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*Siam University*

**26 November 2022**

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## **Proceedings**

### **International Conference in Economics, Business and Interdisciplinary Studies**

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## Conference Schedule

### International Conference in Economics, Business and Interdisciplinary Studies (ICEBIS 2022)

26 November 2022

Venue - Room 2-208, Siam University

<i>Time</i>	<i>Description/Presentation Title</i>
<b>Session 1</b>	
<b>09:00-09.20</b>	<b>Registration (Room 2-208 in Building 2)</b>
<b>09:30-09:50</b>	<b>Opening Ceremony</b> <ul style="list-style-type: none"> <li>• Remarks by the Conference Chair – Dr. Duminda Jayaranjan</li> <li>• Remarks by the Dean, International College, Siam University – Dr. Bongkosh Ngamsom Rittichainuwat</li> </ul>
<b>10:00–10.30</b>	<b>Keynote session:</b> <b>Keynote Speech 1:</b> By Dr.Pornchai Mongkhonvanit President, Siam University, Thailand  <b>Keynote Speech 2:</b> By Dr. Faiz Shah Director, Yunus Center, Asian Institute of Technology
10:30-10:40	<b>Tea break and photo session</b>
<b>Session 2:</b>	
<b>Session Chair: Dr. Suraphol Srivithaya</b> Doctor of Law (LL.D.) and Master of Law (LL.M.) Programs, Former Dean of Faculty of Law, Rangsit University, Thailand Senior Lecturer, Director (Institute of Professional Development), Siam University, Thailand	
<b>10.40–11.00</b>	<b>Paper 1:</b> A Study Examining Behavioral Factors Impacting Students Intention to Wear a Helmet Whilst Using a Motorcycle in Bangkok, Thailand By Max Radford
<b>11.00–11.20</b>	<b>Paper 2:</b> Online experience from shopping app and the impacts on repurchase and word-of-mouth intention by Khomson Tunsakul - Online
<b>11.20–11.40</b>	<b>Paper 3:</b> The Impacts of Russia-Ukraine War on the World Economy and Sustainable Development by Dr. Suraphol Srivithaya
<b>11.40 – 12.00</b>	<b>Paper 4:</b> Hybrid-Learning Experience of Thai Business Graduate Students at a Private University in Thailand: A Phenomenological Study By Phatthira Wissawaswaengsuk - Online
<b>12:00 - 12:20</b>	<b>Paper 5:</b> Exploratory Analysis of Factors Influencing Strategic Planning for Agribusinesses in Thailand by Khwanchol Kampan
<b>12.20 – 13.20</b>	<b>Lunch break/networking session</b>
<b>Session 2:</b> <b>Session Chair - Saif Ur Rahman</b> Lecturer, International College, Siam University, Thailand Director (Interim)  Office of External Affairs & Collaborations (OEAC)	



<b>13.20– 13.40</b>	<b>Paper 6:</b> Gender Capitalism Approach: Reducing Gender based Violence and Femicide in the Eastern Congo by Saif Ur Rahman
<b>13.40– 14.00</b>	<b>Paper 7:</b> Effect of online learning on students' satisfaction By Chhawala Ahir
<b>14.00 – 14.20</b>	<b>Paper 8:</b> Factors Influencing Customers’ Readiness and Acceptance of Cashless Society by Nichapat Thawonwisutsakul
<b>14.20 – 14.40</b>	<b>Paper 9:</b> 3Rs Behaviour in Plastic Usage among International University Students in Thailand by Sandar Shwe Yee
<b>14.40 – 15.00</b>	<b>Paper 10:</b> Social Norms and HRM Practice in Thai Subsidiary Corporations: An Exploration into ‘Emic’ Cultural Influence by Dr. James Jain
<b>15:00 – 15:20</b>	<b>Paper 11:</b> Thailand E-Finance Transformation by Dr. Chutimavadee Online
	<b>Tea break</b>
<b>Session 3</b>	
<b>Session Chair:</b> Dr. Duminda Jayaranjan (D.Eng, M.Eng) Associate Dean, International College, Siam University, Thailand	
<b>15.40 - 16.00</b>	<b>Paper 12:</b> Cross-Cultural Conflict Management in the Global Business Environment by Cheol Je Cho
<b>16.00 – 16:20</b>	<b>Paper 13:</b> Impact of social media advertising among university students’ purchase intention through TikTok platform by Sabbir Hossain
<b>16:20 – 16:40</b>	<b>Paper 14:</b> E-loyalty in Online Shopping: the role of e-satisfaction among the Bangladeshi Consumer by Sumaia Farzana
<b>16:40 – 17:00</b>	<b>Paper 15:</b> Finland’s accession to the North Atlantic Treaty Organization By Emilia Lähteenmäki - Online
<b>17:00 - 17:20</b>	<b>Paper 16:</b> Youth Development program by organizing onsite international student camp to Reimagine Higher Education from Student Perspective by Yhing Sawheny
<b>17:20 - 17:40</b>	<b>Paper 17:</b> Exporting Fresh Ginger from Thailand, a startup business proposal by Saleh Ghanaatpishehsanani, Saif Ur Rahman
<b>17:40</b>	Certificate Distribution/Award (Dr. Pornchai Mongkhonvanit)
<b>17.50</b>	Closing Remarks



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# Gender Capitalism Approach: Reducing Gender-Based Violence and Femicide in Eastern Congo

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## ABSTRACT

Every conflict is frequented by atrocities, violations, discrimination, and other forms of violence where the weaker gender is heavily affected. Democratic Republic of the Congo (DRC) has seen numerous internal conflicts wherein the worst victims are the women and girls. About 130 armed groups operate in eastern DRC alone, contesting for territorial and resources' control and to finance atrocities affecting local populace. Presence of world's largest peacebuilding mission was unable to minimize the sufferings of the Congolese. Eastern DRC records the highest number of Sexual and Gender-based Violence (SGBV) in the world. Rape is used as a weapon of war by armed groups on unarmed civilians causing panics and humanitarian crises. It has hampered education, safety and upbringing of children, particularly girls. Lack of adequate economic opportunities sometimes forces the majority of the male population to join armed groups as a fallout of intra-group conflicts. This qualitative study is based on: 1) available secondary data sources on the issue, and 2) author's experiential knowledge of peacekeeping operations in the region as primary source of data. The study applies a gender lens to explore the economic challenges in the region and recommends mitigating measures to create positive financial and social impact on women's socioeconomic well-being. Proposing a gender capitalism approach, it recommends some inroads to uplift the economic state of the women in particular: increasing women's access to capital, promoting workplace equity, and making products and services that facilitates better living for the women and weaker gender.

**Keywords:** Eastern Congo, Gender-based violence, Rape, Femicide, Gender Capitalism, Peacebuilding, Sexual Abuse, Child Soldier

## INTRODUCTION

Every intra-state conflict is characterized by atrocities, violations, discriminations, and other forms of violence perpetrated by various parties therein. The innocent civilians undergo untold miseries compared to the militants involved in the conflict. Among many violations, Sexual and Gender-based Violence (SGBV) has become a defining characteristic of the conflict, and a tactic of war where victims of atrocities are primarily women and girls, and rarely men and boys (Thust & Estey, 2020). Democratic Republic of the Congo (DRC), particularly its east, has witnessed over three decades of conflict that left countless dead and displaced. Eastern DRC in particular, has been ravaged by war and violence since the mid-1990s. Persistent impunity for SGBV and other Human Rights Violations (HRV) in the country reinforce insecurity in the region. Some of these include atrocities carried out in a systematic way, inflicted on civilians, with devastating consequences



(MADRE, 2020). The region has heavy presence of armed groups, allured by Congo's rich minerals, the population experiences high levels of violence. About 130 illegal armed groups<sup>1</sup> (OCHA, 2022) and army units have been responsible for endless human rights abuses and widespread violations there (Banwell, 2014). The region was also devastated by Ebola and Covid-19 pandemic that multiplied the effects due to continued local conflicts (ACLED, 2021). Current data from the Armed Conflict Location and Event Data (ACLED) project<sup>2</sup> shows that political violence together with SGBV and HRV increased in 2019 following a change of government in DRC.

Presence of the world's largest United Nations Peacekeeping mission (MONUSCO)<sup>3</sup> for last two decades has not succeeded in limiting the sufferings of the Congolese. Eastern DRC records the highest number of SGBV and rape in the world. According to Banwell (2012), *"It happens everywhere in DRC, rape is normalized and used to perform this type of masculinity,"* Rape is widely used as a weapon of war against women, men and children by armed groups (Thust & Estey, 2000). Very limited socio-economic opportunities are there, so the majority of the male population are compelled to get involved with armed groups to derive economic, influence, power and other benefits.

The study examines the issue by exploring numerous publications on the issue as secondary sources of data and utilizes the experiential learning of the author who had attained sound background knowledge of the conflict-environment while commanding a peacekeeping brigade in this region. The study identifies the economic challenges in eastern DRC using a gender lens and recommends some mitigating measures to imprint positive financial and social impact on women's socio-economic uplift. Kaplan and VanderBrug (2014) suggested that investing with a gender lens may create a new economic logic that could bridge the market logic of financial returns with the feminist logic of women's equality. As a major significance of this study, the author unequivocally describes the appalling gender-specific HRV scenario and thereafter supports the ideation of Kaplan and VanderBrug (2014) to propose a way-out by undertaking a gender capitalism approach with several lines of effort to improve the economic state of the poor women in DRC, and other developing countries.

## THE PROBLEM

The eastern DRC is called 'the rape capital of the world' (Kristof & WuDunn, 2009) – the question is, why so? The answer is not simple. Over 200,000 rapes have been reported since Congolese war began in 1996. The populace is not always forthcoming to report the atrocities as the response from the administration and community do not demonstrate adequate empathy. The root of the problem lies much deeper than just the incidents; rather it is the societal behaviour to either commit or accept such wrongdoings. Given the reluctance to report a rape, it is likely that many more rapes

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<sup>1</sup> OCHA (2022) stated that more than 130 armed groups, primarily founded by former Government forces and militia operate in eastern Congo, and DR Congo alleges involvement of neighboring countries including Rwanda.

<sup>2</sup> ACLED (Armed Conflict Location & Event Data Project) is directed by Professor Clionadh Raleigh and associated with the International Peace Research Institute (PRIO). ACLED is partially supported by World Bank's Development Economics Group Research Support Budget, and other institutions.

<sup>3</sup> MONUSCO: United Nations Organization Stabilization Mission in the Democratic Republic of the Congo.

and SGBV have taken place for every incident reported. Even a 70-year-old woman had tried in vain, to convince the rapists, as young as her grand-children, to leave her alone (ITUC, 2011).

The question to be asked is, “*Is Sexual and Gender-based Violence in a conflict zone inevitable and to be considered a collateral damage?*” Any conscience being would suggest that it is wrong; and no HRVs should be routinely dismissed as inevitable (DJCD, 2017). Sexual violence is not cultural, or even sexual, it is criminal (Burrow, 2011). This is the motivation to conduct this study to find how best the root causes and inadequacies can be conditioned in order to recommend mitigating measures aimed at reducing the number of violators and minimize the SGBVs, be it individual or institutional.

The study proposes that these violations can be reduced if people are able to find alternative livelihoods and all future economic and societal interventions are viewed using a gender lens and benefit the weaker deprived gender henceforth.

### Key Concepts

- a. **Gender Lens.** A lens allows anyone to see the world differently, affects individual’s interpretations, works and activities in that world. A “gender lens” helps investors include gender to gain new perspectives, highlight poorly understood inequalities, uncover new opportunities, identify blockages in the system, and discover new values. A gender lens may allow businesses in traditionally male-dominated industries have new design to make high impact on women (Kaplan & VanderBrug, 2014). Investing with a gender lens enables creation of a new economic logic that bridges the market logic of financial returns with the feminist logic of women’s equality.
- b. **Child:** The United Nations Convention on the Rights of the Child (UNCRC) defines the child as a person under 18 years of age. It acknowledges the primary role of parents and the family in the care and protection of a child, and the obligation of the State to help them carry out these duties (Dube, 2015).
- c. **Child Soldier:** any person below 18 years of age who is or who has been recruited or used by an armed force or armed group in any capacity, including but not limited to children, boys and girls, used as fighters, cooks, porters, messengers, spies or for sexual purposes. It does not only refer to a child who is taking or has taken a direct part in hostilities.
- d. **Sexual Violence:** any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work.
- e. **Rape:** perpetrator invaded the body of a person by conduct resulting in penetration, however slight, of any part of the body of the victim or of the perpetrator with a sexual organ, or of the anal or genital opening of the victim with any object or any other part of the body. The invasion was committed by force, or by threat of force or coercion, or by taking

advantage of a coercive environment, or the invasion was committed against a person incapable of giving genuine consent.

- f. **Femicide.** It generally involves intentional murder of women because they are women, but in broader sense, include any killings of women or girls. Femicide is usually perpetrated by men, but sometimes female family members may be involved (WHO definition). Types of femicide include the following: Intimate partner violence (IPV), Femicide-suicide, HIV-related femicide, religious killings, female infanticide, misogynist slaying, human trafficking, sexual orientation, honor killings, and dowry-related femicide.
- g. **Gender Capitalism.** It denotes applying a gender lens to highlight the ways that gender is material to financial outcomes and these financial outcomes become material to influence gender in a given scenario (Kaplan & VanderBrug, 2014).

## Objectives

The study intends to identify and explore the following:

- a. Examine the issue of sexual and gender-based violence happening in the eastern DRC.
- b. Using a gender lens, identify the economic challenges in eastern DRC and prescribe measures to create positive financial and social impact on women's socio-economic uplift.
- c. Recommend lines of effort add value to the already existing initiatives undertaken in the region.

## METHODOLOGY

The study builds on previous scholarly works and field studies and author's personal experience with principal focus on peace agenda by reducing violations and atrocities in the region. This study argues that peace would come as an outcome and by-product of the socio-economic upliftment initiatives designed for the deprived populace in the conflict zone. One limitation of this qualitative exploratory study is that the author had had observational learning but scope of conducting face-to-face interviews of the victims was limited. Thus, some inferences are based on author's self-reading, interpretation, and experience. The findings and recommendations of scholarly works have been carefully studied and used to hold positions to identify important addressing areas and ways they have been proposed. These are analyzed and compared to the prescriptions by international bodies and based on ground-reality. Thereafter some policy and action level recommendations have been incorporated in order to address the inadequacies more appropriately.

## FACTS AND FINDINGS

**Major Facts.** ACLED (2021) identified major challenges to peace building in the eastern DRC and put into four broad categories:



- a. Proliferation and mobilization of armed groups and militias (Mai-Mai and foreign armed groups) who compete for power and resources.
- b. Land conflicts, which often escalate due to poorly defined legal frameworks and poor access to judicial recourse.
- c. Widespread human rights violations and violent crimes committed by armed groups and state actors, which are often unreported and enable a culture of impunity.
- d. Inter-ethnic and communal conflicts, and are manipulated by political elites for their gain.

**Other Challenges.** Some more peripheral challenges have also been identified in the region that directly relate to the suffering of the population. Those are:

- a. Electoral conflict.
- b. Cross-border issues.
- c. Recent outbreak of pandemic, and related mistrust and disinformation about response to pandemic and possible armed attacks against health clinics (ACLED, 2021).
- d. Reasons for violence against women as suggested by Carter (2015) are:
  - 1) To justify sexual discriminations and physical abuses against women and girls, with a false premise that “men and boys are superior to women and girls”.
  - 2) To sanction ‘biased punishment’ showing lenience to those violators and accept violence against women during armed conflicts as evident.
  - 3) Carter (2015) also suggested the existence of a pervasive denial of equal rights to women that causes a tangible harm to male and female family members alike.
- e. Concerning child-related violations, MONUSCO documented about 40,000 violations against children and recruitment of about 31,000 children by armed groups and forces<sup>4</sup>. The Child Protection Law in 2009 criminalizes child recruitment. A girl is removed from her family, denied education and raped repeatedly in the bush while being a sex-slave in a rebel group. All of the children are forced to commit atrocities thus become child soldiers. Most of the above boys and girls recruited by armed groups will not receive justice for the crimes committed against them. The Government expressed its engagement to enforce the Child Protection Law but reduced to tokenism (Dube, 2015).

### **Some Examples of Gross SGBV and Femicide**

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<sup>4</sup> Numbers from MONUSCO database on SGBV between 2009 and 2015 documents that armed groups and forces caused over 40,000 violations against children and about 31,000 children were recruited (Dube, 2015).

In order to demonstrate ground-realities of violations, following real-life incidents have been included with narrative texts from scholarly publications and author's experience while operating in the conflict zones in eastern DRC.

- a. **Incident 1: May 2020.** *"...they shot open the door with a gun.....accusing us of being rebel sympathizers,"* a Victim recalled. *"You support the rebels. We'll show you that you are not a man"*. His father begged them not to hurt his family. But they *"put a cable around my neck and began choking me"*..... They said, *"We are going to rape you"*. And they each took turns. *"I heard the cries of my mother and sister as they were raped in the next room. Then shots rang out, and my father was dead"*. The boy underwent surgery in the hospital, after which the pastor told him that he would never again be considered a real man. Doctors estimate that nearly one in four men in eastern DRC has been raped and one in three women has suffered sexual violence. These people suffer twice – from the act itself, and from the social discrimination they endure as a fallout (Thust & Estey, 2020).
- b. **Incident 2: June 2015.** As multinational brigade commander the author was visiting a prison in Bunia, eastern DRC. He heard someone shouting from the dark confines of an over-packed cell, *"General, please help me, they are going to ruin me"<sup>5</sup>*. As revealed later, throughout the night this officer was brutally raped by the rebels which was truly disgusting. Such a degraded extra-judicial verdict was prescribed to this serving military officer who did not get along well with his superior, in order to crush *"the Man"* in him for good (Author's own experience, 2015).
- c. **Incident 3: June 2015.** As brigade commander, the author was attending a town-hall meeting on HRVs that happened in a locality. The discussion was centered on the brutal acts done by child soldiers, who possess little or no empathy and always made to participate in the brutalities and atrocities. While the author was referring to the legal limitations of dealing the child soldiers that cannot deter them from committing such inhuman acts upon their own people, the local pastor commented (Author's own experience, 2015):

*"General, you are wrong. They are the devils....though the United Nations call them child soldiers. They are not in fact children in the context of Africa. Here a boy is expected to become a bread-earner as soon as he turns 12-15 years. Joining the militia, whenever they start holding guns, they start feeling powerful and they know nothing can stop them. These so-called child soldiers start violating women from the age of 12 and even don't spare their own family<sup>6</sup>".*

- d. **Incident 4: February 2015.** The author received an urgent alarm one morning that there had been a shooting incident at a nightclub in a bordering territory (Mahagi) that killed 16 and injured another 15 persons. Notably among the dead were a UN staff member (Indian) and staff officer to local Region Commander. The massacre was a ghastly sight beyond

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<sup>5</sup> **Author's personal experience:** It was learnt that due to some unlawful act, the local army chief had put the Commanding Officer Lieutenant Colonel X (imaginary name) behind bars together with the rebels in order to teach him a lesson.

<sup>6</sup> *ibid.*



description. Among the dead was the owner of the club, Amena - a wealthy woman who reportedly was married to many men, two of them were Ugandan. She celebrated her birthday with one of her husbands and another husband might have sent mercenaries to avenge. She was shot in her Jaguar car as she attempted to leave. Her corpse was kept in Police hospital freezer until all the claimants seeking her inheritance could be settled amicably (Author's own experience, 2015).

#### e. Author's Comments

In many parts of DRC, there is a systematic destruction of innocence among the young population by the vested groups for self-interest. Dube (2015) narrated how heartlessly the child soldiers are trained to learn brutality. As stated by a 12-year-old girl associated with an armed group, *"One day a boy tried to escape. He was captured and we were told to kill him by hitting him on the head with sticks until he died"*. These children are systemically indoctrinated to become ruthless killers and perpetrators by the so-called rebel leaders in order to use them in the forefront of conflicts. It may be inexact to comment that the definition of child is very much contextual and society-centric. There can hardly be 'one standard age' to refer as child and adult. The contexts of Asia, Europe and Africa are very different and hence the impunity and degree of protection provided to so-called child soldiers as juvenile violators instead of criminals is enabling them to commit homicides and femicides and walk out unpunished.

### Using a Gender Lens to Underline Gender Capitalism Approach

The discussion should focus on how women can learn to operate within the existing system than about how to overcome structural barriers. One needs to go beyond the individualistic concepts and involve large investment capital that inherits the systemic problem of devaluing women. Investing with a gender lens will aim to create a new economic logic that builds a bridge between these two worlds: the market logic of financial returns with the feminist logic of women's equality. It should promote gender analysis as a way of reshaping the system to change what is valued in any future investment ideation.

Kaplan and VanderBrug (2014) suggested that investing with a gender lens may enable an inclusive outcome and create positive financial and social impact on women's socioeconomic positioning. Hillary Clinton advocated for the economic inclusion of women as a vital source of economic growth (Kaplan & VanderBrug, 2014). The approach recommended is "gender" and not "women." Using the term "gender" to emphasize that making change means looking at the socially constructed roles, relationships, and expectations of women and men. To understand how a gender lens can change the way investment decisions are made, consider the example a non-profit agricultural lender focused on increasing rural prosperity in Asia/Africa. A glaring example was witnessed in Bangladesh where microcredit financing has empowered millions of unbanked poor women in the rural Bangladesh (Kabeer, 2017). Using a gender lens, however, can help investors contribute to startup businesses that are bigger than microfinance to help women entrepreneurs who are unable to get credit from banks.



Gender capitalism is about applying a gender lens to highlight the ways that gender is material to financial outcomes and financial outcomes are material to gender. The approach shall vary depending on the differences in resources, regions and countries, economies, and investment products. The theme focuses on three ways that a gender lens can serve this function. These three approaches are neither exhaustive nor exclusive. Instead, they are useful analytically in identifying opportunities and uncovering barriers to progress and investors may use multiple lenses simultaneously.

### **Gaining Access to Capital**

The first is gaining access to capital—getting women involved as investors and investees, from Silicon Valley to Bangladesh. When one looks through a gender lens, disparities between men and women’s ability to access capital become quickly apparent. Across all industries, women have historically had trouble gaining access to investment capital. In addition, there are few women in the business of investing money (in banks, venture capital firms, or hedge funds). There is a collective credit gap of \$320 billion (the difference between the capital they are seeking and the credit to which they have access), which creates a major opportunity for investors. Stereotyping, implicit bias, and constrained networks may leave strong women-led firms without adequate investors. Only 6 percent of US venture capital funding goes to women-led businesses. Innovative investors are breaking these patterns. The approach would, “*democratize the entrepreneurial process*”. There are systematic, implicit biases that investors have in the traditional venture world that many don’t even recognize and that disproportionately favor men.

### **Promoting Workplace Equity**

The second is promoting workplace equity—using capital to value gender diversity in leadership and promote equal rights throughout company value chains, from top management to the shop floor. A gender lens on workplace equity allows the investor to look across the entire corporate value chain and ask, “*How are women’s leadership and equal rights valued?*” The answers to that question can lead investors to new areas of opportunity. For example, research shows that the financial returns of companies with three or more women on their board are substantially higher than for companies that have no women on their board. Evidence shows that inclusive environments are associated with better organizational outcomes and that gender-diverse teams at all levels make better decisions. The goals of gender-focused investment are both to generate returns and to use the power of these investments to help push companies toward gender equity. Using a gender lens on workplace equity broadens the questions to recognize other dynamics. For example, understanding the gendered context in which people operate—such as research demonstrating that women can be either likable or competent but not both, or that in some cases domestic violence can increase when women’s income increases—helps leaders innovate more effectively.

### **Creating Products and Services**

The third is creating products and services that affect the lives of women and girls, from clean cook-stoves in Africa to pharmaceuticals that have been tested on women and adjusted for them. In some ways, businesses are adept at creating products and services for women and girls. The

approach of the gender lens investing movement is to create opportunities and reduce risks by designing products and services that empower women and girls and improve their lives. This means changing the design process from designing for women to designing with women. Successes in reducing infant mortality (Asia and Africa), in improving feminine hygiene (India), and in other areas come from collaborative innovation.

## CONCLUSIONS

In response to the reduction of atrocities and will to build peace in the region, local peace-builders, government and other stakeholders are to take an integrated approach to prevent violations, using a blend of preventive, responsive and recovery-related actions. Their engagements will help prevent the escalation of violence, and facilitate a future-centric stance to address the root causes of violence and cover the gaps where the government has underperformed. To establish an enduring peace, using a gender-inclusive lens to examine the past and present events and devise effort-lines of gender capitalism to develop the capacity of the persecuted women and men. Thereafter one may recommend how lines of effort could influence societal changes to reduce the vulnerability of the weaker gender.

### Conclusions on Gender-based Approach

Obianuju (2019) in her article described that the women in Africa, mostly are lagging behind. They are deprived of proper education, access to finance, jobs and other opportunities than men. This is true for women in many parts of the third world, but in Africa it is more severe. In investment and finance sector, there exists a gender bias that systematically keeps the weaker gender away from mainstream economic activities. The UN and other development agencies prescribe poverty and inequality reducing agenda which is well defined in the national policy frameworks and global development agenda like the Sustainable Development Goals (SDG). But the nerve center of the impasse lies in the social systems that mostly remain unaddressed. This reform is very much essential to remove the gender disparity and inequality. There should be a multi-pronged approach to resolving the overall sufferings of the people of eastern DRC. While violations must be physically reigned using tools of negotiation, legal penalties or use of force, the conditioning of the total societal fabric needs an overhaul.

As stated by David Gressley, DSRSG MONUSCO<sup>7</sup>, prevention remains the most important activity that gender protection actors and their partners should engage in to stop child recruitment in DRC for good (Dube, 2015). Through awareness-raising at all levels of society across the country; through mass media campaigns and advocacy with national authorities and also through communities, traditional chiefs, religious leaders, families, teachers and through participation of children themselves. Dialogue with the women and men who take up arms and use children as combatants and in combat support roles must also be a priority. Lack of sustainable reintegration in areas where children are reunited pose a very high risk of re-recruitment by armed groups. The interventions to assimilate children formerly associated with armed groups is too short to meet the actual needs (Dube, 2015).

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<sup>7</sup> DSRSG, MONUSCO: Deputy Special Representative of the Secretary General, United Nations Organization Stabilization Mission in the Democratic Republic of the Congo.



Limitations of international law, and Congolese rape laws, efforts to criminalize violence that rape and sexual violence during armed conflict are not implemented properly (Banwell, 2012). Transnational corporations involved in the illegal exportation of Congo's minerals are not free from committing state–corporate crimes and may be found guilty of committing war crimes either 'directly or indirectly, deliberately or through negligence' (UN Security Council, 2002). Gender awareness is a big void in the communities. Gender relationships, hegemonic masculinity, needs of women and femininity need to be clarified at all levels, both within and outside the conflict zone.

About gender capitalism approach, several lessons can be drawn from these three different approaches that will help investors use a gender lens to guide their decisions (Kaplan & VanderBrug, 2014). The first is that systems matter. For investors, it is easy to focus on the specific investments without thinking of the systems in which they are embedded. For example, when microfinance works for women, it is not just because of the loans, but also because of the entire set of principles and programs that have been created to support women entrepreneurs and the women can have a different relationship with their husbands or family members. Similarly, encouraging women entrepreneurs in DRC without confronting the biases in the entire funding system will not increase the number of women-owned businesses. Using a gender lens is about changing processes, not simply working within them. The second lesson is that metrics are important for creating incentives and for tracking progress, but our current methods are inadequate to measure the quantitative aspects of the events. It can start with counting the number of women on corporate boards of directors, but it is not enough. In Africa, it is more difficult to understand the impact of women's entrepreneurship until we define success according to the criteria of the women themselves. There, key outcomes are to be measured in studies of microfinance, e.g. changes in self-perception, improvements in self-confidence, and development of expertise that the women experienced. The third lesson is that women must be at the table in all of these conversations, and in adequate numbers. A token woman on a panel or on a leadership team does not make for effective representation. Some research shows that tokenism can often be worse (Kaplan & VanderBrug, 2014). Can a gender lens help us move forward from the current confusion in financial markets and the broader economic crisis? Given the increasing attention to women and the economy, it is hoped that a gender lens on investing offer tangible solutions for making progress.

## **Recommended Measures**

**Strategic Level.** Both local government and international bodies have diverse responsibilities in order to promote peace and stability in the region:

### **a. Congolese government**

- 1) Have gender-inclusive approach to comply with existing international rules and conventions<sup>8</sup> concerning wage and privileges of working women.
- 2) Accept gender equality as a pre-requisite to peace, democracy, and development and make programs, policies correspondingly.

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<sup>8</sup> CEDAW: Convention on the Elimination of All Forms of Discrimination against Women and ILO Convention for Equal Wage.

- 3) Include gender lens to improve workplace environment including the mining sites.
- 4) Raise awareness on the intersectionality of gender-specific diverse needs and roles.
- 5) Review existing laws on SGBV and avoid notions of impunity to male perpetrators.

#### **b. International community**

- 1) **United Nations.** Provide more opportunities to female staff in Protection of Civilian (POC) efforts including more UNPKO<sup>9</sup> staff and soldiers.
- 2) **ILO.** Create tripartite structure with government, labor unions, and employers to address decent work deficits in eastern DRC. Ensure compliance of Human Rights issues for all.
- 3) **Development Partners.** Ensure transparency and good governance in the mining sector and minimize self-interest goals.
- 4) **Multinational enterprises.** Due diligence measures for positive impact on human rights of mine workers.

**Gender Capitalism.** Following are recommended in relation to Gender Capitalism approach:

- a. **First,** a systems approach is suggested that applies a gender lens to modify processes, not simply conform to it. It should allow women entrepreneurship and empower them with more voice and identity within the family. Encouraging unbiased funding to women entrepreneurs will increase the number of women-owned businesses.
- b. **Second,** it is necessary to develop relevant database to record and compare the viability of new interventions. Having found evidences of discriminations, some affirmative action is suggested to cover the shortfalls. Introduce gender-friendly measurement matrices to provide more incentives to women business owners who can attain specific benchmarks.
- c. **Third,** women must be accommodated at the decision-making process in all spheres, in adequate numbers. Tokenism approach to showcase women on a panel or on a leadership team does not make an effective representation. Research shows that tokenism can invert the desired progress often.

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<sup>9</sup> UNPKO: United Nations Peacekeeping Operations.

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# Hybrid-Learning Experience of Thai Business Graduate Students at A Private University in Thailand: A Phenomenological Study

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## ABSTRACT

**Aims.** To explore hybrid-learning experiences among Thai graduate students: five master's Degrees and five doctoral Degree students from business school at an international private university in Bangkok, Thailand, and connect it with the literature reviews.

**Background.** In hybrid course formats, the instructional components of traditional face-to-face classroom settings and online learning environments are combined and taught to students in a single course. An increasing number of educational institutes and universities are adopting hybrid education in order to broaden the range of educational options available to graduate students.

**Designs.** Qualitative phenomenology research was used in this study.

**Methods.** Interpersonal interviews were conducted with ten participants: five master's degree students and five doctoral degree students who enrolled in hybrid courses at a business school in an international private university in Bangkok, Thailand.

**Results/findings.** Based on interview analysis, the results were identified into three themes: flexibility and life management, the relationship between lecturers and students, and lastly, technology and online class activities.

**Conclusions:** A new challenge for many schools and educational institutes, hybrid education provides students with flexibility, time management, life management, online interaction, and the use of technology. This makes hybrid education an attractive option for students. On the other hand, it presents challenges regarding social contact, the need for technical skills, and the acquisition of learning experience.

**Keywords:** Hybrid-learning environment, phenomenology, Thai graduate students, hybrid course

## INTRODUCTION

Since 2019, there has been a global coronavirus pandemic, and the virus was found in Wuhan, People's Republic of China (Ciotti et al., 2021). It swiftly spread throughout the world, resulting in a financial crisis and a global economic downturn. The emergency health situation of the COVID-19 pandemic has changed people's behavior from offline to online throughout the world to reduce

the physical transmission of COVID-19 among people. The closure of universities and schools impacts students' continuing education and studies. Online education is not a new method; emphasis has been paid to schools, colleges, and institutions making the switch to encounter social change and offer more convenience ( Adedoyin, 2020) . The limited face-to-face teaching opportunities for many educational institutions internationally, e-learning has been significantly developed to address social demand (Dias et al., 2020). Educational institutions have been compelled to change due to the restrictions on physical engagement that have rendered most traditional modalities of instruction, evaluation, research, and scientific discourse ineffective (Byrnes et al., 2021). Many educational institutions' management teams and scholars have raised questions concerning online education's quality, experiences, and preparation.

After the recovery from the pandemic crisis, numerous education institutes and schools continue to use hybrid instruction, which offers both onsite and online environments to provide more convenience and education choices for students who cannot travel to class and students who work regularly. It is very important for instructors to comprehend how to employ a variety of online learning equipment and in-person classroom activities to increase student participation and track student progress to plan and teach hybrid courses. For graduate students who work full-time and part-time, hybrid courses can be a good answer to student demand during the economic slowdown and pandemic situation. Graduate students who have obligations such as employment, family, and house location find hybrid courses appealing ( Owston, 2013) . Graduate students frequently mention the convenience of flexible scheduling, faculty involvement, feedback, and the combination of in-person and online contacts as reasons for their choice of hybrid courses (Li & Irby, 2008; Morris & Finnegan, 2008).

### **Hybrid Education**

Internet-based education is having an effect on conventional higher education because online components are increasingly being incorporated into courses taught in a traditional classroom setting (Garrison & Kanuka, 2004). The purpose of combining traditional classroom instruction with internet-based instruction is to make the most of the strengths inherent in both online and in-person instruction in order to present students with a learning environment that is more conducive to their development as learners than either mode of instruction can be on its own (Osguthorpe & Graham, 2003).The online or face-to-face mode of instruction is not superseded by the hybrid delivery method, but rather, it is built upon to produce new and more efficient learning environments (Kok, 2013). The reconceptualization and redesign of a course or program for delivery in a blended setting constitute hybrid learning (Vaughan & Garrison, 2005). There is no single formula for building blended courses; rather, hybrid learning designs vary greatly based on the nature of the course content, the audience or students, the course objectives, the instructor, and the available technology (Benbunan-Fich, 2008). For instance, hybrid simulation enables students to acquire advanced technical and non-technical skills training in a realistic setting (Kjellin et al., 2014).

Instructional components of traditional face-to-face classroom settings, as well as those of online learning environments, are mixed in hybrid course forms.

Hybrid course forms can also be referred to as blended, blended, or blended learning (Tu &



Adkins, 2022). Alternately referred to as web-enhanced, combined, or mixed-mode learning, these instructional strategies are becoming increasingly popular (Hall & Villareal, n.d.). The number of hybrid classes available in higher education has increased dramatically quickly due to altering student demographics and expanding initiatives to make courses more accessible to students (Klimova & Kacetl, 2015). Hybrid courses is appealing to a wide variety of students, including those who have a crowded class schedule in addition to juggling a variety of career and family responsibilities at the same time. As colleges strive to attract more diverse student populations in an effort to slow the rate at which the expense of higher education is increasing, it is anticipated that hybrid course formats will continue to gain popularity.

In this study, the researcher will use a phenomenological research approach to investigate hybrid-learning experiences among Thai and international graduate students: Master's Degree and Doctoral Degree students from business school at an international private university in Bangkok, Thailand.

### **Problem Statement**

Many universities and colleges in Thailand have been offering hybrid-learning environments since the recovery of the Covid-19 pandemic situation. The hybrid-learning degree for graduate students has gained more popularity. It is well-suited for people who wish to study without worrying about attending classes, leaving their jobs, family commitments, etc. However, it is still new for some Thai universities to provide hybrid education for graduate students. There is room for Thai higher education institutes to improve their education systems to meet the graduate student demands in the current educational market. Individual graduate learners have different learning styles, study preferences, and attitudes toward hybrid instruction. The results will be the recommendation for scholars, faculty members, and future researchers to develop hybrid education for graduate students that match the student preference.

### **RESEARCH QUESTIONS**

1. How is your experience learning business courses via hybrid learning mode?
2. How does a hybrid-learning environment impact your learning experience and relationship with your lecturer and classmates?
3. What challenges do you face while studying a hybrid-learning mode?

### **RESEARCH OBJECTIVES**

1. To investigate the phenomena of Hybrid-learning experience among Business Master's degree and Doctoral degree students at a private international university in Thailand.
2. To study insightful thoughts of business graduate students toward the hybrid-learning courses.

### **RESEARCH METHODOLOGY**

The researcher chose the "qualitative phenomenological approach" to examine the shared ordinary meaning of graduate students' hybrid-learning experiences because it studies people's natural environment experiences and the fact that they come from both individuals and groups (Creswell,



J. W. , & Poth, C. N. , 2018) . Moustakas, C. (1994) stated that phenomenology offers a deep understanding of a phenomenon as many people encounter it. Phenomenological research seeks to understand meaning by fusing the experiences of those research samplings and researchers (Magrini, 2012). Van Manen (1990) said that phenomenology research is an interpretative process of a phenomenon by studying people who share the same or similar experiences ( Van Manen, 1990). The phenomenological approach gave the researchers a bigger viewpoint to recognize the deep thoughts of graduate students toward the hybrid-learning courses.

## **SELECTION OF RESEARCH PARTICIPANTS**

Purposeful sampling was used in this research to choose graduate students who enrolled in the hybrid course at a business school in an international private university, in Thailand. The hybrid courses were taught in the English language. Alase, A. (2017) suggests that the 5- 25 research participants who have encountered the phenomenon are a decent number of phenomenological studies. Creswell, J.W. and Poth, C.N. (2018) stated that 3 to 4 people or 10 to 15 people are suitable research participants for a phenomenon study. Hence, the researcher selected ten graduate students: five master's degree students and five doctoral degree students for this study.

## **DATA COLLECTION**

The researcher conducted interviews with five master's degree students and five doctoral degree students for this phenomenon study. The research assistant recruited research participants who distributed information to potential research participants who were qualified for the research goal. Once the potential samplings returned the consent to join the research, the researcher contacted them to arrange an online interview at their convenient time. The research participants were voluntary, and all personal information was kept confidential. The in-depth interviews were conducted via video conference and the data collection was taken place from October 1 to October 10, 2022. The semi-structured interview was used to allow flexibility and open-ended questions for samplings to express their opinions toward their hybrid-learning experiences. The interview took approximately 30 minutes per research participant, and a digital recorder recorded it. Then, the sound was transcribed into written content, and the researcher coded them into data analysis.

## **RESULTS AND DISCUSSIONS**

In this part of the report, the researcher will address some of the study questions by providing some data findings. The findings concerned graduate students' perceptions of their hybrid-learning experiences, and they were examined based on the transcription of interview information and the voice recording. The researcher referred participant by their fictitious names, such as participant master student 1 (PM1) and participant doctoral student 2. (PD2). Three themes were identified, and all research participants were asked to share their hybrid-learning experience. The interview was conducted in Thai language and was later translated into English transcription.

### **Theme 1: Flexibility and life management**

Students who had to balance full-time work and family responsibilities found that the online components of hybrid courses gave them the freedom to set their own pace for the learning process, which was helpful given their hectic schedules.



*“Hybrid courses help me to feel the convenience and reduce stress in traveling to classes. Traffic jam in Bangkok is very bad, and it took long time to travel from my workplace to the university. If I finish my work late, I can study online via Zoom platform” (PM1).*

*“I find business hybrid courses suit my busy life. As I am a store manager, I do not have much time to contribute to my study. However, I want a master’s degree in business for my career path. The hybrid business classes save my time in studying and going to class on a weekday.” (PM4)*

The above explanation makes it clear that graduate students enrolled in hybrid learning courses benefit from increased flexibility in terms of both the convenience of their studies and the amount of time they need to devote to the many other responsibilities they have in their lives. When students are given the option of attending class in person or online, according to their individual preferences, they experience significantly less stress. The most significant benefit of hybrid classes is that they provide a forum that gives students who have various responsibilities the flexibility they need to make the most of their time.

*“I have two sons, and I do not really have time for my study and work. Hybrid courses save my time studying, so, I have more time to spend with my family. My workload is already heavy. I have better life management in terms of work and study because I can work faster at home rather than in a physical classroom. However, if I have to study accounting and finance, I will go to physical classes to study with my classmates.” (PM3)*

*“I work as a physician at an international airport in the northern part of Thailand, and I find it difficult for me to study onsite at the university that I want to study. I have a sister who is working in Bangkok. I sometimes take an onsite class in Bangkok when I visit my sister and mostly study online in my hometown. I really enjoy the hybrid courses because it gives me access to the education choices that I wish. It helps me schedule my life after work.” (PD2)*

According to the above transcription, one of the advantages of hybrid education is that it allows students to choose where they want to do their schoolwork and study based on how convenient it is for them. This is in relation to a study that was conducted by Joel Barker on the advantages of hybrid classes in community colleges. The findings showed that individuals now have the option of completing their coursework from a location that is more convenient to them rather than making numerous visits per week to the institution where they are enrolled (Barker, 2015). The keywords “convenience, flexibility and schedule” can also be referred to as flexibility in education, life balance, and time management.

## **Theme 2: Technology and Online class activities**

A hybrid learning environment that includes both on-campus and online classes has benefited greatly from the incorporation of technology. The course content was frequently presented in online settings, such as lectures using presentation software like PowerPoint and online conferences using Moodle and Zoom. These types of activities were carried out in virtual and onsite classrooms. However, there are a few obstacles to overcome when utilizing technology and to connect to the Internet.





*“I prefer studying in the physical class on the main campus because I do not have to face any technical problems. If I have to study via Zoom, I always forget my zoom password to enter online classes, and the new features of zoom give me a headache. The professor requires online and onsite students to attend the online game and quiz during class activities. I always ask for help from my teacher or classmates. If I am at home, life will be hard for me.” (PD4)*

*“I am a senior lecturer at a university in Bangkok. Hybrid education is something new and challenges my abilities. I think it is good for me because I can adapt it to my work. However, I admit that I have technical problems during the hybrid course. It takes time for me to learn a new platform.”(PD5)*

It was shown by a response from a doctoral student that the use of technology by students to participate in hybrid classes and engage in online activities with their instructors, such as online quizzes, discussion forums, and games, requires students to have a certain level of technical expertise.

