonesia are expected to absorb local labor to the maximum to reduce unemployment (Nurmasari & Arifin, 2018).

As shown in Figure 1, FDI in Indonesia has fluctuated. In addition, Indonesia has lower average FDI, even negative for 1998 to 2001, compared to Singapore, Malaysia, the Philippines, Thailand, and

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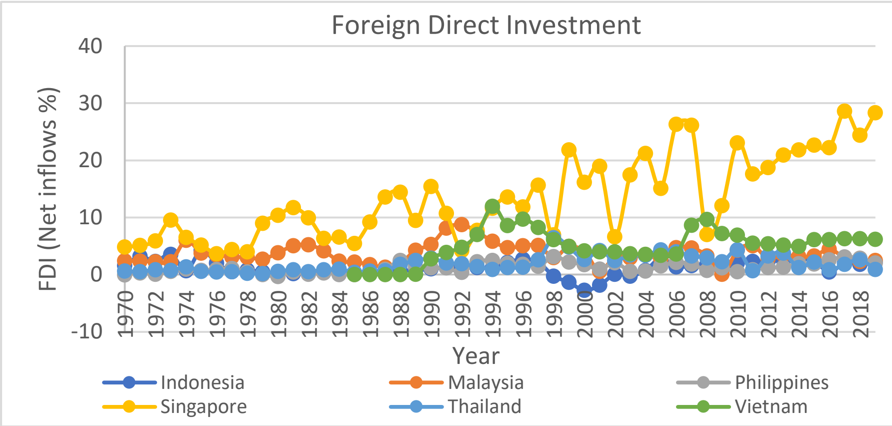
Vietnam. FDI has many benefits that can support economic development, but a relatively low FDI value shows that Indonesia has not fully obtained these benefits.

Figure 1 *Foreign Direct Investment in Six ASEAN Countries from 1970–2020*



Source. World Bank (2021)

The world economy experienced a drastic decline caused by the Coronavirus (COVID-19), which. caused FDI to decrease in Indonesia because business has become more complicated (BKPM, 2020). Thus, COVID-19 is an obstacle to foreign investment in Indonesia. In a recent press release (2020), Surianta said that this pandemic would strongly influence FDI and capital inflows into Indonesia.

The low value of FDI may be caused by reduced investment interest from foreign investors. Macroeconomics characterized by stability in terms of inflation rate, size of gross domestic product (GDP), determination of interest rates (7^{th} day, repo rate), and the exchange rate are benchmarks that foreign investors use to make investment decisions in a country. High inflation will lead to rising prices of goods and services, thus lowering consumption and corporate income, along with foreign investors' interest to invest. High interest rates cause rising investment costs, resulting in a decrease in interest by foreign investors. Appreciated exchange rates could lead to increased labor costs that would impact a company's profit, which also lowers investment interest. High GDP values indicate high revenues and the production of many goods and services, which makes foreign investment attractive. This research is done to see what factors were correlated with and increased the growth rate of FDI in Indonesia. This study used research data from the 2^{nd} quarter of 2016, the first publication of interest rates (7^{th} day, repo rate), until the 3^{rd} quarter of 2021; besides that, 2020 to 2021 were during the COVID-19 pandemic. Thus, the author conducted a study using inflation, GDP, interest rate (7th day, Repo Rate), and exchange rate as the macroeconomic independent variables.

Literature Review

Previous studies on macroeconomic influence on FDI in Indonesia have had contradictory results. Research conducted by Dewi and Cahyono (2016) found that GDP and inflation had no correlation with FDI in Indonesia, but interest rates were negatively correlated with it. On the other hand, Saepuloh et al. (2019) reported that GDP, inflation, and interest rates significantly affected FDI, while Nurmasari and Arifin (2018) also found that interest rates were correlated with FDI.

Signaling Theory

According to Spence (1973), two parties can overcome information asymmetry by sending a signal to reveal some relevant information to the other party. Internal parties such as management may provide information that is pertinent to external parties–in this case, the government. The company sends a signal by providing information to the government on its financial and corporate performance. This may sway decisions that affect macroeconomic variables such as inflation, GDP, interest rate, and exchange rate, which can influence the investment decisions of foreign investors.

Marginal Efficiency of Investment and *Marginal Efficiency of Capital*

According to Sasana (2008), the Marginal Efficiency of Capital (MEC) is the rate of return of new investments that are expected to be made. Investments tend to rise if interest rates decline or because MEC increases. According to Keynes (2018), the concept of MEC is the amount to be invested based on the expected profit from the investment, or so-called Marginal Efficiency of Investment (MEI), meaning that investments will be made if MEI is greater than the interest rate.

Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) means that investors or companies from a capital-supplying country supervise assets invested in a receiving country in a *de facto* or *de jure* manner (Permana & Rivani, 2013). FDI can be in the form of corporate acquisition, providing capital for new companies, or construction of factories. According to Dewi and Triaryati (2015), FDI in Indonesia can help economic development, create jobs, and enable the emergence of new resources that provide work.

The main reasons foreign investors choose Indonesia as a recipient of investment funds include the richness of natural resources, a good economic and investment climate, a stable political system, and an active role in building bilateral and international relations (BKPM, 2017). The motive for FDI is in line with a company's objectives, namely, to maximize the welfare of investors by maximizing the returns to the company. To maximize the company's return, the company must maximize the output that will be generated for the domestic market. When the domestic market cannot accommodate the output generated, the company will look for other areas as new target locations to start company operations. This is the basis of the emergence of FDI in a country.

Inflation

Inflation is an economic situation where prices of goods or services increase over a long period of time in a country. According to Atmadja (1999), quantity theory states that inflation can occur if there is increased circulation volume, fiat money, or commercial bank money. Inflation can also be caused by the amount of money in circulation or expectations from the public about future price increases. According to the Bank of Indonesia (2009), inflation also results from an increase in circulation or liquidity in a country's economy. In other words, an increasing amount of money in circulation or increased liquidity can cause increases in the prices of goods and services.

Gross Domestic Product (GDP)

Gross domestic product is the market value of the goods and services produced by a country during a certain period of time. Goods and services can be produced by domestic or foreign nationals working in the country (Dewi & Cahyono, 2016). Increasing the consumption of goods and services can improve a country's economy due to the consumptive nature of society (Nofiatin, 2013).

Interest Rate (7^{th} day Repo Rate)

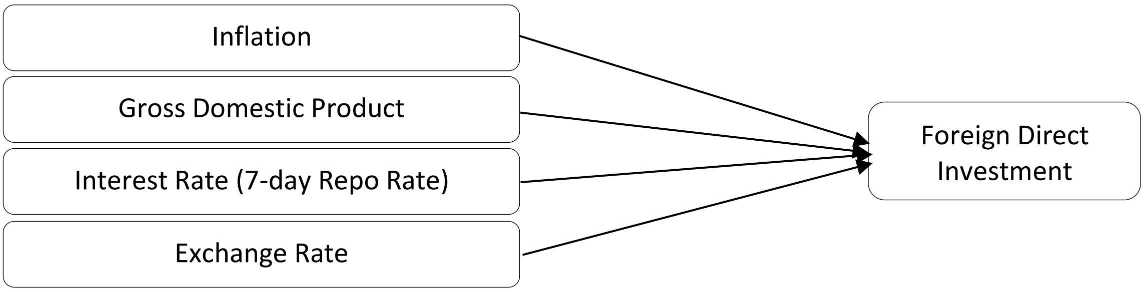
The interest rate (7th day, Repo Rate) or BI Rate is the price/profit calculated from the economic value of loan funds lent to a debtor that is received by a creditor. Rakhimsyah and Gunawan (2011) stated that interest rates are the prices used in investment markets. The difference between the use of interest rate policy (7^{th} day, Repo Rate) and the BI Rate is in the savings period of the Bank of Indonesia. The 7th day reverse repo rate provides a time period of 7 days (14 days, 21 days, and so on), while the BI rate is 360 days and one month (Aminulloh & Prasetyo, 2019).

Exchange Rate

Mishkin (2016) stated that exchange rate is a currency's price expressed in another currency. The exchange rate is a comparison of foreign and domestic currency values. The exchange rate facilitates buying and selling goods and services internationally (Dinar & Hasan, 2018). The role of the exchange tool as an economic interaction between countries is crucial, so efforts are needed to maintain the position of the currency exchange rate in a relatively stable state, which depends on the exchange rate system used by a country (Ardiyanto & Ma'ruf, 2014). Exchange rates are used to compare values or prices between the currencies of countries (Syamsuyar & Ikhsan, 2017).

The conceptual framework (Figure 2) shows assumed relationships between the independent variables inflation, GDP, interest rate, and exchange rate on the dependent variable, FDI.

Figure 2 *Conceptual Framework*



Hypothesis Development

Correlation between Inflation and Foreign Direct Investment

One factor that causes inflation is an increase in imported goods. The value of money in circulation is higher than that of the goods, which makes the quantity demanded increase (Ridha & Yafiz, 2019). Consequently, those who produce goods will increase prices, which triggers inflation. Syaikhu and Haryati (2017) also argued that inflation will reduce output if it is high enough. If inflation is high, then the prices of goods and services will rise, which reduces people's purchasing power, and results in a reduction in company income. This will in turn reduce investment interest.