*“Internet connection is the most important part of my hybrid education. Low internet connectivity really harms my learning experience because the video conference is delayed and slow.”(PM5)*

*“For me, the challenge of hybrid learning is the internet. I cannot study without internet because my teacher often asks students to complete many assignment online” (PM1)*

The above findings of the interview revealed that it is essential for students to have a sufficient Internet package in order to participate in hybrid classes. The student's overall learning experience is negatively impacted by an internet connection that is either poor quality or unstable. Because of this, students may need to make an investment in a high-speed internet package for their education.

*“As I am using Zoom for my work, I have no issues with the hybrid course. I know how to attend an online meeting, present the work online and discuss group work. However, I find that my professor always has a problem in dealing with technology facilities in online classrooms, causing the delay of instruction and disrupting my concentration.” (PD5)*

*“I have no problem with technology in studying. I feel that hybrid education is not different from a regular classroom as I can send questions to my teacher via email and zoom meetings. During group work, a video conference is an effective tool where my classmates and I can share online class materials and my computer screen.”(PM1)*

It is essential for professors teaching at universities apply effective use of technology in the dissemination of information to their students and in the enhancement of classroom participation by students who are physically present in the classroom as well as students who are taking part in an online conference. Students are expected to have a fundamental understanding of technology in order to participate in hybrid classes and make effective use of technology when completing online assignments and in-class activities. It appears that students who are comfortable utilizing various technology forms tend to enjoy hybrid education.

### **Theme 3: Relationship between lecturers and students**

During in-person class sessions, the graduate students emphasized the significance of active participation and the availability of opportunities to engage in conversation with both the instructor and their fellow classmates. Students who like to learn through personal contacts benefited greatly from in-person classes. One master's degree student said,

*"I need to spend time with my classmates and teacher to feel the classroom and education. Face-to-face communication between my teacher and me impacts my deep understanding of what I am studying. I am close to my classmate in class rather than online classmates."* (PM3)

*"I do not have any friends in the hybrid education environment. Before enrollment, I hope to meet more people from various backgrounds and I can expand my social network. But it is different from what I hope."* (PM4)

According to the findings of the analysis of the interviews, one of the problems that has been highlighted is that some students may despise hybrid education since they prefer having face-to-face interaction with their lecturers and classmates. Being related with online teaching is the limited opportunity for students and instructors to engage with one another (ASLAN EFE et al., 2022). Online student-teacher interactions are considered to be inauthentic and lack the spontaneity that in-person teaching provides (Niemi & Kousa, 2020).

*"I feel the high space between me and my classmates. Mostly, I study via Zoom only, and I do not have much chance to know my classmates after classes. It is good for my time management, and introvert person like me."* (PD5)

The student demand for individualization in learning and lifestyle, as well as improved relationship management, can be met through hybrid educational models. According to the transcription, a doctoral student (PD5) expressed satisfaction with the decision to study online rather than attend onsite classes. It enlightened us to the fact that learners have a variety of learning styles, and that it is a significant challenge for lecturers and educational institutions to strike a balance between these styles in order to achieve hybrid education's desired outcomes.

*"I think interesting online activities and lecture's teaching methods can increase the positive relationship between students and lecturers. As my teacher often ask students to join group discussion and group assignment by random selection, I get to know more classmates during group work."* (PD2)

The level of student satisfaction and learning may be affected by the amount of debate and activities that occurs inside online classes. The quality and success of the hybrid course content that takes place within an online course is directly related to the overall success of the course (Maddix, 2012). One possible impetus to construct a positive reputation between students and teachers is the provision of fascinating education and online activities. This might be interpreted as a further challenge for lecturers, who are tasked with enhancing their instructional practices in order to create a pleasant and engaging hybrid learning environment for their students.

## **RESEARCH LIMITATION**

The location of the study, the criteria for sampling, and the size of the sample were all factors that

contributed to the study's limitations. All of the participants enrolled in the same university in Thailand and the hybrid courses were taught in English. The interview was conducted in Thai and then later translated into English transcription. The age range of the students started from 22 to 63 years old, the different age ranges was a research limitation. The online interview took place, and it was difficult to observe the physical action of research participants while interviewing. Time limitation was an issue in data collection.

## CONCLUSION AND RECOMMENDATION

The most recent study discovered that hybrid education needs to be engaging and motivating and should also enable researchers to understand the subject matter. When there was a combination of the qualities of online tools and face-to-face contact, students felt as though they had the support of their teachers in addition to the convenience of being able to work at their own time. This was made possible by the fact that they could work on their own schedule and time. The author conducted interviews as part of a study using a qualitative phenomenological methodology to gain a comprehensive understanding of hybrid-learning experiences among Thai graduate students. This includes students pursuing master's degrees as well as doctoral degrees.

The transcription was analyzed and coded into three categories: relationships between lecturers and students, technology and online class activities, and flexibility and life management. In order to enroll in a hybrid education program, students need to have at least the most fundamental technical skills, and instructors need to be proficient in the use of technology to deliver interesting classes, create effective in-class and online class engagement, and deal with students who come from learning preferences in the most efficient manner possible.

It is necessary for schools and higher education institutes to adopt new technologies and innovations in the era of digital business in order to improve the quality of instruction and expand their education choices in order to survive the disruption that will be caused by technology. A rise in demand for blended education may result from the development of additional technological features and the training of educational professionals in the delivery of information. Due to increased student demand, an increasing number of educational establishments are now offering an increased number of hybrid courses. These courses give students the flexibility to study wherever it is most convenient for them. Research on the hybrid-learning experiences of students in other educational fields, areas, and levels of education, such as undergraduate degree students, can be conducted in the future.

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# A Study Examining Behavioral Factors Impacting Students Intention to Wear a Helmet Whilst Using a Motorcycle in Bangkok, Thailand

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## ABSTRACT

Motorcycles are a common mode of transport across Asia, due to the convenience and efficiency in urban areas. In Thailand, 87% of people own a motorcycle, and 400 more motorcycles were registered every day in 2018 than in 2017. Despite the fact that wearing a helmet is required for both riders and passengers nationwide, it is still not widely practiced. Moreover, riding a motorcycle without a helmet increase the risk of death exponentially, particularly in young people who often choose to ride a motorcycle without a helmet. In this study, behavioral factors such as attitude, subjective norms, and perceived behavioral control are examined to identify the leading factors that impact students' intentions to use a helmet. This study includes the Theory of Planned Behavior (TPB) to predict behavioral intentions among students who use a motorcycle in Bangkok, Thailand. Cross-sectional data was collected via Google form from two universities in Bangkok using purposive convenience sampling techniques. The result indicated that all the hypotheses are supported and significant which means that students who ride or drive the motorcycle, they have higher intention and behavior towards wearing the helmet. Future study can use a large sample size from different age group to examine people's attitudes toward wearing helmets when driving or riding a motorcycle.

**Keywords:** Motorcycle helmet, Theory of Planned Behavior, Subjective Norms, Perceived Behavioral Control, Thailand

## INTRODUCTION

### Background of the study

The economies of developing Asian nations are expanding quickly, urbanization is accelerating, and lifestyles are changing. Because of this, the number of people who own privately driven vehicles is increasing quickly, which could soon result in significant changes to transportation infrastructure and human travel habits (Morichi, 2009). Throughout Asia, motorcycles are one of the most frequently used modes of transport since motorcycles are relatively cheap to own and operate and are more maneuverable in congested cities – commonly attributed across many Asian cities (Darido, 2010). In most cities across Asia, population growth is increasing faster than urban

footprint growth, leading to immense strain on city infrastructures and transport networks and causing mass traffic disruptions (Deuskar, 2015). Motorcycles have become efficient for commuters to get from one place to another relatively quickly. Used primarily for transport, motorcycles are often modified to transport cargo and take the form of couriers, taxis, and emergency service vehicles.

Motorcycles are part of everyday life among ASEAN nations, as the total number of registered motorcycles in 2019 was 106 million in Indonesia, 62 million in Vietnam and 21 million in Thailand (Saenprasarn et al, 2021). In Thailand, 87% of households own at least one motorcycle; in a country with 70 million people, there is one motorcycle for every 3.5 people (ASEAN Now, 2022). In 2018 the rate of new motorcycle ownership was increasing at an astonishing 400 new motorcycles per day in Thailand (Achakulwisut, 2018), showing the true extent of how in demand these types of vehicles are.

The United Nations Economic Commission for Europe (UNECE) suggested that using a motorcycle without a helmet removes an additional layer of protection that could otherwise be the difference between life or death in the event of an accident. The United Nations Motorcycle Helmet study -showed that motorcycles were 26 times more likely to die than drivers or passengers of automobiles (UNECE, 2016). The UNECE study also mentions that wearing a helmet increases an individual's chances of survival by 42 per cent and helps prevent 69 per cent of common injuries caused by motorcycle crashes (UNECE, 2016). Medical experts believe that "the only effective approach in dealing with a head injury is prevention ... not to let the injury occur in the first place." (Singer, 2016).

Even though the use of motorcycles is high in Thailand, research conducted in 2013 shows that helmet usage is still relatively low throughout the country, despite helmet use being compulsory for both riders and passengers according to the Helmet Act of 1994 (Jiwattanakulpaisarn et al., 2013). A recent survey found that nationwide helmet use rate was 43.7% in 2010; nevertheless, 97.2% of motorcycle users claimed to own helmets (Ackaah et al., 2013; Suriyawongpaisa et al., 2013). In general, when an individual does not wear a motorcycle helmet, it represents an unnecessary risk that the user exposes themselves to in an already dangerous environment. Usually, wearing an approved helmet while driving can cut your risk of death by 40% and serious injury by 70% (WHO, 2013; Liu et al., 2008; Abbas et al., 2012).

Some research has been conducted on helmet use as it pertains to motorcycle riders, showing that the lack of awareness of helmet law enforcement was a contributing factor influencing the use of helmets in Thailand (Jiwattanakulpaisarn et al., 2013; German et al., 2019). In a study, Kumphong et al, (2017) claimed that young adults between 17 – 29 contributed to the most high-risk group and therefore were most in need of targeted preventative measures.

### **Purpose of the study**

In Thailand, the usage of a helmet is still not always observed among motorcycle riders, with passengers having a more pronounced lack of compliance. In this regard, the main purpose of this study is to explore and understand the behavioral factors of wearing a helmet whilst using a motorcycle among university students in Bangkok. The study will use the Theory of Planned

Behavior (TPB) model to gain an insight to understand how behavioral intentions are positively related to specific variables such as behavioral beliefs, subjective norms, and perceived behavioral control.

## **Objective of the study**

The main objective of the study is

1. To understand the behavior among the young students to wear helmet during riding the motorcycle by using the theory of planned behavior
2. To explore whether inductive norms and deductive norms have any influence on behavioral intention among the young students to wear helmet or not.

## **LITERATURE REVIEW**

### **The Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) was theorized by Icek Ajzen (1991) as an extension to the Theory of Reasoned Action (TRA) which was first developed by Martin Fishbein and Icek Ajzen (1975). TPB is a theory that is used to explain the link between beliefs and behavior. For the TPB, individual intention to perform a given behavior is also the central factor and the individual's intention to carry out a specific behavior is the main component of the TPB (Ajzen, 1991). In addition, the theory also uses attitude and subjective norms as the attributes of behavioral intention, however, the third characteristic known as perceived behavioral control characterized the fundamental distinction between the two theories (Godin, 1996). According to the TPB, an individual's intentions are directly influenced by the three factors of attitude, subjective norms, and perceived behavioral control.

In addition, Ajzen (1991) identified three kinds of salient beliefs, each related to one of the TPB constructs; behavioral beliefs are related to attitude towards the behavior, normative beliefs are related to subjective norms, and control beliefs are related to perceptions of behavioral control (Greaves, & Stride, 2013). Subjective norms are whether most people approve or disapprove of a certain type of behavior, for the benefit of this study, subjective norms will be split into injunctive and descriptive norms to gain a more specific perspective on subjective norms within the model.

### **Attitude**

The first attributes from the Theory of Planned Behavior model is attitude. Attitude is used to describe the individual's personal attitude towards the behavior (Ajzen, 1991). Godin (1996) mentioned that an attitude reflects how they feel about engaging in a particular behavior, whether positively or negatively (Godin, 1996). Furthermore, attitude is the overall perspective of the behavior that is determined by underlying salient beliefs (Conner & Armitage, 1998). According to Ajzen, we learn to create positive attitudes towards behaviors we believe to produce mainly positive outcomes and form unfavorable attitudes towards behaviors we believe to produce undesirable outcomes (Ajzen, 2015).

### **Subjective Norms**

The second attributes of the Theory of Planned Behavior is known as subjective norms. Wong (2019) argued that subjective norms are perceptions reflecting perceived social pressure from important others to perform a behavior. In general, subjective norm is whether peers or people of importance to you agree or disagree with engaging in a certain behavior or not (Ajzen, 2015). Additionally, subjective norms show people's expectations of how their reference groups will see them if they engage in a particular conduct (Al-Swidi et al, 2014). Subjective norms are significantly related to attitude towards a behavior due to the social pressure associated with subjective norms (Shrimp and Kavas, 1984, Chang, 1998). Furthermore, Ajzen (2000) claimed that subjective norms is further explained to include the more traditionally measured injunctive component and descriptive component. Ajzen (2000) further explained injunctive component as whether someone feels their social network approves of them to engage in the behavior and a descriptive component as for instance, whether one's social network performs the behavior.

### **Perceived Behavioral Control**

The third attribute is known as perceived behavioral control and is significant to the theory (Ajzen, 1991). In general, behavioral control is an individuals perceived ability to perform a behavior (Wong, 2019). According to Ajzen (1991), perceived behavioral control is the degree to which a person assesses their level of control over a behavior). In other words, the easier a behavior is to accomplish, the more likely a person is to intend to engage in it (Ajzen, 1991). In addition, Ajzen (1991) argued that people are likely to perceive a high degree of perceived behavioral control if they believe they have access to the required resources and that there are possibilities (or no barriers) for them to engage in the behavior.

### **Intentions**

Intention is the fourth attribute of the Theory of planned behavior and is the function of the three determinants including attitude, subjective norms, and perceived behavioral control. According to Ajzen (1991), when all three functions are united, intentions serve as the motivating force behind a person's behavior. By the individual having the intention to perform a behavior it leads to the individual pursuing that intention and completing the behavior based of their intentions (Ajzen, 1991).

### **Behavior**

The last attribute of Theory of Planned Behavior is the actual behavior. Behavior is used to explain any form of human action and interaction that stems from a psychological decision the individual has made (Hamilton, 2022). The concept of planned behavior stated that a behaviors performance is a common consequence of intentions and perceived behavioral control. There are many factors that influence human behavior and Ajzen used TPB as a mechanism to predict future behavior (Conner, & Armitage, 1998). Ajzen even said, "explaining human behavior in all its complexity is a difficult task" (Ajzen, 1991). In the context of the TPB model, behavior is directly linked to intentions.

### **Injunctive Norms**



In this study subjected norms will be split into injunctive norms and descriptive norms. In general, injunctive norms reflect perceptions of what relevant others approve or disapprove of and how these perceptions motivate an individual to perform that behavior themselves (Lee et al, 2007). Usually, injunctive norms is used to explain the conduct that important others deem to be acceptable or not (Matsunaga, 2008). Moreover, injunctive norms is relevant to this study as it will be used to explain the impact that an individual's social circle has on their use of a motorcycle helmet.

### **Descriptive Norms**

The second part of subjective norms is descriptive norms which reflects whether the relevant people engage in the behavior or not (Lee et al, 2007). A key difference is that descriptive norms are perceptions of important people such as family and friends performing the behavior themselves and as an individual seeing those people doing so motivate that individual's perspective of the behavior (Louis, 2012). In general, descriptive norms is used to explain the conduct that important others actually engage in and is relevant to this study as it will be used to explain the impact on an individual when they see important others behaving a certain way (Matsunaga, 2008).

### **Proposed Hypotheses**

Based on the conceptual framework of the Theory of Planned Behavior, the following hypothesis are proposed:

- H1:** Attitude is positively related to the intention of motorcycle helmet use.
- H2:** Injunctive norm is positively related to the intention of motorcycle helmet use.
- H3:** Descriptive norm is positively related to the intention of motorcycle helmet use.
- H4:** Perceived behavioral control is positively related to the intention of motorcycle helmet use.
- H5:** Intention variable is positively related to the motorcycle helmet use behavioral variable.

## Proposed Conceptual Framework

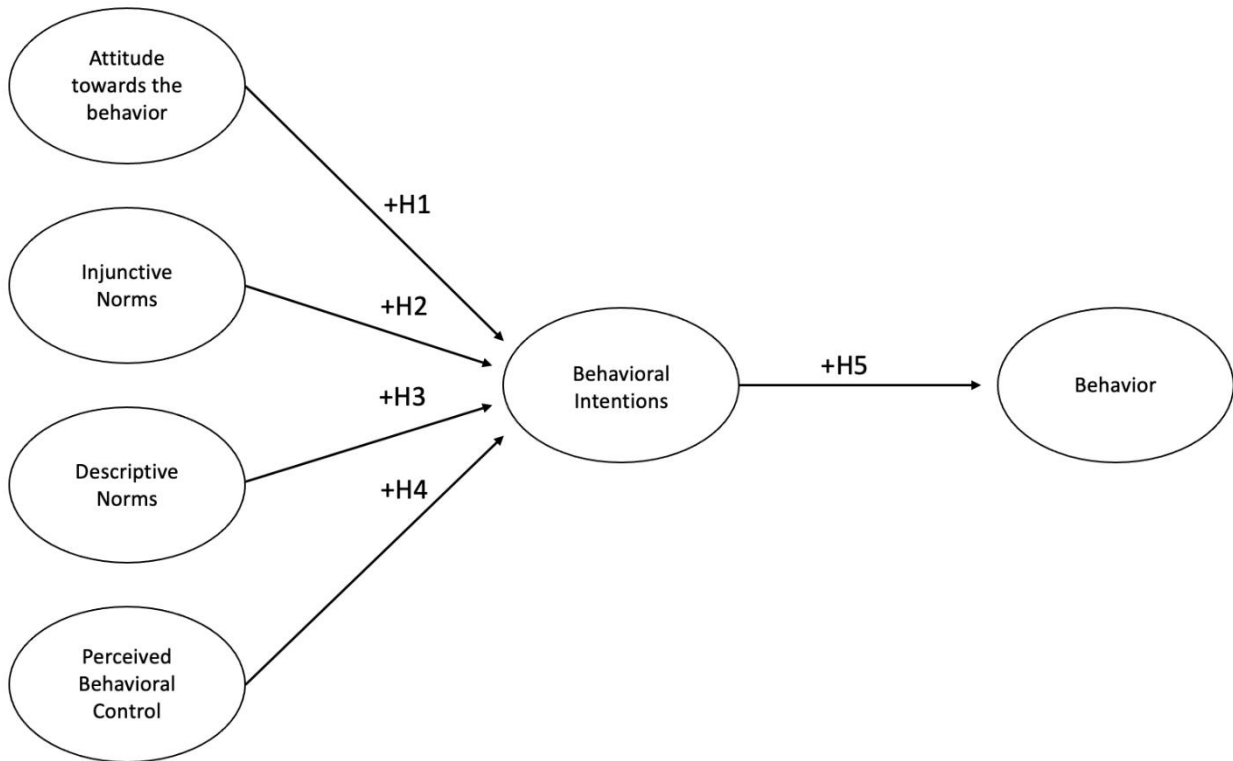


Figure 1: Proposed Conceptual Model

## RESEARCH METHODOLOGY

### Research Design

To explore the relationship of the variables in the conceptual framework, an online survey was conducted which was able to collect quantitative data that would better help to examine the recommended hypotheses. According to Kumphong et al., (2017), an online survey is a useful tool for gathering a lot of data about human behavior when doing a study like this one. An empirical study was conducted to explore the relationship between the attitude towards the behavior, injunctive and descriptive norms, perceived behavioral control and intentions among young people's decision to wear a helmet whilst riding a motorcycle in Bangkok, Thailand.

The questions used for the online survey were taken from the literature review, where related research studies were analyzed. The questionnaire comprised of the following components: Independent Variables i.e., Attitude towards the behavior, injunctive norms, descriptive norms, perceived behavioral control and behavioral intention. On the other hand, the student's behavioral decision to wear a helmet was the dependent variable. Demographic variables were also included in the survey questionnaire to identify the gender, age, nationality, education level, job status, and the university of the participants. Additional questionnaire was included to gain further information



such as whether the participants were riders or passengers, whether they owned a helmet, owned a license or whether they had been involved in an accident whilst riding a motorcycle.

The data will be analyzed to determine whether the proposed hypotheses are supported and to recommend a solution to the serious issue surrounding helmet compliance in Thailand. As the researcher is a young motorcycle user in Thailand that created the motivation for this study. Further study is recommended on the issue, with a broader scale of research needed to look in-depth into other factors such as cultural, economic and enforcement of laws.

### **Sample and Participants**

An online survey was conducted across two universities in Bangkok, Thailand. Both Thai and International students were approached on campus, and they were asked to complete an online survey. Any student who regularly use a motorcycle in Bangkok, Thailand was considered eligible for the study. As the study is examining a certain population, purposive convenient sampling was used, therefore older participants and young children were excluded. Approximately 200 QR code handouts were distributed with 60 participants completing the online survey.

### **Scale Measurement**

The scale used in this study was adopted from previous literature. Attitude was measured with five items which was adopted from Kumphong et al in 2017 to measure attitudes towards helmet use in Khon Kaen City. Injunctive norms, descriptive norms and behavioral intention were measured with three items which was used by Kumphong et al in 2017. Perceived behavioral control and behavior were measured with three items which was adopted by Taylor & Todd in 1995.

All the items used in this questionnaire were measured with a 5point Likert-Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). To measure opinions or behaviors of respondents' Likert-scale is widely used as a method to gauge the extent to which someone agrees or disagrees with a statement. Demographic questions covered gender, age, nationality, educational background, job status of the student.

### **Data Collection**

To collect data, an online survey was conducted where participants were asked to complete an online questionnaire. The survey questions were carried out in English and Thai as the participants chose for the survey include Thai nationals and non-nationals, therefore the questions need to be accessible to all. When participants were approached, they were asked if they had used a motorcycle in Bangkok before as it would be relevant to the questions. Cross-sectional data were collected via an online questionnaire through Google Form during the months of August and September 2022. The online survey was administered via a QR code printed on a small handout, which was handed to each participant so that they could complete the survey at their earlier convenience. To ensure complete confidentiality no personal data like names and email address were collected and all participants were advised that they can withdraw from the research survey at any point. Primary data was collected from students across the two university campuses in

Bangkok (Chulalongkorn University and Siam University). Moreover, no financial incentives were given to any participants during the survey.

### **Operationalization of the variables**

In the study, there were six independent variables such as attitude, injunctive norms, descriptive norms, perceived behavioral control, behavioral intention and one dependent variable which was behavior. After the data was collected, Exploratory Factor Analysis (EFA) was carried out to identify the validity of the variables using SPSS, this was then followed by Reliability testing each variable. To authenticate the internal consistency, Cronbach's alpha coefficient was analyzed. The hypotheses were tested by computing the regression analysis.

### **Data Analysis Technique**

The data was analyzed using Statistical Package for the Social Science (SPSS) version 25. The responses were imported and saved in the (.sav) format for SPSS calculation. The mean comparison was carried out using SPSS between demographic information and comparison of the helmet use behavior. The data was also analyzed using Pearson's bivariate correlation to find the relationship between the independent and dependent variables. The regression analysis was conducted to test the proposed hypotheses and know how much the model explains from the data.

## **DATA ANALYSIS**

### **Demographic Information**

The respondents (n=60) who participated in the study were a mixed group of students and young people from various nationalities. Among the respondents, there were 24 (40%) male and 36 (60%) female students. The mean age of the respondents was 21.05 years with the standard deviation (SD) of 2.977, with the range of the group between 17 – 29 years. Among the respondents, there were 25 (41.7%) of respondents were Thai nationals whilst 35 (58.3%) were non-Thai. In addition, most of the respondents were having bachelor's degree 55 (91.7%) , with just 4 (6.7%) were having high school degree and 1 (1.7%) respondent was having master's degree . Among the participants 58 (96.7%) were students, with 1 (1.7%) part time and 1 (1.7%) full time employment. In addition, the respondents were from Siam University 48 (80%), with 11 (18.3%) from Chulalongkorn University and 1 (1.7%) from Burapha University. Furthermore, 37 (61.7%) of respondents were identified as a motorcycle rider whereas 23 (38.3%) identified as a motorcycle passenger. There were 28 (46.7%) of respondents who owned a motorcycle helmet, whereas 32 (53.3%) who did not own a motorcycle helmet. A similar story for motorcycle license ownership as only 35 (58.3%) owned a license with 25 (41.7%) did not have their motorcycle license. The participants who had been in a motorcycle accident was 43 (71.7%) whilst 17 (28.3%) had not been in a motorcycle accident.

Table-1 Demographic characteristics, Motorcycle characteristics

Aspects	Statistics
Gender	Male: 24 (40%) Female: 36 (60%)
Age (in years)	Mean: 21.05 Standard Deviation: 2.977
Nationality	Thai: 25 (41.7%) Non-Thai: 35 (58.3%)
Education Level	High school: 4 (6.7%) Bachelor's degree: 55 (91.7) Master's degree: 1 (1.7%)
Employment Status	Student: 58 (96.7%) Part time: 1 (1.7%) Full time: 1 (1.7%)
University Attended	Siam University: 48 (80%) Chulalongkorn University: 11 (18.3%) Burapha University: 1 (1.7%)
Which group represents you best?	Motorcycle Rider: 37 (61.7%) Motorcycle Passenger: 23 (38.3%)
Do you own a motorcycle helmet?	Yes: 28 (46.7%) No: 32 (53.3%)
Do you own a motorcycle license?	Yes: 35 (58.3%) No: 25 (41.7%)
Have you been involved in a motorcycle accident?	Yes: 43 (71.7%) No: 17 (28.3%)

### Analysis of the survey

The results collected from the survey were compiled and analyzed, step by step the results were documents, and all the sub-factors were duly accounted for.

### Correlation Analysis

Bivariate correlation was calculated between attitude, injunctive norms, descriptive norms, perceived behavioral control, behavioral intention, and behavioral action. From the correlation analysis, it was noticed that attitude ( $r=0.693$ ,  $p=0.000$ ), injunctive norms ( $r=0.493$ ,  $p=0.000$ ) and descriptive norms ( $r=0.589$ ,  $p=0.000$ ) were positively correlated with behavioral intention. In addition, perceived behavioral control ( $r=0.686$ ,  $p=0.000$ ) was positively correlated with behavioral intention. It was further noted that behavioral intention was positively correlated with behavioral action ( $r=0.738$ ,  $p=0.000$ ). From the table below it was identified that all the correlations were significant at 0.000 level (Two-tailed). Table 2 exhibits correlations among all the variables.

**Table-2 Pearson's Correlations of the variables**

		ATT	IN	DN	PBC	BI	BEH
ATT	Pearson Correlation	1	.589**	.437**	.584**	.693**	.709**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	60	60	60	60	60	60
IN	Pearson Correlation	.589**	1	.356**	.442**	.494**	.613**
	Sig. (2-tailed)	.000		.005	.000	.000	.000
	N	60	60	60	60	60	60
DN	Pearson Correlation	.437**	.356**	1	.446**	.589**	.521**
	Sig. (2-tailed)	.000	.005		.000	.000	.000
	N	60	60	60	60	60	60
PBC	Pearson Correlation	.584**	.442**	.446**	1	.686**	.600**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	60	60	60	60	60	60
BI	Pearson Correlation	.693**	.494**	.589**	.686**	1	.738**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	60	60	60	60	60	60
BEH	Pearson Correlation	.709**	.613**	.521**	.600**	.738**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	60	60	60	60	60	60

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Exploratory Factor Analysis

The result of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO and Bartlett's Test) identified that behavioral intention had the highest factor loading with 0.743 ( $p=.000$ ) and descriptive norms had the lowest factor loading with 0.592 ( $p=.000$ ). Table \_ shows the factor loading of all the variables. The factor loading of attitude was 0.713 ( $p=.000$ ), injunctive norms was 0.718 ( $p=.000$ ), perceived behavioral control was 0.679 ( $p=.000$ ) and behavioral action was 0.694 ( $p=.000$ ). Table 3 exhibits the KMO test of all the variables.

Reliability test was conducted to understand the consistency of the variable. The result of reliability test found all the variables at a moderate level. The reliability coefficient (Cronbach's Alpha) was Attitude = 0.697, injunctive norms = 0.885, descriptive norms = 0.702, perceived behavioral control = 0.826, behavioral intention = 0.905 and behavioral action = 0.789. Table 3 exhibits the Cronbach's Alpha of the variables.

**Table-3 KMO and Bartlett's Test and Cronbach Alpha of the**

Variables	KMO*	ALPHA	Sig
Attitudes	.713	0.697	.000
Injunctive norms	.718	0.885	.000
Descriptive norms	.592	0.702	.000

Perceived behavioral control	.679	0.826	.000
Behavioral intention	.743	0.905	.000
Behavioral action	.694	0.789	.000

### Linear Regression Analysis

Simple regression analysis was computed to understand the linear relationship among the variables. The coefficient beta figure for each variable was collected after computing attitude, injunctive norms, descriptive norms, and perceived behavioral control with behavioral intentions. Behavioral intentions were then computed with the actual behavior of young motorcycle users in Bangkok. From the regression analysis it was noticed that there is a positive relationship between attitude and behavioral intention ( $\beta = 0.693$ ,  $p \text{ value} = .000$ ) with the R square of 0.480 (i.e., attitude explains around 48% of intention to use a helmet). This support the hypothesis 1 which is statistically significant. In addition, both injunctive and descriptive norms were positively related to behavioral intentions, with injunctive norms ( $\beta = 0.494$ ,  $p \text{ value} = .000$ ) with the R square of 0.244 (i.e., injunctive norms explain around 24% of intentions to use a helmet). For descriptive norms ( $\beta = 0.589$ ,  $p \text{ value} = .000$ ) with R square of 0.347 (i.e., descriptive norms explain around 35% of intentions to use a helmet). Both H2 and H3 and are significantly supported. The results further showed a positive relationship between perceived behavioral control and behavioral intention ( $\beta = 0.686$ ,  $p \text{ value} = .000$ ) with R square of 0.471 (i.e., perceived behavioral control explains around 47% of young people’s intentions to use a motorcycle helmet) that statistically supports H4. Lastly, there was a positive relationship between behavioral intention and actual behavior was observed ( $\beta = 0.738$ ,  $p \text{ value} .000$ ) with R square of 0.544 (i.e., behavioral intention explains about 54% of actual behavior of motorcycle helmets) that statistically supports H5.

Table 4: Results of Hypothesis testing

Hypotheses	Result
<b>H1</b> Attitude is positively related to the intention of motorcycle helmet use	Supported
<b>H2</b> Injunctive norm is positively related to the intention of motorcycle helmet use	Supported
<b>H3</b> Descriptive norm is positively related to the intention of motorcycle helmet use	Supported
<b>H4</b> Perceived behavioral control is positively related to the intention of motorcycle helmet use	Supported
<b>H5</b> Intention variable is positively related to the motorcycle helmet use behavioral variable	Supported

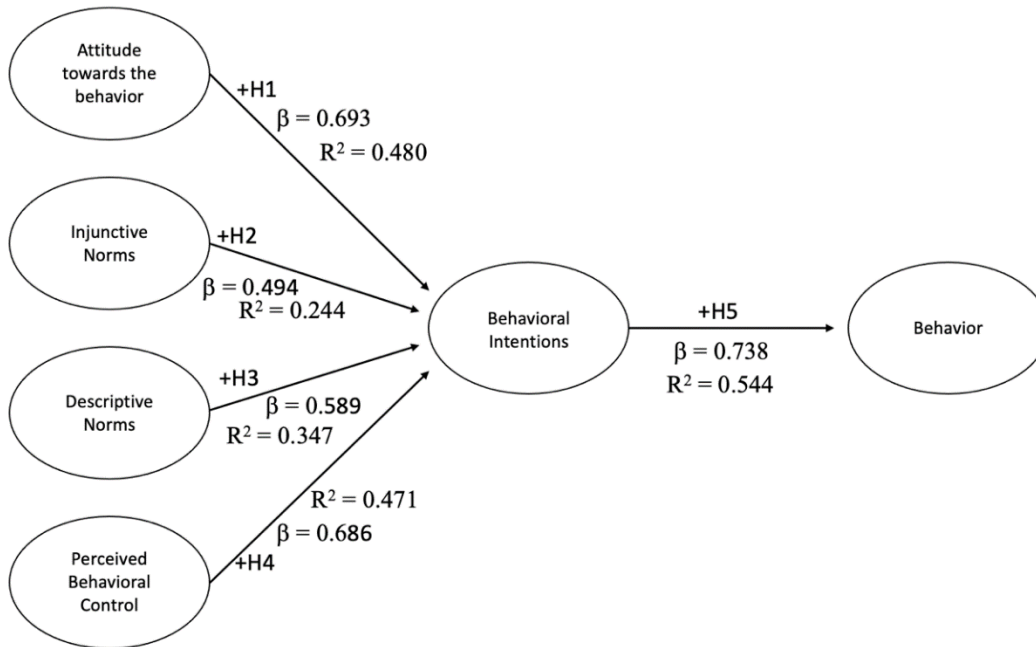


Figure 2: Research Model with regression analysis

## Discussion

The purpose of this study was to examine the behavior of young people who regularly use a motorcycle in Bangkok, and how certain factors impact their decision to use a helmet or not in the context of the Theory of Planned Behavior (TPB). The study also looked at factors such as subjective norms or perceived behavioral control and how they impacted behavioral intentions.

Attitude and behavioral intention were found to be positively associated which is supported by another study (Matsunaga, 2008). In general, young people form some of their attitudes through experiences and when young people start to use a motorcycle, they begin to develop their own attitudes towards them, regardless of if they are right or wrong. Some of these attitudes are based on aspects like convenience, cost, and appearance. For example, a young person might form an attitude towards helmets based on the way helmets make them look, and therefore that impacts their decision to use a helmet in the future.

The subjective norm variables: injunctive and descriptive norms and the behavioral intention were all found to be positively associated which is supported by a similar study (Kumphong et al, 2017). Overall, it is clear how much influence we receive from those around us, friends and family; influences that impact the way we behave. If a parent has a belief about a certain behavior, a child is then more likely to act in accordance with their parents' belief. It is even more apparent when it comes to a life and death decision such as wearing a helmet or wearing a seatbelt when driving, we are more likely to follow the perspective of those we care about.



Perceived behavioral control and behavioral intention were found to be positively associated which is supported by another study (Wong, 2019). Perceived behavioral control is an interesting variable as it describes the degree to which personal control is included in the behavioral process. Generally, it is assumed that as motorcycle helmet use is mandated under Thai Law (Jiwattanakulpaisarn et al, 2013) it could be argued that an individual has zero control on whether they must wear a helmet. The control is taken from them as it is mandatory under law, despite this, motorcycle users break the law by not wearing a helmet.

Behavioral intention and actual behavior were found to be positively associated which compares favorably to a similar study (Greaves et al, 2013). An individual's behavioral intention is usually followed up by the individual performing the behavior. As in most cases if a person intended to wear a motorcycle helmet, there would be very few instances where the intentions weren't pursuing or changed. In real terms, if an individual has an intention to wear a motorcycle, the possibility that they would change their mind is very slim. It could be said that intentions could be strong or weak, meaning if someone's intentions were strong, they would be more likely to pursue them, whereas if someone's intentions were weak, they would be more likely to change.

### **Limitations**

As to be expected, there are some limitations with this study. The first limitation is based on the small sample size which was too small to achieve a definitive result. The small sample size also means the data cannot be generalized and used to explain helmet use for the whole of Bangkok. A second limitation with the study was the language barrier that was apparent in the data collection process. Language barriers impacted the researcher's ability to distribute questionnaires to potential participants. Thirdly, more Thai participants should have been used for the study as it would make the study more relatable to Thailand.

Future studies should include mixed method data collection to improve the data collection and increase the sample size. Additionally, external variables such as culture, education and law enforcement could be examined to explain helmet use in Thailand.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusion**

With urbanization accelerating as fast as it is and many Asian nations witnessing a growth in both their economies and their populations, it is no surprise to see a boom in motorcycle usage across the region. The benefits of using a motorcycle in an urban area are clear to see; they provide convenience, efficiency and are cost effective, which makes them a reliable and popular choice for inner city folk. Riding a motorcycle however does pose some serious risks, that can outweigh their usefulness, in particular the health risks associated with these types of vehicles. The health risks are further exacerbated when operating a motorcycle without suitable head protection. Wearing a motorcycle helmet is a simple choice that could have a big impact on your life, in the case of an accident. It's difficult to identify the leading motivation to not wear a helmet, when they are so readily available, in different styles, sizes and shapes, and the fact that they are required by law. Still, there seems to be a growing number of individuals who choose not to, despite this, young

people should be educated on the dangers of not wearing a helmet and should be taught the importance of road safety.

In this study, attitude towards motorcycle helmets was a good predictor to behavior and it can be said that the young people's attitudes impacted their behavior towards helmets. With social media being so prevalent in society, many parts of everyday life are documented in photos and videos, and it could be argued that with this increased exposure to real life tragedy, young people are more aware of the benefits of helmet use. Young people will start to form their own attitudes based on what they view on social media.

Subjective norms, both injunctive and descriptive normed proved to be good indicators of helmet use behavior. Young people would start to learn from their family members at a young age and develop their own set of subjective norms to follow. If a parent tells their child to always wear a helmet on a motorcycle, the child will likely listen to the advice. Descriptive norms could work in the opposite direction; if a parent does not wear a motorcycle helmet, the child would likely replicate that behavior and not wear a helmet also.

PBC, which is one of the factors of the TPB model was positively associated with behavioral intentions which indicates that personal control or the ability to control one's actions can impact intentions of a behavior. When something is within your control, you can make choices that determine the outcome, in the case of helmet use, it is interesting as the control is set by the law, but still it is flaunted regularly.

## **Recommendation**

The recommendations for future studies include: Collect more data from a larger demographical group in Thailand such as non-students, having a larger sample size would allow for the results to be used to generalize the population. Further studies could focus on wider factors such as culture and religion; examining what role culture and religion plays in helmet use. Another area of study could be the enforcement of traffic laws; examining how the laws could be enforced more effectively to reduce the number of non-compliant motorcyclists.

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# Effect Of Online Learning on Student's Satisfaction

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## ABSTRACT

The purpose of this study is to investigate the factors that determine how students perceive their learning outcomes and how those factors affect student satisfaction. The data was collected from Siam University students in every faculty to know the study. A selective sampling method was used to collect research data through an online survey using google form. Total 120 students who study in university, and did online classes participated in the survey. The study found that the factors–instructor interaction in online classes, student motivation, peer interaction, student engagement, perceived self-efficacy and facilitation–are positively influencing students' perceived learning outcome and student satisfaction. The study will be useful for academics and educators in identifying the elements that will improve students' learning outcomes and levels of satisfaction in online classrooms.

**Keywords:** Student Satisfaction, Online Learning, Perceived Learning Outcomes, Perceived self-Efficacy, Student Engagement

## INTRODUCTION

In today's world, the interaction between learners and instructors in online learning is not like in traditional ways, rather it is constantly changing (Eom, Ashill, & Wen, 2006). Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits (UKEssays November 2018). E-learning has established a solid reputation in the academic community thanks to the development of technology and the Internet. E-learning is occasionally categorized as distance education (Bates, 2005). Organizations frequently use e-learning due to its constant global training, shortened delivery cycle time, increased learner convenience, decreased information overload, improved tracking, and lower costs (Welsh et al., 2003). E-learning has been effectively used in both academia and business, with reports of improved teaching and learning, as well as higher revenue, better learning outcomes, and higher levels of student satisfaction (Chang, 2016). In order to determine if traditional face-to-face learning is more effective than e-learning, some researchers have examined learning efficacy (Cavanaugh and Jacquemin, 2015; Walczak and Taylor, 2018). There are, however, few theoretical investigations on the variables influencing learning efficacy (Gamiz-Sanchez et al., 2016; Pradana and Amir, 2016; Shin and Kang, 2015). Students and e-learning providers alike benefit from an understanding of the elements impacting learning effectiveness since both parties may use it to maximize learning outcomes. The ever-changing e-learning environment has made it necessary to evaluate the accreditation's quality as traditional quality measurement methodologies cannot adequately reflect the new web-based environment (Blicker, 2005). E-learning efficiency can be used to gauge the calibre of an online

course. The extent to which the learning outcomes are attained is what is referred to as learning effectiveness (Blicker, 2005). According to the (ECTS Users' Guide from 2005, on page 47), "Learning outcomes are assertions of what a learner is expected to know, understand, and/or be able to demonstrate after completion of a process of learning." The paradigm changes from teacher-centered to learner-centered learning approaches is largely to blame for the focus on the learning outcomes to explain student achievements (Ziliukas and Katiliut e, 2015). According to Kennedy (2006), learning outcomes put the learner's accomplishments and what they can show at the end of a course or activity before the instructor's expectations. According to the literature (Agudo-Peregrina et al., 2014; Renaud and Van Biljon, 2008), behavioral intentions result in actual behaviours. Additionally, there is a strong link between learning effectiveness and real grades (Kankanhalli et al., 2011). As a result, monitoring learning outcomes helps a variety of stakeholders, including students, teachers, academic advisers, accreditation organizations, and others, accomplish set learning outcomes (Mahajan and Singh, 2017). Task-based peer engagement is a key component of communicative classrooms. By giving a framework for practice and meaningful usage of the target language as well as more opportunities for individual production, it enhances teacher-fronted engagement (Jenefer Philp 2010). Accordingly, this study will focus on the student satisfaction and whether the perceived learning outcome either perceived self-efficacy or student engagement has a positive influence on Siam university students as study during their online classes of study in any faculty of the Siam University.

### **Purpose of the study**

The main purpose of the study is to explore and identify the link between the perceived learning outcomes and student satisfaction among Siam university students. The study will also focus on Siam University students' student engagement and whether it has any influence to student satisfaction. Therefore, the researcher views that a study on the student satisfaction of Siam university students during their online classes will have interesting and meaningful outcomes which are useful for the students and academic.