Pratiwi et al. (2015) stated that inflation had a significant influence on FDI. The negative result of inflation is that when it rises, then foreign investment will decrease, and vice versa. In addition, research from Anggraeni and Sulasmiyati (2019) and that of Romadhona (2016) stated that inflation had no significant effect on FDI.

H_1: Inflation is significantly correlated with Foreign Direct Investment.

Correlation between Gross Domestic Product and Foreign Direct Investment

According to Ramadhani et al. (2015), GDP can describe a country's income from the goods and services that are produced. In other words, GDP can be one of the country's references for its economic condition. With good GDP in a country, investors are drawn to invest in the country. According to Permana and Rivani (2013), an increase in GDP shows that a country's good economy can encourage investors to invest in the country. Thus, GDP can be an essential factor for foreign investors who are analyzing the country, especially Indonesia.

Fadilah (2017) and Sumantyo and Putra (2017) stated that GDP had a significant positive influence on FDI. This result means that if the value of GDP rises, then the value of FDI will also go up, and if the value of GDP falls, then the value of FDI will also decrease. On the other hand, Sari and Baskara (2018) stated that GDP had no significant effect on FDI.

H_2: Gross Domestic Product is significantly correlated with Foreign Direct Investment.

Correlation between Interest Rate (7th day Repo Rate) and Foreign Direct Investment

Rising interest rates can cause investment costs to increase, so foreign investment will decrease. On the contrary, when interest rates fall, which causes investment costs to fall, investment will increase (Ernita et al., 2013). The rising cost of investment due to the increasing prices of goods and services is due to the high interest rate imposed on businesses or companies that buy bonds or loan money to the bank, thus leading foreign investors to invest less.

Sari and Baskara (2018) stated that interest rates have a significant negative influence on FDI, i.e. when interest rates fall, then FDI will also rise. On the contrary, if interest rates rise, then FDI will decrease. In addition, Letarisky et al. (2014) stated that interest rates significantly influence FDI but the relationship is positive, i.e. when interest rates go up, FDI will go up, and vice versa.

H_3: Interest Rates (7th day, Repo Rate) are significantly correlated with Foreign Direct Investment.

Correlation between Foreign Exchange Rates and Foreign Direct Investment

According to Brigham and Houston (2019), a theory that explains the Exchange Rate is called Interest Rate Parity Theory. This theory reveals that investors will be able to obtain the same rate of return on investments in all countries after adjusting for the level of risk. Investors can also obtain a higher overall return on investment if a country's currency appreciates in comparison with the currency value of that investor's country. In other words, foreign investors will look for countries whose currency values have depreciated against the US Dollar. With such circumstances, production costs such as labor, rent and others will become cheaper, and investors will benefit.

Septifany et al. (2015) stated that the exchange rate has a significant negative effect on FDI. This negative result means that when the rupiah exchange rate falls, the value of an incoming foreign investment will increase. However, Pratiwi et al. (2015) stated that the exchange rate has no significant effect on FDI.

H_4: Exchange Rates are significantly correlated with Foreign Direct Investment.

Research Method

The research design of this study used descriptive and explanatory methods based on a quantifiable approach. Quantitative research is interested in quantity, frequencies, or magnitude of a phenomenon. This research was dependent on the quality of the measurement instruments used for observation, surveys, and experimental tests (Schindler, 2019). The study also used trend analysis to predict the future by looking at how many fluctuations occurred over a set period, and multiple linear regression tests to test the influence of independent variables on dependent variables.

The regression used in this study was tested for feasibility using the classic assumption test. This research used a normality test with a significant value of 0.200. A heteroskedasticity test was conducted for each variable. The values for inflation, GDP, interest rate, and exchange rate were 0.030, 0.536, 0.001, and 0.089 respectively. A multicollinearity test was performed for each variable; the tolerance and VIF values for inflation, GDP, interest rates, and exchange rates were 0.873 and 1.145, 0.316 and 3.162, 0.828 and 1.208, 0.352 and 2.837 respectively. An autocorrelation test for significant values yielded a score of 0.827. Thus, it can be claimed that the regression used in this study was normally distributed and free from symptoms of heteroscedasticity, multicollinearity, and autocorrelation. The regression equations used were as follows:

$$FDI = \alpha + \beta_1 INF + \beta_2 GDP + \beta_3 IR + \beta_4 ER + e$$

Where:

FDI	= Foreign Direct Investment
α	= Regression Equation Constants
β	= Independent Variable Regression Coefficient
INF	= Inflation (Consumer Price Index)
GDP	= Gross Domestic Product (Production Approach)
IR	= Interest Rate (7th day, Repo Rate)
ER	= Exchange Rate
e	= Error

The FDI, inflation, GDP, interest rate (7th day, Repo Rate), and exchange rate data for the country of Indonesia were collected from the 2nd quarter of 2016 until the 3rd quarter of 2021. This secondary data was collected from government websites as follows: FDI data obtained from Badan Koordinasi Penanaman Modal (BKPM); inflation data and interest rates (7th day, Repo Rate) from the Bank of Indonesia (BI); GDP data obtained from Badan Pusat Statistik (BPS); and exchange rate data from the *Portal Statistik Perdagangan* (Trade Statistics Portal). The sampling method used was purposive sampling; therefore, the criteria for this study are described in the following table.

Table 1 *Research Sampling*

No.	Sample Criteria	Sum
1	The number of years used is data for 2016–2021	4
	Research period[1 x (4 years x 4 quarters)] + [(1 x (2 years x 3 quarters)]	**22**
2	Research population from outside Indonesia	-
3	Research data are taken outside of government data	-
	Total Research Samples	**22**

Result and Analysis

Descriptive Statistical Test Results Analysis

Descriptive statistical test results are shown below in Table 2. Table 2 shows the average, maximum, minimum, and standard deviation values of the five variables used. The standard deviation is used to see the distances between average and actual sample data figures. FDI as a dependent variable represents an average value of $7,331.61 and a standard deviation of $666.46, with a maximum value of $8,355.1 in the fourth quarter of 2017, and a minimum value of 6,080.7 in the first quarter of 2019.

Table 2 *Descriptive Statistical Test Results*

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
FDI	22	7,367.045	590.1147	6,080.7	8,355.1
INF	22	2.357176	1.242292	0.03	4.29
GDP	22	3,712,054	344,086.7	3,087,000.00	4,325,400.00
IR	22	0.0472848	0.0078253	0.035	0.06
ER	22	14,027.70	551.3511	13,130.67	14,754.33

Note. FDI in US$, INF in percentage (%), GDP in million Rupiahs (Rp.), IR as decimal number, ER in Rupiahs (Rp.)

INF produced an average value of 2.36%, a 1.24% standard deviation, and a maximum value of 4.29% in the second quarter of 2017. Further, it yielded a minimum value of 0.03% in the third quarter of 2016. GDP in the table produced an average value of Rp. 3,712,054 and standard deviation of Rp. 344,086.7, with a maximum GDP value of Rp. 4,325,400.00 in the third quarter of 2021 and a minimum value of Rp. 3,087,000.00 in the second quarter of 2016. The IR yielded an average value of 0.047 (4.7%) and a 0.00706 (0.007%) standard deviation, with a maximum value of 0.06 (6%) in the first and second quarters of 2019, and a minimum value of 0.035 (3.5%) in the second and third quarters of 2021. The ER in the table above returned an average value of Rp. 14,027.70 and a standard deviation of Rp. 551.35 with a maximum ER of Rp. 14,754.33 in the first quarter of 2020, and a minimum ER of Rp. 13,130.67 in the third quarter of 2016.

Hypothesis Test Results Analysis

As shown ion Table 3, the result of the T-test can be calculated using the following formula:

$$FDI = 16960.77 + 173.36\ (INF) + .0002776\ (GDP) - 51053.03\ (IR) - .4675057\ (ER) + \varepsilon$$

Based on the constant intercept value of 16960.77, if all independent variables are 0, then the value of FDI will be 16960.77.

Effect of Inflation (INF) on Foreign Direct Investment

Table 3 shows a p-value result of 0.030, which is lower than the significance level of 0.05. Based on these results, H_1 which states that INF had a significant correlation with FDI is accepted, and H_0 is rejected. The results of several studies were in harmony with the results of the hypothesis test above. Research studies by Fadilah et al. (2017) and Permana and Rivani (2013) found that inflation has a significant correlation with FDI.

Table 3 *T-Test (Partial)*

Variable	Hypothesis	Expectation Sign	Coefficient	Sig.	Explanation
INF	H_1	+	173.3625	0.030	Accepted
GDP	H_2	+	-.0002776	0.536	Rejected
IR	H_3	-	-51053.03	0.001	Accepted
ER	H_4	-	-.4675057	0.090	Rejected
Constant			16960.77	0.000	
N			22		
F-stat/LR chi2			7.80		
Prob>F			0.0009		
Adj. R Square			0.5643		

The significant result of INF means that inflation in a country is positively correlated with investment yields. If inflation rates increase, the value of FDI will also increase; however, if inflation decreases, the value of FDI will also decrease. If inflation is high, the prices of goods and services will rise, thereby reducing purchasing power and resulting in lower corporate income than usual. This will reduce the level of interest that investors have in such destinations (Syaikhu & Haryati, 2017).