### **Objectives of the study**

Intent to focus on student satisfaction among Siam university student during their online classes, the study aims to attain the following objectives:

- a. To examine the relationship between the perceived learning outcomes and student satisfaction among Siam University students studying in online classes.
- b. To explore whether student engagement influence on the student satisfaction among Siam university students during their online classes.

### **Literature Review**

#### **Online learning**

Since its introduction in 1995, online learning has grown to play a vital role in education across the globe (Singh & Thurman, 2019). Online learning is the term for a digital learning environment where, in contrast to traditional learning, there are no actual peers to interact with and there is flexibility in terms of time and place (Baber, 2020). In general, online learning is the activity of



learning with the intention of facilitating the learning process with the use of a computer or other electronic device (Allen, 2016). In addition, online learning is a method of instruction that makes use of computers, telecommunications, and multimedia (audio, video) as the primary delivery systems and means of interaction between teachers and students (Allen, 2016). Gradually, online learning has become popular, and many students found online learning to be very appealing because it allows for participation flexibility, ease of access, and convenience (Croxtton, 2014). Usually in online learning, the learning interaction between students and instructors are increased as it is easier to update course information and have archiving capabilities (Bates, 2005).

In online learning, there are three ways known as asynchronous, synchronous and hybrid online learning (Amiti, 2020). Asynchronous online learning focuses on collaboration between students and teachers through message boards, or emails even when everyone is not connected at the same time. In contrast, the synchronous approach requires that both the teacher and the students be present at the same time, collaborate as they would in a traditional classroom, and meet online on whichever platform is chosen to be used (Amiti, 2020). But for hybrid system, it is the combination of both synchronous and asynchronous online learning (Amiti, 2020). Asynchronous online learning is generally preferable due to its flexibility, which allows students to balance their studies with other obligations. On the other hand, synchronous online learning makes people more sociable as they get the opportunity to ask and get feedback in real time. As a result, academics currently seem to be more interested in comprehending the benefits and downsides of asynchronous and synchronous e-learning rather than seeking to define the "superior" medium. Hence, that student can learn more experience from peer interaction through online learning.

### **Peer Interaction**

Peer interaction is crucial for the success of online learning and considered as the foundation of education. In general, peer interaction is considered as any form of communication that takes place between students with little to no teacher involvement (Aghaee & Keller, 2016). In addition, Kuh (1995) argued that peer interactions among students can enhance academic growth, analytical and problem-solving abilities, and self-esteem. Additionally, Philip et al., (2013) mentioned that for a communicative classroom, peer interaction is a key component in general, peer interaction helps them to grow more in knowledge as they share their point of view and learning experiences with others (Pascarella & Terenzini, 1991). According to Sato and Ballinger, 2016, problems and obstacles that students encounter can be resolved quickly when they communicate with peers rather than others, such as teachers students are expected to work independently and frequently ask for additional clarification and feedback while conversing with their peers (Peeters & Ludwig, 2017; Sato, 2013).. According to Coolahan et al., (2000), students who engage in better peer interactions are more likely to actively participate in class activities, show high levels of attention, and be persistent than students who engage in poorer quality peer relationships.). Therefore, it is suggested that peer interaction is important for promoting engagement in learning.

### **Instructor interaction**

For online learning, instructor interaction is essential and a greater predictor of student satisfaction (Croxtton, 2014; Moore, 2012). The teacher engages with the class both personally and collectively. Throughout the course, the instructor will interact with the entire class frequently (at least once per

week) (for example, through a course announcement, generalized feedback on activities or assignments, etc.). In general, positive interactions between teachers and students result in learning settings that better support students' academic, emotional, and developmental needs.

Instead of employing traditional teaching methods, an online instructor's job is to empower students' critical thinking while fostering autonomy and accountability (Huynh, 2005). Jones (2006) noted that in an online class, the instructor should stimulate dialogue both between students and between students and between students and the instructor. A key factor in determining the caliber of online learning is the instructor's facilitation and social presence (Ladyshevsky, 2013).

Ku, Tseng, and Akarasriworn (2013) proposed that interaction is a key component of perceived student learning and motivation, particularly in online courses. In general, the instructor's primary responsibility in online learning environments is to establish his presence and personality in the course material, conversations, and activities (Shea, Li, & Pickett, 2006). By asking students for their opinions on the course and using those opinions to improve the course, instructors can enhance online training and "engender a sense of caring" (Jaggars et al., 2013, p. 6).

### **Student Engagement**

Numerous studies mentioned that for academic development, educational activity and practices are key predictor for student engagement (). According to Bomia et al., (1997, pp. 294) student engagement is "Students' willingness, need, desire, and compulsion to participate in, and be successful in, the learning process" (Bomia, Beluzo, Demeester, Elander, Johnson, & Sheldon, 1997, p. 294). In addition, Briggs (2015) mentioned student engagement as the degree of interest displayed by students, their interactions with other students, and their desire to learn about the subjects. In general, engagement focuses on individuals' dispositions or attitudes toward classroom experiences and lifelong learning, looking beyond cognitive skills acquired or mastered (Mandernach, Donnelly-Sallee, & Dailey-Hebert, 2011).

Student involvement is influenced by a number of emotional elements, such as attitude, personality, motivation, effort, and self-confidence (Mandernach et al., 2011). Students are more likely to be active in their education when they are driven to succeed in their classes, invested in their want to learn, and ready to put forth the work required by their professors (Mandernach et al., 2011). Jaggars and Xu (2016) discovered that in online courses, student grades were positively connected with the level of engagement within the constraints of the course. Instructors can more successfully create classes and activities that will inspire students to be more active participants in their learning and coursework by assessing the amount of student engagement and taking into account these affective qualities (Jennings & Angelo, 2006; Mandernach et al., 2011).

"According to Mandernach et al., (2011 p.277), the effects of instructional activities give a more precise picture of the teaching-learning dynamic when student engagement is higher.

### **Self-Motivation**

A person's internal drive to perform or advance toward a goal is known as motivation (Harmon-Jones, Harmon-Jones, & Price, 2013). Cole, Feild, and Harris (2004) mentioned that the ability, creativity, and readiness of pupils to learn and participate in classroom learning were identified as student motivation. Human motivation is also influenced by the learning environment. Bolliger, Supanakorn, and Boggs (2010) mentioned that maintaining student satisfaction in a virtual classroom environment requires motivation. Several authors claimed those who are very motivated



will succeed online more than students who are less motivated (Barbour & Reeves, 2009; Hsu, Wang, & Levesque-Bristol, 2019; Nelson, Oden, & Williams, 2019).

Self-motivation is the cornerstone of self-regulated learning (Smith, 2001). Self-motivation is the energy that comes from inside and directs action toward a specific objective (Zimmerman, 1985, 1994).

### **Perceived learning Outcome**

The term perceived learning refers to a student's self-report of knowledge gain, generally based on some reflection and introspection (Sitzmann, Ely, Brown, and Bauer 2010). Student satisfaction and students' perceptions of their learning, taken together, can help determine how effective is online learning (Gray and DiLoreto, 2016). Richardson and Swan (2003) indicated a strong relationship between students' happiness with online learning and their overall perception of their learning. The same strong association was confirmed by Swan (2001) and Duque (2014). Marks, Sibley, and Arbaugh (2005) found that the perceived student learning outcome is a good predictor of student satisfaction in online learning, which claimed that a satisfied student is an immediate result of a successful learning experience. Ikhsan, Saraswati, Muchardie, and Susilo (2019) discovered that in the online setting, perceived learning outcomes had a favourable impact on student satisfaction.

### **Perceived self-efficacy**

Self-efficacy denotes the extent to which individuals possess task or stress management abilities, including the overall self-confidence in managing the intricacies of different environmental contexts (Zimmerman and Kulikowich, 2016). The idea is also connected to psychological states, behavior, and levels of motivation. (Zimmerman and Kulikowich, 2016). In addition, self-efficacy predicts how confident people are in their ability to fend off. In particular, self-efficacy for learning online refers to people's capacity for perseverance when engaging in a distance-learning environment (Zimmerman and Kulikowich, 2016). Students who had high levels of self-efficacy for studying online expressed happiness with their online education (Alqurashi, 2016). (Naji et al., 2020), there is still a dearth of study on technology-related self-efficacy that motivates learning. It was deemed essential to investigate the effects of online learning self-efficacy on online learning satisfaction as a result.

### **Student Satisfaction**

The attitude that results from an evaluation of students' educational experiences, services, and facilities offered by the school or university is known as student satisfaction.

The concept of satisfaction is intricate and has many applications. It is expressed and used widely in a variety of academic fields, including sociology, economics, law, psychology, urban and regional planning, marketing, music, and entertainment).

The degree of student satisfaction in conventional and online settings has been the subject of numerous research. Dziuban, Wang, and Cook (2004) concluded that if students felt their professors effectively communicated with them, assisted or encouraged their learning, organized the course effectively, showed interest in their learning and progress, showed respect for students, and accurately evaluated their work, they were more likely to rate courses and instructors with satisfactory ratings. According to findings from another study, students who took part in cohorts

with their peers and engaged in thorough feedback exchanges with faculty members felt satisfied with their academic experiences (Shea, Fredericksen, Pickett, & Pelz, 2003).

Bangert (2006) four aspects, including interaction and communication between students and instructors, time spent on task, active and engaged learning, and peer cooperation, have been linked to student satisfaction in online courses. Another study assessed how much asynchronous audio feedback and teacher presence were perceived by students as aspects of community in online courses (Ice et al., 2007).

### Proposed Hypothesis

From the above discussion the following hypotheses are proposed:

- H1 – Peer interaction has a positive impact on student’s engagement in online learning
- H2 – Instructor interaction has a positive impact on student’s engagement in online learning
- H3 - Student Engagement has a positive impact on perceived learning outcome
- H4 - Self-Motivation has a positive impact on perceived learning outcome
- H5 – Perceived learning outcome has a positive impact on student satisfaction
- H6 – Perceived self-efficacy has a positive impact on student satisfaction

### Proposed Conceptual Framework

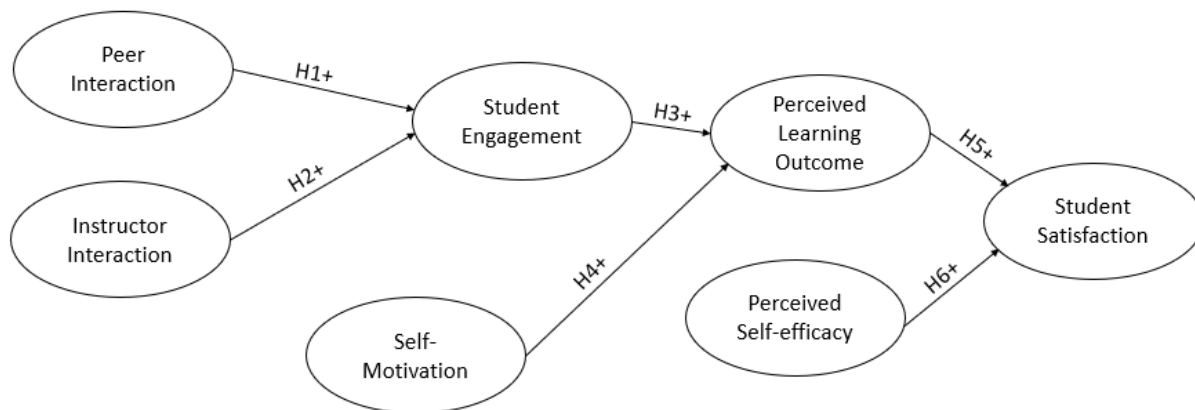


Figure 1: A conceptual framework of effect of online learning on student satisfaction.

## Methodology

### Research design

To initiate the variables related to student satisfaction by students in Siam University, an online survey was conducted to obtain quantitative data to be able to examine the recommended hypotheses.

### Sample and Participants

An online survey was conducted at the Siam University in Bangkok, Thailand. Students who are mostly undergraduate level courses in English and Thai were considered as survey frame. The participants were from Asian, European, and African countries (Thailand, Bangladesh, Nigeria, South Korea, Myanmar, India, Finland, Cambodia, England, Philippines, and Germany). Moreover, students who studied online classes are eligible to be the respondent for this study. To get the

maximum participation convenience sampling method was adopted. 180 questionnaires were sent via line, Instagram, QR Code and Facebook, and a total number of 120 students from Siam University participated in this survey. The participants from the Bachelor of Business Administration program were from the first, second, third and fourth year.

### **Data Collection**

To conduct the survey online questionnaire was being adopted. The survey was carried out in English and Thai as the respondents chosen for this study are studying in Siam University in Thailand. The data were collected via an online questionnaire through Google Form during the month of August to October 2022. The link of Google Form and QR code was sent via Line, Instagram, and Facebook to the target population. To keep the anonymous no personal data like names, email addresses were collected, and participants were told that at any point, they can withdraw from the survey. Data was obtained from the Siam University students who are currently studying. The survey's participants did not get any financial rewards.

### **Operationalization of the variables**

In the research, there are six independent variables i.e., peer interaction, instructor interaction, student engagement, self-motivation, perceived learning outcome, perceived self-efficacy and student satisfaction is the dependent variable. In the data calculation, reliability test of each variable was calculated. To authenticate the internal consistency, Cronbach's alpha coefficient was examined. For testing the hypotheses, regression analysis was computed.

### **Data Analysis Technique**

Statistical Package for the Social Science (SPSS) version 25 was used to examine the data. The responses were inserted and saved in the (.sav) format for SPSS calculation. After that, the mean comparison was carried out using SPSS between demographic information, and comparison of the student satisfaction. Pearson's bivariate correlation was also carried out to find the association between the independent, and dependent variables. Adding some control variable, the result was analyzed to draw the interference for testing the proposed hypothesis.

### **Results and Discussion**

#### **Demographic information**

The respondents (n=120) who participated in the survey were from Thailand, Bangladesh, Nigeria, South Korea, Myanmar, India, Finland, Cambodia, England, Philippines, and Germany. Among the respondents there were 57 (47.5%) female and 63 (52.5%) are male students.

Table-1: Demographic profile

<b>Items</b>	<b>Options</b>	<b>Frequency</b>
Gender	Male	63 (52.5%)
	Female	57 (47.5%)
Nationality	Thai	91 (75.83%)
	Bangladesh	02 (1.67%)
	Nigeria	03 (2.5%)
	South Korea	01 (0.83%)
	Myanmar	14 (11.67%)

	India	03 (2.5%)
	Finland	01 (0.83%)
	Cambodia	01 (0.83%)
	England	01 (0.83%)
	Filipino	01 (0.83%)
	German	02 (1.67%)
Study Year	First Year	29 (24.2%)
	Second Year	26 (21.7%)
	Third Year	28 (23.3%)
	Fourth Year	37 (30.8 %)

### Analysis of the survey

A compilation and calculation of the survey's findings was done. The process was documented step by step, and each sub-factor was accurately measured.

### Correlation Analysis

Bivariate correlation was calculated between peer interaction, instructor interaction and student engagement, student engagement, self-motivation, perceived learning outcomes, perceived self-efficacy and student satisfaction. It was observed that peer interaction ( $r = 0.401$ ,  $p = .000$ ) and instructor interaction were ( $r = 0.504$ ,  $p = .000$ ) positively correlated with student engagement. Student engagement was also positively correlated with perceived learning outcomes ( $r = 0.625$ ,  $p = .000$ ). It was also found that self-motivation was positively correlated with perceived learning outcomes ( $r = 0.372$ ,  $p = .000$ ) It was further noticed that perceived learning outcomes ( $r = 0.702$ ,  $p = .000$ ) and perceived self-efficacy ( $r = 0.603$ ,  $p = .000$ ) were also positively correlated with student satisfaction. From the table below it was observed that all the correlations were significant at 0.001 level (2-tailed). Table 2 exhibits correlations among all the variables.

Table-2: Pearson's Correlations of the variables

		Correlations						
		PI	II	SM	SE	PLO	PSE	SS
PI	Pearson Correlation	1	.647**	.408**	.401**	.329**	.386**	.432**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	120	120	120	120	120	120	120
II	Pearson Correlation	.647**	1	.562**	.504**	.415**	.422**	.533**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	120	120	120	120	120	120	120
SM	Pearson Correlation	.408**	.562**	1	.482**	.372**	.263**	.382**
	Sig. (2-tailed)	.000	.000		.000	.000	.004	.000
	N	120	120	120	120	120	120	120
SE	Pearson Correlation	.401**	.504**	.482**	1	.625**	.414**	.460**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	120	120	120	120	120	120	120
PLO	Pearson Correlation	.329**	.415**	.372**	.625**	1	.427**	.702**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	120	120	120	120	120	120	120
PSE	Pearson Correlation	.386**	.422**	.263**	.414**	.427**	1	.603**
	Sig. (2-tailed)	.000	.000	.004	.000	.000		.000
	N	120	120	120	120	120	120	120
SS	Pearson Correlation	.432**	.533**	.382**	.460**	.702**	.603**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	120	120	120	120	120	120	120

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Exploratory Factor Analysis and Reliability Test

The result of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO and Bartlett's Test) showed that student satisfaction had the highest factor loading with 0.821 ( $p = .000$ ) and self-motivation had the lowest factor loading with 0.500 ( $p = .000$ ). Table 3 exhibits the factor loading of all the variables. The factor loading of peer interaction was 0.736 ( $p = .000$ ), instructor interaction was 0.777 ( $p = .000$ ), student engagement was 0.729 ( $p = .000$ ), perceived learning outcome was 0.651 ( $p = .000$ ), and perceived self-efficacy was 0.800 ( $p = .000$ ).

Table 3: Kaiser Meyer-Olkin test for factor instrument (KMO and Bartlett's Test)

VARIABLES	KMO*	SIG.
Peer Interaction	.736	.000
Instructor Interaction	.777	.000
Student Engagement	.729	.000
Self-Motivation	.500	.000
Perceived Learning Outcomes	.651	.000

Perceived Self Efficacy	.800	.000
Student Satisfaction	.821	.000

Internal reliability consistency of the all the variables were found a moderate level, the reliability coefficient (Cronbach's alpha) was peer interaction = 0.680, Instructor interaction= 0.687, student engagement = 0.644; self-motivation = 0.327, perceived learning outcomes=0.866 perceived self-efficacy = 0.830, and student satisfaction = 0.926.

Table 4: Cronbach's alpha for the variables

VARIABLES	ALPHA
Peer Interaction	.680
Instructor Interaction	.687
Student Engagement	.644
Self-Motivation	.327
Perceived Learning Outcomes	.866
Perceived Self Efficacy	.830
Student Satisfaction	.926

### Linear Regression analysis

The coefficient beta figure for each variable was obtained after computing peer interaction and instructor interaction with student engagement followed by perceived learning outcomes. Self-motivation and student engagement was computed with perceived learning outcomes followed by student satisfaction. Perceived self-efficacy as well followed by student satisfaction of the Siam university students studying in any faculties. From the regression analysis result it was noticed that there is a positive relationship between peer interaction and student engagement ( $\beta = 0.401$ , p value < .000) with the R square of .161 (i.e., Peer Interaction explains around 16.1% of student engagement) and instructor interaction and student engagement ( $\beta = 0.504$ , p value < .000) with the R square of 0.254 (i.e., Instructor Interaction explains 25.4% of student engagement) that supports H1 and H2 and both the hypotheses are significantly related. The result revealed that the student engagement and perceived learning outcomes ( $\beta = 0.625$ , p value < .000) are positively related with the R square of 0.391 (it explains 39.1% between engagement and satisfaction) and significant that supports the H3. On the other hand, student motivation ( $\beta = 0.382$ , p value < .000) and perceived learning outcomes ( $\beta = 0.702$ , p value < .000) both are positively related and significant with the student satisfaction with the R square of 0.138 (i.e., the combination of each motivation explains about 13.8% on student satisfaction) that supports the H4 and H5. From the result between perceived self-efficacy and student satisfaction ( $\beta = 0.603$ , p value < .000), a significantly positive relationship was observed with an R square of 0.363 (i.e., around 36.3% can be explained between self-efficacy and student satisfaction) that also supports the H6.

Table 5: Hypothesis results

Hypothesis	Independent Variables		Dependent Variables	$\beta$	P	R <sup>2</sup>	Remarks
H1	Peer Interaction	→	Student Engagement	.401	.000	.161	Accepted
H2	Instructor Interaction	→	Student Engagement	.504	.000	.254	Accepted
H3	Student Engagement	→	Perceived Learning Outcomes	.625	.000	.391	Accepted
H4	Self-Motivation	→	Perceived Learning Outcomes	.372	.000	.138	Accepted
H5	Perceived Learning Outcomes	→	Student Satisfaction	.702	.000	.492	Accepted
H6	Perceived Self Efficacy	→	Student Satisfaction	.603	.000	.363	Accepted

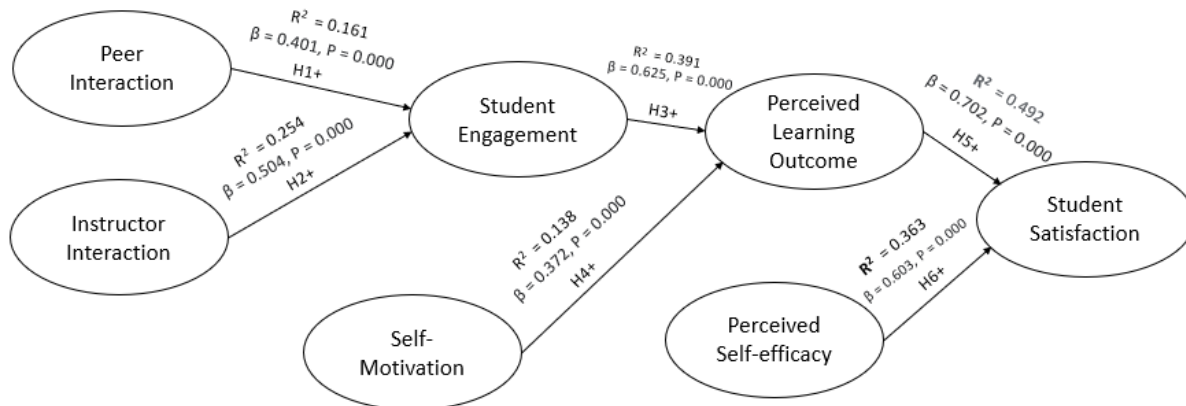


Figure 2: Linear regression model

## Discussion

The reason for this study was to examine the student satisfaction of Siam university students on their online classes. The study also focused on if the perceived learning outcomes and perceived self-efficacy of Siam university students can increase an online learning, resulting the student satisfaction.

Perceived learning outcomes strongly influenced the student satisfaction and therefore the together, student satisfaction and perceived learning among students can provide a clearer picture of the success of online learning. According to Richardson and Swan (2003), there is a strong association between students' overall perceptions of their education and their satisfaction with online learning. Swan (2001) and Duque (2001) both supported the same strong association (2014). A satisfied

student is an immediate sign of a positive learning experience, according to Marks, Sibley, and Arbaugh (2005), who also discovered that in online learning, the perceived student learning outcome is a reliable indicator of student satisfaction. Perceived learning outcomes were found to contribute to and favorably influence student happiness in the online environment by Ikhsan, Saraswati, Muchardie, and Susilo (2019). However, in this study it was noticed that student self-study makes their satisfaction high on their online learning classes. The study also noticed that the Siam University students are satisfied with their perceived learning during their online classes.

### **Limitations**

This study has several limitations, just like the majority of other studies have. At first, there is less time to do this research. Thus, cannot go very deep studies of research. Secondly, the sample size is limited because only target the Siam university student. With a large number of the sample from different nationality would give a deeper meaning for this research. Lastly, the present research focused only student satisfaction of Siam university students, but another type of variables like system quality, Information quality and online learning outcomes were not considered in this study.

### **Conclusions and Recommendations**

Online learning is one of the methods that currently increasing very fast in this modern world. Students can get access from anywhere in the world. In this study, focused on peer interaction, instructor interaction, student engagement, self-motivation, perceived learning outcomes, perceived self-efficacy, and student satisfaction. This all-variables results come from the data of the Siam university students. In this study found that perceived learning and perceived self-efficacy high influence on student engagement during their online classes. In further study recommend doing research about course structure how much it affect the online classes.

The recommendations for the future studies include large data from other universities and colleges from Thailand to be considered to have the generalization for this population. Further studies recommended to include some other variables like system quality, information quality and online learning outcomes to recognize the university students' online study. The comparison of onsite learning, and online learning on university students can also be recommended for future studies.

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# The Impacts of Russia-Ukraine War on the World Economy and Sustainable Development

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## ABSTRACT

This paper is a part of the research on “Impacts of the Russia-Ukraine War on the Economic and Social New World Order”. The study is qualitative research by applying a documentary research method. All information and documentary data were collected from academic books, papers, research reports, and reports international organizations, as well as online media data and information that were studied by content analysis and logical analysis. The results of this research found that the Russia-Ukraine war began in 24 February 2022 and escalated following a full-scale Russian invasion up until now. As a result, most countries, business sectors, and consumers worldwide are in economic and social impacts in 3 scenarios of the new world order: (1) impacts of the Russia-Ukraine war to the world economy; (2) impacts of the Russia-Ukraine war to regional economy; and (3) impacts of the Russia-Ukraine war to the sustainable development. The researcher recommends that all members’ states of the United Nations and other international organizations shall effectively find out for peace negotiation to end the Russia-Ukraine war and fully cooperate to solve the problems of economic and social impacts on the world economy and sustainable development in order to achieve the UN-SDGs within the year 2030.

**Keywords:** Impacts, Russia-Ukraine War, World Economy, Sustainable Development

*“Before the barbarism of killing children and innocent and defenceless citizens, no strategic reasons hold: the only thing to be done is to cease the unacceptable armed aggression before cities are reduced to cemeteries.”*

**Pope Francis, 2022**

**War is organized crimes, nothing else, never wins.  
Peace is only humanity wins.**

## INTRODUCTION

The beginning of 2014 crisis in Ukraine led to the overthrow of President Viktor Yanukovich who was an ally to Russia’s interest. The signing of a trade agreement with the EU as the first path towards membership by the pro-western interim government in February; and Russia’s capturing of Crimea in April of the same year. Between 2014 and 2015 the Minsk Accord of cease-fire was signed by Russia, Ukraine, France, and Germany. By April 2019, Volodymyr Zelensky, former

comedian, was voted as President of Ukraine (Bigg, 2022). In January of 2021, President Zelensky requested to join NATO resulting in Russia massing of troops at Ukraine's border with the excuse of training exercise. The growing tension between the Western countries, Russia and Ukraine leading to Russia's "special military operations" of Ukraine on 24 February 2022. In response to this recent Russian attack, Ukraine's Western allies announced heavy financial sanctions on Russia like "restrictions on Russia's central bank and expelling key banks off the main global payments system" (Aloisi & Daniel, 2022). The global financial sanctions unleashed on Russia, the seizure of assets and properties of the oligarch friends to President Putin for Russia's current attack on Ukraine will cripple the Russian economy and hinder any further Russian attack on Ukraine (Mbah & Wasum, 2022). The impacts of this war have extends to the existing global economic and social order.

The launch of Russia's war of invasion in Ukraine on 24 February 2022, has upended the existing world order after the end of cold war in 1989. The war in Ukraine is part of the struggle for a new world order. Russia and China are openly challenging the Pax Americana. But the question how the next world order will look like remains open for world great powers to design. The model of a multipolar concert of the great powers by new balance of powers between the United States, China and Russia, with exclusive zones of influence, is finding support by NATO, European Union, India, Japan, South Korea, Australia and New Zealand. Despite a growing unwillingness to play the role of 'the world's policeman', the majority of Americans have not yet abandoned the unipolar liberal world order under the US hegemony. In contrast, China is still support for the Westphalia model of world order with its emphasis on nation state sovereignty and its condemnation of post-colonial interference in internal affairs of sovereign States (Saxer, 2022). These changing balance of powers envision are different rules-based new world order. Who is authorized to use force - all states in the UN General Assembly, only the strongest five powers in the Security Council, or only the hegemonic powers outside the United Nations System? Does the law of the strongest apply, or the strength of the rule of law by international law? Is there a historical ideal e.g. liberal democracy and market economy towards which all states should develop, or is there multiple modernity with competing political systems and cultural civilizations that can coexist more or less peacefully? Will there be a global showdown between an alliance of democracies and the 'axis of autocrats'? Or is the price of peace giving up on implementing universal human rights? Which of these models will prevail - or from what precise mixture of old and new elements the new world order will emerge - will determine not only war and peace, but also what the global energy, production, distribution, and future financial systems will look like.

The Russian illegal war in Ukraine has accelerated a shift in the existing world order forcing a renewed balance of power among great powers. Countries and analysts are calculating the implications of rebalancing and positioning for significant changes. Ukraine is ravaged; Russia is the aggressor and will suffer long-term consequences. The US led North Atlantic Treaty Organization (NATO) has strengthened and is forcing the rebalance. The EU is undergoing a human security crises and remilitarization. China has made a strategic choice to be closed alliance with Russia. India like many developing countries of the global South faces geostrategic pressure as they calibrate their positions. So what are these shifts, the implications, and consequences? The Russian motives in launching this war on Ukraine include a mix of: aspirations for projecting Russian imperial power status and vision; extending influence and support to Russian ethnic and other dissatisfied minorities in the former Soviet Republics; recreating a Russian sphere of

influence to counterbalance the Western one in Eurasia; opposition to NATO expansion, especially the inclusion of Ukraine; attempt to destroy the Ukrainian military infrastructure to enforce neutrality before NATO could undermine Russia and the creation of an Eastern Ukraine buffer for Russian security in the Donbas region with the Russian ethnic majority provinces that had declared themselves independent of Donetsk, Luhansk, Crimea, all which give Russia strategic control over the Black Sea (Chenoy, 2022). Geopolitical and geoeconomic consequences in the aftermath of Russian aggression against Ukraine have underscored that there is no alternative to common and collaborative security which is inclusive. The double standards in implementing human rights and illegal selective wars of aggression on smaller sovereign states by great powers have led to a de-legitimization of multilateral institutions and a world that is insecure for all.

## **LITERATURE REVIEW**

The Russia-Ukraine war in 2022 has the intense economic impact on Russia due to the fierce financial sanctions unleashed on it “are not only inflicting an economic catastrophe on President Vladimir Putin’s Russia. The repercussions are also menacing the global economy, shaking financial markets and making life more perilous for everyone” (Wiseman, 2022). Russia and Ukraine are significant players in the export of oil, natural gas, coal, wheat, and other commodities in the global market. Mark Zandi, chief economist at Moody’s Analytics reports that both countries produce 70% of global neon which is a vital commodity in the production of semiconductors leading to panic with the current crisis as nations and automakers especially are already witnessing a scarcity in computer chips. Zandi equally observes that both countries are responsible for 13% of the global supply of titanium which is used in the manufacturing of passenger jets as well as 30% of global palladium used in cars, mobile phones, and dental fillings (Wiseman, 2022). The Russia-Ukraine war has therefore spread impacts on global supply chain of food, energy and raw materials around the world.

### **Move forward with US-EU sanctions against Russia**

When Russia sends troops to invade Ukraine on 24 February 2022, the United States and the European Union impose sanctions on high-ranking officials, some banks and state-owned enterprises and freeze foreign assets of Russia, including prohibiting the export of technology products such as aircraft parts and semiconductors. However, the sanctions have little effect on the current Russian economy. Before such effects will bloom, it may have to wait several years. Knowing that it was at risk of sanctions from the western world powers, Russia went on to build a ‘fortress’ against trade sanctions, increasing international cash reserves of enormous value reducing international transactions, using US dollars reduce dependence on credit and raise funds from the western world, as well as increasing the production potential of oil and natural gas so that the world cannot live without Russia. The current sanctions, coupled with differing political ideologies, would prompt the European Union, the United States and its NATO allies to withdraw from their trade ties with Russia. Meanwhile, Russia tends to trade with countries that are ready to welcome China. At last this situation was ultimately led to the dichotomy of different countries around the world in the future.

Over the past decade, world tensions have occurred several times in the trade war between China and the United States, great power conflicts in the Middle East, the rise to power of the populist

leaders in Latin America or repeated coups d'états and human rights violations in Southeast Asia. But the overall global economy is not affected much because investors believe that the gloomy political climate will not spread into a world crisis. However, the use of Russian military forces to invade Ukraine's sovereignty and territorial integrity is different this time. In the eyes of the western world and the international community, attempting to take territory by using force to kill fellow humans is unacceptable. Whatever the reason, the aftermath of the Russia-Ukraine war is possibly to sever trade relations between Russia and the western countries, leading to a new world economic order that is never the same. Many people have never heard of Russia's role in international trade. But Russia is a major exporter of wheat and other commodities, becoming the world's second largest oil exporter, the world's number one natural gas. Its key trading partner is the European Union, who relies on Russia for energy security. Moreover, a rare mineral worth more than gold like palladium, more than half of the world is mined in Russia. Minerals such as nickel, aluminum and copper are not counted, which Russia is the world's largest market leader (Wiseman, 2022).

When Russia sends troops to invade Ukraine, leaders and people in Ukraine have also called on the world powers to take drastic measures to cut Russia off the global trade landscape, such as ending trade with Russia, prohibition of Russian banks from conducting financial transactions through the SWIFT network, or ban on Russian ships passing through the Bosphorus and Dardanelles in Turkey. However, the claim of sanction was only partially responded, although the initial stance of the United States and the European Union was quite harsh. The latest move by the United States and the European Union is sanctions on Russian senior officials, some Russia's banks and state-owned enterprises, freeze Russian foreign assets, including prohibiting the export of technology products such as computer parts, aircraft parts, and semiconductors in hopes of undermining Russia's military power. It also cuts off some Russian banks from the SWIFT network (Holland & Others, 2022). But the sanctions have little impact on the current economy and before such effects will bloom, it may have to wait several years because many countries did not dare to cut ties with the Russian commodity industry, which is like the main water pipe of government, as well as those industries have been driven by attractive prices from Russian-Ukraine conflicts that arise. It wouldn't be wrong to say that United States and European Union countermeasures are weaker than expected, noted by Western stock markets slightly positive after the war erupted. Likewise, commodity prices rose for a short period of time, and then slowly settled in view of the free-world alliance's stance that would not escalate the conflict out of Ukraine.

### **Russia's fortress for preventing US-EU sanctions**

Severe sanctions against Russia in the view of many EU countries may not be worth it because the EU is also dependent on Russian natural gas, accounting for 35 percent of its total demand. Coupled with hundreds of billions dollars in assets invested by European governments and private sectors in Russia. Severing ties could only aggravate the economic downturn due to the COVID-19 pandemic crisis, which is already bad to worsen. Russia knows well it has been at risk of sanctions from Western powers any time since its earlier invasion of Crimea. Therefore, it has continued to build a fortress to prevent trade sanctions, including increase international cash reserves of enormous value, reduce international transactions using US dollars, reduce dependence on credit and raise funds from the Western world, as well as increasing the production of oil and natural gas potentials so that the world cannot live without Russia. While cutting Russia out of SWIFT, a

backend network for international transactions with more than 11,000 member banks in 200 countries, could be disastrous more than effective sanction, because the Central Bank of Russia has developed SPFS system, which can be used as a backup network instead of SWIFT, although it may not be a perfect one (Holland & Others, 2022). However, the United States and its allies have moved to block certain Russian banks' access to the SWIFT system in further punishment of Russia as it continues its military assault against Ukraine. The measures, which will include restrictions on the Russian central bank's international reserves, will be implemented in the coming days. In addition, executing such tactics could reverse course against the United States as the owner of the dollar, which is widely used in the international trading market. The US dollar-based payment system could be replaced by competitors like the Chinese Yuan, which transact through the CIPS network, which currently accounts for about one-eighth of US dollar transactions conducted via SWIFT. Using such the network for political purposes may even incentivize countries whose political ideology differs from the United States to more open-minded China (Holland & Others, 2022). Therefore, the current half-time sanctions have failed to deter Russia's invasion of Ukraine. Meanwhile, more intense sanctions against Russia could reverse the stagnation of the stagnant Western economy. The superpowers had no choice but to denounce and threaten, but they were reluctant to take drastic measures that are to stop buying energy and commodities from Russia.

### **The future of the global socio-economic polarization**

Since the end of the Cold War in 1989, almost every country in the world is open to globalization of multiplied global free trading system. The economies of each region are closely interconnected. Virtually all countries embrace trade regardless of the ideology of the destination country. No one expected military use in the middle of a trading field that would benefit almost all parties. But the Russian invasion of Ukraine smashed the landscape of new world order without war until it is broken into pieces. The current US-EU sanctions, coupled with differing political ideologies, will lead the European Union, the United States and its NATO allies to gradually withdraw themselves from trade relations with Russia. Russia would likely be inclined to trade with a welcoming power like China that will result in a stronger China-Russia alliance in the future. Although China is still open to trade with the Western world, lessons from Russia also remind China that it must protect itself from trade sanctions (Avetisova, 2015). As a result, accelerate the increase of domestic production capacity to meet demand because in the future, whether sooner or later China's conflict with the United States, western countries, Japan, South Korea, Australia and New Zealand in the case of Taiwan is inevitable to explode in Asia-Pacific region. If the conflict in Russia-Ukraine war continues, various countries large and small will be forced to choose a side between the US-EU liberal democratic pole and Russia-China authoritarian pole. Just as Japan, South Korea and Australia enact strong trade sanctions against Russia begins a war in Ukraine. Although the pole of China-Russia alliance do not appear to have many allies in the United Nations, the abstention by India and the United Arab Emirates in issuing statements condemning Russia's invasion of Ukraine clearly reflected that Russia was not standing alone. The use of Russian troops to invade Ukraine is not only political conflicts that will only affect international trade in the short term, but also it is the beginning of discord that will change the landscape of a new socio-economic world order for decades to come.

### **RESEARCH METHODOLOGY**

This study applied a qualitative research by using a documentary research method. All documentary data was collected from related research reports, academic books and papers, as well as official documents and information of the United Nations and other international organizations concerned. All collected documentary data were studied by content analysis, critical analysis and logical analysis throughout the data triangulation process in order to achieve comprehensive research results and discussion, conclusion and recommendations.

## RESULTS AND DISCUSSION

The results of this research revealed that the Russia-Ukraine war began in 24 February 2022 and escalated following a full-scale invasion until now. It is now primarily focused on the status of Crimea and the Donbas, which are internationally recognized as a part of Ukraine. Russia and Ukraine combined have a significant share in global supplies of oil, gas and other commodities such as wheat, sunflower oil. This war has adversely impacted their supply chains across the economic and social world order. This profound impact on supply chains comes with attendant near-weekly price increases, fueling the fires of inflation. Beyond uncertainty, it creates barriers in the market, disrupting the movement of commodities like auto parts, oil, and grain. As a result, most businesses and millions of consumers worldwide are in economic and social world order in 3 scenarios: (1) impacts of the Russia-Ukraine war to the world economy; (2) impacts of the Russia-Ukraine war to global economy by region; and (3) impacts of Russia-Ukraine war to sustainable development.

### 1. Impacts of Russia-Ukraine War to the World Economy

The conflict of Russia-Ukraine war affects the world economy through five channels: (1) financial sanctions, (2) commodities prices, (3) trade and supply-chain disruptions, (4) global inflation, and (5) world economic growth (The EIU Update, 2022) as follows: **Firstly**, the US unveiled on 28 February 2022 a sanctions package targeting the Central Bank of Russia (CBR) and then the EU has followed suit. These sanctions prevent the CBR from accessing about half of the US\$643bn that it holds in foreign-exchange reserves by blocking its ability to convert assets held in US dollars and euros into rubles. The measure also prevents Russia from tapping its emergency sovereign wealth fund, the National Wealth Fund (NWF). The US and the EU also announced that some Russian banks will be cut off from the global payments system of SWIFT. The impact of US and EU sanctions will be small outside Russia, although Western companies that are highly exposed to Russia will still be affected.

**Secondly**, the global impact of sanctions came in the form of higher **commodities prices** that could jump owing to three factors: concerns around supplies, the destruction of physical infrastructure and sanctions. **Oil prices** will remain above US\$100/b and **gas prices** will rise by at least 50% this year, on top of a fivefold rise last year. Europe has limited gas stockpiles, and there are concerns about gas supplies for northern hemisphere winter season. Russia is a major producer of several base metals: aluminium, titanium, palladium and nickel, which will register price jumps. This will have a substantial impact on industrial sectors and automotive industry across the globe. Prices of agricultural commodities: wheat, maize, barley and rapeseed, will soar. Ukraine and Russia account for more than a quarter of the global wheat trade. Disruptions to trade routes in the Black Sea would increase pressure on grains prices.

**Thirdly**, financial sanctions have an impact on the **trade and supply chains disruption**, as companies will struggle to find financial channels through which to conduct trade with Russia. The possible destruction of some transport infrastructure in Ukraine will compound existing supply-chain issues. Disruption to supply chains will come from three sources: difficulties affecting land-based routes; restrictions on air links; and the cancellation of sea freight routes from Ukraine: **Land-based trade** routes between Asia and Europe were disrupted as transit through Russia becomes more difficult (or impossible from a compliance, reputational or safety perspective). This will particularly affect some Chinese companies, which had increased their traffic over land-based routes through Russia (en route to Europe) as an alternative to sea and air freight during the coronavirus pandemic. **Air ties** between Russia and Europe (and, in turn, Asia and Europe) were severely hampered following the decision of EU countries to close their airspace to Russian aircraft and cargo (and Russia's reciprocal measure to close its own airspace to European planes). About 35% of global freight was being transported by air prior to the pandemic, about half of which was carried on passenger planes. **Sea freight routes** through the Black Sea were cancelled for several weeks following Ukraine's decision to shut down commercial shipping and Turkey's move to restrict transit through the Bosphorus. This situation will have a notable impact on grain shipments transiting through Ukrainian, Russian, Bulgarian and Romanian ports.