The findings from this research are contrary to those of Romadhona (2016), who concluded that inflation had no significant correlation on FDI. Investors can still benefit from rising and falling prices caused by INF if prices still do not exceed the production costs that are incurred (Anggraeni & Sulasmiyati, 2019).

Effect of Gross Domestic Product (GDP) on Foreign Direct Investment

Table 3 shows a p-value result of 0.536, which is higher than 0.05 or 5%. Based on the results obtained, H_2 which states that GDP has a significant correlation with FDI is rejected, and H_0, which states that GDP does not have a significant correlation with FDI, is accepted. This study agrees with Sari and Baskara (2018), who found that GDP had no significant correlation with FDI. Based on these results, it can also be said that the value of GDP does not influence investments made by foreign investors. These insignificant results may be due to a company providing financial performance information directly to external parties through their annual reports (Sari & Baskara, 2018).

This research is not in line with a study conducted by Fadilah (2017) or one by Sumantyo and Putra (2017), who concluded that GDP has a significant positive influence on FDI. The result means that changes in the value of GDP are not related to FDI.

Effect of Interest Rate (IR) (7th day Repo Rate) on Foreign Direct Investment

In Table 3, the p-value for Interest Rate was 0.001, which is < 0.05 or 5%, showing that IR is significantly correlated with FDI. Thus, H_3 is accepted and H_0 is rejected. This study had similar results with Sari and Baskara's (2018) research, which found that IR was significantly correlated with FDI.

This study found that IR had a negative and significant influence on FDI; these results were aligned with Marginal Efficiency of Capital (MEC) theory. Thus, investors see that higher Interest Rates will lower MEC values and reduce investments unless returns on capital remain higher than the IR charged (Anwar et al., 2016). In other words, rising IR will hinder investment growth, while falling IR drives increased investment.

This study's results differed from the research of Letarisky et al. (2014), who found that IR had a significant positive influence on FDI. This result means that IR and FDI have a direct relationship, where when IR rise, FDI will also go up, and vice versa.

Effect of Exchange Rate (ER) on Foreign Direct Investment

Table 3 shows that Exchange Rate had no significant influence on FDI with a p-value of 0.090, which exceeds the significance level of 0.05. Thus, H_4 is rejected, and H_0 is accepted. This research is in line with that of Pratiwi et al. (2015), who noted that ER was not significantly correlated with FDI.

Insignificant returns mean that the prevailing ER did not determine foreign investors' small investments. According to Tambunan et al. (2015), ER changes in the short term are not correlated with FDI, which tends to be influenced more by long-term trends.

The results of one study were contrary to those of this study. Septifany et al.'s (2015) research found that ER had a negative and significant influence on FDI. This negative result meant that when the rupiah ER falls, the value of incoming foreign investment will increase.

Conclusions

Based on these results, inflation was significantly correlated with FDI in Indonesia from 2016 to 2021. In other words, the rise and fall of the Indonesian inflation rate influenced the foreign investors' decisions about whether to invest in Indonesia. However, Gross Domestic Product did not significantly impact FDI in Indonesia from 2016–2021. This indicates that the value of GDP did not affect the decision of foreign investors to invest in Indonesia. Interest rates (7th-day repo rate) had a significant negative influence on FDI in Indonesia from 2016–2021. In this case, Indonesian interest rates affect foreign investors' investment decisions. When interest rates rise, then the attractiveness investing in Indonesia, along with total FDI, will decrease. On the contrary, if interest rates fall, then the interest of foreign investors along with the value of FDI in Indonesia will rise. The exchange rate had no significant effect on FDI in Indonesia from 2016–2021, so it can be concluded the Rupiah exchange rate did not affect the amount of new FDI in Indonesia.

The researchers can give the following advice to foreign investors who are deciding whether or not to invest in Indonesia. Since inflation and interest rates are significantly correlated with FDI in Indonesia, foreign investors can review information related to inflation and interest rates before deciding to invest in Indonesia. The government is also involved in investments decisions. The government can keep Indonesian inflation and interest rates in line with targets to provide a win-win solution to foreign investors and the people of Indonesia. Inflation must be kept at a stable rate, so that it does not cause an increase or decrease in buying and selling prices, which impact company income and investment decisions. Interest rates must also be maintained so that investment costs related to interest rates, such as bond and bank loans, do not increase. Furthermore, researchers can also use the results of this study as a reference point. Future studies of FDI in Indonesia may utilize a longer research time span than this study. Furthermore, researchers can also add research objects limited to Indonesia, such as countries in Asia, especially ASEAN. In addition, researchers can also add other variables that may be correlated with FDI in a country, such as wages, export values, infrastructure, human resources, poverty levels, etc.