**Fourthly**, the **global inflation** will jump above 6% this year. Higher commodities prices will fuel global inflation this year and possibly in 2023. EIU was already forecasting global inflation of nearly 6% this year, but now that mark is expected to be exceeded, given the huge spikes in commodities prices. The rise in inflation will offset the positive impact of higher commodities prices for producers. Higher prices will also raise tricky questions for central banks. They had embarked on a course of monetary tightening to curb inflation but may now be concerned about the impact of the Russia-Ukraine conflict on the post-coronavirus recovery. "Our view is that the US Federal Reserve Bank and the European Central Bank will not change their monetary-tightening plans. However, we expect that the pace of the Fed's balance-sheet run-off will be less aggressive than it is currently suggesting and would be postponed in the event of significant market turmoil".

**Lastly**, the **world economic growth** impact of the conflict in Russia-Ukraine war will both experience sharp global economic recessions this year. Those eastern European countries that are most exposed to trade with Russia, such as Lithuania and Latvia, will also take a hit from the conflict. Elsewhere in Europe, the EU will suffer from an energy, supply-chain and trade shock. "In view of this situation, EIU will be revising down the growth forecast for Europe in 2022, to about 2% from our previous projection of 3.9%. Growth in the euro zone is now expected to stand at 3.7% this year, from EIU's previous forecast of 4%. Downward revisions to Europe's growth outlook will also prompt a revision of the global growth forecast by 0.5 percentage points to about 3.4%, from 3.9% previously". The analysis and forecasts featured in this piece can be found in EIU Viewpoint, our new country analysis solution. EIU Viewpoint provides unmatched global insights covering the political and economic outlook for nearly 200 countries, helping organizations identify prospective opportunities and potential risks.

The continuing Russia-Ukraine war will be a major impact to the transformation of world economy that will hurt growth and raise prices. Beyond social suffering of migration and humanitarian crisis from Russia's invasion war in Ukraine, the entire new world economic order will feel the effects of



slower growth and faster inflation. The economic impacts will flow through three main channels (Kammer&others, 2022): (1) higher prices for commodities like food and energy will push up inflation further, in turn eroding the value of incomes and weighing on demand; (2) neighboring economies in particular will grapple with disrupted trade, supply chains, and remittances as well as an historic surge in refugee flows; and (3) reduced business confidence and higher investor uncertainty will weigh on asset prices, tightening financial conditions and potentially spurring capital outflows from emerging markets. Russia and Ukraine are major commodities producers, and disruptions have caused global prices to soar, especially for oil and natural gas. Food costs have jumped, with wheat, for which Ukraine and Russia make up 30% of global exports, reaching a record.

## **2. Impacts of Russia-Ukraine War to the Regional Economy**

Beyond global spillovers, countries with direct trade, tourism, and financial exposures will feel additional impacts. Economies reliant on oil imports will see wider fiscal and trade deficits and more inflation pressure, though some exporters such as those in the Middle East and Africa may benefit from higher prices. Steeper price increases for food and fuel may spur a greater risk of unrest in some regions, from Sub-Saharan Africa and Latin America to the Caucasus and Central Asia, while food insecurity is likely to further increase in parts of Africa and the Middle East (The EIU Update, 2022). In the long run, the Russia-Ukraine war may fundamentally alter the economic regional order by energy trade shift, supply chains reconfiguration, payment networks fragmentation, and countries rethink national reserve currency holdings. These world economic crises will increase geopolitical tension further raises risks of economic fragmentation, especially for trade and technology. The economic regional order can be analyzed by region to region (Kammer and others, 2022) as follows:

### **2.1 Europe and European Union**

After the Cold War and the collapse of the Soviet Union, several countries from Central and Eastern Europe wanted to be incorporated more and more with the Western Europe. The interest of entry in the EU was mainly due to ensure a complete independency from Russia, which they believed the EU could possibly provide. A full membership would access to the EU's liberal market economy, which would improve their economic growth and strengthen their relationship with the Western world in the future. Although Russia has been critical of NATO's enlargement, it has also begun to raise objections towards the EU's enlargement (DeBardeleben, 2009:47-48). The EU's eastern extension created further tension between Russia and the EU. Russia saw this as strategic step towards European superiority meanwhile the EU argued that the dissolution of USSR made it possible for Europe to increase its integration and secure it from war to occur in the future. As the EU's enlargement expanded eastward, Russia made an effort to strengthen its regional integration in the Eurasian Economy Union (EEU). The EU is aiming towards achieving a united Europe meanwhile Russia is aiming towards integrating the post-Soviet states to involve within EEU demonstrating its territorial integrity with the pursuit of a superiority of the former USSR (Asmus, 2008: 95-99). When Russia-Ukraine war began, unprecedented sanctions on Russia will impair financial intermediation and trade. The ruble's depreciation is fueling inflation, further diminishing living standards for the population. Energy is the main spillover channel for Europe and European Union as Russia is a critical source of natural gas imports. Wider supply-chain



disruptions may also be consequential. These effects will fuel inflation and slow the recovery from the pandemic. Eastern Europe will see rising financing costs and a refugee surge. It has absorbed most of the 3 million people who recently fled Ukraine. European governments also may confront fiscal pressures from additional spending on energy security and defense budgets (Kammer & others, 2022). Russia and the EU aimed therefore to have territorial integrity in order to become a regional hegemon over a certain area of influence.

## 2.2 North America and Latin America

The **United States and Canada** has few economic ties to Ukraine and Russia, diluting direct effects, but inflation was already at a four-decade high before the war boosted commodity prices. That means prices may keep rising as the Federal Reserve starts raising interest rates. Food and energy prices are the main channel for substantial spillover impacts in **Latin America and the Caribbean**. High commodity prices are likely to significantly quicken inflation for Latin America and the Caribbean, which already faces an 8 percent average annual rate across five of the largest economies: Brazil, Mexico, Chile, Colombia, and Peru. Central banks may have to further defend inflation-fighting credibility. Growth effects of costly commodities vary. Higher oil prices hurt Central American and Caribbean importers, while exporters of oil, copper, iron ore, corn, wheat, and metals can charge more for their products and mitigate the impact on growth. Financial conditions remain relatively favorable, but intensifying conflict may cause global financial distress that, with tighter domestic monetary policy, will weigh on growth. (Kammer & Others, 2022; Muro, 2022). As a result, the full extent of these impacts on North America and Latin America will depend on two principal factors – access to oil and access to food in the world market.

## 2.3 Eurasia and Central Asia

Beyond the region of Europe and America, these neighboring nations will feel greater consequences from Russia's recession and the sanctions. Close trade and payment-system links will curb trade, remittances, investment, and tourism, adversely affecting economic growth, inflation, external and fiscal accounts. While commodity exporters should benefit from higher international prices, they face the risk of reduced energy exports if sanctions extend to pipelines through Russia (Kammer & others, 2022). Highly dependence of Eurasian and Central Asian countries in both political and economic terms puts them in a vulnerable circumstance when it comes to sudden shocks and economic downturns in Russia. Based on Russian government figures, more than 7.8 million migrants were registered in the year 2021 which were mainly coming from Tajikistan, Kyrgyzstan and Uzbekistan (Najibullah, 2022). These Central Asian migrants indicated work as their main purpose of travel to Russia. This implies that in addition to close trade ties with Russia, Central Asian countries are also highly reliant on the remittances coming from Russia (Atefa Bahr, 2022). The Russian-Ukraine war and unprecedented Western sanctions forced Russia to an economic isolation that not only affected Russian economy, but also its Eurasian and Central Asian neighboring countries.

## 2.4 Middle East and North Africa

Middle East countries that have engaged with Russia, including America's Arab security partners, have deferred on joining the Western-led condemnation of Russia's aggression and refused to join

efforts to isolate Russia economically. The United Arab Emirates abstained from voting in favor of UN Security Council (UNSC) draft resolution condemning Russian aggression in Ukraine, partly as a response to what the UAE saw as American's slow and inadequate response to attacks on its territory by Houthi militants in Yemen, but also in return for Moscow's support for a UNSC vote designating the Houthis as a terrorist organization. Moreover, the Gulf Arab states have allowed Russian oligarchs to launder money and have spurned USA's request to pump more oil to bring down global prices and make up for the shortfall in Russian exports to Europe due to sanctions. (Wehrey, 2022). The Gulf Cooperation Council (GCC) countries import up to 90 percent of food from Russia and Ukraine. But high oil prices have further enabled GCC governments to absorb food-price increases and insulate populations from food insecurity. GCC countries encourage domestic agricultural production, invest in agricultural companies, and maintain their food reserves to buffer the effects of future crises (Welsh, 2022). Major effects from higher food and energy prices and tighter global financial conditions are likely ripple in **North Africa**. Egypt imports about 80 percent of its wheat from Russia and Ukraine. As a popular tourist destination for both, it will also see visitor spending shrink. Policies to contain inflation, such as raising government subsidies, could pressure already weak fiscal accounts. Worsening external financing conditions may spur capital outflows and add to growth headwinds for countries with elevated debt levels and large financing needs. Rising prices may raise social tensions in some countries: those with weak social safety nets, few job opportunities, limited fiscal space, and unpopular governments (Kammer & others, 2022). Many countries in North Africa rely on Russia and Ukraine for a significant percentage of their wheat, fertilizer, or vegetable oils imports, but the war disrupts global commodity markets and trade flows to Africa, increasing high food prices of wheat and sunflower, as well as economic recovery and growth, triggered by rising uncertainties in global financial markets and supply chains.

## 2.5 Sub-Saharan Africa

Although Sub-Saharan Africa was gradually recovering from the COVID-19 pandemic, the Russia-Ukraine war threatens that progress. Many countries in the region are vulnerable to the war's effects, specifically because of higher energy and food prices, reduced tourism, and potential difficulty accessing international capital markets. The conflict comes when most countries have minimal policy space to counter the effects of the shock. This is likely to intensify socio-economic pressures and public debt vulnerability; Record wheat prices are particularly concerning for a region that imports around 85 percent of its supplies, one-third of which comes from Russia or Ukraine (Kammer & Others, 2022). The African Common Position on Food Systems provides pathways for Africa to increase home-grown agri-food production and ensure inclusive access to sustainable and nutritious food sources, while addressing structural weaknesses and vulnerabilities, including poverty and inequality. The successful transformation of African food systems will largely depend on the willingness of African countries to realize continental and regional solutions to build and sustain greater resilience in the face of external shocks. 2022 is Africa's Year to action food and nutrition development goals (Sacko & Mayaki, 2022). The Russia-Ukraine war has therefore more exposed the urgent need for policy and investment choices to sustain and build viable, resilient, and inclusive food systems on the Sub-Saharan Africa.

## 2.6 South Asia and SAARC Countries

The direct impact of Russia-Ukraine war on South Asia and SAARC countries will mainly occur through trade linkages and rising commodity prices as the region is a net importer of commodities. Even before the invasion, inflation in South Asian economies was rising relative to competitors in global markets. The additional shock in commodity prices will further widen the gap - increasing the relative cost of production in the region - and erode the competitiveness of cheap labor and energy-intensive industries. Dependence on fossil fuels for energy generation is higher in South Asia than elsewhere in Asia (Wignaraja, 2022). The impact would be directly an immediate increase in inflation, while indirectly the Russia-Ukraine war would lower economic growth, leading to stagflation in the region. The extent of the Russia-Ukraine war impacts on South Asian and SAARC countries would depend on the duration of the conflict, the severity of western sanctions on Russia and the Russian response (The Express Tribune, 2022). The war has also impacted the economy of South Asia and SAARC. The additional shock in commodity prices has further widened the gap, increasing the relative cost of production in the region and eroding the competitiveness of cheap labour and energy-intensive industries (CUTS International, 2022). Moreover, the reliance on fossil fuels for energy generation is higher in the South Asia and SAARC region. Therefore, direct impact of Russia-Ukraine war is an immediate increase in inflation crisis, while indirectly the extended conflict would lower economic growth, leading to stagflation in the region.

## **2.7 Southeast Asia and ASEAN Community**

The existing crisis triggered by the Russia-Ukraine war will likely cause serious economic problems for Southeast Asia and ASEAN Community. The rising price of energy, food and commodities, worsening supply chain disruptions and stock market volatility could threaten the region's economic recovery from the post COVID-19 pandemic crisis. Although these countries have few direct economic links to Russia or Ukraine, the conflict is causing various commodity prices - especially oil, nickel, wheat and corn - to surge (Jongwanich, 2022). Southeast Asian oil importing countries try to secure alternative oil suppliers to Venezuela and Saudi Arabia, but should be careful in responding to possible redirecting Russia's energy exports towards Asia. Diversifying energy supplies, especially encouraging greener energy, would be a more sustainable way of tackling volatile oil prices in the future. As the economic ties between Russia and Southeast Asia are modest, the region stands to lose very little if the Russian economy buckles under the weight of international sanctions. In 2020, Russia was ASEAN's 11th largest trade partner with two-way trade at only US\$13.6 billion. In the same year, Russia invested a mere US\$63.2 million in the region (Storey & Choong, 2022). The world economic fallout from the Russia-Ukraine war will likely have a significant effect on regional states and ASEAN Community. The conflict has led to a spike in oil and gas prices which could rise further if Russia decides to cut energy exports or if the major industrial economies cut Russian imports. Ukraine and Russia are major agricultural producers, especially wheat and corn, and supply disruptions will lead to increased food prices. Higher energy and food prices will fuel inflation. The price of commodities produced in Russia that are crucial to the electronics industry such as nickel, titanium, copper and platinum, will also rise. The war has disrupted air, rail and sea transportation links, worsening global supply chain problems caused by the pandemic. In short, the conflict could derail a global recovery from the COVID-19 pandemic, including that of Southeast Asian economies.

## **2.8 Indo-Pacific and Asia-Pacific Region**

Spillovers from Russia-Ukraine war are likely limited given the lack of close economic ties, but slower growth in the United States, Europe and the world economy will take a heavy toll on major exporters. The biggest effects on current accounts will be in the petroleum importers of Indo-Pacific and Asia-Pacific economies, especially Japan, Korea, and ASEAN. This could be amplified by declining tourism for nations reliant on Russian and Chinese visits. For China, immediate effects should be smaller because fiscal stimulus will support this year's 5.5 percent growth goal and Russia buys a relatively small amount of its exports. Still, commodity prices and weakening demand in big export markets add to challenges (Kammer & others, 2022). During his visit to Japan on 23 May 2022, President Biden announced the Indo-Pacific Economic Framework (IPEF) as a new economic grouping to showcase U.S. economic power and leadership in the Indo-Pacific. Thirteen countries joined initially, including **Australia, Brunei, India, Indonesia, Fiji, Japan, Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand and Vietnam**. As a group, these countries represent 40 percent of the world's GDP, and IPEF is open to other countries joining in the future. In a joint statement, all participating countries announced that the purpose of the IPEF is a "commitment to a free, open, fair, inclusive, interconnected, resilient, secure, and prosperous Indo-Pacific region that has the potential to achieve sustainable and inclusive economic growth" (Galic & others, 2022). IPEF is organized around four pillars: trade; supply chains; clean energy, decarbonization and infrastructure; and tax policy and anti-corruption. Aside from India and the United States, all other members of the IPEF are also members of the Regional Comprehensive Economic Partnership (RCEP), the largest free trade deal in the world that includes China. IPEF serves as the economic component of the United States' Indo-Pacific strategy, one that seeks to counter China's immense economic power across the region. The real test of IPEF will be its ability to unite Indo-Pacific countries in dealing with 21st century economic challenges, namely rules for the evolving digital economy, stress on supply chains, fair taxation and clean energy.

### **3. Impacts of Russia-Ukraine War to Sustainable Development**

The Russia-Ukraine war which began on 24th February 2022 has impacted the world of sustainable environment. The war has resulted in an influx of refugees to Europe and Russia, unprecedented US-EU sanctions on Russia, world economy food security and energy crisis. However, a significant aspect of the crisis which is in need of greater attention is the damage the crisis is causing to the environment. According to the United Nations, humankind has always counted its war casualties in terms of dead and wounded soldiers and civilians, destroyed cities and livelihoods, while the damage done to the environment due to war often remains unpublicized (United Nations, 2021). The death and destruction of the environment, earth's natural resources, and its inhabitants are argued to have always been overlooked when it comes to identifying the casualties of war. Historically, any wars have had a significant negative impact on the environment and ecosystems but little or no attention has been given to them, which has been described as the silent victims of war. Even though wars get over, the damage done to environment stays for a longer time period of future generations to come. In the past, wars had destroyed habitats, kills wildlife; generate pollution of ecosystems, with consequences that ripple through decades. With the ongoing conflict, the debate over wars leading to the destruction of the environment has sparked once again leading to a growing focus on the concept of 'ecocide' and its significance (Samant, 2022). As a result, the Russia-Ukraine war is likely exacerbating sustainable environment



environmental issues. More than six months into the present war, and it has led to severe air, water and soil pollution, greenhouse gas emissions, forest fires and haze pollution, nuclear safety concerns, impact on agriculture, impact on wildlife, and has also led to world biodiversity loss.

The conflict of Russia-Ukraine war impacts the geopolitical security and stability of Europe and other countries of the world. So, there are the global effects of the war conflict in Ukraine. And the instability in Ukraine has its social consequences that influence the European sustainable development. Social consequences of the war conflict in Ukraine, such as migration, unemployment, crime growth, decreasing of population and others have been studied. It has been described that social dimension of the war conflict in Ukraine has its influence on European stability and geopolitical situation, especially Ukrainian migration (Nataliia and Anastasiia, 2018). The Russia-Ukraine war is an ongoing one and it is difficult to measure the damage it will have on the country's environment at present. However, the war will have a long-lasting impact on Ukraine's environment whose effects will be felt by generations to come and will be a game-changer for the future environment protection negotiations especially during the time of war (Samant, 2022). In addition, the war has also led to a deepen food crisis worldwide. The sanctions against Russia's attack Ukraine have led to high food prices and food shortages threatening to push millions of people in the low-income countries into starvation, poverty and preventing their sustainable development.

The Ministry of Ecology and Natural Resources of Ukraine have been keeping records of the numerous damages that have been done to the environment due to the war. It has periodically been briefing its citizens and the rest of the world on its official website. A special task force has been convened by the Ecological Inspectorate of Ukraine which, which are collecting evidence of the environmental damages caused by the war. The purpose of such a step is to seek compensation for damages from Russia in international courts. In the 21st-27th July briefing of the Ministry of Ecology and Natural Resources, it is stated that since the war beginning, the special task force had recorded around 2000 crimes against the environment. This action is to make the citizens aware of potential impacts of the war on the environment. In this regard, the Ministry of Environmental Protection and Natural Resources of Ukraine launched a mobile application called **Eco Zagroza** which means "environmental threat". The users of this application can also report the environmental crimes they have witnessed which includes uploading pictures and videos of the damages. The government of Ukraine is very keen on a green post war recovery. The President of Ukraine signed a decree on 21 April 2022, established the National Council for the Recovery of Ukraine from the War and a working group "Environmental Safety" within the council whose goal is to develop proposals in the field of environmental protection. Ukraine has also signed an agreement with the EU on Ukraine's accession to the LIFE program. This move will help Ukraine to benefit from financing innovative environmental protection projects and sustainable post-war restoration (Samant, 2022). For this reason, Ukraine shall raise a ranked low on environmental indicators like air quality, biodiversity production, and ecosystem health, after the war end.

## CONCLUSION

The impacts of Russia-Ukraine war have already shaken not just those individual nations but also the region and the world. "We live in a more shock-prone world," IMF Managing Director Kristalina Georgieva recently told reporters at a briefing in Washington. "And we need the strength of the collective to deal with shocks to come" (Kammer and others, 2022). While some effects may

not fully come into focus for many years, there are already clear signs that the war and resulting jump in costs for essential commodities will make it harder for policymakers in some countries to strike the delicate balance between containing inflation and supporting the economic recovery from the COVID pandemic crisis. The researcher recommends that all members' states of the United Nations and other international organizations shall effectively find out for peace negotiation to end the Russia-Ukraine war and fully cooperate to solve the problems of economic and social impacts on the world economy and sustainable development in order to achieve the UN-SDGs within the year 2030.

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## Finland's Accession to the North Atlantic Treaty Organization

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### ABSTRACT

This research paper discusses about the Finland's accession to the North Atlantic Treaty Organization and asks whether using the possibility of NATO membership is justified in light of the geopolitical situation of Finland and Sweden after Russia's attack on Ukraine. Literature review and the following methodology chapter helps to understand the different perspectives of the membership process. In the beginning, it was the Gallup Democracy that launched political movements toward membership. In both countries, the majority supported the membership in three months. Finland was the first to activate and Sweden quickly caught on to Finland's process. Turkey's intervention in the membership process after the submission of Finland's and Sweden's membership applications points to the negotiation phase immediately after the submission of the application. NATO membership itself is a historical event in changing Finland from a high-risk country to a lower-risk country since it makes Finland stronger their possible threat, Russia. Analogous security advantages also accrue to Sweden. The main advantage refers when Sweden terminated the conscript draft in 2000 and still has not been able to supplement it. The limitations of writing this research paper include that this specific subject is very challenging to do research due the current situation lives and changes constantly. However, the topic is still examined using a variety of different sources in order to get the correct information and data of this particular subject.

**Keywords:** *NATO, Defense Alliance, North Atlantic Treaty Organization, NATO accession, Ukraine-Russia War*

### INTRODUCTION

NATO (North Atlantic Treaty Organization) is a political and military alliance of 30 European and North American member countries together. It was first established on 4th of April 1949 by the North Atlantic Treaty, a NATO charter signed in Washington, USA. The main reason for the establishment of NATO was the threat posed by the Soviet Union to the West (Wikipedia contributors, 2022).

In this current year, Finland, along with Sweden, applied for NATO membership in Brussels on 18<sup>th</sup> of May. In a way, membership is the last of the small steps that Finland has taken since the Second World War as proof of its membership in the so-called Western world. In the final stage, this step was marked by Russia's brutal offensive war in Ukraine, and the decisive decision in both the Government and Parliament was paved by the Amateur Report on the Change in the Security Environment dated 13 April 2022 (Finnish Government 2022).

Applying for NATO may be considered an obligation for Finland and Sweden. Membership is defended or opposed mainly by referring to our legitimate security interests, but a strong additional argument is the examination of membership in the light of Finland's international obligations and ethical considerations. The pursuit of membership can be considered an ethical obligation when it is emphasized that Finland, as a country committed to defending democracy and human rights, belongs to the community of Western democracies, which protect human lives, individual freedom, open societies, and the rule of law. Because of these commitments, it must counterbalance the threats they face. We need to develop our country as such, promoting processes that enhance our ability to take international responsibility for peace and stability, especially in the Nordic and Baltic region.

NATO membership has been opposed, stating that Finland, as a member, must "choose its side" in disputes between East and West and that our soldiers can be sent to other countries to wage war. This weak argument flashed through the spring of 2022. Finland has already chosen its side as a member of the EU, especially in the ongoing war, by supplying weapons to Ukraine and joining the West in its actions against Russia. Supporting Ukraine's defense has been the only acceptable option, the only right-wing solution. To the extent that we have had a duty to provide this assistance, it is natural to think that we also have a duty to be part a of NATO's membership aspirations as a part of an anti-barbaric force. Fortunately, we no longer cherish the misleading, dangerous, and irresponsible "Finnishized" myth of our country as an imagined, neutral country "between East and West."

Another weak argument is that the alliance increases the risk of aggression against our country. Russia is preparing for harassment, but according to most experts, joining NATO's joint defense will reduce Finland's risk of waging war (Sami Pihlström 2022).



*Fig 1: (Map of the current member countries, NATO 2022)*

Until now, NATO has been influenced the most by Soviet Union and Russia. In the future, those countries will be Russia and China. The NATO's task is to make its allies even stronger and face tomorrow's challenges together. In the organizations 2030 plan, NATO must be more developed in matters related to security; NATO must strengthen deterrence and defense by recommitting to the 2014 Defense Pledge; NATO is strengthening its resilience; NATO needs to advance its technological edge; NATO is doing more to maintain the rules-based international order (Kenneth Morelius, 2022).

Related to this, the alliance will strengthen its partnerships in the Asia-Pacific region, with Australia, Japan, New Zealand, and South Korea. NATO will also look for new partnerships in South America, Africa and Asia and deepen its cooperation with the EU; NATO invests significantly more in training partners and building capacities, from Ukraine to Georgia and from Iraq to Jordan (Rick Rozoff, 2010).

NATO considers the security threats of climate change. This issue will include regular assessments of the effects of climate change on NATO operations, as well as the creation of a methodology to assess the greenhouse emissions of organizations' military operations. NATO's aim is to be carbon neutral by 2050. However, Russia and China are considered to be the biggest threats to NATO's new strategic concept (Luis Simon, 2022).

## **LITERATURE REVIEW**

### **History of NATO**



The North Atlantic Treaty Organization NATO is a political and military alliance, which includes 28 member countries from Europe and two from North America. NATO was established after World War II on 4<sup>th</sup> of April 1949 in Washington, but the actual operation started in the 1950s. The headquarters of NATO is located in Brussels, Belgium. English and French are the official languages of the organization. Norwegian Jens Stoltenberg has been NATO's Secretary General since 2014 (Wikipedia contributors, 2022).

NATO is committed to protecting its member countries through political, as well as military means. On the other hand, NATO promotes the common values of its members, which are democracy, the rule of law and the peaceful settlement of disputes. In addition, NATO participates in the planning of civil administration emergency management, helps member and partner countries survive disasters, and invests in promoting research and environmental cooperation. NATO has the necessary resources to manage crisis management and peacekeeping missions. (NATO, 2020)

In the past, World War II had a significant impact on the creation of NATO. Cooperation between the former allies, the Soviet Union, and the Western Allies, broke down soon after the war. As early as 1947, Great Britain and France signed the first agreement on cooperation, which later expanded into a defense agreement between Belgium, Netherlands, and Luxembourg. This so-called Brussels Agreement was expanded when USA, Canada, Iceland, Norway, Denmark, Italy, and Portugal also signed a defense agreement on 4th April 1949. Thus, the North Atlantic Treaty Organization; NATO, started its operations. (Kenneth Morelius, 2022).

The creation of the defense union was significantly influenced by the threat of the Soviet Union at the time of establishment. In 1954, the Soviet Union itself proposed joining to NATO, but it was certainly not accepted. The Federal Republic of Germany joined NATO in 1955. Around the time of Germany's accession, the Warsaw Pact was established (1955-1991).

In 1978, in addition to maintaining security, NATO announced detente as one of its goals. The announcement was preceded by the efforts of the USA and the Soviet Union to ease tensions after the 1962 Cuban Missile Crisis. As a result of the relaxation, e.g., nuclear non-proliferation treaty, SALT negotiations, and the Helsinki OSCE meeting took place in 1975 (Wikipedia contributors, 2022).

When the Berlin Wall fell and Soviet Union collapsed, after the end of the Cold War, NATO's purpose had to be reassessed when its original purpose ceased to exist. Amongst the other things, NATO justified its existence on peacekeeping missions. After the collapse of Soviet Union in 1991, Russia still considered NATO membership to be the country's long-term political goal.

Between the years 1994 and 1997, cooperation bodies such as the Partnership for Peace, the Mediterranean Dialogue and the Euro-Atlantic Cooperation Council were formed between NATO and its neighbors. Countries participating in the cooperation included Finland, Sweden, Russia, Algeria, Egypt, Israel, Bahrain, Qatar, Afghanistan, Pakistan, and Iraq. The expansion of NATO continued when Poland, Hungary and the Czech Republic joined in 1999. NATO's first veritable military operation took place in the Balkans in the 90s, of which the shooting down of four planes violating the no-fly zone in Bosnia-Herzegovina in 1994 was the first. In the Kosovo war in 1999,



NATO carried out an 11-week long aerial bombardment against Yugoslavia (Kenneth Morelius, 2022).

Article 5 of the NATO Charter was invoked for the first time on September 12, 2001, after the 9/11 terrorist attacks against the United States. On 4th October, NATO confirmed that the attacks were an attack under the North Atlantic Treaty. The Allies stood unequivocally in support of the US and confirmed the introduction of Article 5. The NATO countries committed to support the United States by pledging their ports, airports, and airspace for their use. NATO's joint AWACS air surveillance planes and warships belonging to the standby force were also given to counter-terrorism operations (NATO, 2020).

However, Article 5 did not lead to a joint NATO operation, instead the operation to destroy the al-Qaeda network in Afghanistan was launched under the leadership of the United States. NATO's limited role in the operation roused criticism from the European allies who offered their help. NATO carried out eight missions, the first two of which: Operation Eagle Assist and Operation Active Endeavor, in return for charter obligations. Despite this show of solidarity, on February 10, 2003, France and Belgium used their veto power to block the deployment of NATO troops to Turkey prior to the Iraq war. Germany did not use its veto but expressed its support for it. Turkey also did not allow its soil to be used for an attack on Iraq.

On the 19th of June 2003, major changes were made in NATO's leadership structure when the Headquarters of the Supreme Allied Commander, Atlantic was abolished. A new military headquarter, Allied Command Transformation (ACT), was established in Norfolk, Virginia, the United States. The Supreme Headquarters Allied Powers Europe (SHAPE) became the Headquarters of Allied Command Operations (ACO) in this context (Wikipedia Contributors, 2022).

### **Missions and operating procedures**

With the help of negotiations and partnership programs, NATO contributes to preventing conflicts in its member countries and outside them. The organization promotes democratic values and is committed to resolving disputes peacefully. If a diplomatic solution is not found, the organization has the necessary resources to handle crisis management and peacekeeping operations alone or in cooperation with other states and international organizations. NATO also has a third dimension, whose fields of activity include planning emergency management under civilian administration, helping member and partner countries survive disasters, and promoting research and environmental cooperation (NATO, 2022).

Each member country has a permanent delegation at NATO's political headquarters in Brussels. The head of the delegation is an ambassador who represents the government of their member country in the NATO negotiations and decision-making processes. The NATO Council is the organization's most important decision-making body. The Council meets in various configurations, and its chairman is the Secretary General of NATO, who helps the member countries reach an agreement on key issues. All decisions made in NATO committees are unanimous. Hence, NATO's decision expresses the collective opinion of all member countries.

The organization has very few permanent forces of its own. When the NATO Council endorses an operation, member countries voluntarily send their forces to participate in the operation. These troops return to their home countries after the mission is over. The role of the military leadership is to coordinate and lead these operations. The management consists of headquarters and bases located in member countries. NATO's day-to-day operations, civilian and military structures, and security programs are financed by mutual budgets, to which the governments of the member countries allocate funds according to the agreed funding model (NATO, 2022).

### **The context of NATO and Finland**

Finland's relations with the organization are managed by Finland's especial representation in NATO. Finland has participated in NATO's Partnership for Peace since 1994. Moreover, Finland has been a member of the Euro-Atlantic Partnership Council (EAPC) since 1997. In 2014, Finland was invited as an advanced partner to NATO's Extended Opportunities Partnership (EOP). In addition to cooperation with expanded opportunities, Finland has promoted the 30+2 cooperation between NATO, Finland and Sweden.

The central goal of partnership cooperation has been the development of military performance and cooperation capability for the needs of national defense and international crisis management. What's more, Finland has held a regular political dialogue with NATO on security policy themes of mutual interest to strengthen common security. Through the dialogue, Finland has promoted its own foreign, security and defense policy objectives.

Finland has also participated as a partner country in crisis management operations led by NATO. Currently, Finland participates in the NATO-led crisis management operation in Kosovo (KFOR) and Iraq (NMI). By participating in international crisis management operations, Finland contributes to international stability and security (The Ministry for Foreign Affairs of Finland, 2022).

Becoming a member of NATO is a political process based on the Article 10 of the North Atlantic Treaty. According to it, NATO membership is open to any European country that has the prerequisites to promote the principles of the NATO Treaty and contribute to the security of the region. NATO has set certain political, economic and military requirements for a new member state, as well. The member states of NATO make the decision to invite a new member unanimously (Ministry of Defense, 2022).

After Russia started the war of aggression in Ukraine, the support for NATO rose dramatically in Finland. According to a survey conducted in June 2022, up to 79% of Finnish people support NATO membership. Finally, Finland left the application for NATO membership on 17th May 2022. The NATO countries signed the accession protocol on Finland's NATO membership on July 5, and Finland became an observer member of the organization. Next, the protocol of accession must be ratified in each member state.

Dates conducted	Pollster	Client	Sample size	Support	Oppose	Neutral or DK	Lead
20–26 Jun 2022	Kantar TNS	Helsingin Sanomat	1003	79%	10%	11%	69%
9–10 May 2022	Kantar TNS	Helsingin Sanomat	1002	73%	12%	15%	61%
4–6 May 2022	Taloustutkimus	Yle	1270	76%	12%	11%	64%
7 Apr – 3 May 2022	Taloustutkimus	Advisory Board for Defence Information (Ministry of Defence)	1002	68%	15%	17%	53%
22–27 Apr 2022	Kantar TNS	Helsingin Sanomat	1062	65%	13%	22%	52%
8–13 Apr 2022	Kantar TNS	Helsingin Sanomat	1057	59%	17%	24%	42%
6–11 Apr 2022	Corefiner	MTV	1863	68%	12%	20%	56%
28–30 Mar 2022	Kantar TNS	Helsingin Sanomat	1080	61%	16%	23%	45%
18–23 Mar 2022	Kantar TNS	Helsingin Sanomat	1062	54%	21%	25%	33%
11–16 Mar 2022	Kantar TNS	Maaseudun Tulevaisuus	1059	61%	16%	23%	45%
4–15 Mar 2022	Taloustutkimus	EVA	2074	60%	19%	21%	41%
9–11 Mar 2022	Taloustutkimus	Yle	1378	62%	16%	19%	46%
28 Feb – 3 Mar 2022	Kantar TNS	Helsingin Sanomat	501	48%	27%	26%	21%
23–25 Feb 2022	Taloustutkimus	Yle	1382	53%	28%	19%	25%

Fig 2: Polls on Finnish membership on NATO in 2022, Wikipedia

Finland's NATO membership will be increasing both, Finland's security in the changed operating environment and the stability and security of the Baltic Sea region and Northern Europe. Finland's strong defense and crisis resilience capabilities also strengthen NATO and the alliance's common defense.

As a member of Defense Alliance NATO, Finland participates fully in the organization's joint defense and decision-making and is covered by the security guarantees under Article 5 of the NATO Treaty (The Ministry of Foreign Affairs of Finland, 2022).

### Finland's NATO accession process

The ratification process began with the invitation of Finland and Sweden to become members at the NATO summit in Madrid. Member negotiations were held on 4 July 2022, and the Accession Protocols were signed in Brussels on 5 July 2022 (The Ministry of Foreign Affairs, 2022).

Denmark and Canada managed to ratify Finland's and Sweden's NATO memberships on the same day that Finland and Sweden signed the accession protocols. After this, Finland's and Sweden's NATO memberships have been ratified by Norway, Iceland, Estonia, Britain, Germany, Albania, Poland, Luxembourg, the Netherlands, Bulgaria, Latvia, Slovenia, Croatia, Lithuania, Romania, Belgium, North Macedonia, Montenegro, France, Italy and most recently, the United States. Until this day, 23 countries out of 30 NATO member states have ratified the applications of Finland and Sweden. Till now, Turkey is still a big question mark, as it has long complicated the application process in Finland and Sweden (Yle Uutiset, 2022).



Fig 3: The situation of ratification, (August 2022)

## METHODOLOGY

### The Ukraine-Russia war changed the opinions of citizens

If one of the main reasons for Russia's invasion of Ukraine was to keep NATO away from Russia's borders, the decision of Sweden and Finland to abandon their long-known neutrality and apply for NATO membership shows that Russian President Vladimir Putin's offensive plan has suffered a disastrous setback. Finland and neither Sweden will no longer remain "Finlandized," a Cold War term that meant that Finland would never take sides in the competition between the West and the then Soviet Union, which in return would allow Finland to remain sovereign.

Seventy-five years of important Nordic neutrality was lost in an instant, because due to Russia's unprovoked invasion of Ukraine, both Nordic countries suddenly felt vulnerable to a possible Russian attack. In fact, Putin's threats to join NATO only increased their vulnerability. Ironically, "Finlandize" may soon take on a new, almost opposite meaning. Even more famously, non-aligned Switzerland has announced its intention to increase cooperation with NATO, although actual membership is unlikely. NATO has suddenly gained a new and greater legitimacy.

### The Gallup surveys

The Gallup survey refers to a public opinion on an issue or of the degree of information among the public about a particular thing or information. In Gallup surveys, people need to answer clearly formulated closed questions and the results are reported in percentages. The purpose is to get a sufficiently comprehensive sample, that the conclusions could be drawn from the opinions of a wider group of people.

Gallup surveys about NATO membership have been conducted in Finland for a long time. The table below contains the data from 2005 to 2022. The Gallup surveys examine the citizens' opinions on NATO accession by asking a question; "In your opinion, should Finland seek the NATO membership?"



**Table 1: Gallup surveys between the years 2005 and 2022, Economic research 2022**

Date	Yes (%)	Cannot say (%)	No (%)
Autumn 2005	28	9	63
Autumn 2006	26	10	65
Autumn 2007	26	5	69
Autumn 2008	28	12	60
Autumn 2009	28	10	62
Autumn 2010	25	7	68
Autumn 2011	20	10	70
Autumn 2012	18	10	71
Autumn 2013	21	10	70
Autumn 2014	30	10	60
Autumn 2015	27	15	58
Autumn 2016	25	14	61
Autumn 2017	22	17	62
Autumn 2018	20	21	59
Autumn 2019	20	16	64
Autumn 2020	21	25	53
Autumn 2021	24	24	51
February 28, 2022	53	19	28
March 14, 2022	62	21	16
April 27, 2022 (Kantar TNS)	65	22	13
May 6, 2022	76	12	12
June 26, 2022 (HS)	79	10	11

Until the autumn 2021, only 20-30 percent of people supported NATO membership. In 2022, the results changed dramatically. For the first time on February 28, just a few days after the Russian attack, Finland's Gallup majority opinion on NATO membership was "yes" (53%). On April 27, the share of YES answers had risen to 65 percent (Figures: Kantar TNS) and on May 6 to 76 percent. The figure for June 26 (HS) is even higher at 79%. Gallup's results have since had a great impact on political thinking. Only two of the Finnish parties supported NATO membership from the beginning. A large majority of the representatives of the parliament supported NATO's membership application. The president demanded referendum. It is no longer considered necessary.

Sweden considers the process in Finland. In Sweden, support for membership rose significantly compared to 42 percent in January 2022. From there, most people turned to NATO membership. A week after Finland's February Gallup, 51 percent supported participating in the Swedish survey. Only 27% of people opposed it. Their share fell by 10 percent in two months. The traditionally influential Social Democratic Party has opposed membership. The party's attitude changed during the process.

### **Equality of NATO member countries**

Former president the United States, Donald Trump has indicated on several occasions that the defense spending of European countries does not meet NATO's requirement of a two percent share of gross domestic product. According to this, NATO's smallest member countries travel freely on the basis of the collective security created by the larger member countries of the defense alliance, the United States in the lead.

Olson and Zeckhauser (1966), and several other researchers after them, have measured the defense burden by the gross domestic product shares of the defense expenditures of the member countries and in relation to NATO's combined defense expenditures by calculating their rank correlation estimates with the gross domestic product. The defense burden has since been contrasted by a country with the security benefit produced by membership. If the costs are relatively easy to measure, measuring the safety benefit is even more challenging. Security benefits are thought to arise from the fact that the defense alliance protects the industrial infrastructure of the member country, its population and its borders that are not limited to other NATO countries. The benefits of membership have thus been evaluated by relating the member country's gross domestic product share to NATO's combined gross domestic product, the share of NATO's population and the share of its non-NATO borders to NATO's unprotected borders.

The tests produced in the mentioned way have supported the notion of free travel in the 1960s, but not anymore later. However, in their article *Economics of Alliances: The Lessons for Collective Action*, Sandler and Hartley (2001) report that in 1998 the US defense burden in NATO was 59.85% (North America including Canada was 61.35%), while Europe's share was only 38.65%. While the assessment of NATO's benefit to the United States received a score of 31.06, NATO's benefit to the European member countries was expressed as a score of 43.47. The cost-benefit ratios thus seem to speak strongly in favor of the free-riding hypothesis.

### **Defense expenditure of NATO member countries**

In 2014, the NATO countries agreed at the Wales summit that defense spending would be increased to two percent of GDP in ten years. The perception of the European NATO countries' free riding on the US defense budget can be supported by the attached figure (Picture 5). According to it, there are large differences in the gross domestic product shares of NATO member countries' defense expenditures. In addition to the United States, a third of the NATO countries met the 2% criterion: Bulgaria 3.25%, Greece 2.28%, Britain 2.14%, Estonia 2.14%, Romania 2.04%, Lithuania 2.03%, Latvia 2.01%, and Poland 2.00%. The figure for France was 1.84%. Germany's share in 2017 was as low as 1.22% and has since only risen to 1.38% in 2019. According to publicly available information, a level of 1.5% has been on display, but no political consensus has been found for it in Germany. In 2017, in addition to the United States, only Greece, Estonia, the United Kingdom, Romania and Poland had exceeded the 2% limit.