References

Aminulloh, T. I., & Prasetyo, A. (2019). Dampak pengumuman kebijakan BI 7 days repo rate pada saham yang terdaftar dalam Jakarta Islamic Index [Impact of the announcement of the BI 7 day repo rate policy on stocks listed in the Jakarta Islamic Index]. *Jurnal Ekonomi Syariah Teori dan Terapan, 6*(4), 687–703. http://doi:10.20473/vol6iss20194pp687-703

Anggraeni, A. R., & Sulasmiyati, S. (2019). Pengaruh corruption perception index, inflasi, nilai tukar dan suku bunga terhadap foreign direct investment [The effects of the corruption perception index, inflation, exchange rates, and interest rates on foreign direct investment]. *Jurnal Administrasi Bisnis, 73*(1), 1–10. http://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/view/2887

Anwar, C. J., Kuswantoro, & Dewi, S. F. (2016). Faktor-faktor yang mempengaruhi foreign direct investment (FDI) di kawasan Asia Tenggara [Factors influencing foreign direct investment (FDI) in the Southeast Asian region]. *Media Trend, 11*(2), 175–194. https://journal.trunojoyo.ac.id/mediatrend/article/view/1621

Ardiyanto, F., & Ma'ruf, A. (2014). Pergerakan nilai tukar Rupiah terhadap Dolar Amerika dalam dua periode penerapan sistem nilai tukar [The movement of the Rupiah exchange rate against the US Dollar in two periods of application of the exchange rate system]. *Jurnal Ekonomi dan Studi Pembangunan, 15*(2), 127–134. https://journal.umy.ac.id/index.php/esp/article/view/1227

Atmadja, A. S. (1999). Inflasi di Indonesia: Sumber-sumber penyebab dan pengendaliannya [Inflation in Indonesia: Sources of causes and control]. *Jurnal Akuntansi dan Keuangan, 1*(1), 54–67. https://doi.org/10.9744/jak.1.1.pp.%2054-67

Bank of Indonesia. (2009). *Inflasi* [Inflation]. Pusat Pendidikan dan Studi Kebanksentralan.

Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy, 98*(5), 103–125. https://doi.org/10.1086/261726

BKPM. (2017). *Keuntungan berinvestasi di Indonesia bagi investor asing* [Benefits of investing in Indonesia for foreign investors]. Investindonesia. https://www.invest indonesia.go.id/id/artikel-investasi/detail/keuntungan-berinvestasi-di-indonesia-bagi-investor-asing

BKPM. (2020). *Pengaruh Covid-19 terhadap investasi di Indonesia* [The impact of Covid-19 on investment in Indonesia]. https://www.investindonesia.go.id/id/ artikel-investasi/detail/pengaruh-covid-19-terhadap-investasi-di-indonesia

Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of financial management* (15th ed.). Cengage Learning, Inc.

Dewi, P. K., & Triaryati, N. (2015). Pengaruh pertumbuhan ekonomi, suku bunga dan pajak terhadap investasi asing langsung [Effects of economic growth, interest rates, and taxes on foreign direct investment]. *E-Jurnal Manajemen Unud, 4*(4), 866–878. https://media.neliti.com/media/publications/255353-pengaruh-pertumbuhan-ekonomi-suku-bunga-e9b797c2.pdf

Dewi, T. M., & Cahyono, H. (2016). Pengaruh pertumbuhan ekonomi, BI rate, dan inflasi terhadap investasi asing langsung di Indonesia [Effect of economic growth, BI rate, and inflation on foreign direct investment in Indonesia]. *Jurnal Pendidikan Ekonomi, 4*(3), 1–7. https://doi.org/10.26740/jupe.v4n3.p%25p

Dinar, M., & Hasan, M. (2018). *Pengantar ekonomi: Teori dan aplikasi* [Introduction to economics: Theory and application] (1st ed.). Nur Lina.