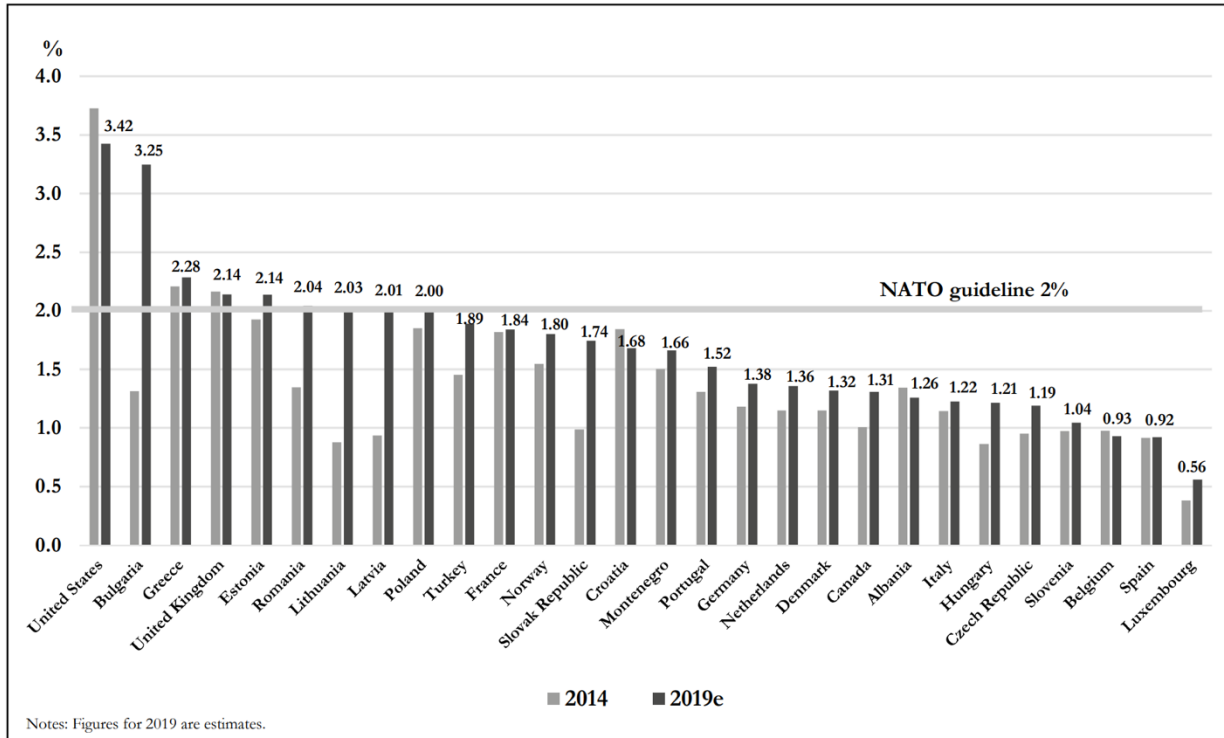


Fig 4: The ratio of NATO defense spending to GDP, NATO 2019)

On the other hand, Heljä Ossa and Tommi Koivula (2019) have pointed out that the comparison should also take into account the extent to which countries use their defense spending to renew equipment. At the Wales Summit in 2014, it was agreed that at least 20% should be used for fleet renewal and maintenance. Apart from training, NATO can only benefit from equipment procurement. Ossa and Koivula also report that, according to the International Institute for Strategic Studies, the United States spends only 5.6% of defense spending on European security. This number would be close to \$38.3 billion of 2019 defense spending. In the same year, European NATO countries spent a total of 288.9 billion dollars on their defense. It is mainly thought of for defending one's own territory, of course.

It is also worth noting that in comparisons of defense expenditures, it should be taken into account that labor costs and prices in different countries can be very different. The technological lead is also an important factor influencing performance, and in this respect the United States leadership has been undisputed. Yet, the Russian leadership has recently presented the news that the country has missiles flying at 5 times the speed of sound, which can penetrate all defenses, for example. The United States, on the other hand, has expressed its interest in the development of space weaponry.

### The effects of Finland's NATO accession with Sweden

As a new NATO member countries, Finland and Sweden bring tangible geostrategic advantages to the alliance, not just symbolic weight. For example, Finland has a 1300-kilometer-long border with Russia and a well-equipped modern army. It maintains the universal conscription and has a well-

manned, trained reserve that can be called up quickly. Finland also spends more than 2 percent of its gross domestic product on defense and has dedicated military resources to the Arctic region, as it famously demonstrated against the Soviet Union in the 1939 Winter War. Its location on the shores of the Baltic Sea and diplomatic experience with Russia can also be considered as an advantage.

On the other hand, Sweden has a strong military and world-class defense industry, as well as military experience operating in the Arctic region as well. It can also help control the entrance to the Baltic Sea. This will not only make it harder for the Russian navy to access the high seas, but also help NATO more successfully defend vulnerable Eastern Europe, which would likely be on Putin's next hit list if he succeeds in Ukraine. Meanwhile, Russia's attack on Ukraine has revitalized the NATO alliance and given it a new purpose and unity, which is contrary to Putin's original intentions. More specifically, NATO has just launched a new, more powerful strategic operation, the first since 2010, in response to renewed Russian aggression, identifying it as the alliance's primary adversary. The earlier days after the Cold War, when Russia was supposed to be NATO's "peace partner" are now gone for good.

At the NATO summit in Madrid, where membership invitations were distributed to Sweden and Finland, NATO leaders agreed to increase the number of high-alert alliance forces from 40,000 to 300,000, which is a highly significant increase. However, the majority of these rapid response forces will be located in NATO's home states. The members have not announced exactly which of their forces will commit to the NATO command. Even so, for the first time, the United States is permanently stationing troops on NATO's eastern borders with the headquarters of the US 5th Army Corps in Poland and increasing rotational brigades in Romania, increasing the rotation to the Baltic region, increasing the number of fighter jets in Rota, Spain and two other F-35 jet squadrons in the United Kingdom. What's more, for the first time NATO has designated China, Russia's announced partner, as a strategic "challenger."

Ultimately, at the NATO's Madrid summit Finland and Sweden were invited to join the emerging alliance and at the same time four Asian countries, Australia, Japan, New Zealand, and South Korea were invited in order to demonstrate NATO's growing focus on Asia. Simultaneously, Russia continued its attack of aggression on Ukraine. Many Asian countries fear that if Russia succeeds in conquering Ukraine, it will encourage a more cautious China to show similar aggression against its neighbors, especially Taiwan. The Philippines and Vietnam, among other Asian powers, also remained non-aligned. In the confused mix was North Korea, a pariah nuclear-armed state that has often attracted negative attention in the United States.

On the other hand, NATO's requirement that all 30 member countries unanimously accept the membership application of Sweden and Finland gave Turkey an unwanted influence on the whole process of defending Europe from aggressive Russian irredentism and expansion. This fact is especially true since in recent years Turkey has sometimes acted more like a member of the reformed Warsaw Pact than a member of NATO. Perhaps this situation should give NATO reason to think about its future membership and expulsion policy.

### **Benefits and drawbacks of NATO membership**



The largest security advantage related to NATO membership arises from Article 5, which obliges the allies to defend each other. While NATO's decisions require consensus, and while allied member states must choose how to assist another member state in case of a threat or military attack, mutual responsibility is considered a cornerstone of the NATO defense alliance. With three member states possessing nuclear weapons, the safety net includes a nuclear umbrella, which is no small advantage. Indirectly, no NATO member country has been the target of a military attack during NATO's existence.

However, no member country may limit its role as a consumer of security, as everyone is expected to participate in security production. Though the value of mutual support as an international public good is limited. According to Olson and Zeckhauser (1966), it is known that members of a defense alliance have an incentive to freely use the security created by other members, and the alliance does not promote defense optimally in the alliance's Nash equilibrium.

In terms of maintaining the security of the Baltic countries, the membership of Finland and Sweden seems valuable to NATO simply because it makes the Baltic Sea an internal sea of NATO. This fact is one of the consequences of the membership and is obviously understood in Finland, Sweden and NATO, as well.

One of the problems is to anticipate and prepare the country for possible Russian countermeasures during the membership process. Revenge costs are not imaginary. According to Russian statistics, 11 million non-Russians live in Russia, whose average income is less than 400 euros per month. Border control is under pressure against large organized migration flows of non-Russians living in Russia, as happened in Poland and Lithuania in the fall of 2021. Possible attacks include cyber attacks on energy, electricity, and water lines that threaten the functioning of society. Disinformation aiming to cause social unrest is to be expected. Military operations on the ground, in the air or at the sea have not been ruled out either.

## **RESULTS AND DISCUSSION**

### **Highlights of the membership process with Sweden**

The membership process began on April 13, when the government issued a statement about the changed national security. The matter was discussed in the parliament, and it was evaluated in the different committees of the parliament with the help of independent experts. A large majority of MPs expressed their support for membership, although the President and Prime Minister did not initially express their personal views, allowing MPs to make an independent decision.

The President and Prime Minister announced on May 12 that they support the membership application. On May 15, the decision on membership applications was initiated by the foreign and security policy ministerial committee, chaired by the President along with key ministers. At the same time, the countries took an active part in the preparation of sanctions against Russia. Turkey, which had previously informed Finland of its support for Finland and Sweden's NATO membership, announced on May 15 that it would oppose their application.

The dominant view was that Finland's and Sweden's membership would gain broad support among NATO member countries. Finland and Sweden would be NATO's advantage, as their membership would strengthen the security of the Baltic Sea. It was argued that it was highly desirable to leave the application at the same time; both to share the pressure of expected Russian retaliation during the process and local responsibility for stabilizing the region during membership. As an alternative, it was proposed that Finland and Sweden could form a joint defense alliance outside of NATO. However, of course, such a solution could not be in the interest of the United States, because such an option offers no contribution to the defense of the Baltic countries. It was also understood that if Finland withdraws without submitting its application, its NATO option would be gone forever. Thus, Finland would be a permanent satellite of Russia.

The historic vote of the Parliament was held on May 17, 2022. Out of its 200 members, 188 voted in favor and 8 against. Three members were not present. The following day, 18<sup>th</sup> of June, the membership application was submitted to NATO along with Sweden's application. The North Atlantic Council with NATO ambassadors could not yet invite Finland and Sweden because Turkey had expressed its opposition. At the meeting in Madrid on June 28, Turkey finally expressed its support for the application after tough negotiations. Turkey was somewhat concerned about terrorism and trade in defense equipment and saw the membership process as an opportunity to express its national interests. Finland, Sweden, and Turkey then agreed on a "document of mutual understanding" on these matters, which allowed NATO to accept Finland and Sweden as observer members. The accession document was signed at the NATO Council on July 5. Next, in the accession process, all NATO countries must ratify the accession protocol of Finland and Sweden in accordance with their own national procedures, thus bring it into force accordingly.

### **National security and asymmetry of information**

Geopolitics and considerations of interests have returned to Europe. Kanniainen (2018), noted that Finland is a risky country in terms of national security. This risk rating cannot be obtained from market data. In addition to geopolitics, the state of national security is also influenced by defense policy and defense agreements among other players in the field. In that article, I considered the game between a defending country and a threatening country under asymmetric information. The threatening country is uncertain about the fighting strength of the defending country. According to Schelling's (1960), owing to deterrence the defending country finds it best in combined equilibrium to invest too much in its defense capability. This proposal provides a theoretical explanation for the empirical facts of the documented construction of their defense. Finland is recently investing two percent of its annual gross domestic product in the defense budget for fighter jets and the navy. Taking these factors into account, the membership of Finland and Sweden would be an advantage for NATO.

Goes without saying that Sweden has a strong air force, navy, and defense industry. However, Sweden waived the military draft in 2000. As I understand it, the United States has given Sweden security guarantees unofficially, and Russia presumably understands this. Russia's invasion of Ukraine in 2014 has led to attempts in Sweden to rebuild the military, but this is very slow. Finland and Sweden significantly strengthened and activated their defense cooperation, although they did not extend it to a mutual military alliance.



## **Possible reactions of Russia**

Russia is not at peace with itself or the world around it. Over the past 15 years, Russia has become a disaffected power, questioning the post-Cold War arrangements in Europe and even the norms and principles of the 1975 Helsinki Declaration and the 1990 Paris Charter. Russia considers itself an underdog in Europe. The Russian elite widely agrees that Russia is not just one country between the European countries. This fact separates Russia from other countries and leads to a revisionist view, in which Russia demands renegotiations of European security structures and even the recognition of the division of interests, in other words the right of veto, to prevent developments that harm Russia's interests. Owing to historical experiences, this issue is not acceptable for Finland. Russia sees as a threat especially the expansion of NATO, which is supported by the United States and whose goal is to bring American military bases and troops closer to the Russian border in order to dam Russia.

Despite the fact that the Soviet Union never fully accepted Finland's policy of neutrality, today's Russia has not questioned Finland's integration into Western structures. In general, like the former Soviet Union, Russia is also skeptical of all gray zone arrangements, such as neutrality, non-alignment, and so on, and especially closer cooperation with NATO, which Russia considers its adversary. Any NATO expansion would be a political defeat for Moscow, as it points out in the latest update to its national security strategy, published in December 2020. It states that the further expansion of NATO and the relocation of its military infrastructure closer to Russia's border areas is a threat to Russia's national security. When Finland joins NATO, a long common border would emphasize the geopolitical change even more (Ministry for Foreign Affairs, 2019).

Continued cooperation with NATO, the expanded partnership for peace, the right, and possibility to apply for NATO membership, as well as deepening military integration with Sweden and intensive political and military-technical cooperation with the United States are developments that Moscow follows closely, but it usually comments on at a lower than governmental level. But Russia would react to Finland's and Sweden's NATO membership; the geopolitical shift would be so great that Moscow could not ignore it. The relations between Finland and Russia would suffer considerably and the political reaction would be harsh and probably also "personal," like when the Turkish air force shot down a Russian fighter jet during the Syrian conflict. Russia's unexpected and unprovoked violation of the border system in northern Finland at the end of 2015 is an example of Russia's tendency to create problems, take advantage of them and offer to control them without solving them. Russia's reactions could also include increasing the pressure on the borders with the Baltic countries.

In most cases, the Soviet Union's, and Russia's attitude toward successive rounds of NATO expansion has followed the same formula: first, opposition, a very strict one that has been supported by means of political and economic pressure, then tacit acceptance, and finally a return to the previously prevailing diplomatic and economic state of affairs (status quo ante). The most notable cases that fit this formula have been Turkey (1952), the Federal Republic of Germany (1955), the extension of NATO to the territory of the former German Democratic Republic (1990), Poland (1999) and the Baltic countries (2004) (Ministry for Foreign Affairs, 2019).

## **The reasons why Russia started the war against Ukraine**

There can be many opinions on whether Russia's security concerns are justified, but it is a bold fact that throughout history Russia has been attacked by enemies from the West on the Northern European plain (Poland in 1605, Sweden in 1708, France in 1812, and the Germans in both World War I and World War II). France and Britain also attacked Russia in the Crimean War in the Black Sea between 1853 and 1856. Russia's argument is that NATO has expanded towards Russia since the Cold War, which has caused a security problem.

Anyhow, the Russians have forgotten that today there is a difference from those historical attacks: Russia is a nuclear power with more than 6,000 nuclear warheads. In reality, no enemy can attack Russia. NATO's military budget (US: \$685 billion, other NATO countries: \$300 billion) is several times larger than Russia's defense budget (\$61 billion). The population and gross domestic product of NATO countries are much larger than in Russia. Still, it is true that no country or alliance can threaten the country with nuclear weapons.

From Russia's point of view, Ukraine does not exist as an independent state. The people of Russia, Belarus, and Ukraine are said to belong together. Even worse, the Ukrainian people are considered inferior and should be ruled by Russia, and it is argued that Ukraine has no right to be separate from Russia. According to Russia, the Ukrainian language should not exist. The attack as a "military operation" is justified because modern day Ukraine is allegedly ruled by the Nazis. From a European perspective, there is a more plausible explanation for Russia's attacks on Ukraine and their claims that Europe's security architecture needs to be reshaped: Russia's trauma from the collapse of the Soviet Union and its loss as a superpower. The current Russian leadership hopes to regain its place in the history of lost restoration.

## **CONCLUSIONS AND RECOMMENDATIONS**

To conclude this paper, Finland has filled the first application for NATO membership on 17<sup>th</sup> of May 2022 along with Sweden and they are currently in the middle of the ratification process. The ratification process began with the invitation of Finland and Sweden to become members at the NATO summit in Madrid. Member negotiations were held on 4 July 2022, and the Accession Protocols were signed in Brussels on 5 July 2022. To this day, 23 of 30 NATO member countries have accepted Finland's and Sweden's application so far. Membership comes officially into effect only when all member countries have accepted the accession and the ratification process is ended.

NATO, which is led by the United States, has reacted correctly to Russia's unprovoked attack on Ukraine by facilitating Sweden's and Finland's NATO applications. Such steps to strengthen NATO are the best way to deter Russian aggression, maintain the broader peace, and thus help prevent a potential nuclear catastrophe. As in nature, international politics abhors a vacuum.

Thus, those who instead see NATO aggression do not remember the lessons of Munich in 1938 and are, at best, unintelligent apologists for Moscow, which, by attacking Ukraine, has probably violated a fundamental rule of modern international law: Article 2, section 4 of the United Nations Charter expressly declares: "All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State."

As a NATO member, Finland will have opportunities for better access to information, and Finland would be definitively accepted as part of the common political goals of the alliance.



When it comes to the recommendation's part, I support that the alternative and complementary ways to strengthen national security are investing in the defense expenditures and being a member of the defense alliance NATO. In defense investments, a socially efficient allocation means that the security effect of the last unit invested in defense is equal to the social welfare effect of the last monetary unit invested in social welfare. Membership of defense alliance creates an additional welfare advantage in terms of mutual defense as an international public good. As a member country, Finland will also fully participate in all planning, preparation, and decision-making of the NATO alliance. In this case, Finland will be able to exert a significant influence on issues concerning its own external security. The above can also be summarized as follows: Finland would finally integrate into the Western community of values.

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## Thailand E-Finance Transformation

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### ABSTRACT

Due to the COVID-19 pandemic and Thailand government policy, Thailand is heading to cashless society in the near future. Thus, the researcher was looking into financial factors that may involve or drive Thailand e-finance so that we can be cashless society in the future. In order to prove all assumptions, this research was used to investigate the factors that can affect to Thailand e-finance transformation. The data used in this research were secondary data from Bank of Thailand from January 2017- July 2022 which will be used in the quantitative analysis. The independent variables were the values of e-money, payment cards, internet banking, and mobile banking. The dependent variable was the value of e-payment. The regression analysis was used to analyze the relationship between the independent and dependent variables. The results found that e-money, payment cards, internet banking, and mobile banking affect to e-payment at the statistical significant level of 0.05. R square is at .979.

**Keywords:** E-payment, E-money, Payment Cards, Internet Banking, Mobile Banking

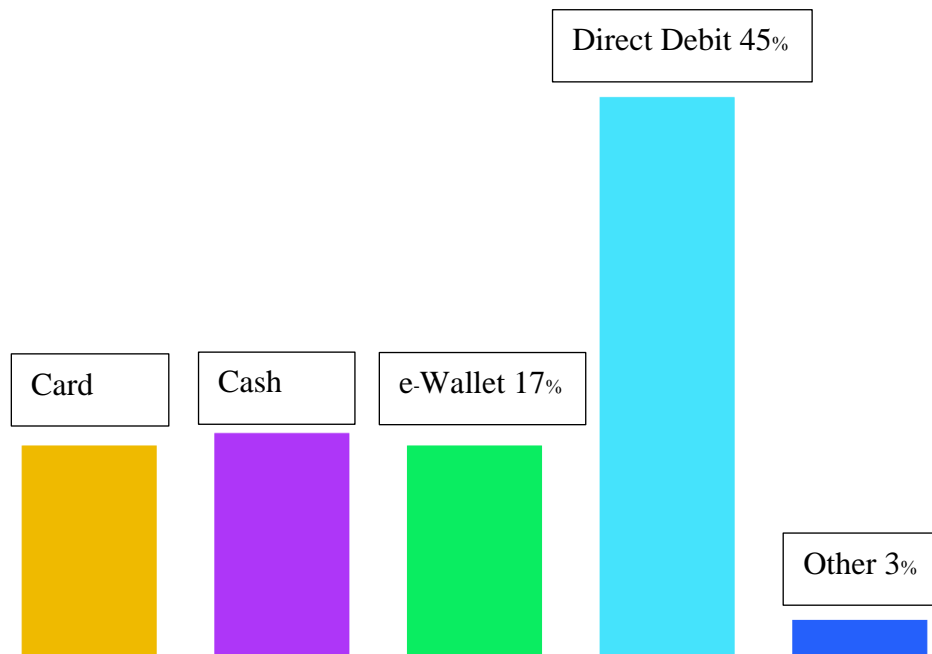
### INTRODUCTION

Covid-19 pandemic hit every part of the world including Thailand. Almost every country faced economic recession. Thailand is one of the countries that closed our country. Many companies had to shut down their operation and even their businesses. Most of them worked from home. School started to have online class via the internet and many meeting applications. Actually, people stopped going out because they were afraid of the germs. Even for the cash, some people washed every bills before using them. In 2017, Thailand E-Payment Trade Association: TEPA was established with 16 members that agree to use QR Code Standard for their services via E-Wallet and E-money. Both government and private sector has been using E-payment via credit/debit cards, mobile banking, and E-wallet to move forward cashless society.

Nowadays, there are many new financial technologies via online internet. E-payment system plays an important role in the banking and finance industry. The emerge of e-payment system in Thailand are from the following reasons:

1. Covid-19 pandemic situation. Covid-19 pandemic changed people to new normal lifestyle and drive their behaviors to be online instead of offline. Thus, e-commerce market is blooming in Thailand. People orders food and products via the internet or mobile commerce.
2. National E-Payment Master Plan. The goal of the Thai government is to develop a cashless payment system as well as to boost electronic commerce (e-commerce) transactions. Thailand used a digital push strategy to boost the usage of e-payment and m-payment systems. As a plan to reduce banknotes, the government promotes the use of mobile and internet banking increasing more than 140 % from 2012 to 2016 (Bloomberg.com, 2017).
3. New Financial Technologies. Fintech in Thailand are growing so fast since the revolution of mobile payment. The development of E-payment will enable other types of fintech services such as payment, lending, personal wealth management, and insurance

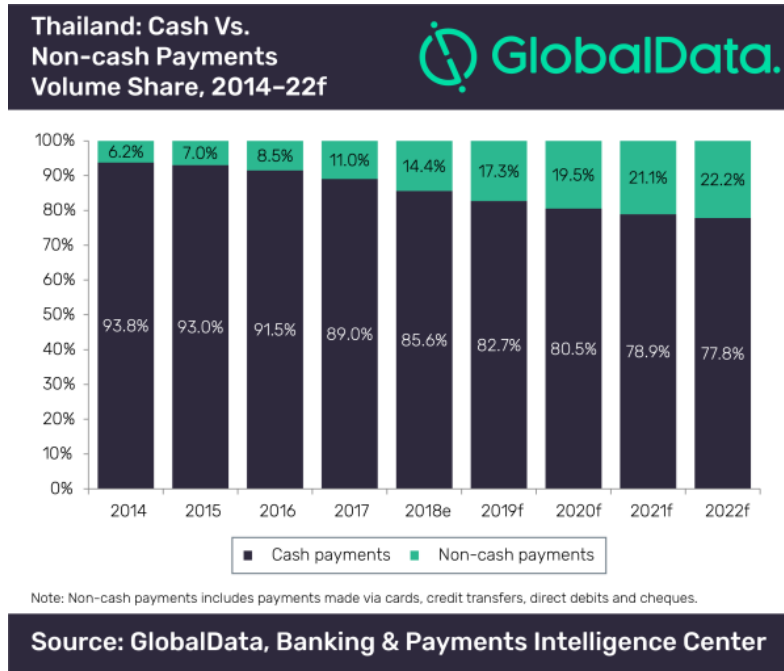
There are various e-payment systems such as smartcards, debit and credit cards, e-wallets, e-cheques, and e-cash. The increase in e-commerce transaction would lead to the rise in m-payment transactions.



Rapyd 2020 Asia-Pacific eCommerce and Payments Study

Source: <https://go.rapyd.net/thailand>

Figure 1: Most Popular Payments Method in Thailand



Source: <https://www.globaldata.com/media/banking/thailands-national-e-payment-master-plan-has-opened-door-to-less-cash-economy-says-globaldata/>

Figure 2: Thailand Cash vs. Non-Cash Payments

Estimated direct annual net benefits (Unit: THB Billion)



Estimated catalytic impacts over the next 15 years (2017-2032)



Source: Cashless city report by VISA retrieved from <https://www.scbeic.com/en/detail/product/4211>

*Figure 3: Estimated annual net benefits experienced by Bangkok if it moved to cashless society*

According to Figure 1-3, E-payment is very essential to Thailand. It can increase Gross Domestic Product (GDP), productivity, wages, and employment rates, etc. All participants which are consumers, businesses, and government will also get benefits from E-payment. The researcher then gathered all the information about E-payment and found that E-payment Transformation is changing Thai customer behaviors. Point-of-Sales (POS) is another channel that encourage E-payment. Many restaurants and department stores start to refuse to use cash and just receive E-payment.

Thus, the researcher would like to do a research on Thailand e-payment transformation in order to see Thailand e-finance systems and developments so the government or other business will be able to use the proper payment system in doing business. The results could also be beneficial for future financial development. The academic and researcher would be able to use the results of this paper to prove the theories of do further researches involved any variables that was used in this research.

## OBJECTIVES OF STUDY

1. To study e-payment transformation in Thailand
2. To investigate e-money, payment cards, internet banking, and mobile banking
3. To identify factors that affect to e-payment system in Thailand

## LITERATURE REVIEW

**E-payment systems:** E-payment system were adopted by many countries especially the developed nation. E-payment systems were developed in 1990s as alternative payment channels to make payment over internet and to develop e-commerce (Shaikh et al., 2017). People are convenient to pay anywhere and anytime.

**E-money:** Electronic money is introduced for the facilitation of e-commerce and for small value transactions. E-Money is defined by the European Central Bank as “an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument” (ECB blue book, 2001).

**Payment cards:** Payment cards are a tool of non-cash payments. They are more flexible than checks and a cash payment system. People can safely access to their money anywhere, at any time. There are several types of bank cards, including ATM cards, debit cards, and credit cards (Ryan, 2012).

**Internet banking:** Internet banking or online banking changed client's behavior and benefit the

bank in several ways. People can save time and fare performing banking activities online at home (Mols, 1998).

**Mobile Banking:** Mobile banking or m-banking is an extension of internet banking which offers many financial services via the mobile phone. (Silparcha, 2017).

Commodity Theory which is one of the theory of money showed that E-money signaled for some of the obsolesce in the radical transformation of the conception of money (Papadopoulos, 2017).

### CONCEPTUAL FRAMEWORK

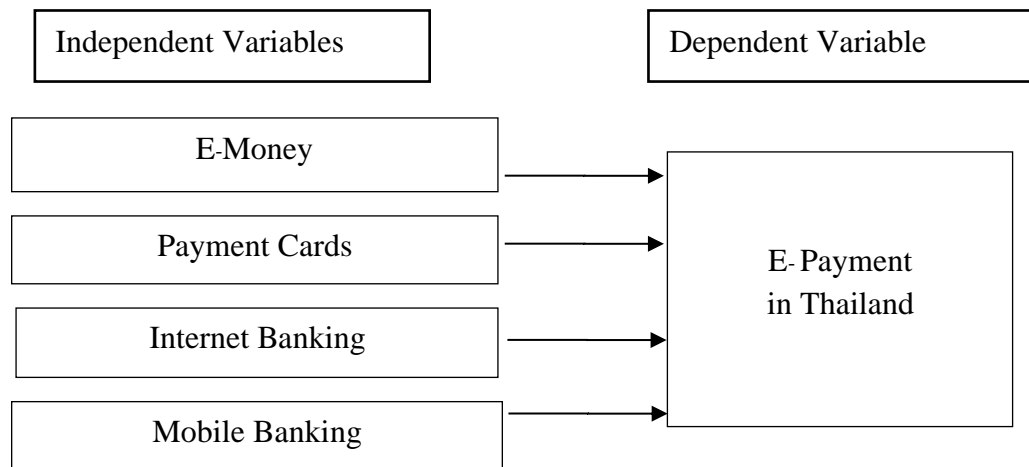


Figure 4: Conceptual Framework

### HYPOTHESES

- H<sub>1</sub>: The value of e-money affects to the value of e-payment in Thailand.
- H<sub>2</sub>: The value of payment cards affects to the value of e-payment in Thailand.
- H<sub>3</sub>: The value of internet banking affect to the value of e-payment in Thailand.
- H<sub>4</sub>: The value of mobile banking affect to the value of e-payment in Thailand.

### RESEARCH METHODOLOGY

This study used quantitative research. Second data research was used to gather information regarding Thailand payment systems. Information were collected from reliable online source which is Bank of Thailand. Multiple academic articles and journals were also studied to better understanding and reviews. The monthly data from January 2017-July 2022 was used to investigate Thailand mobile payment systems. Those data were the value of e-money, payment cards, internet banking, mobile banking, and e-payment. The independent variables are the value of e-money, payment cards, internet banking, and mobile banking. The dependent variable is the value of e-payment. The statistic application was used to analyze the hypotheses using multiple linear

regressions method.

## DATA ANALYSIS

The data collection used the monthly data for 67 months from January 2017 to July 2022. Data analysis was conducted using a computerize software package. The mean and standard deviation are as mentioned in Table 1.

Table 1: Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
E-Payment	1022231.64	627693.420	67
E-Money	167655.18	50126.304	67
Payment Cards	66117.01	11904.102	67
Internet Banking	2029.16	316.237	67
Mobile Banking	2844.63	1658.921	67

Table 2 tells about the model summary. From this table, we can see that the relationship among E-Money, Payment Cards, Internet Banking, Mobile Banking and E-payment is very important ( $R^2 = .980$ ). This result indicates that the regression line fit the data very well. From  $R^2$  value, it suggests that 98% of E-Payment can be explained by E-Money, Payment Cards, Internet Banking, and Mobile Banking.

Table 2: Model Summary

Model Summary <sup>b</sup>							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F Change	Sig. F Change	Durbin-Watson
1	.990 <sup>a</sup>	.980	.979	90446.079	779.193	.000	.616

a. Predictors: (Constant), Mobile Banking, Internet Banking, Payment Cards, E-Money

b. Dependent Variable: E-Payment

From Table 3, the results of the ANOVA test  $F=779.193$ ,  $P<0.05$ , the value of significance amounts to .000, which is less than (0.005) that imply independent variable and dependent variable are statistically associated.

Table 3: ANOVA



ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25496745388782.875	4	6374186347195.719	779.193	.000 <sup>b</sup>
	Residual	507190580786.533	62	8180493238.492		
	Total	26003935969569.406	66			

a. Dependent Variable: E-Payment

b. Predictors: (Constant), Mobile Banking, Internet Banking, Payment Cards, E-Money

In accordance with the results of Multiple Linear Analysis, the value of R square is 0.980, this model showed the four independent variables can interpret 98% of the variability of the dependent variable.

From Table 4, the topic of coefficient is about the relation between independent and dependent variable. First, the value of significance is .001 so that is less than (0.05),  $H_1$  is accepted. The coefficient between the independent variable e-money and the dependent variable e-payment is .277 that means if the number of e-money is high so the number of e-payment will higher too. This result demonstrates the Hypothesis 1: The value of e-money affects to the value of e-payment in Thailand.

Afterwards, the value of significance is .000 so that is less than (0.05),  $H_2$  is accepted. The coefficient between the independent variable payment cards and the dependent variable e-payment is -.210, that means the independent variable has negatively relationship with the dependent variable. This result demonstrates the Hypothesis 2: The value of payment cards affects to the value of e-payment in Thailand.

Next, the value of significance is .001 so that is less than (0.05),  $H_3$  is accepted. The coefficient between the independent variable internet banking and the dependent variable e-payment is .109, that means if the value of internet banking is higher therefore, the value of e-payment will higher likewise. This result demonstrates the Hypothesis 3: The value of internet banking affect to the value of e-payment in Thailand.

Lastly, the value of significance is .000 so that is less than (0.05),  $H_4$  is accepted. The coefficient between the independent variable mobile banking and the dependent variable e-payment is .827, that means if the number of mobile banking is high so the number of e-payment will also higher. This result demonstrates the Hypothesis 4: The value of mobile banking affect to the value of e-payment in Thailand.

**Table 4: Coefficients**

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-155352.058	125999.192		-1.233	.222
E-Money	3.462	1.022	.277	3.388	.001
Payment Cards	-11.092	2.906	-.210	-3.818	.000
Internet Banking	217.027	62.378	.109	3.479	.001
Mobile Banking	312.904	24.181	.827	12.940	.000

a. Dependent Variable: E-Payment

Afterwards, the outcomes of hypotheses testing are presented. Four key hypotheses are tested to determine the predictive strength of each of the relationship. According to the standardize coefficient data, the overall results indicate that, mobile banking has the highest effect to e-payment followed by e-money, payment cards and internet banking. The hypotheses test can be accepted. Coefficients enable construction of the linear regression equations that can be derived to describe this relationship. The unstandardized regression equations of the relationship among E-Money, Payment Cards, Internet Banking, Mobile Banking and E-payment can be defined as follow:

$$\text{E-Payment} = -155352.058 + 3.462(\text{E-Payment}) + (-11.092) (\text{Payment Cards}) + 217.027 (\text{Internet Banking}) + 312.904 (\text{Mobile Banking})$$

## CONCLUSIONS

Overall, the objectives of the research were effectively accomplished. The findings offered some important insights that could be applied to the financial decisions for both financial institution and businesses in setting financial and strategic policies.

**Table 5: Results of the Hypothesis Testing**

H <sub>1</sub> : The value of e-money affects to the value of e-payment in Thailand.	Accept
H <sub>2</sub> : The value of payment cards affects to the value of e-payment in Thailand.	Accept
H <sub>3</sub> : The value of internet banking affect to the value of e-payment in Thailand.	Accept
H <sub>4</sub> : The value of mobile banking affect to the value of e-payment in Thailand.	Accept



## DISCUSSION AND RECOMMENDATIONS

The hypotheses results can be summarized as follows:

- H<sub>1</sub>: The value of e-money affects to the value of e-payment in Thailand.
- H<sub>2</sub>: The value of payment cards affects to the value of e-payment in Thailand.
- H<sub>3</sub>: The value of internet banking affect to the value of e-payment in Thailand.
- H<sub>4</sub>: The value of mobile banking affect to the value of e-payment in Thailand.

These findings were consistent with the expected outcomes. Banks can use the results of this research to improve their new financial technology that can improve their e-payment systems and offer a wide range of services.

The transformation of e-finance can start from the e-payment system to other new financial technology. As we can see from the past that there will be new instruments, tools, devices, or applications that can be used to integrated our banking and financial services in the future. The E-Payment transformation will facilitate the developments of new types of payment instruments.

Government should set agenda for new financial technology using E-Payment as a tools. Thus, the master plan should abide by the regulation of financial services among ASEAN countries.

## FUTURE RESEARCH

The recommendation for future research is involved in financial areas as follows:

1. Future research can use other factors such as economic factors to prove the relationship with e-payment.
2. The researchers can conduct quantitative analysis using questionnaire to see the behaviors of Thai people in using e-payment systems.
3. The financial institutions and business can develop the new instrument for e-payment system using the opinions and comments from the research.

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# Online Experience from Shopping Applications and the Impacts on Repeat Usage and Word-of-Mouth Intention

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## ABSTRACT

This research aimed to explore the influences of online shopping experience in terms of relative advantage, perceived enjoyment and personalization on consumers' repeat usage intention and word-of-mouth intention. The questionnaires were completed by 212 private university students using purposive sampling. The descriptive statistics was used to analyze the descriptive data and structural equation modeling was used to test the hypotheses. Most respondents were female. Most of them used Shopee application to make a purchase and fashion items were most bought online. The independent variables consisted of relative advantage, perceived enjoyment and personalization. The dependent variables were behavioral intention and word-of-mouth intention mediated by consumer satisfaction. The hypotheses were supported by the data set except that relative advantage did not have a significant impact on satisfaction.

**Keywords:** Online Shopping, E-Commerce, Application, Word-of-Mouth

## INTRODUCTION

Consumers have increasingly shopped online through various platforms, especially shopping applications (Tunsakul, 2020). Shopping application is an e-commerce technology that enhances customer shopping experience and provides personalized products and services (Roy et al., 2017). Shopping applications popular among Thai shoppers include Lazada, Shopee, Big C Plus, SHEIN, TikTok Seller, Lotus's, Thissshop and ONESIAM (MobileAction, 2022).

Shopping applications like Lazada and Shopee allow buyers to meet various sellers, offer buyers personalized experience by suggesting products that they may be interested in, and provide daily or monthly special offers such as discounts and coupons.

According to Roy et al. (2017), a study of smart retail experience which has limited empirical evidence can help to contribute to information system and marketing literature. Therefore, the author is interested in exploring the influences of smart retail experience via shopping applications on customer behavior to add on empirical evidence to marketing or digital marketing field of study.

## CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES

*Independent Variables: Smart Retail Experience (Relative Advantage, Perceived Enjoyment, and Personalization)*

Roy et al. (2017) defined smart retailing as “an interactive and connected retail system which supports the seamless management of different customer touchpoints to personalize the customer experience across different touchpoints and optimize performance over these touchpoints.” Smart retailing helps to anticipate consumer needs, make recommendations based on consumer interactions and enable customers to navigate through their purchase decision journey seamlessly (Roy et al, 2017; Gretzel et al., 2015). Roy et al. (2017) proposed that smart retail experience includes relative advantage, perceived enjoyment, and personalization. Relative advantage refers to the degree at which the technology is perceived as better than the available technologies in the market (Lu et al, 2015). Perceived enjoyment refers to an affective aspect related to the extent to which pleasure or enjoyment is perceived by consumer using the smart retail technology (Choi & Park, 2014). Personalization refers to the ability of the smart retail technology to offer personalized and customized services to consumers (Neuhofer et al., 2015).

*Mediator: Satisfaction*

Satisfaction is the customer’s fulfillment response, as well as a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfillment (Zeithml et al., 2016). Zeithml et al. also verified that customer satisfaction is influenced by product and service features, customer emotions, attributions for service success or failure, perceptions of equity or fairness, other customers, family members, and coworkers.

Studies by Roy et al. (2017), Morgan-Thomas and Veloutsou (2013), and Kumar et al. (2013) revealed that customer satisfaction was positively influenced by smart retail experience. However, the results did not display the relationship between each dimension of smart retail experience and satisfaction. Therefore, the following hypotheses are proposed:

*H1: Relative advantage significantly influences satisfaction.*

*H2: Perceived enjoyment significantly influences satisfaction.*

*H3: Personalization significantly influences satisfaction.*

*Dependent Variables: Behavioral Intention (Repeat Usage Intention) and Word-of-Mouth Intention*

The behavioral intention represents a customer's likelihood to repeat his or her behavior toward using a product or a service in the future (Zeithaml et al., 2016). According to Chu & Lu (2007), behavioral intention is determined by the perceived value based on an overall assessment of the costs and benefits of a given market offering. The studies by Roy et al. (2017) and Zeithaml et al. (2016) also indicated that customer satisfaction enhanced behavioral intention. A hypothesis is then proposed:

*H4: Satisfaction significantly influences repeat usage intention.*

Word-of-mouth (WOM) has been said to have a strong influence on consumer choice (Casalo et

al., 2008). WOM can be influenced by new, innovative and unique products (Berger & Schwartz, 2011). Previous studies show that WOM is positively influenced by satisfied customers (Casalo et al., 2008; Roy et al., 2017). Therefore, a hypothesis is proposed:

*H5: Satisfaction significantly influences WOM intention.*

Figure 1 represents the conceptual model of this study, depicting relationships among all the hypotheses.

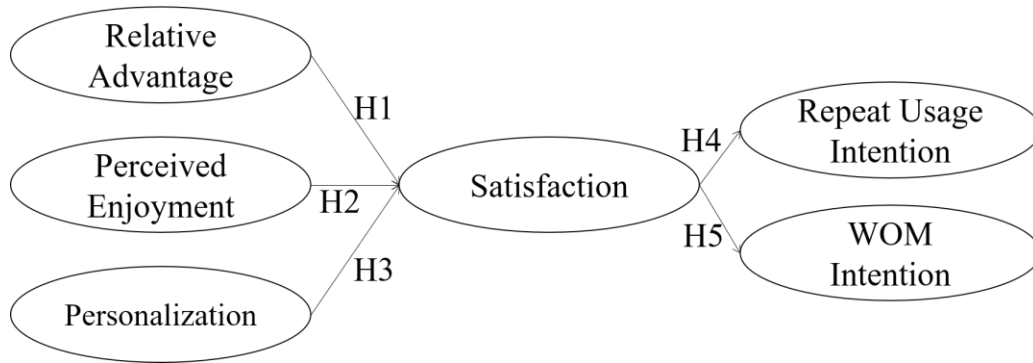


Figure 1: The Conceptual Model

## RESEARCH METHODOLOGY

### *Respondents of the study*

The target population was a private university’s undergraduates who used applications to shop online, and owned a smart phone, tablet or personal computer. The selection of target respondents was based on purposive sampling method, which depends on the researcher’s judgment that the sample would represent the target population. The target respondents were the author’s students. 212 respondents were eligible to respond to and complete the questionnaire, which was sufficient for the minimum requirement (150-400 respondents) of using Structural Equation Modeling (SEM) as an analytical tool (Hair et al., 2006).

### *Research instruments / Questionnaire*

There were totally 21 scale questions regarding all the variables. Table 1 shows list of variables and sources of measurement items, and Cronbach’s alphas. The respondents were asked to indicate their response for all questions on the scale of 1 to 5 including 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree to 5 = strongly agree. According to Table 1, the Cronbach’s alphas for all measurement items (n = 212) of each variable range from 0.825 to 0.914, which are acceptable according to Maholtra (2007).

Table 1. Summary of Reliability Statistics, n = 212

Variables	Measurement Items	Cronbach’s Alphas
-----------	-------------------	-------------------

Relative Advantage	<ol style="list-style-type: none"> <li>1) The application I frequently use is more convenient than others</li> <li>2) The application I frequently use is easier to use compared to others</li> <li>3) The application I frequently use gives me a better shopping experience</li> <li>4) The application I frequently use offers consistent results over time.</li> </ol>	0.854
Perceived Enjoyment	<ol style="list-style-type: none"> <li>1) I have fun interacting with the application I frequently use</li> <li>2) The application I frequently use provides me with a lot of enjoyment</li> <li>3) I enjoy using the application I frequently use</li> </ol>	0.914
Personalization	<ol style="list-style-type: none"> <li>1) The application I frequently use offers me personalized services</li> <li>2) The application I frequently use understands my specific needs</li> <li>3) The application I frequently use is customized to my needs</li> </ol>	0.846
Satisfaction	<ol style="list-style-type: none"> <li>1) Overall, I am satisfied with the application I frequently use</li> <li>2) The application I frequently use exceeds my expectations</li> <li>3) The application I frequently use is close to my ideal technology</li> </ol>	0.825
Repeat Usage Intention	<ol style="list-style-type: none"> <li>1) Given a chance, I intent to continue using the application</li> <li>2) I am willing to use the application in the near future</li> <li>3) I will frequently use the application</li> <li>4) I will continue using the application in the near future</li> </ol>	0.904
Word-of-Mouth (WOM) Intention	<ol style="list-style-type: none"> <li>1) I would like to introduce the app to others</li> <li>2) I would speak favorably about the app to others</li> <li>3) I would say positive things about the app to others</li> <li>4) I would assist other customers with the app I am using if they need my help</li> </ol>	0.869

## RESEARCH RESULTS

### *Demographic profile of the respondents*

The demographic profile in this study comprises two main sections including gender, and most frequently used shopping applications. Table 2 shows the descriptive data of the respondents.



Table 2. The Demographic Profile of the Respondents

Demographic Profile of the Respondents		Descriptive Statistics	
		Frequency	Percent
Gender	Male	73	34.4
	Female	139	65.6
Most Frequently Used Shopping Applications	Shopee	180	84.9
	Lazada	21	9.9
	Pomelo	3	1.4
	SHEIN	3	1.4
	Others (e.g. Tiktok Seller)	1	0.5

From table 2, out of a total of 212 respondents, the majority were female (139, or 65.6 %), while 73 respondents (34.4 %) were male. The data reflected that Shopee ranked number one among the respondents (180, 84.9%).

#### *Confirmatory Factor Analysis (CFA)*

Table 3 shows summary of fit indices of measurement model. The CFA results from this study (Table 3) with the use of modification fit indices show that the model fits with the dataset,  $\chi^2(n = 212, df = 191) = 1.978, p < 0.05$  and GFI shows quite acceptable fit, which is close to 1 (0 = poor fit, and 1 = perfect fit). For the Root Mean Square Error of Approximation (RMSEA), the smaller values indicate better model fit. The result shows the value of 0.068 while values ranging from 0.05 to 0.08 are considered acceptable, values from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit (Ho, 2006). In addition, baseline comparisons fit indices of NFI, RFI, IFI, TLI, and CFI show improvement in fit for the hypothesized model (default model) compared to the null model (from 0.900), from 0.053 (1-0.947) to 0.123 (1-0.877) appearing to be small as to be of little practical significance.

Table 3. Summary of Fit indices of Measurement Model

	Measures of Absolute Fit			Measures of Incremental Fit				
	$\chi^2/df$	RMSEA	GFI	NFI	RFI	IFI	TLI	CFI
<b>Rules</b>	< 2.0	Acceptable at 0.05 - 0.08	Close to 1	0.900	0.900	0.900	0.900	0.900
<b>Model</b>	1.978	0.068	0.865	0.898	0.877	0.947	0.935	0.946

#### *Hypothesis Testing*

The results of SEM as shown in table 4 indicate that the unstandardized regression weights are significant by the critical ratio test (C.R.  $> \pm 1.96, p < 0.05$ ) except the relationship between relative advantage and satisfaction (C.R. = 1.921,  $p = 0.055$ ). However, this appears to be a very small difference from the significance level.

Table 4: A Summary of Hypothesis Testing

Hypothesis	Unstandardized Coefficients		Standardized Coefficients	Critical Ratio (CR)	p-value	Hypothesis Supported
	B	Std. Error	Beta			
H1: Relative advantage significantly influences satisfaction.	0.098	0.051	0.117	1.921	0.055	No
H2: Perceived enjoyment significantly influences satisfaction.	0.182	0.049	0.275	3.735	0.000	Yes
H3: Personalization significantly influences satisfaction.	0.533	0.077	0.657	6.960	0.000	Yes
H4: Satisfaction significantly influences repeat usage intention.	0.997	0.099	0.863	10.056	0.000	Yes
H5: Satisfaction significantly influences WOM intention.	0.777	0.098	0.836	7.932	0.000	Yes

Figure 2 shows the structural path model with hypotheses 1 to 5. The solid lines represent the hypotheses supported by the findings while the dot lines represent those not supported by the findings. According to the structural path model, relative advantage of the application had no significant impact on satisfaction ( $\beta$  or standardized regression weight = 0.117,  $p > 0.05$ ). Perceived enjoyment significantly influences satisfaction ( $\beta = 0.275$ ,  $p < 0.001$ ). Personalization significantly influences satisfaction ( $\beta = 0.657$ ,  $p < 0.001$ ). Satisfaction significantly influences repeat usage intention ( $\beta = 0.863$ ,  $p < 0.001$ ). Lastly, satisfaction significantly influences word-of-mouth intention ( $\beta = 0.836$ ,  $p < 0.001$ ). The explained variances for all independent variables are represented by the squared multiple correlations ( $R^2$ ). The percentage of variance explained ranges from 0.700, or 70% (word-of-mouth intention) to 0.939, or 93.9% (satisfaction). For all measurement variables, the residual variances ( $1-R^2$ ) ranged from 6.1% to 30%, meaning that 6.1% of variation in satisfaction, 25.5% of variation in repeat usage intention and 70% of variation in word-of-mouth intention were influenced by other factors.

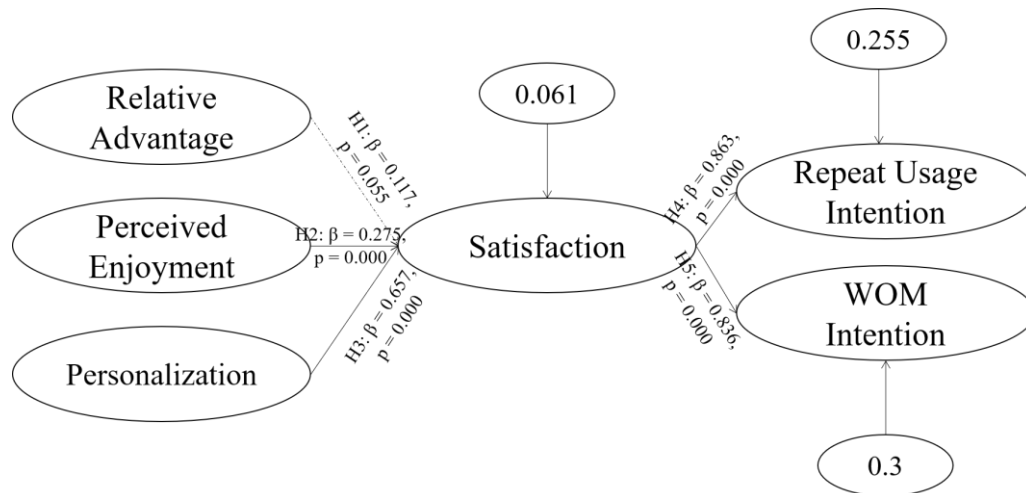


Figure 2. Structural Path Model with the Summary of Findings

## DISCUSSIONS AND CONCLUSIONS

The study has fulfilled the research objective. The results show significant relationships between variables except the relationship between relative advantage and satisfaction. Nevertheless, shopping application developers should still consider relative advantage as it does not considerably differ from the significance level ( $p = 0.055$  compared to  $0.05$ ).

This study provides some useful implications for e-commerce and online shopping behavior. Shopping applications should be convenient and easy to use, should provide a good user experience, and should offer consistent results over time. Developers should also consider making users enjoy using their applications, for example, by offering mini games for users to collect coins in exchange for discounts. Moreover, enhancing personalization will highly enhance user satisfaction according to the research result which shows a very high regression weight on the relationship between personalization and satisfaction. Enhancing user satisfaction will therefore lead to repeat usage intention and word-of-mouth intention.

### Limitations and Suggestions for Further Research

The main limitation of this study is that the respondents are all Thai nationals and adolescents, which may not represent application users in general. Future research is encouraged to expand other groups of consumers. In addition, other variables need to be further explored.

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# Impact of Social Media Advertising among University Students' Purchase Intentions Through the TikTok Platform.

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## ABSTRACT

Due to its rapidly expanding market and engagement reach, TikTok, a popular social media platform owned by ByteDance, has been more heavily incorporated into various marketing methods in recent times. Social networks are created by modern people to connect with their near and dear ones. Social media advertising is the practice of placing paid advertisements on social media platforms. These advertisements can appear in a variety of forms, such as sponsored posts, banner ads, or video ads, and can be targeted to specific groups of users based on demographics, interests, or behaviors. Social media advertising is an effective way for businesses to reach their target audience, increase brand awareness, and generate leads or sales. It can also be a cost-effective form of advertising compared to traditional methods, as businesses can set their own budget and target specific audiences. However, TikTok, a popular video-sharing social networking service, has emerged as a powerful tool for advertisers looking to reach young people. University students, in particular, are a prime target for advertisers due to their high level of engagement with social media and their willingness to try new products and services. There are a few reasons why TikTok advertising may be particularly effective at influencing university students' purchase intentions. First, TikTok's format of short, attention-grabbing videos makes it easy for advertisers to capture the attention of their target audience. Additionally, TikTok's algorithm personalizes content for each user, which can make advertisements feel more relevant and targeted to individual viewers. However, the researchers gave careful thought to this feature, which inspired them to investigate the effectiveness of marketing strategies developed for TikTok.

**Keywords:** Social Media Advertising, TikTok, Short-form videos, Purchase intentions.

## INTRODUCTION

Social media, a technological innovation that collects a variety of information and offers nonstop enjoyment and information, is the center of the modern world. Social media has grown in popularity as a marketing strategy because it allows businesses and marketers to interact with both their current and potential customers. According to Nuseir (2016), the Internet and digital media are effective strategic tools that specifically target millennials in order to meet their requirements. These days generation Z or younger generation can learn more than past generations at their age because they are digital natives and can quickly look for anything with an internet connection (Seemiller & Grace, 2017). TikTok's creative and quick-moving algorithm demonstrates its attractiveness to youthful audiences around the world as it primarily highlights short-form videos to foster joy and inspire creativity among its users (Weimann & Masri, 2021). In comparison to other

social media platforms, TikTok developed quickly, gaining a 200% market share in just two years by April 2019 (Wang, 2020). 42% of users of this video-sharing software are between the ages of 18 and 24, and it has become a cultural phenomenon (Sehl, 2020). One of the things that sets TikTok apart from other social media platforms is the focus on creative expression through short videos. The platform features a wide range of editing tools and effects that users can use to create engaging and visually appealing content. Additionally, the platform's algorithm is highly effective at promoting content that resonates with users, allowing creators with a small following to grow quickly. In terms of the use of VDO online media in 2019, consumers are likely to notice more VDO advertisements, including details on audience retention of online VDO media (Kanokwan Kankate, 2019). This suggests that as the period for VDO lengthens, consumer interest will decline. Due to this, each VDO clip is presented on the online social media platform TikTok in under a minute. Observing TikTok's popularity with Generation Z can shed light on how today's youth interpret cultural trends and engage in cross-generational interaction with marketers. However, According to We Are Social's 2020 report, companies have a chance to reach 3.8 billion online users through social media. That's 3.8 billion potential consumers. Over 800 million of those potential consumers can be reached through the social media app, TikTok. (We Are Social 2020; Kemp 2020) As TikTok's active user count continues to grow, so do the marketing opportunities.

In comparison to other platforms, such as Facebook, Twitter, and Instagram, TikTok, which is a platform that is constantly expanding, has only a few to no local research performed about its influence on marketing communication, customer behavior, and buy intention. The three aspects of TikTok advertising that this study focuses on are emotional, entertaining, and educational. Through narratives and individualized experiences, whether happy or negative, emotional commercials engage their target audience on an emotional level. Funny and visually appealing video footage makes up entertaining ads. Last but not least, informative commercials offer thorough information on brands and products. TikTok has also become a popular platform for brand marketing. Brands have been using the app to promote their products, engage with their customers, and create an online personality that aligns with the app's audience. Influencer marketing is also booming on TikTok as it's an effective way to promote products and services to a specific demographic.

In order to understand how video advertising content affects students' purchasing intentions and behavior, hence, the research is being conducted. This study helps organizations reach their marketing and advertising objectives of being seen by their target audience and receiving their intended response because short-form adverts, particularly those on TikTok, are becoming more and more popular. The effectiveness of these brief video advertising in influencing university students buying intentions is also covered in the article.

## **LITERATURE REVIEW**

A literature review is carried out to better understand the areas of research that have already been done as well as to identify future research areas that have not yet been investigated. In light of this, an effort has been made to quickly review the work being done in the area of social media advertising among university students' purchase intentions. Online social media refers to a category of internet-based platforms and applications that are designed to enable people to communicate, share information and content, and form virtual communities and networks. These platforms, which include popular sites like Facebook, Twitter, Instagram, TikTok, and LinkedIn,

have become an integral part of modern life, connecting people from all over the world and allowing them to share their thoughts, feelings, and experiences with others. Social media has also become an important tool for businesses, organizations, and individuals to promote their products and services, build brand awareness, and engage with their target audiences. However, the use of social media has also raised important concerns about issues such as privacy, cyberbullying, misinformation, and the impact of social media on mental health. Overall, social media has become a powerful tool for communication and connection, but it is important to use it responsibly and be aware of its potential negative effects. Online social media is a digital media connected with the internet system as a medium for sending information among people in a wide scope within the same network (Win Rattanatorn, 2010). Online social media is, therefore, a huge channel of marketing, especially online advertising (Ratnadolsite, 2016). Marketing is about identifying and meeting human and social needs. One of the shortest good definitions of marketing is “meeting needs profitably.” (Keller and Kotler, 2016, p.27). Video formats is a powerful approach for companies to stand out from the crowd and this could be from funny to educational, inspiring, or motivational videos. Videos could offer the personal touch, grab attention, and resonate with viewers in a way other mediums cannot (Walter and Gioglio, 2014, p.34). The concept of Online social media is a combination of technology, information, and human interfaces that enable users to create an online community and build a social network of friends (Borrero et al. 2014). Kum Tang and Koh (2017) defined Online social media as “web-based virtual communities where users interact with real-life friends and meet other people with shared interests”. Social media has advanced from simply providing a platform for individuals to stay in touch with their family and friends. Now it is a place where consumers can learn more about their favorite companies and the products they sell. Marketers and retailers are utilizing these sites as another way to reach consumers and provide a new way to shop. “Technology related developments such as the rise of powerful search engines, advanced mobile devices and interfaces, peer-to-peer communication vehicles, and online social networks have extended marketers’ ability to reach shoppers through new touch points” (Shankar et al. 2011, 30). Providing shopping services on social networks can provide business growth for retailers due to the diversity of consumers who use social media sites. The wide range of consumers utilizing social networks means that most target markets can be reached (Cha 2009). In order to be successful at communicating online, it is important to be aware of how the message is perceived by the person receiving it. This knowledge can be used to choose the right approach when advertising on TikTok, avoiding any type of patronizing attitude towards the user.

Purchase intention refers to the level of desire or commitment that a consumer has to make a specific purchase. It is a key concept in the field of consumer behavior, as it is believed to be a strong predictor of actual purchasing behavior. Factors that can influence purchase intention include a consumer's attitudes towards a product or brand, their perceived benefits and risks of the product, their perception of the price, and the influence of family, friends, and other sources of social influence. Marketing researchers often use surveys and questionnaires to measure purchase intention, which typically involve asking consumers about their likelihood of buying a particular product or service in the future. The data collected from these surveys can be used to identify patterns and trends in consumer behavior, and to inform strategies for product development, branding, and advertising. Products and services tend to sell well while creating positive impressions when they meet quality standards (Ma and Yang, 2018). There are many variables which can influence and affect purchase intention. There is stress on brands and their influence on

consumers to purchase them (Laroche et al, 1996). A willingness expressed by consumers to go either online or be offline, but to buy is discerned through purchase intention. However, there are also numerous reasons why customers do not intend to buy-mostly in case of online. (Kaur and Qureshi, 2015).

On the other hand, TikTok is a social media platform that has gained immense popularity in recent years. It is a mobile app that allows users to create and share short-form videos, often set to music or other audio. The app is known for its lip-syncing and dance challenges, as well as its comedic and educational content. Users can also share their videos on other social media platforms such as Facebook, Instagram, and YouTube. The app's algorithms use machine learning to recommend videos to users based on their interests, which has helped it to become a powerful tool for creators to grow their audiences and build communities. However, it also raised privacy and security concerns and was banned in some countries. While it has a user-base mainly targeted to younger generation, it has been widely used across all age-groups. According to Johnson (2020), with the people forced into isolation, people now have to have a different way of interacting with others and entertaining themselves. TikTok is a mobile application that has allowed innumerable users to entertain themselves by creating, watching videos, and promoting businesses through short video content. TikTok has become a social media sensation as publications have noticed and written about the TikTok users connecting over the social media platform. Even expert or non-expert content creators can upload different types of videos with filters, songs, stickers, and many other effects to make their videos more attractive (D'souza, 2021)

### **RESEARCH METHODOLOGY:**

The research is primarily descriptive. This study employed a descriptive research methodology to investigate Impact of social media advertising among university students' purchase intentions through the TikTok platform, as well as to make suggestions for future advancements in the area that can be expanded for better marketing development. It rigorously evaluates the social media platform such as TikTok to know the university students' purchase intention through this platform. It is important to understand that descriptive research relies on published works, peer-reviewed publications, reliable databases (such Euromonitor and the Worldpay Annual Report), news reports, etc. According to the literature reviews, this paper describes the possible effects of social media advertising among University students. The study offers general information about social media platform such as TikTok and also the university students' purchase intention through this platform.

### **DISSCUSSION & RESULTS**

Social media refers to a variety of online platforms and technologies that allow users to create and share content or to participate in social networking. This can include things like text posts, images, videos, and live-streaming, as well as tools for commenting, liking, and sharing. Some examples of popular social media platforms include Facebook, Twitter, Instagram, and YouTube. Social media has become an important part of everyday life for many people, and it has also become a significant tool for communication and marketing. However, it has also raised concerns about issues such as privacy, misinformation, and cyberbullying. As such, there's ongoing discussion and debate about the impact of social media on individuals, communities, and society as a whole.

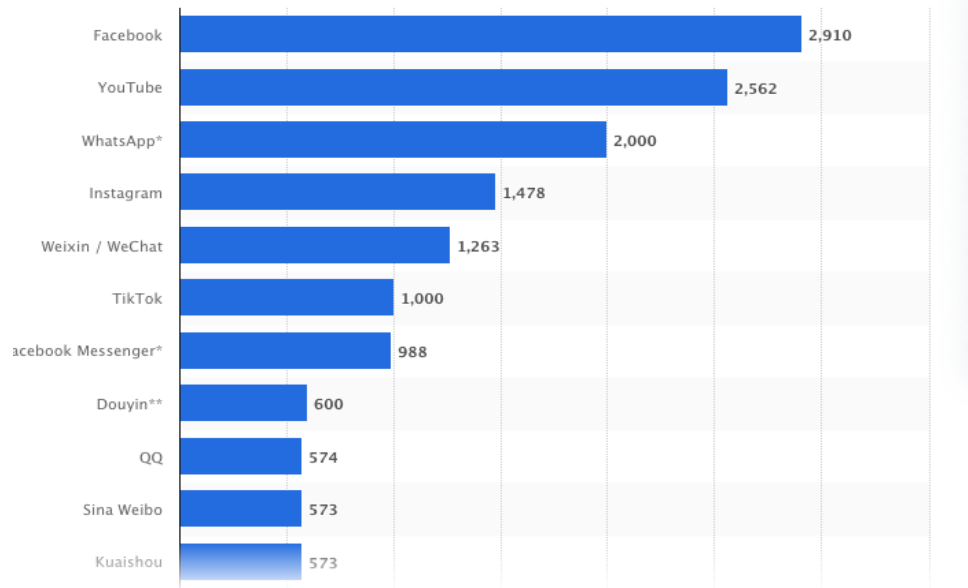




There are many different social media platforms available, each with its own unique features and target audience. Here are a few examples:

- Facebook is one of the most popular social media platforms, with over 2.7 billion monthly active users. It allows users to create personal and business profiles, share updates and photos, join groups and pages, and connect with friends and family.
- Twitter is a microblogging platform that allows users to share short messages, called tweets, of up to 280 characters. It's popular for real-time news updates, following celebrities and influencers, and for use by businesses for customer service and marketing.
- Instagram is a photo and video sharing platform that allows users to share visual content with a variety of filters, editing tools, and other features. It's particularly popular among younger users and is used by businesses for influencer marketing, product promotions and brand building
- YouTube is a video sharing platform that allows users to upload, share, and view videos. It's the second largest search engine after Google and is popular for watching music videos, tutorials, vlogs, and other types of videos.
- TikTok is a short-form, video-sharing app that allows users to create and share 15-second videos. It's popular among younger users and is widely used for lip-syncing, dance, and comedy videos.
- LinkedIn is a social networking platform for professionals and businesses, allowing users to connect with people in their industry, apply to jobs, and share articles and updates relevant to their field.
- SnapChat is an instant messaging and multimedia mobile application that allows users to share pictures and videos (referred to as snaps) that are meant to disappear after they are viewed. It's popular among teenagers and young adults and it's also known for its variety of filters that can be applied on the images and videos.

These are just a few examples of the many social media platforms that exist. Each platform has its own unique features, target audience, and use cases.

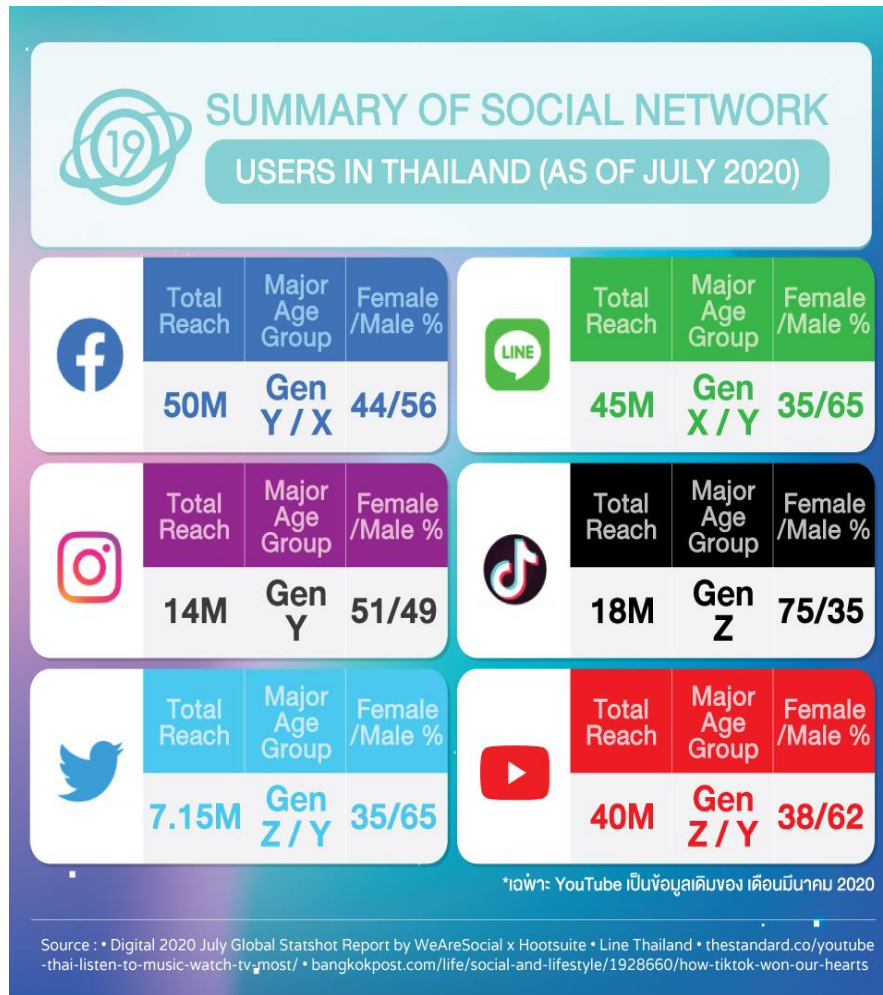


**Figure 1:** Different Social media platform and their user numbers (in million)

However, Thailand has a high number of social media users, with a large percentage of the population being active on various platforms. According to a survey conducted in 2020, around 57 million people in Thailand are active internet users and around 55 million of them use social media. Here are a few key statistics about social media use in Thailand:

- Facebook is the most popular social media platform in Thailand, with over 40 million monthly active users, making up around 73% of the total social media users in the country.
- Instagram is the second most popular social media platform in Thailand, with around 16.5 million users, representing around 30% of the total social media users.
- TikTok is relatively new in Thailand but it's gaining popularity, especially among young people. As of 2021 TikTok had around 8 million monthly active users.
- Twitter and LinkedIn are not as popular as the above-mentioned platforms, but they still have a significant number of users in Thailand.
- Line is another social media platform that's very popular in Thailand, with around 40 million monthly active users. Line is not only a chat and messaging app but it also has many features such as video call, social games, video and music streaming, news and shopping.

In general, the majority of social media users in Thailand are young and educated, and they use social media primarily for communication and entertainment purposes. The rise of internet penetration and smartphone usage in the country has greatly contributed to the high number of social media users.

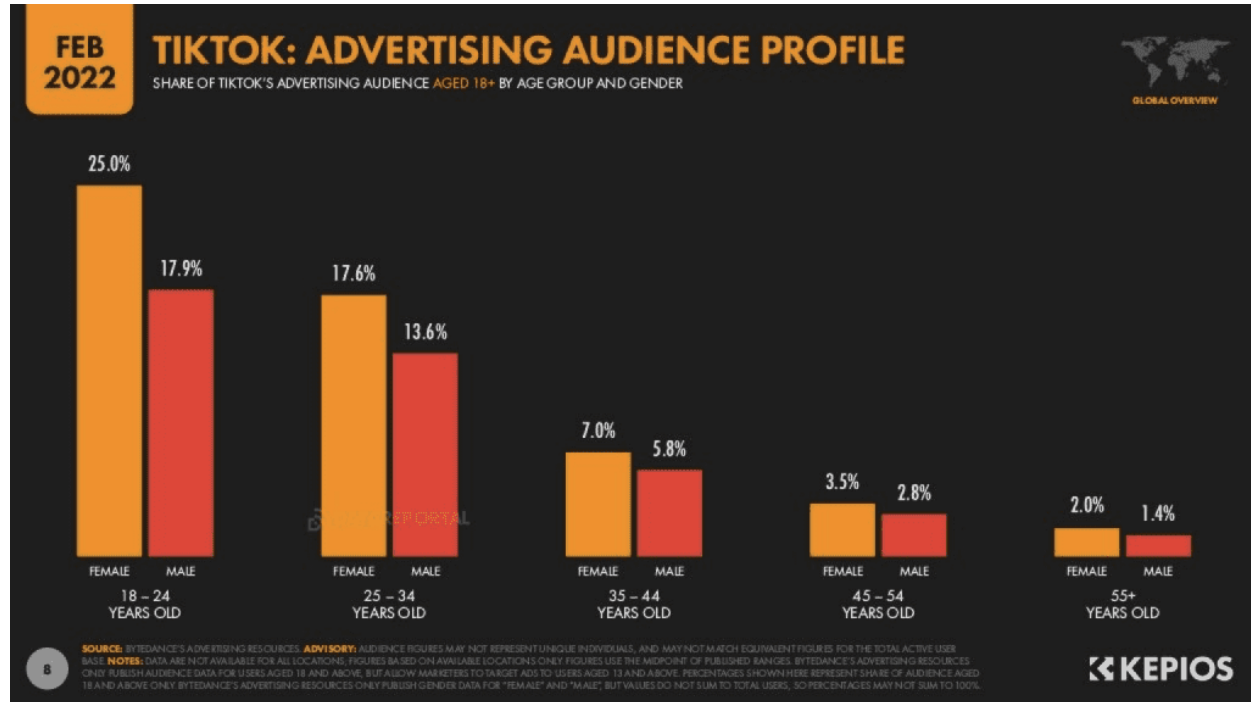


**Figure 2:** Summary of Social Network users in Thailand

The audience on TikTok is primarily made up of younger users, with the majority of users being between the ages of 16 and 24. According to TikTok's own statistics, around 60% of its users are under the age of 30. TikTok's audience is also quite diverse, with users from all over the world and from a wide range of backgrounds. In terms of gender, the platform has a relatively even split between male and female users, with males slightly outnumbering females. TikTok users are highly engaged with the platform, spending an average of 52 minutes per day on the app. They use TikTok primarily for entertainment, with the most popular content categories being comedy, music, and creative arts.

This audience profile is quite diverse, making it an appealing platform for a wide range of advertisers and businesses. However, it's worth noting that the audience profile can vary depending on the region and target market.

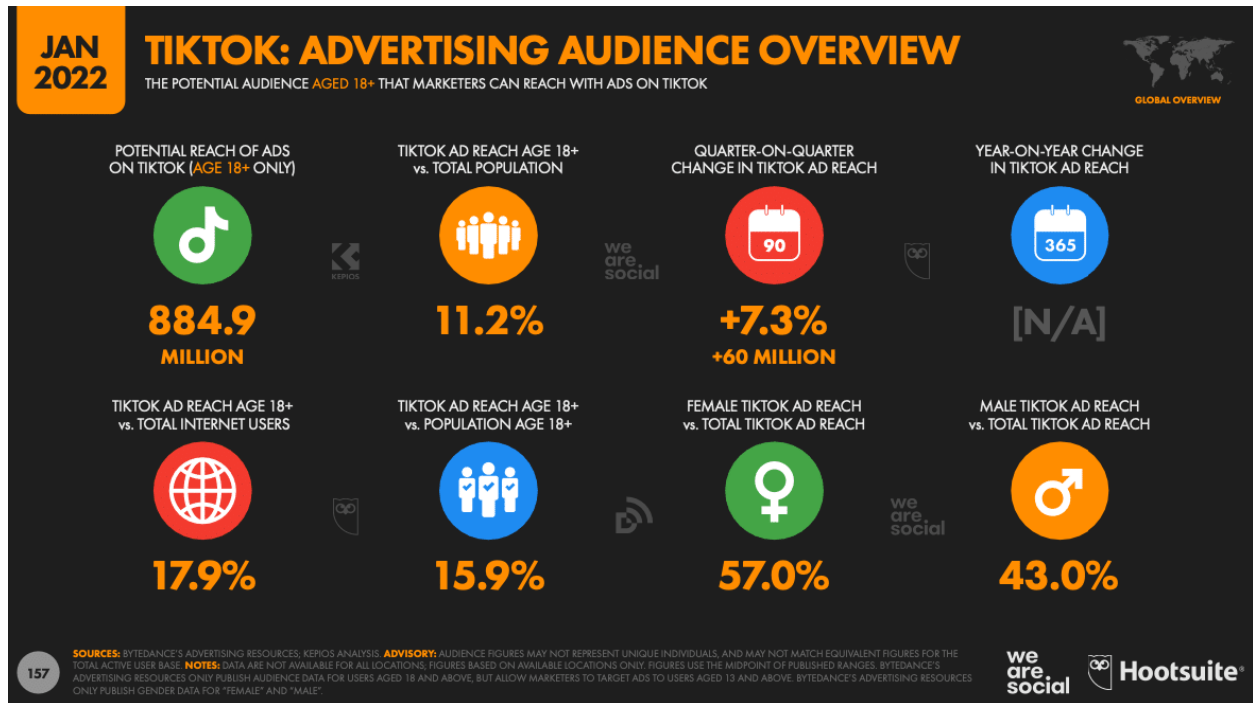
Advertisers on TikTok can use various features of the platform such as in-feed video ads, branded effects, brand takeovers, and hashtag challenges to reach the audiences. Additionally, TikTok has been working on expanding its advertising capabilities and also providing more targeting options for advertisers. It's also important to note that advertising on TikTok is still relatively new, so the audience and advertising landscape is constantly changing and evolving.



**Figure 3:** TikTok: Advertising audience profile

With over two billion active users worldwide and an average of 38.6 minutes spent on the app each day, TikTok is driving ecommerce sales across the globe. TikTok’s data on “community commerce” points to the transformation of the app into a Bonafede shopping platform:

- 67% say TikTok inspired them to shop even when they weren't looking to do so.
- 73% feel a deeper connection to brands they interact with on TikTok, compared to other social media platforms.
- 78% agree that the best brands on TikTok are ones that share their ideas and work together with users.



**Figure 4:** TikTok: Advertising audience overview

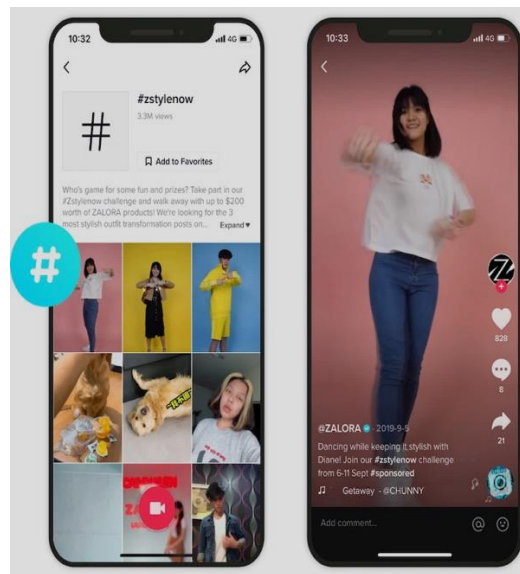
On the other A hashtag challenge on TikTok is a trend or campaign that encourages users to create and share videos using a specific hashtag. These challenges can be created by TikTok itself, by popular users on the platform, or by brands and businesses as a form of marketing.

Here are a few key points about hashtag challenges on TikTok:

- Hashtag challenges are a popular way for users to discover and engage with new content on the platform. By searching for a specific hashtag, users can see a feed of videos that have been created in response to a challenge.
- Hashtag challenges often have a specific theme or prompt, such as a dance routine or a comedic skit, that users are encouraged to recreate in their own videos.
- These challenges can be trending for a short period of time and can be started by anyone, including brands, celebrities, and influencers, with a considerable following to reach a large audience.
- Some challenges can become viral and attract millions of views, making them a powerful tool for creators to gain exposure and grow their following.
- Brands can leverage these trending hashtag challenges to create engaging content, increase brand awareness and reach new audiences by sponsoring challenges or creating their own challenges.

- TikTok also provides analytics on hashtag challenges so that brands can measure the performance of their campaigns, track audience engagement and reach.

Overall, hashtag challenges are a popular and effective way for users to discover and engage with new content on TikTok, and for brands and businesses to reach new audiences and promote their products or services. But it's important for brands to understand the trends and the audience before launching a challenge, to make sure it aligns with their target market and the message they want to send.



**Figure 5:** TikTok Hashtag Challenges

University students are an important target demographic for brands on TikTok, as they are a highly engaged and active user base on the platform. Brands can reach this demographic through a variety of methods, including:

- **Hashtag challenges:** As I mentioned earlier, TikTok hashtag challenges are a popular way for users to discover and engage with new content on the platform, and they can also be a powerful tool for brands to reach university students. Brands can sponsor popular challenges or create their own challenges, which will be visible to a large number of users who are searching for that specific hashtag.
- **Sponsored promotions:** Brands can also reach university students on TikTok through sponsored promotions, such as influencer campaigns or branded content. This can be an effective way for brands to build trust and credibility with university students, as they can see their peers using and recommending the brand's products or services.
- **Paid advertisements:** TikTok also provides a wide range of paid advertising options, such as in-feed video ads, branded effects, and brand takeovers. These advertisements can be targeted towards university students, and will be visible in the TikTok feeds of the users who match the target demographic.

By using these methods, brands can expose university students to their products and services and build awareness, trust and loyalty among this demographic. It's worth noting that, as with any demographic, it's important for brands to understand the interests and behaviors of university students on TikTok before developing a strategy, this will help them create more effective content and campaigns that will resonate with the target audience.

## **CONCLUSION AND RECOMMENDATION**

The research study examined the influence of brand awareness and recall on the purchasing intentions of students who viewed marketing campaigns on TikTok. The study found that while marketing campaigns on the social media platform had a notable impact on the brand awareness of university students, it did not have a significant effect on their brand recall. This study is important in filling the gap of knowledge on TikTok, and will be useful for future research, marketing professionals, and other related individuals in planning their campaigns.

Consumer purchase intention on TikTok can be influenced by a variety of factors, including brand awareness, recall, and emotional engagement.

Brand awareness refers to how familiar a consumer is with a particular brand or product, and it can influence a consumer's decision to purchase. On TikTok, brands can increase their visibility and awareness by creating visually-appealing videos that align with popular trends and challenges, leveraging influencers and micro-influencers, and using the platform's targeting and ad-serving capabilities to reach specific audiences.

Brand recall, on the other hand, refers to a consumer's ability to remember a brand or product after they have been exposed to it. Research has shown that brand recall can be influenced by brand awareness, but it's also important for brands to create memorable and distinctive marketing campaigns that can stand out in consumers' minds. On TikTok, brands can use creative and unique branded hashtag challenges, and e-commerce features such as the "shop now" button to drive recall and conversion.

Emotional engagement refers to how well a brand or product is able to connect with a consumer's emotions. Research has shown that emotional engagement can be a powerful driver of purchase intention. On TikTok, brands can create relatable and emotive advertisements that align with the interests and preferences of Generation Z, using storytelling, humor, and relatable scenarios to evoke emotions.

It's worth noting that these are not the only factors that can influence consumer purchase intention on TikTok, and businesses should also stay informed about the latest trends and features on the platform to make the most of their marketing efforts.

However, Marketing campaigns on TikTok can be an effective way for brands to reach and engage with a younger, highly mobile, and visually-oriented audience. Some of the ways that brands have been using TikTok for marketing include:

- Creating short, visually-appealing videos that align with popular TikTok trends and challenges. This can help brands to quickly gain visibility and engagement from TikTok's users.
- Leveraging influencers and micro-influencers on TikTok to create sponsored content, which can increase brand awareness and credibility among users.
- Creating branded hashtag challenges that encourage users to create their own videos using the brand's products or services.
- Utilizing TikTok's e-commerce features such as the "shop now" button, to drive sales and conversions.
- Using TikTok's AI-powered targeting and ad-serving capabilities to reach specific audiences based on demographics, interests, and behaviors.

However, TikTok's popularity among university students are due to its ability to connect users with others and provide a platform for them to express themselves emotionally. Brands and businesses should take advantage of this by creating relevant, timely, and relatable short-form video advertisements on TikTok. university students are also known for being vocal about their interests and preferences, so appealing to their emotions through advertising can be an effective way for businesses to connect with them. It's important for businesses that plan to use TikTok as a new platform for advertising to focus on the emotional engagement they can provide to consumers.

However, the study showed that TikTok might be a venue to promote to younger consumers, but they want discreet and engaging promotions or commercials. Due to the abundance of diverse videos in the "For You" area that are not from the individuals' users follow, users consume a variety of information. As previously stated, brands need to be careful about the kind of content they create in order to gain traction. Branded content needs to be able to capture consumers attention within the first five seconds. If brands want to advertise through this program, it is advised that they do so by hosting challenges in which a variety of people can take part and interact with the company, increasing brand recognition.

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# Exploratory Analysis of Factors Influencing Strategic Planning for Agribusinesses in Thailand

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## ABSTRACT

This study explores and analyze the factor influencing strategic planning for agribusiness in Thailand. Thailand relies on agriculture sector for long time ago. Thai government also has launched several policies to support Thai agribusiness. However, there are many factors influencing that the farmer should be consider in order to imply in their business. Therefore, this study will identify the factors influencing then propose the suggestion for the future study regarding this topic.

**Keywords:** Factors influencing, Strategic planning, Thailand, Agribusiness, Thailand, Thai Agribusiness, Agriculture.

## INTRODUCTION

Thailand is well known as one of the top agriculture countries over the decades. Following the geographical, Thailand can be divided into four regions as Central, Northern, Northeastern and Southern. Each region has their specialty and different from others in term of temperature, topography, and the social culture which affects the living of the particular social group in each region. The Northern region has typically cooler temperature than other regions and also consists of the richness of natural resources including high green mountains and a long river connected the Northern with Central region. Whereas, Northeastern region differs from Northern region in term of temperature and social culture. There is some similarity in topography which consists of mountains where in Northeastern region is diverse in environment, culture, and land use (Choenkwan et al, 2016). The Central region consists of large amounts of flat land, good soil, warm weather and rain and a multitude of rivers or canals as specially the most important river in Thailand called Chao Phraya River where has the most influencing toward the agriculture in this region. Lastly, the Southern region are located both on the east side of the country on the Gulf of Thailand and on the west side on the Andaman Sea. As Southern region is influenced by the sea on both sides, which means that it is heavily rained on for most of the year. Most areas are flat, with rolling and mountainous terrain made up of major mountains.

Thailand population is continuing increase every year. Currently in 2018, according to United Nations, the population in Thailand increases to 69,213,716 which Fifty-two percent of population live in urban area (Worldometers, 2018). Another half of population living in rural area which Ninety percent of the rural population is living by farming especially rice cultivation, field crops, fruit, and persistent crop production as their core income (Nualnatna, 2000). The total area is

approximately 514,000 square kilometers (Worldometers, 2018). Accordingly, around Forty percent of the Total land in Thailand is utilized for agricultural purposes, another thirty percent is forest land and twenty percent is unclassified land. As Thailand is overwhelmingly an agricultural country. Recently, in 2017. About nine percent of the gross domestic product is gotten from agricultural products. Although, agricultural products in Thailand have been produced not only for domestic market but also trading with the international market which became the main source of income from exporting. As well as the exporting value in agricultural product sector is increasingly growing every year. Presently agricultural exports establish about 25 percent of the total export value (Suphannachart & Warr, 2010).

## **PROBLEM STATEMENT**

As Thailand depend on agricultural sector for long time, Thai farmers also have to face with a lot of obstacles including from natural disasters and also economic crisis. Thai government became an important organization who supported those farmers and help them pass through those situations. Although especially for ministry of agriculture, always come with the new policies to support Thai farmer including offer a training or expertise's' advise. Thai government also came with the new policies and strategies to support Thailand farmers in many ways.

Recently, Thailand government introduced the new policy in 2016 which called "Thailand 4.0", a new economic model built up to develop and improve the middle-income gap. For agricultural sector, Thailand 4.0 aims to increase farmers' income up from 56,450 baht to 390,000 baht within the next 20 years. From Thailand 4.0 policy, Thailand government needs to come up with the new strategy to support the policy in order to reach the aim of Thailand 4.0. In the past few year, Thai farmer already adopted some technology and innovation to use in their production. In the late 20th century, Thailand had transformed from existence agriculture to agribusiness, and then to an industrializing economy.