Ernita, D., Amar, S., & Syofyan, E. (2013). Analisis pertumbuhan ekonomi, investasi, dan konsumsi di Indonesia [Analysis of economic growth, investment and consumption in Indonesia]. *Jurnal Kajian Ekonomi, 1*(2), 176–193. http://ejournal.unp.ac.id/index.php/ekonomi/article/viewFile/752/621

Fadilah, M. A., Putro, T. S., & Mayes, A. (2017). Analisis produk domestik bruto (PDB), suku bunga BI (BI rate), dan Inflasi terhadap investasi asing langsung (PMA) di Indonesia tahun 2006-2015 [Analysis of gross domestic product (GDP), BI interest rate (BI rate), and inflation on foreign direct investment (PMA) in Indonesia from 2006-2015]. *Jurnal Online Mahasiswa Fakultas Ekonomi Universitas Riau, 4*(1), 1095–1105. https://www.neliti.com/publications/133086/analisis-produk-domestik-bruto-pdb-suku-bunga-bi-bi-rate-dan-inflasi-terhadap-in

Keynes, J. M. (2018). *The general theory of employment, interest and money.* Palgrave Macmillan.

Letarisky, M., Darminto, & Hidayat, R. R. (2014). Pengaruh indikator fundamental makroekonomi terhadap foreign direct investment di Indonesia [Effect of macroeconomic fundamental indicators on foreign direct investment in Indonesia]. *Jurnal Administrasi Bisnis, 15*(2), 1–9. http://administrasibisnis.studentjournal. ub.ac.id/index.php/jab/article/view/634

Mishkin, F. S. (2016). *The economics of money, banking, and financial markets* (11th ed.). Pearson Education.

Nofiatin, I. (2013). Hubungan inflasi, suku bunga, produk domestik bruto, nilai tukar, jumlah uang beredar, dan indeks harga saham gabungan (IHSG) periode 2005-2011 [The relationship between inflation, interest rates, gross domestic product, exchange rates, money supply, and the composite stock price index (JCI) for the period 2005-2011]. *Jurnal Aplikasi Manajemen, 11*(2), 215–222. https://jurnaljam.ub.ac.id/ index.php/jam/article/view/563

Nurmasari, N., & Arifin, Z. (2018). Analisis pengaruh produk domestik bruto dan suku bunga terhadap foreign direct investment di Indonesia tahun 1997–2016 [Analysis of the influence of gross domestic product and interest rates on foreign direct investment in Indonesia from 1997–2016]. *Jurnal Ilmu Ekonomi, 2*(3), 378–389. https://ejournal.umm.ac.id/index.php/jie/article/view/7096

Permana, S. H., & Rivani, E. (2013, Juni 01). Pengaruh produk domestik bruto, inflasi, infrastruktur, dan resiko politik terhadap investasi langsung asing di Indonesia [The effects of gross domestic product, inflation, infrastructure, and political risk on foreign direct investment in Indonesia]. *Jurnal Ekonomi dan Kebijakan Publik, 4*(1), 75–87. http://dx.doi.org/10.22212/jekp.v4i1.69

Pratiwi, N. M., Dzulkirom, A. M., & Azizah, D. F. (2015). Pengaruh inflasi, tingkat suku bunga SBI, dan nilai tukar terhadap penanaman modal asing dan pertumbuhan ekonomi di Indonesia [The effects of inflation, SBI interest rates, and exchange rates on foreign investment and economic growth in Indonesia]. *Jurnal Administrasi Bisnis, 26*(2), 1–9. http://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/ view/1067

Rakhimsyah, L. A., & Gunawan, B. (2011). Pengaruh keputusan investasi, keputusan pendanaan, kebijakan dividen dan tingkat suku bunga terhadap nilai perusahaan [The effects of investment decisions, funding decisions, dividend policies and interest rates on firm value]. *Jurnal Investasi, 7*(1), 31–45. https://journal.trunojoyo.ac.id/infestasi/article/view/490

Ramadhani, M. A., Suharyono, & Yulianto, E. (2015). Pengaruh produk domestik bruto, nilai tukar dan upah tenaga kerja terhadap pertumbuhan foreign direct investment sektor manufaktur di Indonesia [The influence of gross domestic product, exchange rates, and labor wages on the growth of foreign direct investment in the manufacturing sector in Indonesia]. *Jurnal Administrasi Bisnis, 27*(2), 1–8. http://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/view/1105

Ridha, M., & Yafiz, M. (2019). Inflasi berdasarkan pandangan M. Umer Chapra [Inflation based on the view of M. Umer Chapra]. *AT-TAWASSUTH, 4*(1), 114–136. http://dx.doi.org/10.30821/ajei.v4i1.4089

Romadhona, N. A. (2016). Pengaruh inflasi, produk domestik bruto, corruption perception index, dan indeks harga saham terhadap foreign direct investment di Indonesia periode (2005–2014) [The effects of inflation, gross domestic product, corruption perception index, and stock price index on foreign direct investment in Indonesia for the period (2005-2014)]. *Jurnal Ilmu Manajemen*, *4(2),* 42–54. https://jurnalmahasiswa.unesa.ac.id/index.php/jim/article/view/17521