However, Thai farmers need to understand the strategic planning in agribusiness in order to gain the competitive advantage from the government supporting. Moreover, Thai farmers must understand the factors influencing strategic planning in agribusiness. So, this study would like to explore the understanding of Thailand crop farmers toward strategic planning, to examine the factors influencing strategic planning among selected crop farmers in Thailand, and finally to explore effectiveness of strategic planning among selected crop farmers in Thailand.

## **STRATEGIC PLANNING IN AGRIBUSINESS**

Strategic planning includes the long-run and short-run strategies that aim to develop the competitiveness and profitability of the firm in order to create the competitive advantage for the firm. In 2010, McNamara defined the strategic planning as the instructive of the overall purpose and objectives of the business and how those objectives will be accomplished. This strategic planning may involve the development of agribusiness firm in term of developing new creativities of the firm such as organic production, on-farm processing, online marketing of your commodities to consumers, or even the efficiency in production for commodities.

The aim of strategic planning process is to design an agribusiness firm that will lead the business to

achieve their goal which including personal goals and business goals. There are many literatures that mentioned about Strategic planning or Strategic development of Agribusiness firm. For instant, the strategic planning from Extension and Outreach, Iowa State University, USA (Hofstand, 2016)., following their processes and information requested, it seem to be suitable with the big firm to follow the process rather than a small or normal firm especially family farming. In order to follow this strategic planning, the management team needs to prepare a lot of information from both internal and external. However, this strategic planning is including both strategy formulation stage and strategy implementation stage.

The second strategic planning from University of Maryland Extension, USA, comparing with the previous strategic planning, this strategic planning is much easier to follow and also has a clear procedure for the farmers to follow (Beale et al, 2008). This Maryland strategic planning also includes both formulation and implementation stage. The analysis model used in this strategic planning is SWOT analysis which is not much complicated and too advance for farmers to follow and implement.

The third strategic planning from the New Zealand Grassland Association, New Zealand, is the only one strategic planning among others that focuses with the timing of the planning rather than step-by-step planning as they separated the plan into three plans from long-term plan; One-to-five year, within one year and short-term plan; Day-by-day plan (Neal et al,1993). However, this strategic planning also including the information required for the analysis from both international and national economics, although selected and focused with validate and verify information.

The fourth strategic planning from Instituto Federal de Maranhão, Brazil, this strategic planning suitable with both big and small firms (Neal et al, 1993). The processes are intensive but easy to follow. Even though, this strategic planning is required a lot of information to do the analysis but it will help the firm to select the fit strategic at the end. This strategic planning includes both strategy formulation and implementation stages. Moreover, the strategic planning implementation stage for this strategy added the implantation policies in order to keep maintain, tracking, and verify the potential and effectiveness of selected strategy.

The fifth strategic planning from Grains Research and Development Corporative, Australia, this strategic planning initiated for family farming (Long, 2017). The procedure is clear and easy to follow. Therefore, this strategic planning only includes formulation stage.

## **FACTORS INFLUENCING STRATEGIC PLANNING IN AGRIBUSINESS**

In the business, there are several factors that could be influencing the strategic planning process or decision in the firm. From the previous literatures, there is a study that found the factors that influence the strategic planning process or decision. The following are some significant factors that influencing strategic planning especially in agribusiness which this study can defined into 8 categories as;

### ***Leadership***

Leadership has a direct effect toward the ability of the business and take an important part to driven the business to able to archives goals and objectives. The previous study states that leadership as

giving the accompanying jobs; giving of requests which are clear, total and inside the abilities of the subordinates to achieve the assignments for accomplishing expected targets. This shows authority has a basic task to carry out in key arranging process. Leadership also plays the significant role in implementing strategic plan as leaders must be able to dedicate the direction of strategic into the final accomplishment. Therefore, we can say that leadership is an important factor influencing strategic planning of business as it is one of the key driven businesses into the successful business further (Kiptoo & Mwirigi, 2014).

### ***Organizational structure and culture***

Organizational structure and culture are also the factors influencing strategic planning processes in organizations. The organizational structure enables the free flow of information inside the organization. This could be state that the organization structure is an essential factor toward how strategic planning can be implemented in business. The organizational structure can be divided into two major categories as 1) mechanistic organization and 2) organic organization

1) Mechanistic organization can be defined as “the organization which hierarchical and bureaucratic (Chantal, 2012)” The organization with this type of structure will be normally hold tight control over processes or workers. The characteristics of mechanistic organization are; Centralization in term of decision making as the most communication is vertical, Standardization in order to strict used of rules and standard in operating production, and workers found to work individually on their own assigned tasks.

2) Organic organization can be defined as the organization structure which very flexible and is able to adapt to change. The characteristics of organic structure are; Decentralization which lead to great deal of formal and informal participation in decision making, Mutual Adjustment in case of face-to-face contact for coordination, and workers found to work together with other or work as a team.

Whereas, organizational culture is defined as “the underlying beliefs, assumptions, values and ways of interacting that contribute to the unique social and psychological environment of an organization (Gothamculture, 2010)”. The organizational culture includes values, vision, symbols, beliefs, norms, habit, and so on. Leading to the successful of strategic planning of business, it’s essential that the organizational culture plays a main role and the planning team should be able to encirclement culture change within the firm or team.

### ***Availability of resources***

Availability of resources is one of the major factors influencing the strategic planning especially for agricultural or agribusiness firm. The resources could be including human resources, financial resources, and input capital for the productions (Odera, 2014). Availability of resources determined the firm capability to develop and support the formulation of strategic planning. As one of the important steps to formulate the strategic planning of the firm as the firm has to consider whether the availability of resources will be able to support or driven the strategic plan or be able to support and be effectiveness during the implementation stage.

### ***Government policy***

Government policy is one of factors influencing strategic planning of the agribusiness form. Government policy can definitely influence the strategic planning in term that the government

could be intervene or give subsidies to some commodities in agricultural sector which will be an external influencing which affect the strategic planning of the firm in case that the farmers must try to formulate the strategic to react and corroborate with the policy that government gives to the farm.

Government policy or Agricultural policy that could affect the agricultural sector can be define into two main actions as 1) Government intervention and 2) Subsidies.

1) Government intervention occurs when the government came to control the market or some commodities which mostly occurs with agricultural products. This could be affecting the strategic planning of agricultural firm as the firm has to formulate and develop the plan that along with the intervention policy.

2) When government lunches subsidies policy to support the farmer, this could also affect the strategic planning of the firm in the same way with the intervention as the firm has to develop their plan in order to be successful in the market or gain much competitiveness of the subsidies as the firm can (Singhapreecha, 2014).

### ***Nature of commodities***

Nature of commodities is one of the factors influencing strategic planning of the firm in term that each commodity has differences in their nature and characteristics of the commodities which the management team or farmers have to involve this factor and consider when formulating the strategic (Hofstand, 2016). Nature of commodities can also affect the elasticity of the commodities. Therefore, nature of commodities became one of the factors influencing strategic planning of firm. For instance, the characteristics or nature of agricultural commodities can define as (Account learning, 2017);

- 1) Agricultural commodities often quickly unpreserved.
- 2) Agricultural commodities always be a bulky in nature.
- 3) Agricultural commodities are difficult to control in both quantity and quality.
- 4) Agricultural commodities are hardly to differentiate from one another.
- 5) Agricultural commodities were affected by natural.
- 6) Agricultural commodities' elasticity of demand often be an inelastic.

### ***Market trends***

Market trends influence the successful of strategic planning in term that the firm has to select the strategic planning that suitable with the market trends to be able to gain the competitiveness in the market (Ng, 2005). Market trend involves in external analysis in strategic formulation stage as in part of industrial trend. Market trend or industrial trend identifies change and trend within the industry or market among the competitors (Hofstand, 2016). It can be identifying the whole market or even niche or specific market segment which depend on the firm and the strategy of each firm. Market trend also affects the market price and market structure. Thus, it is very important for the firm to consider this market trend as one of factors influencing the strategic planning in order to find the fit strategy for the firm and in order to be effective in strategy implementation process.

### ***Competitors' influence***

Competitors' influence is external factor influencing the strategic planning of the firm (Ng, 2005). The degree of competitors' influence affects the strategic planning in the way that the firm must be aware of the competitors' influence to enhance competitive advantage of the firm and formulate the fit strategy for the firm. Normally, the reason why the business has to formulate their strategic not

only to gain the competitiveness of the firm but in order to compete with the rivalry or competitors in the market. Competitors' influence could be both opportunities and threats for the firm. It depends on how the management team deals with the competitors. There are the aspects that the firm can identify the level of competitors' influence that could affect the strategic planning of firm (Olsen, 2018).

- 1) The structure of competitors: the competitors seem to be high when the market is perfectly competitive rather than having a leader in the market.
- 2) Growth objectives: the competitors seem to be higher when the market is in growth stage as all the firms will focus on the growth of their firm and gain as much consumers as they can. When comparing with other stages such as maturity, the competitors may focus to survive and maintain their market position rather than the growth.
- 3) Exit barriers: when the cost of exit the market is high, the number of competitors in the market tend to be high as the new entries came but they do not want to lose their profit from leaving the market which expensive or difficult to go out.
- 4) Degree of differentiation: the degree of differentiation in the commodities affect the degree of competitors in the market. The competitors seem to be high when there is a high degree of commodities differentiation.
- 5) The structure of the market/industry cost: when the structure of industry cost is high, it will affect the price in market following that the competitor will cut the price after they already met the economy of scale which will affect another firm in competing in the commodities price.

### ***Farmer behavior***

Farmers behavior could be identified into five types by Dr. Garforth, a researcher from the Farmer behavior could affect the decision making in strategy formulation process. As the farmer University of Reading, UK (Bezuidenhout, 2015) as;

- 1) Family orientation: this type of farmers behavior is where farmers tend to focus with their family and how to pass on a workable business to the next generation of their family.
- 2) Business/entrepreneur: the farmers in this type is more strictly with the professional of the business. They tend to maintain to achieve the goal, focus on investment in order to grow their business, and also focus on staffs or workers management.
- 3) Enthusiast/hobbyist: this type of farmer's main occupation and income sourcing are not from farming business. They have low attention to the profit or financial aspect from farming.
- 4) Lifestyler: the farmer in this type focuses on family income standard of life which they try to increase family income from farming business. However, the farmers also try to balance to generate the high income with reducing workload and more time spending with their family and friends.
- 5) Independent/small farmer: These farmers focus on family standard of living, but not much focus on quality of life which they do not focus much on increasing or generating the profit from farming.

Farmer behavior influences the strategic planning as the lifestyle or behavior of farmer could affect the decision making and also how serious the farmers will be focus and give attention to the strategic planning. Also, farmer behaviors are part of farm value or business value which in part of strategic planning (Long, 2017).

## **DISCUSSIONS AND CONCLUSIONS**

### ***Strategies used in Agribusiness in Thailand***

From time to time, the strategic used in agricultural sector in Thailand has been change during the time following the strategic decision in order to driven the farm business to the successful farming and in order to compete within domestic market and also be able to compete internationally. The following are some of strategies that have been used recently by Thai agribusiness or farmers.

#### ***Smart Farming***

Smart Farming came along with Thailand 4.0 policy which it supported the agricultural sector moving from ‘traditional farming’ to ‘smart farming’. Although, smart farming became a hope for Thai farmers to increase their income from adapting the new technology into their production. Thai government wishes that when Thai agriculture sector is strong, it will lead to sustain in Thai economy (Saenpassa, 2017). Moreover, in order to compete with the international competitors, the twenty-first century skills are needed to improve and driven the farm into the future. The farmers nowadays have to be not only a laborer but also a businessman with an updated information and understanding new technologies (Peak Recruitment Consulting, 2017). Thai government by the ministry of agriculture and co-operatives supported ‘Thailand’s Smart Farming policy’ by educated over 182,000 people to help farmers understand the concept and be aware of new technologies and innovations that could help them create a better quality of life and generate greater profit. The agriculture and co-operative minister general Chatchai Sari-Kulya (Saenpassa, 2017) mentioned that “If our smart farming policy achieves its goal, we should be able to help farmers out of the middle-income trap within the next two decades” Smart Farming also aims to increase the annual yield per rai by reducing unproductive, water consumption, fertilizers, insecticides, and other chemicals (Pugnatorius, 2018). Not only Thai government that came to support Thai farmers on this Smart farming but only non-government organizations such as universities, companies, or non-profit organizations came to help Thai farmers by providing a technology to support the farmer while they are doing research to improve the effectiveness of technology and to be able to educate Thai farmers also.

#### ***Sustainable Agriculture***

Sustainable agriculture is among the main reform policy from Thai government that aims to overcoming the negative impact of economic which cause to poor farmer economics insecurity in Thai countryside area, and also preventing the chemical pollution from chemical fertilizers which harm both farmers’ health and land (Amekawa, 2010). The sustainable agricultural in Thailand can be defined as 1) changing from monoculture to crop rotation or mixed farming 2) choosing high generated income commodities 3) improving soil quality and 4) reducing chemical fertilizers or we can say that sustainable agriculture could happen when farmers try to improve or develop their production under ecology, economics, and social conditions.

There are five sustainable agriculture practices in Thailand as (Suksri et al., 2008);

1. Integrated farming: having at least two activities in the same field in order to reduce cost as it will meet with economy of scale. This practice is suitable with a small-scale farmer which commonly used in the central area of Thailand as there is an availability of water consumption during the year. The commodities that commonly produce inside this integrated farming are paddy rice, fish, chicken, pig and vegetables.



2. Organic farming: farming system where the farmer will only use non-chemical or organic fertilizers and herb-based insect control. The common commodities for organic farming in Thailand are paddy rice and vegetables.
3. Natural farming: often called ultimate sustainable farming as it is strictly to prevent any kinds of fertilizers. In Thailand, there is no perfectly practicing in natural farming now, but there are few farms in Northeastern area of Thailand that try to implement in practice (Suksri et al., 2008).
4. Agroforestry: combining between agricultural and afforestation as they plant cash crops or raise livestock while planting trees. This aims to increase farmers' income, decrease deforestation, and improve soil quality and biodiversity. It often used in Northern and Southern parts of Thailand.
5. New Theory farming: proposed by His Majesty the Late King Bhumipol Adulyadej in 1993. The basic of this concept is from self-sufficiency. The New Theory farming is suitable with small farmers who have limited land.

### ***Organic Agriculture***

According to the expanding of demand of organic agricultural product in the world market, Thailand has a great opportunity to be a part in this market as Thai agricultural commodities are highly demanded among the world market including US, European Unions, following by Japan and Australia (The Government Public Relations Department, 2014). However, Thai agricultural commodities still cannot fulfill the world market demand. Thailand also aims to be a leader country in organic agricultural producers among ASEAN countries. Thai agricultural dominant commodities in the world market are rice, black tiger prawn, beef, dairy products, and fish. Thai government established “*National Organic Agriculture Committee*” since 13 March 2012 (The Government Public Relations Department, 2014). It was a cooperating and supporting from three ministries; The Ministry of Agriculture and Cooperatives, The Ministry of Science and Technology, and The Ministry of Commerce. The responsibility of National Organic Agriculture Committee is setting policies and strategies for Thailand's organic agriculture and integrating all related plans and measures. There are four strategies for developing Thailand's organic agriculture sector as;

- 1) Thai government aims to support Thailand's organic agriculture by focusing on knowledge and innovation management, and the initiative of data base for the organic commodities.
- 2) The production of organic agriculture and supply chains will be developed and linked from upstream to downstream processing in the form of production network.
- 3) Thai government seeks to strengthen the marketing and standard of Thailand's organic market and create a reputation of Thai organic products toward the world market through brand promoting in order to increase the volume and value of Thai agricultural product.
- 4) The Organic agriculture policy encouraged to work in an integrated manner to develop Thailand's organic agriculture.

### ***New Theory Farming***

New Theory farming is developed from Sufficient economy philosophy purposed by His Majesty the late King Bhumibol. New Theory farming is based on four principles;

- 1) The theory applied to small farmers who holding around 15 rai, or about six acres, which is an average land of Thai farmers.
- 2) Farmers need to realize the need for unity on community to support each other.

- 3) Farmers need to be able to grow rice enough for their consumption for the whole year or approximately around five rai.
- 4) Water must be available even during summer season or average 1,000 cubic meters per rai for the whole year.

So, for the New Theory, the ration of those four parts could be 30:30:30:10. The first thirty percent will be for a pond with four meters deep which could hold up around 19,000 cubic meters for crop cultivation for whole year and also can generate another income from aquatic animal or other plants. The second and third thirty percent could be part of crop planning, by thirty percent for rice and other thirty percent for other cash crop. Then, the reminding ten percent uses for living area and livestock rising (Raktamachart, 2015).

The New Theory aims to solve the water consumption problem and limited of the land usage. The Agricultural management or planning for this has three phases as; 1) farmers will have self-sufficiency by producing enough food for their family, living in good environment, and enjoying a good health. 2) farmers encouraged to work as a group within their community which lead to the corporation among them in order to not only benefit the farmers and their family but also strengthen the relationship between family and society and be able to increase their power. 3) this phase involves the processing and adding value to their products in term of agro-industrial development, by supporting from financial sources and energy sources.

### ***Conclusion***

From the literature review, this study can identify that the factor influencing found in the literature are also the related to the current strategic used in Thailand. The factors are affecting the decision making of the farm in order to imply the proper strategic. The current strategics used in Thailand as follow have the factors influencing it as; 1) Smart farming: leadership, organizational structure and culture, availability of resources, government policy, nature of commodities, market trends, competitor's influence, and farmer behavior are the factors influencing the smart farming strategy. 2) Sustainable Agriculture Farming: leadership, organizational structure and culture, availability of resources, nature of commodities, market trends, competitor's influence, and farmer behavior are the factors influencing the sustainable agriculture farming strategy. The government policy is not influencing the sustainable agriculture farming as it is not mandatory to produce or process the agriculture commodities in the sustainable way. This is just an option for the farmer to choose whether they would like to apply this strategy or not. 3) Organic agriculture: leadership, organizational structure and culture, availability of resources, nature of commodities, market trends, competitor's influence, and farmer behavior are the factors influencing the organic agriculture strategy. Due to the fact that organic farming is still in the implementation stage in Thailand and due to their production cost and require the special resources. This strategy also not have much support from the government sector comparing with other strategy. 4) New theory farming: leadership, organizational structure and culture, availability of resources, government policy, nature of commodities, and farmer behavior are the factors influencing the new theory farming strategy. Market trends and competitor's influence are two factors which not influence this strategy as the nature of new theory farming is not used to complete with the competitors as its strategy aims to help the farmer to have their own usage with the farm. So, new theory farming is not focusing on market trends and any competition.

**Table shows factors influencing strategic planning for agribusinesses in Thailand matching with the current strategic used in Thailand.**

<b>Factors influencing Agribusiness / Thailand Agribusiness Strategies</b>	<b>Smart Farming</b>	<b>Sustainable Agriculture Farming</b>	<b>Organic Agriculture</b>	<b>New Theory Farming</b>
Leadership	●	●	●	●
Organizational structure and culture	●	●	●	●
Availability of resources	●	●	●	●
Government policy	●	-	-	●
Nature of commodities	●	●	●	●
Market trends	●	●	●	-
Competitors' influence	●	●	●	-
Farmer behavior	●	●	●	●

## **FUTURE RESEARCH**

Several areas for future research into factor influencing and strategic planning in Agribusiness could further the discussion:

1. can be further study on the Operationalization of Strategic Planning among farmers in Thailand.
2. can explore more on the strategic execution in order to evaluate more on effectiveness of the strategic planning in agribusiness for the next study.
3. can define more specific focus area of factor influencing in Agribusiness – strategic planning in the selected Agribusiness Industry in Thailand.
4. can explore in other ASEAN countries Agribusiness

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# E-loyalty in Online Shopping: the role of e-satisfaction among the Bangladeshi Consumer

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## ABSTRACT

Due to the widespread internet access and cellphones, domestic e-commerce in Bangladesh has started to grow tremendously. In Bangladesh, the internet penetration rate was 13.2% in 2016, and by 2022 it has increased to 31.5% of the total population. With the internet access, many e-retailers have started their online business using social media, and websites like daraz.com, bikroy.com etc. As a result, Bangladeshi customers' buying habits are changing as a result of the rapid expansion of online shopping platforms. Therefore, the purpose of this study to understand the influence of e-trust on e-loyalty in online shopping among the consumers in Bangladesh. A total of 166 responses were collected from Bangladeshi consumers who regularly purchase products online. A cross-sectional data was collected using non-probability convenience sampling to maximize participation. A structural equation modeling (SEM) was performed to understand the association between the variables in the model. Cronbach alpha and composite reliability was checked to understand the internal consistency. The SEM results showed that online shoppers' loyalty is higher when the consumers trust the platform they use to shop. The findings also showed that Bangladeshi customers are more likely to be satisfied with their online purchases and remain loyal to an online platform when they have higher levels of trust in the digital platform. The research significantly enhances our knowledge of the relationships that are important to academics and online marketers.

**Keywords:** e-trust, e-loyalty, e-satisfaction, Bangladesh online shopping

## Introduction

The use of the internet is becoming more and more crucial to the success of business enterprises since it is altering how business is conducted. To gain competitive advantage, online platform is becoming a prevalent technology for every business. Online shopping has become popular among many consumers, and some people prefer to make purchases online for convenience, while others do so because of the aggressive pricing provided by various e-commerce sites. In numerous articles, the idea of customer loyalty has been discussed. Loyal consumers not only help a firm grow its revenue and profits, but they also help it save the costs of acquiring potential clients. In particular, e-loyalty appears to be crucial for both economic and competitive reasons, especially when the competition is high. Previously some scholars documented that e-trust and e-satisfaction are crucial components in creating e-loyalty (Reichheld & Scheffer, 2000; Yang & Jing, 2009).

Generally, e-loyalty is impacted by them both directly and indirectly. E-loyalty in e-commerce is determined by how satisfied customers are with the services the website offers (Anderson & Srinivasan, 2003).

E-commerce worldwide documented that over 5.2 trillion dollars globally were spent on e-commerce in 2021 and it is anticipated that this amount would increase over the coming years by 56%, reaching 8.1 trillion dollars by 2026 (*E-commerce worldwide - Statistics & Facts*). According to predictions made in June 2022, the e-commerce market would expand most rapidly in Asia, Australia, and the America (*E-commerce worldwide - Statistics & Facts*). As a developing country in Asia, Bangladesh, has not fallen behind in terms of internet usage. In January 2023, Bangladesh had 66.94 million internet users with an internet penetration rate of 38.9% (*DIGITAL 2023: BANGLADESH*, 2023). By 2026, the size of the e-commerce market, which was around \$ US\$ 5,608.7 million in 2021, will reach US\$10,492.8 million and 86.08 million users are anticipated by 2027. According to a poll in 2016, Daraz an online shopping platform is the top e-commerce platform in Bangladesh (*E-commerce worldwide – Statistics & Facts*).

With the growing online market and massive target consumer in Bangladesh, online marketers need to understand their behavioral pattern in order to remain competitive. Online retailers must ascertain the demands and preferences of Bangladeshi consumers and develop their online platforms, competitive pricing plans, and a wide variety of options for customers to pick from. Along with that, marketers need to focus on building trusts with online consumers so that they remain satisfied and loyal to the platform. For e-commerce businesses, it is imperative to offer the highest quality electronic services possible because these services have a direct impact on client happiness and trust, which can lead to repeat business.

Therefore, the study aims to identify how e-trust can enhance e-loyalty among the Bangladeshi consumers for online shopping. The study further considers whether e-satisfaction increase e-loyalty towards the online shopping of the Bangladeshi consumers or not. This paper starts by reviewing the pertinent literature that led to the research hypotheses. The research methodology and findings of the empirical study carried out in Bangladesh are then discussed. The consequences of the findings are discussed in the paper's conclusion, along with several recommendations for additional research.

### **Objective of the study**

The study investigates the following:

- i. The impact of e-trust on e-loyalty on Bangladeshi consumers in the context of online shopping.
- ii. Whether e-satisfaction increases the Bangladeshi consumer's e-loyalty in the context of online shopping or not.

### **Online Shopping**

The topic online shopping has got a tremendous attention among the scholars in recent years (Farzana & Rahman, 2019; Javadi et al., 2012; To et al., 2007). With the technological advancement of internet, the consumers of recent days are inclined to shop online than brick-and-

mortar stores. The phrase "online shopping" refers to a process through which customers can access merchants on the internet and directly explore, select, obtain, and/or purchase the goods or services they need (Javadi et al., 2012). The main reason why consumers choose to shop online is the ability to choose from a huge selection of products while relaxing at home with delivery services available at their doorstep (Farzana & Rahman, 2019; Lynch & Beck, 2001). Another reason is that consumers who shop online can get their necessities in less time than those who shop in-person because internet platforms provide abundant information about the products (Farzana & Rahman, 2019; Javadi et al., 2012). In addition, online shopping made it incredibly simple for customers to compare prices and consider their options without feeling pushed by salesmen, which transformed the power dynamic in their favor (Geissler & Zinkhan, 1998). By dint of convenience, consumers show higher trust and loyalty towards the online shopping.

### **e-Trust**

The adoption and growth of e-commerce depend significantly on the issue of trust. In both consumer and business-to-business purchasing contexts, substantial study has been done on the importance of trust in fostering and sustaining brand loyalty (Chaudhuri & Holbrook, 2001; Cowles, 1997; Doney & Cannon, 1997). In general, trust is seen as a collection of distinct ideas focusing mostly on the benevolence, skill, and integrity of another party (Chui et al., 2009). According to Singh and Sirdeshmukh (2000) "Trust is a key factor that affects outcomes at various stages of the process and acts as the glue that binds the relationship together". Hence, the definition of "e-trust" will be "the extent of customer confidence in online exchanges or in the online exchange mechanism" (Reichheld & Schefer, 2000). Generally, online platforms that guarantee security, reputation, web search, willingness to customize, high-quality appearance, and forum interactions typically create e-trust (McKinney et al., 2002). Kim et al. (2009) argued that online merchants need to understand that e-trust must first develop in order to foster customer loyalty and satisfaction. In another study, it was documented that trust enhances loyalty and has a favorable association with it (Kim et al., 2009). Razzaque and Boon (2003) identified a substantial association between trust and satisfaction in the context of channel relationships.

### **e-Loyalty**

Some prior works have included comprehensive discussions of the concept of loyalty. Some scholars mentioned loyalty as "a brand-positive mindset that drives sustained product purchases over time (Assael, 1992; Keller, 1993). In addition, when brand-positive sentiments are displayed, loyalty is prevalent (Keller, 1993). According to Engel et al. (1982) brand loyalty was defined as the combined preference, attitude, and behavior a consumer exhibits over time for one or more brands within a certain product category. To understand the brand loyalty, it is necessary to consider both behavioral and attitudinal aspects of consumers. For this research paper, e-loyalty is considered to understand the customers' positive perception of an electronic business. The idea of "e-loyalty" applies the concept of conventional loyalty to online customer behavior (Cyr et al., 2007). In general, customer/brand loyalty in online is a development from the conventional concept of product-driven, marketer-controlled loyalty to one that is distribution-driven, consumer-controlled, and technology-facilitated (Schultz & Bailey, 2000). In fact, the intention to return to a website or conduct business with it in the future is referred to as e-loyalty. Largely, e-loyalty revolves around excellent customer service, prompt delivery, eye-catching product presentations,



practical and affordable shipping and handling, and transparent and reliable privacy rules (Reichheld Frederick & Schefter, 2000).

### e-Satisfaction

Satisfaction in the online environment has emerged as a significant research area and became a crucial component in order to compete with rivals and succeed in market (Anderson & Srinivasan, 2003; Cox & Dale, 2001). Deng et al. (2010) claimed that in order to achieve long-term profitability and a competitive advantage in the market, client satisfaction on online platforms is essential. Moreover, consumer satisfaction is considered as a motivating factor, to boost customer loyalty for long-term sustainable growth (Yoon, 2002). Zhang and Von Dran (2000) documented that satisfaction is inclined by both user's behavior and their opinion regarding the service, which in turns increase customer's loyalty. It has been demonstrated that satisfaction is positively associated to loyalty (Oliver, 1999). Another study found that online shoppers are more likely than traditional or offline shoppers to be satisfied and remain loyal (Shankar et al., 2003).

### Proposed Hypotheses

Following hypotheses are proposed from the above discussion:

H1. E-trust and e-loyalty will be positively associated in Bangladeshi customers' online shopping behavior.

H2. E-trust and e-satisfaction will be positively associated in Bangladeshi consumers' online shopping behavior.

H3. E-satisfaction and e-loyalty will be positive associated in Bangladeshi consumers' online shopping behavior.

### Proposed conceptual model:

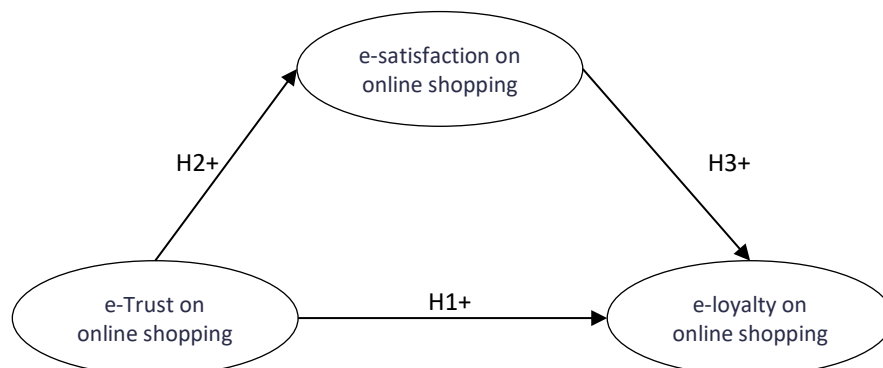


Figure 1 Proposed Conceptual Model

## **Methodology**

### **Research design**

An online survey was conducted to collect quantitative data in order to test the suggested hypotheses by operationalizing the variables influencing Bangladeshi customers' e-loyalty considering the e-satisfaction and e-trust toward online shopping. The objective of this empirical study was to understand the association between the independent variables: e-trust and e-satisfaction, and the dependent variable: e-loyalty of the targeted population; here Bangladeshi online consumers. The survey questions utilized in this study was adapted from earlier literature. Demographic information like gender, age, education level, job status, income, online shopping platform, shopping frequency per month, time spent on for online shopping, payment methods were considered. The data was examined to make assumptions, formulate conclusions, and make suggestions for further enhancements. It is advised to conduct more extensive research on the subject in order to pinpoint pertinent issues, gather comprehensive data, and draw insightful generalizations.

### **Data Collection and sampling**

The survey data used in this study was gathered from consumers in Bangladesh who routinely shop online or who had at least had the experience once. To send the online survey to consumers, a Google Form was made. The primary platform through which the survey was distributed was Facebook. Cross-sectional data were gathered for this study via a survey that was conducted in English. Non-probability purposive sampling technique was adopted to collect the data. A total number of 166 (n=166) Bangladeshi consumers who shop online participated in the survey. In addition, participants were told they may opt out of the survey at any moment, and no personal information like names, phone numbers, or e-mail addresses were collected in order to maintain their anonymity. Moreover, no financial incentives were provided for participation.

### **Measurement scale**

The scales utilized in this study were based on previous literatures. There were two sections in the questionnaire. In the first section, the variables such as e-satisfaction, e-loyalty and e-trust were considered. A 3-item scale was considered to measure e-satisfaction which was adopted by Oliver (1980) and Oliver and Swan (1989). For measuring e-trust and e-loyalty, a 3-item scale was considered which was adopted by Srivastava et al. (2010). The survey items were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). In the second section, demographic information was included. Demographic questionnaire covered gender, age, educational level, job status, income, shopping frequency (per month), Online shopping platform, time spent on online shopping platform and payment methods of the consumers.

## **Results and Discussions**

### **Demographic information**

Among the respondents (n=166), 94 (56.6%) men and 72 (43.3%) women used the internet to purchase online. The respondents' mean age was 37.55, with a standard deviation (SD) of 12.203,

and the range of ages ranged from 19 to 66. The majority of participants had a master's degree, with 94 (56.6%), followed by a bachelor's degree, with 51 (30.7%), a degree below that, with 20 (12.0%), and a doctoral degree, with 1 (0.6%). 86 (51.8%) of the respondents were employed, followed by 33 (19.9%) students, 25 (15.1%) self-employed individuals, 18 (10.8%) homemakers, and only 4 (2.4%) retirees. On a monthly basis, 79 people (47.6%) had incomes of Taka 50,000 or more, 41 people (24.7%) had incomes of Taka 10,000 to 20,000, 21 people (12.7%) had incomes of Taka 21,000 to 30,000, 14 people (8.4%) had incomes of Taka 31,000 to 40,000, and only 11 people (6.6%) had incomes in the Taka 41,000 to 50,000 range. From the shopping frequency per month, only 15 (9.0%) respondents shop more than six times per month out of the 72 (43.4%) respondents who reported shopping once or twice per week. Just 57 (34.3%) of the respondents purchase from several online purchasing platforms, with 109 preferring the social media platform. Only 13 (7.8%) of the individuals spent less than five minutes, with 68 (41.0%) spending between five and fifteen minutes. Only 3 respondents (1.8%) preferred using a debit card for payment, while 119 respondents (71.1%) chose cash on delivery.

<b>Aspects</b>	<b>Statistics</b>
Gender	Male: 94 (56.60%); Female: 72 (43.40%)
Age (in year)	Mean: 37.55; Standard Deviation: 12.203
Education Level	Below Bachelors: 20 (12.0%) Bachelor Degree: 51 (30.70%) Master's Degree: 94 (56.60%) Doctorate Degree: 1 (0.60%)
Job status	Student: 33 (19.90%) Home maker: 18 (10.80%) Retiree: 4 (2.40%) Self-employed: 25 (15.10%) Employed: 86 (51.80%)
Income	10,000 – 20,000: 41 (24.70%) 21,000 – 30,000: 21 (12.70%) 31,000 – 40,000: 14 (8.40%) 41,000 – 50,000: 11 (6.60%) 50,000 and above: 79 (47.60%)
Shopping Frequency per month	1 – 2 times: 72 (43.40%) 3 – 4 times 59 (35.50%) 5 – 6 times 20 (12.0%) Above 6 times: 15 (9.0%)
Online Shopping platform	Social media platform: 109 (65.70%) Online shopping platform: 57 (34.30%)
Time spent for online shopping	<5 minutes: 13 (7.80%) 5 – 15 minutes: 68 (41.0%) 16 – 30 minutes 41 (24.70%) 31 – 45 minutes 27 (16.30%) > 45 minutes: 17 (10.20%)
Payment Methods	Cash on delivery: 119 (71.70%) Credit card: 28 (16.90%) Mobile banking 16 (9.60%) Debit card: 3 (1.80%)

*Table 1 Demographic Characteristics, Work characteristics, and Education Aspects*

## Construct Reliability and Validity

Cronbach's alpha and composite reliability were evaluated to determine the dependability of the variables. Cronbach's alpha was used to assess the internal consistency, and a factor loading scale of 0.7 was deemed acceptable. It was revealed from the data that the variables' Cronbach's alpha factor loadings were higher than 0.70. The composite reliability of each variable was also examined, and the results revealed that the majority of values were greater than 0.70, indicating that the constructs in the model had excellent reliability. In order to verify the convergent and divergent validity, the Average Variance Extracted (AVE) was also tested, and it was observed that all AVE is higher than 0.500. This supported the validity of convergence. The Fornell-Larcker Criterion was also used to assess discriminant validity, and the cross-loading of the variables was verified. Each variable's AVE range was shown in Table 3 to be between 0.791 and 0.847. The information showed that discriminant validity is well established. The results are represented in Table 3 and Table 4.

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
e-Loyalty	0.700	0.706	0.833	0.626
e-satisfaction	0.805	0.824	0.884	0.717
e-trust	0.774	0.787	0.869	0.689

*Table 2 Construct reliability and validity*

	e-Loyalty	e-satisfaction	e-trust
e-Loyalty	<b>0.791</b>		
e-satisfaction	0.639	<b>0.847</b>	
e-trust	0.737	0.655	<b>0.830</b>

*Table 3 Discriminant validity*

## Path-coefficient and bootstrapping

The structural equation modeling was carried out to see the association between the proposed hypotheses. From the analysis, it was noticed that e-trust had the strongest effect on e-satisfaction ( $\beta=0.655$ ,  $p$  value  $< 0.000$ ) and they are statistically significant. Hypothesis 2 is supported. E-trust had a positive effect towards e-loyalty ( $\beta=0.558$ ,  $p$  value  $< 0.000$ ) and they are statistically significant. Hypothesis 1 is supported. E-satisfaction had a positive impact on e-loyalty ( $\beta=0.273$ ,  $p$  value  $< 0.000$ ) and they are also statistically significant. Hypothesis 3 is supported.

After checking the adjusted R-square, the model showed that e-trust and e-satisfaction explained 58.6% (Adjusted  $R^2 = 0.586$ ) towards the e-loyalty. E-trust explained 42.9% (Adjusted  $R^2 = 0.429$ ) towards e-satisfaction. Multicollinearity for the model was checked and

noticed that all the values are within range. Figure 2 and Table-4 exhibits the detailed of path coefficient and bootstrapping of the model.

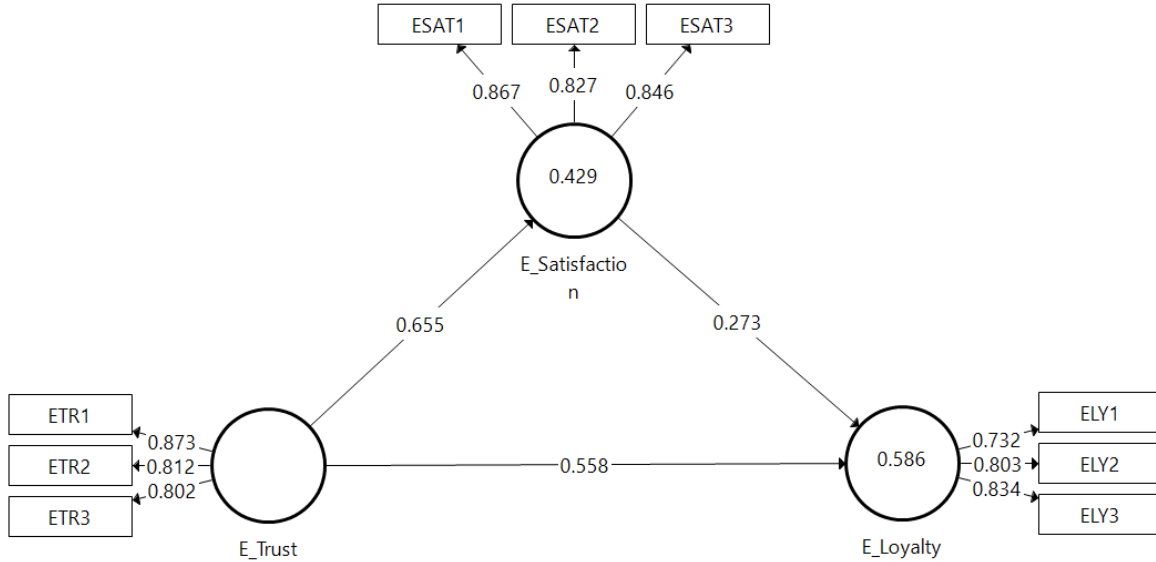


Figure 2 The structural equation model in SmartPLS

	Original Sample (O)	T Statistics ( O/STDEV )	P Values	Adjusted R2	Result
E_Satisfaction -> E_Loyalty	0.273	3.638	0.000	0.586	H3 Supported
E_Trust -> E_Loyalty	0.558	7.713	0.000		H1 supported
E_Trust -> E_Satisfaction	0.655	14.233	0.000	0.429	H2 supported

Table 4 Path coefficient and bootstrapping

## Discussion

An empirical study was carried out to identify Bangladeshi online shoppers' e-loyalty. In order to understand whether Bangladeshi consumers' experience and confidence have any part in their loyalty to the online shopping platform or not, e-satisfaction and e-trust were added into this model. The data confirms that in Bangladesh, e-trust and e-satisfaction lead customers to develop e-loyalty with the online platform. E-trust and e-loyalty are statistically significant in this study (H1 supported), which is consistent with earlier result (Oscarius Yudhi Ari Wijaya et al., 2021; Rudyanto et al., 2020). According to the study's findings, online shoppers in Bangladesh have confidence in the online stores they use, and as a result, they are satisfied with them. Bangladeshi

online businesses must recognize the value of managing customer expectations and be able to provide working, reliable, and trustworthy systems that deliver enjoyable online buying experiences.

In addition, in this study, e-trust and e-satisfaction is statistically significant (H2 supported), which is also consistent with previous studies (Ghane et al., 2011). The increase in customer satisfaction may be caused by online shoppers' increased trust in the online marketplace and the high quality and superior service of the things they order. For consumers to remain happy and committed, online marketers must uphold their standards.

Further, this study found a positive and statistical association (H3 supported) between e-satisfaction and e-loyalty which is also consistent with previous studies (Oscarius Yudhi Ari Wijaya et al., 2021; Rudyanto et al., 2020). In general, customer satisfaction encourages loyalty to the service because pleased customers are more likely to make additional purchases from the same website and develop a relationship with it. One rationale could be that Bangladeshi consumers trust online retailers because they are satisfied with the product quality, price, delivery time, and payment options offered by the shopping platform they use. As a result, they remain loyal to the online retailer. According to the analysis, customers who purchase online will become loyal to the website that offers a highly functional storefront that is devoid of glitches and other limitations that can upset potential customers. This article contributes generally to the literature on the subject of Bangladeshi consumers behavior. The knowledge and facts disclosed in this study are useful to practitioners in addition to contributing to Bangladeshi research, especially when making strategic decisions.

### **Limitations**

It is crucial to identify some of this paper's shortcomings and provide some potential research directions, as is the case with most studies. First, easy-to-access social media platforms were used to choose non-probability samples. Second, information was gathered from customers in Dhaka, the country's metropolis. As a result, there are some issues with the findings' generalizability. Future studies should take into account consumers from different cities in addition to some other factors, such as price, product quality, and buying habits, to assess customer trust and loyalty in Bangladesh.