Saepuloh, D., Mulatsih, S. N., & Sutarjo. (2019). The influence of economic growth, BI rate, and inflation and their impact on foreign direct investment in Indonesia from 2010–2017. *Sustainability and Socio Economic Growth, 3*(13), 1172–1187. https://doi.org/10.18502/kss.v3i13.4275

Sari, G. A., & Baskara, I. K. (2018). Pengaruh pertumbuhan ekonomi, suku bunga, dan nilai tukar terhadap investasi asing langsung di Indonesia [The effects of economic growth, interest rates, and exchange rates on foreign direct investment in Indonesia]. *E-Jurnal Manajemen Unud, 7*(7), 4002–4030. https://doi.org/10.24843/EJMUNUD.2018.v7.i07.p20

Sasana, H. (2008). Analisis faktor-faktor yang mempengaruhi investasi swasta di Jawa Tengah [Analysis of factors influencing private investment in Central Java]. *Jejak, 1*, 1–10. https://doi.org/10.15294/jejak.v1i1.1445

Schindler, P. S. (2019). *Business research methods* (13th ed.). McGraw-Hill Education.

Sekretariat Jenderal DPR RI. (2016). *Undang-undang dasar 1945.* Dewan Perwakilan Rakyat Republik Indonesia. https://www.dpr.go.id/jdih/uu1945

Septifany, A. T., Hidayat, R. R., & Sulasmiyati, S. (2015). Analisis pengaruh inflasi, tingkat suku bunga, nilai tukar Rupiah dan cadangan devisa terhadap penanaman modal asing di Indonesia [Analysis of the effects of inflation, interest rates, Rupiah exchange rate and foreign exchange reserves on foreign investment in Indonesia]. *Jurnal Administrasi Bisnis, 25*(2), 1–7. http://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/view/1001

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics, 87*, 355–374. http://www.jstor.org/stable/1882010

Sulistiawati, R. (2012). Pengaruh investasi terhadap pertumbuhan ekonomi dan penyerapan tenaga kerja serta kesejahteraan masyarakat di provinsi di Indonesia [The effect of investment on economic growth and employment, as well as community welfare, in provinces in Indonesia]. *Jurnal Ekonomi Bisnis dan Kewirausahaan, 3*(1), 29–50. https://jurnal.untan.ac.id/index.php/JJ/article/view/9888

Sumantyo, R., & Putra, B. M. (2017). Analisis pengaruh variabel makroekonomi terhadap foreign direct investment di Indonesia periode 1985–2013 [Analysis of the influence of macroeconomic variables on foreign direct investment in Indonesia for the period 1985–2013]. *Jurnal Ekonomi Pembangunan, 9*(1), 11–22. https://jurnal.uns.ac.id/dinamika/article/view/36190

Syaikhu, A. M., & Haryati, T. (2017). Analisis pengaruh inflasi, suku bunga kredit, tenaga kerja, teknologi terhadap investasi di Indonesia [Analysis of the influence of inflation, credit interest rates, labor, and technology on investment in Indonesia]. *Economics Development Analysis Journal, 6*(1), 8–15. https://doi.org/10.15294/edaj.v6i1.22195

Syamsuyar, H., & Ikhsan. (2017). Dampak sistem nilai tukar terhadap pertumbuhan ekonomi Indonesia [The impact of the exchange rate system on Indonesia's economic growth]. *Jurnal Ilmiah Mahasiswa, 2*, 414–422. http://www.jim.unsyiah.ac.id/EKP/article/view/5717

Tambunan, R. S., Yusuf, Y., & Mayes, A. (2015). Pengaruh Kurs, Inflasi, LIBOR dan PDB terhadap Foreign Direct Investment (FDI) di Indonesia [The effect of exchange rates, inflation, LIBOR and GDP on foreign direct investment in Indonesia]. *Jurnal Online Mahasiswa, Fakultas Ekonomi, 2*(1), 1–16. http://dx.doi.org/10.31258/je.23.1.p.%25p

World Bank. (2021). Foreign direct investment, net inflows (BoP, current US$) – Indonesia, Singapore, Thailand, Malaysia, Philippines, Vietnam. https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=ID-SG-TH-MY-PH-VN

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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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5.2 Rounding rules: If the final number is 5 or more, add one to the last decimal place to be kept (1.565 becomes 1.57). If the number is less than 5, write the number with the required decimal places (2.344 becomes 2.34).
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).
5.4 Large numbers—use commas between groups of three digits in most figures of 1,000 or more.

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

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