### **Conclusions**

Online shopping has grown in popularity among consumers as a result of the widespread use of the internet. Due to intense competition, conventional retailers must launch their own online platforms to connect with customers. This study can therefore assist online marketers in identifying the relative value of various elements and how to assign priority. Online businesses could leverage the research's findings to enhance their service offerings by implementing stronger information and knowledge management systems. Consumers will keep making purchases from online merchants who have built a solid reputation and gained their pleasure. To thrive in the market, online businesses in Bangladesh must devote the necessary time and resources to comprehending their customers and the reasons behind their purchases. A business that excels at customer relationship management will be able to meet the needs of its customers with good service. It is crucial for



online retailers to comprehend why customers are ready to repeatedly buy from particular online stores since loyal customers who make repeat purchases from the same platform are five times more profitable than new customers. Retailers may overcome challenges with online shopping by understanding how loyalty develops, which results in increased client retention. This can assist them in raising consumer experience and reducing client churn.

### **Recommendations**

Despite the fact that the data satisfied the study's objectives, future research should use a paper-based questionnaire for a greater response rate. The primary township of Dhaka provided the majority of the data for this study, but to comprehend the overall situation of online shopping in Bangladesh, the outreach can be extended to other towns and cities, ensuring more representation. Future research may also take into account antecedents including website expertise, website design, social impact, product variety, subjective norms, perceived risk, to better understand customer shopping habits. To comprehend Bangladeshi internet shoppers' behavior, some moderating factors, such as gender, service quality, and convenience of use, can be taken into account. If the study compares shopping habits in different Asian nations, it can determine whether culture has any bearing on consumer behavior or not.

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## 3Rs Behaviour in Plastic Usage among International University Students in Thailand

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### ABSTRACT

This research was conducted to explore the factors affecting Thailand application of Reduce, Reuse and Recycle (3Rs) concept in plastic usage. This research paper described the global plastics usage and pollutions (Land pollution, Water pollution, Air pollution) cause by plastics usage. This study adopted independent variables from the Theory of Planned Behaviour (TPB), namely, attitude, subjective norm and perceived behavioral control and added on two more independent variables, habit and facilitating conditions to study the plastic usage. This study takes on dependent variable is 3Rs behavior. I used a self-administered questionnaire to collect and analyze the data. The results showed that all variables influence plastic use behavior. This study contributes to a better understanding of the relationship between the 3Rs behavior intention and environmental in plastic use. This research will contribute to reducing environmental pollution caused by plastic waste by proposing appropriate strategies.

**Keywords:** Reduce, reuse and recycle (3Rs), Plastic waste, Theory of planned behaviour (TPB)

### INTRODUCTION

#### Background of the study

Plastic pollution is caused by the overproduction and consumption of plastics. Plastic pollution is a global problem as it has serious social and environmental impacts. Since plastic is composed of non-biodegradable substances, there is no safe way to dispose of plastic waste. Toxic chemicals harm humans, animals, and the environment. The purpose of this study is to investigate the factors that influence the application of the concepts of reduce, reuse and recycle (3Rs) of plastics. This study took variables from the theory of planned behavior (TPB): attitudes, subjective norms, perceived behavioral control, 3Rs behavioral intention, habit, facilitating conditions and 3Rs behavior to know usage of plastics. We used a self-administered questionnaire to collect and analyze the data. The results show that all variables affect the usage behavior of plastics. This study contributes to a better understanding of the relationships between the determinants of behavioral intent of plastic use when the 3Rs are applied. By recommending the right strategy, this study will help reduce the environmental pollution caused by plastics waste.

## Significance of the Study

This study will analyze the perspective of young population specifically university students regarding 3Rs behaviour in plastic usage. According to past studies, there's a gap between intention and actual behaviour. Thus, this study will investigate the relationship between the intention and actual behaviour. Theory of planned behaviour (TPB) was adopted in this study. Habits and facilitating conditions were added into the model as these factors will affect the behaviour.

## Statement of problem

Nowadays, plastics became more and more widely used. Globally, plastics produce over 380 million tons of plastic every year. Plastics are used in many areas around the world. About 50% of plastics are made for single use. Around 500 billion plastic bags are used worldwide every year. More than 1 million bags are used every minute. The increasing use of plastics has had a profound effect on the environment. Thailand occupies an important position in the global plastics industry. Thailand's plastic industry is growing and many items are made from plastic. Today, Thailand is the 8<sup>th</sup> largest plastic producer in the world. As the production of plastic increases, so does its use. In 2019, Thai manufactures produced 9 million tonnes of plastic. Therefore, the total value of the Thai plastic market is estimated to be 900 million baht. And, plastics pollute the ocean, affect biodiversity and affect human health. Plastics can be affected many pollutions in our environment. We cannot stop the daily production and use of plastics, but we can reduce it.

## The Objectives of the Study

The aim of this study was to investigate the factors influencing the application of the 3R concept in the use of plastics. General research objectives were narrowed down to the following specific research objectives:

1. To investigate the relationship between attitude and SU students' 3Rs behavioral intention in plastic usage.
2. To investigate the relationship between subjective norm and SU students' 3Rs behavioral intention in plastic usage.
3. To investigate the relationship between subjective norm and SU students' 3Rs behavioral intention in plastic usage.
4. To investigate the relationship between subjective norm and SU students' 3Rs behavioral intention in plastic usage.
5. To investigate the relationship between subjective norm and SU students' 3Rs behavioral intention in plastic usage.

## LITERATURE REVIEW

### Global Plastic Usage

Plastics are a variety of synthetic or semi-synthetic materials based on polymers. Plastics are also considered organic materials such as wood, paper and wool. Their plasticity makes them to be molded, extruded or pressed into solid objects of various shapes. Plastics are usually manufactured

through human industrial system. Most modern plastics are made from fossil fuel-based chemicals such as natural gas and petroleum. Plastics are widely used due to their flexibility, lightness, durability and other properties. (Wikipedia, n.d.). Plastics are becoming more and more prevalent today. Many types of plastics are being produced. Plastics have recyclable plastics and non-recyclable plastics. In 1988, the Plastics Industry Association launched the Resin Identification Code (RIC) system, which classified plastic resins into seven categories. The seven types of plastics are Polyethylene Terephthalate (PET or PETE), High-Density Polyethylene (HDPE), Polyvinyl Chloride (PVC or LDPE), Polypropylene (PP), Polystyrene (PS or Styrofoam) and other. (Plastics for change, 2021).

Globally, more than 380 million tons of plastics are produced annually. Plastics is being used in many fields around the world. (Roser, n.d.) Plastics are clearly an important part of various materials used in modern society. Packaging, Construction, Textiles, Consumer and institutional product industry is one of the most widely used in the world. Plastics are the choices of this industries because of their easy to use and low cost. It is also used in other sector of industries. Packaging is the largest end-use market segment, accounting for over 40% of total plastic usage in the worldwide. About 50% of plastics are manufactured for single use. People are increasingly using disposable plastics more easily (Ritchie, n.d.). The most common areas for using disposal plastics are packaging, convenience store, restaurant, supermarket, fast-food shop, grocery bags, cup, food packaging, containers and cutlery. About 500 billion plastic bags are used every year around the world. Over 1million bags are used every minute. In addition to plastic bags, disposable soft drink, plastics water bottle and cans are becoming more convenient around worldwide. People buy a total of 1 million plastic bottles per minutes around the world. It's about 1.5 billion plastics bottles every day. (Lavit, 2019). Many types of plastics are used in many different ways, for a variety of reasons, and around the world. For many of us, they become an integral part of our daily lives.



Figure 1-Type of Plastics

### Negative Impact of Plastics in Environment, human and animal



Plastics can be pollution our environment. They can be air pollution, land pollution, water pollution and littering pollution. And, other effects can be caused by plastics. Different sizes and types of plastics affect our environment. When people use a lot of plastic for easy to use. Most of our plastics ends up in landfills, oceans, waterways and the environment. This is cause of negative impacts of environment, human and animals.

### **Land pollution and Air pollution**

Plastics are difficult to decompose. Plastics can take 20 to 500 years to disassemble, depending on the material of the structure. Plastics bags and plastics bottles are most commonly found in the environment. Plastics can cause serious harm to the environment. In addition, when plastic bags decompose in the sun, toxic substances are released into the soil. A number of chemicals found in plastics can be damaged plants.

### **Climate Change**

Plastics are produced from fossil fuels and the process of extracting and making these plastics releases a lot of greenhouse gas. The main driver of climate change is the greenhouse gas effect. And, if plastics bags are burned, they release a toxic substance into the air causing ambient air pollution. These impacts cause land pollution, air pollution and climate change. (International bar association the global voice of the legal profession), (Environmental Center).

### **Marine Pollution and Animal extinction**

Plastics is present throughout the environment everywhere on earth. Rivers brings many types of plastic wastes from depths of land into the ocean, making them a major source of marine pollution. A staggering 8 million tons of plastics eventually flow into the world's oceans every year. This is cause water pollution and harm to marine life. (Jambeck, n.d.). The effects of marine plastics are on the swallowing, respiration, and attachment of hundreds of species. Marine wildlife, such as seabirds, whales, fish and turtles, prey on plastic wastes, and they often starve to death when their stomachs fill with plastic wastes. Marines' species are still extinct due to plastics. (IUNC, n.d.) . Not only marine life, but also wildlife and other animals are affected by plastic. Chlorinated plastics release harmful chemicals into the surrounding soil, leading to infiltration of groundwater and other nearby water sources and eco systems. This can cause effects in the species of animals that drink water. Animals eat many of plastics and they face death. Plastics pollution has a directly and death effect on animals. (UN environment, n.d.).

### **Human Heath**

Today, plastics is the universal flagship material of the modern economy because they are low cost and diverse function properties. They are posing serious threat to environment and consumer's health in many direct and indirect ways. Human health problems are like irritation in the eye, vision failure, breathing difficulties, respiratory problems, liver dysfunction, cancers, skin diseases, lungs problems, headache, dizziness, birth hard effect, reproductive, cardiovascular, genotoxic and gastrointestinal causes for using toxic plastics. (kumar, 2018 january), (Ram Proshad, 2018).

### **Plastic Usage in Thailand**

Thailand occupies an important position in the global plastic industry. Thailand plastics industry is growing and many accessories are also being made from plastics. Currently, Thailand is the eight largest plastics producers in the world. As plastics production expands, so does its use. In 2019, Thai manufactures produced 9 million tons of plastics. Therefore, the total value of the Thai plastics market is estimated to be 900 million baht. The most widely used plastics industry in Thailand is the packaging industry, food industry, electrical and electronic industry. (Khanunthong, 2021)

According to the Thai plastics Association, amounts for packaging is about 31% of the country's plastic exports, with packaging companies consuming about US\$3.42 billion annually. From ingredients and vegetables to snacks and meal, milk and juice, food goes through 60% all plastics packaging in the country. With the increasing demand for the packaging sector in the ASEAN region, Thailand remains as the right destination for building entrepreneurs to indulge in eco-friendly plastics, particularly for the packaging industry.

To meet the growing demand for attractive, flexible and economical individual packaging for ready-to-eat meals and heat-resistant bags for cooking vegetables in the microwave, opportunities exist for people with busy lifestyles. As a result, more and more disposable plastics are being used. Other solid plastics are used in electrical industries and manufacture of consumer goods. Plastics are widely used in various display products, audio equipment, cables and wires, circuit breakers and switches, fuse boxes, switches and buttons, transformers, food processing units, electric kettles, refrigerators, microwave grills, and numerous other electronic goods. Plastics are widely used in this field because of their safety, durability, efficiency, and resistance to power and mechanical shocks. In Thailand, these industries are the largest users of plastics. Plastics bags, single use plastics are easy to use and affordable. So, they are widely use in the Thai business market but also in many people. Thailand use 70 billion plastics bags a year. And, Thai people use 4000 million water bottle per year. (Thailand, 2020).

### **Theory of Planned Behavior (TPB)**

Theory of planned Behavior (TPB) show that our behavior is determined by intention, and intention is predicted by attitudes towards behavior, subjective norms and perceived behavioral control. TPB includes three socio-psychological and behavior-specific factors; attitudes, subjective norms, and perceived behavior control to predict the intentions and intentions of actual behaviors. TPB is an important and frequently cited model for predicting individuals' social behavior. (Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern, Thong Zin Lin, 2020). Nowadays, all people mostly use plastics bags, single use plastics. When it's come to using plastics, people have their own attitude. For different aspects of the plastics waste problem have different concepts of planned behavioral theory. Plastics, plastics bags, single use plastics are lightweight, easy to use and have a comfortable attitude. There are people who use it with that attitude. And they are other side effects. There are people who have an attitude that they don't want to use. Plastics can be many risks of our environments and our life. For more than years, plastic wastes have been one of the main environmental problems because its affects environmental sustainability. Plastics waste is deeply affected by pollution and economic development, climate change and social behaviors. So, there are people who want to reduce the use of plastics. On those factors, social behavior is the most important aspect of plastics waste production, as human are consumers of plastics in our daily life. (Sharifah Nur Munirah Syed Hasan, Rosta Harun, Kuang Hock Lim, 2015). Empirical results show that consumer attitudes

toward plastics bag use, subjective norms, perceived behavioral control, and convenience are all positively correlated with willingness to use plastics bags.

On the other hand, environmental considerations and moral beliefs have a significant but negative impact on the attitudes and intentions of consumers who use plastics bags. Consumers' concerns about the environment and the influence of their moral beliefs about the intention to use plastic bags have partly affected their attitudes towards the use of plastics bags. Furthermore, the applicability of the theory of planned behavior model shows that the extended theory of planned behavior model has excellent predictive power in understanding consumers' intentions to use plastics bags. (Ying Sun, Shanyong Wang, Jun Li, Dingtao Zhao & Jin Fan, 2017).

### **3Rs Behaviors**

The 3Rs behaviors are Reduce, Reuse and Recycle. As the use of plastics increase, so does increase waste and the risks. These 3Rs help reduce the amount of waste we throw away. They also protect natural resources, human health, pollution, animals' extinction, landfill space and energy. The best way to manage waste is to generate. However, due to the high volume of plastics usage, 3Rs need to be use.

### **Reduce, Reuse and Recycle of Plastics**

Plastics pollution is caused by the cumulate of plastics waste in the environment. This plastics pollution not only affects wildlife and habitats, but also affects human health, leading to adverse effects on land and rivers. Plastic has changed our daily lives. But the amount of plastic and its longevity make it one of our biggest waste problems. Consumers can make a big impact by making small changes to the way plastics are used. So, we need to prevent plastics waste pollution. We need to reduce and reuse of using plastics.

The first and best option to reduce plastics waste is to minimize disposable plastics in our daily life. The most common uses of disposal plastics are in packaging and food industry. So, single use plastics is mostly use in our environments. We should stop using plastics straws even in restaurants. Plastics substitutes used in food packing, such as papers, thick paper food boxes can be reduced single use plastics. Avoid using disposable coffee cups, disposable cups, disposable tools, straws and napkins as much as possible. Store a complete set of silverware with plates, bowls and cups that can be washed and reused. And, shopping at the local farmer's market is good for both parties. First, support local farmers while obtaining the freshest ingredients in most major grocery stores. It can be good our health. And then, should use with containers or thick paper box to reduce plastics packaging. We can use cloth bags too. It's can be reuse. By shopping at stores that sell bulk food or other accessories, packaging plastics wastes is primarily reduced, but require to prepare own containers or reusable bags. These ways can be reducing our plastics pollution. (The Nature Conservancy, 2018). To reduce it, we need to reuse things. Reusing products are economic and environmental benefit. Sometimes creativity is needed.

- Firstly, use reusable bags when shopping to reduce the use of disposable shopping bags.
- The product is reused for the same purpose. Save paper and plastic bags and repair broken items, furniture and toys.
- Sell or donate used clothing, electric appliances, toys and furniture to garages or commercial sales offices.
- Use reusable bottles



- Use reusable Utensils, Straws and plates
- Use reusable containers instead of plastics packaging
- Use reusable produce bags
- Use ceramic coffee cups instead of plastics cups/bottles.

We can control these ways for plastics pollution. (Sustainable SA.com, n.d.). Many of the things we use today are reusable. There are many simple and creative ways to reuse some of the plastics products. Some plastic containers are so durable that they can be refilled and reused 25 times, and then, they will be so damaged that they cannot be reused. By refilling reusing plastics containers, can directly reduce the need for single-use plastics. Therefore, reducing the demand for disposable containers can reduce waste and energy consumption. (REUSING PLASTIC CONTAINERS).

Recycling is the process of collection and reusing waste materials. The elements in the waste are separated and reused as raw materials for new products. Recycling refers to waste that is suitable for use after treatment and classification. Traditional elements that can be recycled and reused include metals, paper, glass and batteries. Plastic recycling is the most important things in the world today. Plastic is a non-biodegradable material and it takes decades to decompose enough to be used again. Recycling, chemical treatment and reuse of plastics is a better way to save the environment from plastic pollution that pollutes the planet. We can see that plastic bags, bottles, containers etc. pollute the world's oceans and cause serious damage to ecosystems.

By recycling the plastics, we use every day, we can spread awareness and manage plastic landfills and environmental issues. The more people actively using recycled plastics products, the better for the world. And, recycling plastic waste helps reduce the pressure on the planet's finite resources, such as natural gas, oil, coal, wood, and water. By reusing plastic instead of producing the same quality of material every time, we are effectively reducing the plastic footprint in landfills around the world. Resources can be saved by recycling existing waste. The plastic manufacturing process uses a lot of natural resources and wastes energy, water and oil. Recycling and reusing plastics ultimately mean producing more non-biodegradable plastics to protect these natural resources which are harmful to the environment in the future. As mentioned earlier, plastics take decades to completely decompose. No matter where put the plastic, it takes a long time to deteriorate. By recycling and reusing plastic raw materials into other products, we can effectively reduce the plastic space in landfills that can be used as biodegradable materials for environmental protection.

Theoretically, 1 ton of recycled plastic can save about 7 cubic yards of landfill space. Due to the limited space and the huge amount of landfill, landfills can lead to disasters. Recycling plastics helps keep plastic away from landfills and also helps protect the environment. Reducing, reusing and recycling plastic is a reliable way to protect natural resources. However, the reuse of plastics also means that there is less plastic in landfills, rivers, deserts, forests and oceans around the world. (Fun-stuff, Main, 2018). From water bottles and milk cans to cleaning product containers and shampoo bottles, plastic packaging is everywhere in our homes, and ultimately makes our lives more convenient. It's no exaggeration. However, many of us often unknowingly throw away these easily reusable or recyclable plastic products. Recycling and reusing everyday plastic materials is much easier and saves a lot of money than many people understand. In addition, proper recycling of these plastics will ultimately reduce the need for landfills, save energy and thereby benefit the environment. There are many simple and creative ways to reduce, reuse and recycle plastics product. (Kielman, 2018).



## Attitude

Attitude refers to a set of feelings, beliefs and actions about a particular thing, person, object or event. Attitudes are usually the result of experience and education and can have a significant impact on behavior. Attitude is long lasting, but it can be changed. (Cherry, 2021). If people are attitude about an action, they are more likely to perform a particular action. Behavior are actions and reactions that occur in response to events and internal stimuli from the mind. There is a complex relationship between people's attitudes and behavior, and the social factors influencing them complicate this relationship. Behavior usually reflects established beliefs and attitudes. Ideally, a positive attitude reveals well-coordinated behavior. However, in some cases, healthy behavior can lead to harmful behavior. Behavior can be influenced by many factors' other behavior, such as prejudices towards self and others, financial factors, social influences, and convenience. (Ford-Martin, n.d.).

Attitude have positive and negative attitudes. Manufactures and consumers also have different attitudes. Although some of the disadvantages of plastics are known, there are some components that must be used. There is a significant positive correlation between attitudes and behavioral intent to reduce plastic use, but it is weak. Positive attitudes also include the ease-of-use plastics, low cost and others. The plastics industry adheres to this consumer attitude towards the plastic products it produces. Products can be divided into two categories; durable and disposable. People like plastic products, but not all products. In fact, the attitude of anti-plastic bags and disposable plastics is clearly very negative. Much academic research has been done on plastic bags, packaging and disposable containers, but little has been done on durable plastic products that can be used for many years. Although disposable plastics are known to accumulate in landfills, there is a tendency to use more disposable plastics. People's intentions depend on their comfort. Plastics have bad effect on environment, people and animals. We invented plastics that was low cost, durable and durable, but since then, with limited consideration for disposal, it has been used everywhere. There are many types of plastics, all with different properties and uses. However, the three factors of "cheap, durable, and long-lasting" usually apply to all of these products. People also know that it is difficult to reduce the use of plastics with different attitudes. And, there are many attitudes for 3Rs. The most common reaction is to avoid plastics and look for alternatives. Paper shopping bags are a typical example. Everyone knows that paper can be recycled, but few know that making paper bags will result in greater resource use and greenhouse gas emissions than plastic. Given that climate change is the biggest threat we face today, it is important to consider not only the use and disposal of products, but also the emissions during their production. Paper wins in terms of speed and severity of decomposition in the environment. So if the paper eventually becomes garbage, the effect is not like that of plastic. The impact of objects becoming garbage is important to consider, but it is not only one factor to consider. The answer is not to stop producing plastic. After all, the world is completely dependent on plastic, making it a better place in many ways. Instead, you should stop treating plastic product as disposable products. This attitude goes against the design. You need to be aware of its legitimate use and take advantages of its potential make it a reusable product. In particular, plastics can reduce waste by extending the shelf life of the food. Plastic not only keeps food fresh for a long time, but also ensures food safety.

Resolving the overuse problem is an important factor in considering long-term use of plastics and recycling and proper disposal at all stages of the product life cycle. Extra packages are a good example. Consumers can influence change through purchasing power, and product designers can do so in front of the saying coal. There are many perceptions of plastic as disposable. One of the

great advantages of plastic is that it is cheap. This is also one of the biggest problems. It is nature of human beings that allows the monetary value of something to largely determine the physical value we assign to it. Cheap ones may not be good or last long, so we will gladly throw them away. Plastics are unlikely to suddenly become a premium product, but they are not required. From a circular economy perspective, we need to change our attitude towards it. In the circular economy, known as the “future economy”, resources are maximum from plastic products and use it as a way to reduce waste. Factor analysis is the determination of the most important general views on plastic waste and its management, which are most likely to influence people’s attitudes towards plastics waste management. To implement 3Rs, we need to replace plastic disposable bags with something else. Our attitudes toward plastic may differ. We need to change our view of plastic. (Natalie Martin, 2019).

### **Subjective Norms**

The subjective norm is the belief that an important person or group of people approves of and supports a specific behavior. Subjective norms are determined by the social pressure that other people on a person’s behavior in a specific way and their motivation to follow their views. That subjective norms correlated positively and significantly with family’s willingness to recycle, and that the support of family, friends and society affects the level of willingness to recycle. In addition, the subjective norms. There is a significant positive correlation with the desire to save energy. One possible reason for the different of subjective normative variables is that some of the information contained in the variables already exists in the desire to identify specific behavioral variables. The theory of planned behavior explains the fact that intentions are largely influenced by personal factors, such as attitudes and perceived behavior control. The narrow concept of subjective normative variables leads to a weak relationship between ideals, beliefs and intentions. Descriptive norms are the actual activities and behaviors of others. In contrast, social norms refer to the perception of others’ views on how one should behave. (Marina Jeger & Anita Frajman Ivković , 2015). Subjective norms have positive effect on sustainable waste management behavior.

Plastic pollution is an important issue for global sustainable development, but social norms related to disposable plastics are changing. A representative study (n = 1,001) was used to measure consumer behavior on four disposable plastic items. They are plastics bags, straws, coffee cups, takeaway containers. Descriptive standards proved to be the strongest predictor of plastic avoidance, and most of the remaining variables control the norm-behavior relationship. However, the relative importance of each variable depends on the specific object and behavior. These findings indicate that there is an opportunity to use social norm information to bridge the gap between consumer perception and behavior to address global sustainability issues. (Kim Borg, Jim Curtis, Jo Lindsay, 2020). Subjective norms refer to, people’s opinions of how others view their behavior, and coworkers’ opinions refer to waste management activities in the workplace. The relationship between subjective expectations and environmental sustainability is relatively strong. There are important subjective criteria regarding recycling. Influencing the recycling behavior of individuals that they believe to be valid by social groups or others belonging to them. Similarly, the association between behavioral and subjective norms is statistically significant. This suggests that most people expect to behave in certain behaviors, indicating that family, peers and communities have a significant impact on sustainable waste management behaviors. (Gangga Muniandy,, Marhana Mohamed Anuar, Bob Foster, Jumadil Saputra , Muhamad Deni Johansyah, Tran Tien Khoa and Zafar U. Ahmed, 2021).

## Perceived Behavioral Control

Perceived behavioral control refers to people's perception of their ability to perform certain behaviors. The analogy to the expected value model of the approach is that perceived behavioral control is determined by the entire set of the accessible control beliefs. That is beliefs about the existence of factors that may promote or interfere with behavioral performance is believed. Specifically, the strength of each control belief is weighted by the perceptual potential of the control factor, and the product is aggregated, as shown in the following equation. To some extent, it is an accurate reflection of actual behavioral control, and perceived behavioral control can be used with the intention of predicting behavior. (Wallston, 2001). The ongoing challenges of implementing waste sorting operations around the world still require a comprehensive and clear overview of the current scenario in order to improve the efficiency and effectiveness of the policy. Therefore, it is necessary to investigate the effects of perceptual behavioral control on the segregation behavior of waste sources worldwide. The key is to control our behavior. One of the behavioral areas that has received the most research attention is household waste management. In developing and developed countries, the generation of household waste has attracted more and more attention. More importantly, personal beliefs and concepts will affect the response, cultural value and success of the municipal solid waste management system. There is also the influence of community behavior control on the behavior of garbage source classification to improve the management of, municipal solid waste to manage, reduce and prevent excessive garbage. It is undeniable that this is indispensable. In the landfill, thereby extending the life of the landfill. The degree to which current waste issues are considered a specific threat to individual well-being is recognized as an important determinant of environmental and waste management behavior. Environmental issues should be considered threats to health and well-being, as they take precedence over many traditional predictors of environmental behavior.

Individually, there is a real relationship between the extent to which the waste problem is significant and the subsequent behavioral response. This can be a location or a personal experience, such as living near an area or landfill that refuses to pose a risk to public health, as it may encourage more careful management of waste. Many people believe that their individual actions do not have a significant impact on a particular problem or task. This condition can usually be associated with any area of social behavior, but is more pronounced environmentally. From an environmental point of view, global warming is associated with individual actions to reduce vehicle use, save energy and reduce waste. The range of specific actions actually taken to influence. Citizens who believe that their actions have a significant impact on waste issues are the ones most likely to take action. Therefore, from an individualist point of view, the effectiveness of this reaction may have crucial importance in promoting environmental hygiene behavior. In short, perceptual behavioral control refers to people's perception of whether a particular action can be performance and how easy it is in life. Therefore, they have the right opportunities, resources, and skills to classify waste and need to be motivated. Perceived behavioral control has a positive effect on consumers' behavioral intent to reduce plastic waste. Increasing use of plastics causing environmental damage. So, consumers need to control the use of plastics. (Cheng, 2020).

## 3Rs behavioral Intentions

Behavioral intentions refer to the motivational factors that influence a specific behavior. The stronger the intention to take action, the more likely it is to take action. Intentions and behavior are definitely associated. There is a positive correlation between 3Rs behavioral intention and 3Rs

behavior. Behavior intention related attitude, subjective norms, perceived behavioral control. Nowadays, with the increasing use of plastics and the increase in plastics pollution, 3Rs (Reduce, Reuse, Recycle) need to be implemented. Intention to 3Rs (Reduce, Reuse, Recycle) is required to implement 3Rs (Reduce, Reuse, Recycle) behavior. Worldwide needs to develop 3Rs program to increase community participation. The purpose of behavior intention of 3Rs is strongly and significantly related to the behavior of 3Rs. Government needs to campaign for 3R so that people with negative attitude towards 3R can become aware and adopt more positive attitude. This is allowing to set a subjective standard for 3R behavior. In addition, consumers and producers need to provide training for waste reduce, reuse and recycling. (Novie Susanto<sup>1,a</sup>), Lyra Davidesyta<sup>1</sup>, Denny Nurkertamanda<sup>1</sup>, and Thomas Triadi Putranto<sup>2</sup>, 2019). This study aims to reduce the concept of the 3Rs. The basic method is to analyze behavior and manage waste through reuse, reduce and recycling. Indicates that we are refraining from overusing. Due to impact of plastics, 3Rs have been educated and mobilized in every country to reduce the use of plastics for 3Rs, to consume less waste products. And, schools are also campaigning for 3Rs. For example, use bottled water for beverages instead of buying a new bottle, use reusable cups instead of disposable cups, reuse plastic bags for garbage collection. These campaigns are underway. Instead of disposable bags, they are advocating the use of cloth bags, paper bags, and straw bags. In addition, the behavior of consumers who want to use cloth bags has been found to influence the behavior of small disposable bags. Therefore, more people should be encouraged to take implement on 3Rs. We can see about of 3Rs campaigns on television, newspaper, social media, environment. Recycling includes waste collection, segregation and disposal. Paper, plastic, metal and glass are recyclable materials. Environmental activists have shown that the behavior of the 3Rs a positive effect on solving environmental problems. Therefore, it is necessary to stimulate interest in 3Rs campaigns in order to get more people interested in the 3Rs process. (Loh Chun T'ing,<sup>a</sup> Krishna Moorthy,<sup>b,\*</sup> Chin Yoon Mei,<sup>a</sup> Foo Pik Yin,<sup>a</sup> Wong Zhi Ying,<sup>a</sup> Chin Wei Khong,<sup>a</sup> Gan Zhao Chern,<sup>a</sup> and Thong Zin Lin, 2020).

## Habit

Habit is a relatively stable behavior pattern. It can be done in the past without intensified scrutiny, thus forming an automated process rather than a controlled process like deliberate decision-making. Habit and past behaviors are important for shaping behavior that are routine. (Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern, Thong Zin Lin, 2020). On the relationship between attitude and behavior, habits are often regarded as building marginal profits. This is of no value, especially given the current interest in the principles of automation in social psychology. The basis characteristics of habits, such as goal-oriented automation, dependence on homeostasis and functionally of the situation, and measurement of habit strength. From the aspects of planned behavior theory, voluntary counter-intention attitude-behavior process, implementation intention theory and decision-making model, this is comparing intentional behavior and habit. Therefore, habit manifests itself as the boundary between the planned behavior model and the effectiveness of rational decision-making. Habits seem to have a lasting cognitive orientation, which we call "habitual mentality". This helps individuals shift their attention to new information and behavioral policies, and helps maintain habitual behavior. By focusing on habitual mindsets and automatic prompt response links, rather than statistical relationships between past and future behaviors, habit becomes an interesting part of future research. (Bas Verplanken & Henk Aarts, 2011). In the past 60 years, we have changed our

behavior to use new synthetic materials produced from fossil fuels. We have integrated it into almost every aspect of our lives, which makes us more comfortable. The production of plastic materials is growing at an alarming rate, and a large amount of non-biodegradable waste is causing a major global problem. To overcome this problem, we need to consider both explicit and innovative behavior changes and product development. When we start to remove plastic products from the environment, we have a responsibility to reduce the amount of new plastic materials entering the waste stream. To achieve this goal, it is necessary to explore all options related to product design, production and consumption methods, and determine what constitutes acceptable waste. This series of articles solves this problem by discussing various topics such as the use of plastic materials, behavior changes, and the development of new environmentally friendly products and their impact on the environment. (Paterson, 2019).

### **Facilitating Conditions**

Facilitating conditions is a situational factor or opportunity encouraging a person from a particular action. Due to the effects of plastics mentioned above, organizations are still trying to implement 3Rs process. Most of people gave positive feedback for plastics recycling movements, if the facility is easy to access. Other than this, easy access to recycling facilities will reduce the cost of action and motivate the society to follow the trends. Facilitating conditions is positively and significantly affect 3Rs behavior. The coefficient correlation of promotion status for 3Rs behavior is lowest compared to intentions and habits of 3Rs behavior, but it has been concluded that there is a significant positive association with 3Rs behavior, so careful attention still be paid. (Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin , Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern , Thong Zin Lin, 2020).

### **Proposed Hypothesis**

- H01: Attitude is positively related to 3Rs behavioral intention
- H02: Subjective Norm is positively related to 3Rs behavioral intention
- H03: Perceived Behavioral Control is positively related to 3Rs behavioral intention
- H04: Intention is positively related to 3Rs behavior
- H05: Habit is positively related to 3Rs behavior
- H06: Facilitating conditions variable is positively related to 3Rs behavior

### **Proposed Conceptual Framework**

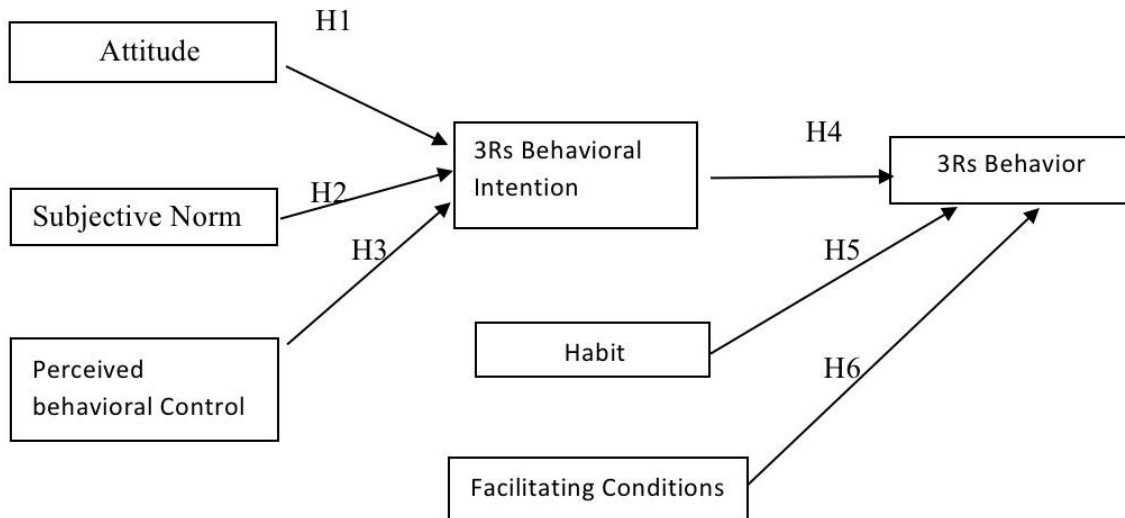


Figure 1: Proposed Conceptual framework

## METHODOLOGY

### Research design

To operationalize the variables related to 3Rs behavior of plastics usage by international students, an online survey was conducted to obtain quantitative data to be able to examine the recommend hypotheses. To measure of plastics usage and intention to 3Rs process, usually, an online survey is often by the researchers. An empirical study was adopted to reduce the use of plastics, and whether or not there is an improvement in the 3Rs of plastics, and to accept different attitudes and intentions about plastics. And, this study adopted to understand plastics usage between consumer, attitudes, perceived behavior control, and consumer intention to 3Rs among international students studying in aboard. The questionnaire for this study was considered from the previous literature. The instrument comprised of the following; independent variables i.e., perceived behavior control, attitudes to usage of plastics, intention of 3Rs is the dependent variable and demographic information like gender, age, nationality, plastics usage of consumer. The data will be analyzed to draw the inference and recommend ways forward for additional improvement. As the researcher is also an international student in Thailand that created the motivation to conduct this study. Further study is suggested on the issue with a broader purview to recognize pertinent issues in order to obtain in-depth outcomes and draw insightful interference.

### Sample and Participants

An online survey was conducted at the International Colleges in a public and a private university located in Bangkok, Thailand, International students studying undergraduate, masters and doctoral level courses in English were considered as the sampling frame. The participants hailed from several Asian, European, and African countries (Bangladesh, China, Germany, India, Myanmar, Nepal, Nigeria, Pakistan, and Turkmenistan). International students inevitably use disposable or

other plastics in their daily lives when living in Thailand. Therefore, international students are considered qualified for this study, as they understand the desire to preserve the environment as much as possible while trying to perform 3Rs functions in discarding plastics. Because of examining the certain population, purposive convenient sampling was used, and other international students who study in the Thai Faculty program (Thai students) were excluded. To get the maximum participation snowball sampling method was adopted. 120 questionnaires were sent via email, line, Facebook, WhatsApp, and a total number of 90 international students from private and public universities participated in this survey. The participants from the Bachelor of Business Administration program were from the first, second, third and fourth year and Masters of Business Administration and Doctoral program in Management respectively.

## Scale Management

The scales use in this survey were adopted from pervious literature. TPB social-psychological earlier used for the measurement. (1) Attitude was measured by using 5 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (2) Subjective Norm was measured by using 4 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (3) Perceived Behavioral Control was measured by using 6 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (4) Behaviours Intention was measured by using 5 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (5) Habit was measured by using 4 items, which adopted by Loh Chun T'ing, Kishana Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (6) Facilitating Conditions was measured by using 4 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). (7) Behaviours was measured by using 6 items, which adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khong, Gan Zhao Chern and Thong Zin Lin (2020). 3Rs behavioral plastic usage was measured using following 7-points Likert-type items which was also adopted by Loh Chun T'ing, Krishna Moorthy, Chin Yoon Mei, Foo Pik Yin, Wong Zhi Ying, Chin Wei Khlong, Gan Zhao Chern and Thong Zin Lin (2020). The Likert scale is widely used to measure the opinions and behavior of respondents. The demographic questionnaire includes age, gender, marriage status, nationality, educational background, employment status and family income of international students.

## Data Collection

To conduct the survey online questionnaire was being adopted. The survey was carried out in English as the respondents chosen for this study are studying in an international program under international college at international university students in Thailand. Before taking the survey, the participants were asked whether they using 3Rs process in Thailand or not. Cross-section data were collected via an online questionnaire through Google Form during the month of December to January 2022. The link of Google form was sent via email, Line, and Facebook to the target population. To keep the confidentiality no personal data like names, email addresses were collected

and participants were told that at any point, they can withdraw from the survey. Primary data was obtained from the international students who are currently studying in universities in Thailand. No financial incentives were given to the participants during the survey.

### **Operationalization of Variables**

In the research, there are seven independent variables i.e., Attitude, Subjective Norm, Perceived Behavioral Control, Behaviours Intention, Habit and Facilitating Conditions from theory of planned behaviors. 3Rs behavior is dependent variable in the research. At first, Exploratory Factor Analysis (EFA) was carried out the find out the validity of the variables by SPSS followed by Reliability test of each variable. To authenticate the internal consistency, Cronbach’s alpha coefficient was examined. For testing the hypotheses, regression analysis was computed. Control variables were added for model fit. After that, all the variables were computed to get the mean score and mean comparison was also calculated to understand the validity of the concept.

### **Data Analysis Technique**

We examined the data using the Social Science Statistics Package (SPSS) version 25. The response is cast and saved in (.sav) format for SPSS calculations. After that, the mean comparison was carried out using SPSS between demographic information, and comparison of the online shopping intention. Pearson’s bivariate correlation was also carried out to find the association between the independent, and dependent variables. Adding some control variable, the result was analyzed to draw the interference for testing the proposed hypothesis

## **RESULTS AND DISCUSSION**

### **Demographic Information**

The respondents (n=50) who participated in the survey. Among the respondents there were 22 (44%) female and 28 (56%) are male international students. Mean age of the student’s group is 24.18 with the standard deviation (SD) of 6.14 with the minimum and maximum age of the students’ group of 16 and 45 respectively. The majority of participants 20 (40%) were from below Bachelor’s program, 26 (52%) were from Bachelor program, followed by 1 (2%) and 3 (6%) were from Masters and Doctoral program respectively. Among the participants, 4 (8%) were students, 4(8%) were employed full time, 42 (84%) were unemployed. And, the participants were from 16(32%) of Buddhism, 7 (14%) of Christianity, 9 (18%) of Catholic, 4 (8%) of Islam, 5 (10%) of Hindu and 9 (18%) of Atheist.

Table1: Demographic Characteristics

<b>Aspects</b>	<b>Statistics</b>
Gender	Male:22 (44%) Female:28 (56%)
Age (in years)	Mean:24.18; Std. Deviation:6.14
Educational Level	Below Bachelor’s Degree:20 (40%) Bachelor’s Degree:26 (52%)



	Master Degree:1 (2%) Doctoral Degree:3 (6%)
Employment	Students:4 (8%) Unemployed:42 (84%) Government employer:4 (8%)
Marital Status	Single:45 (90%) Married:5 (10%)
Religion	Buddhism:16 (32%) Christianity:7 (14%) Catholic:9 (18%) Islam:4 (8%) Hindu:5 (10%) Atheist:9 (18%)

### Analysis of the survey

The result obtained from the survey were compiled and calculated. Step by step was documented and all the sub-factors were duly measured.

### Mean and standard deviation

Table 2 exhibits the variable's mean and standard deviation used in this study.

Table 2: Mean and Standard deviation

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
Attitude	50	4.2520	.60313
Subjective_Norm	50	3.8650	.70749
Perceived_Behavioral_Control	50	3.8933	.44767
Behavioral_Intention	50	4.1120	.51928
Habit	50	3.4800	.66785
Facilitating_Conditions	50	3.7000	.65465
Behavior	50	3.8667	.46413
Valid N (listwise)	50		

Table 2 shows that, attitude (Mean= 4.2520, SD= .60) and behavior intention (Mean= 4.1120, SD=.51) have higher means compared with other variables.

Subjective Norm (Mean= 3.8650, SD=.70), perceived behavioral control (Mean=3.8933, SD= .44), habit (Mean= 3.4800, SD=.66), Facilitating conditions (Mean= 3.7000, SD=.65) and Behavior (Mean= 3.8667, SD=.46) have almost similar means.

### Correlation Analysis

Bivariate correlation was calculated between attitude, subjective norm, perceived behavioral control, behavioral intention, habit, facilitating conditions and behavior. It was observed that perceived behavioral control ( $r= 0.481$ ,  $p<0.05$ ) was positively correlated with behavior. And attitude ( $r= 0.424$ ,  $p<0.05$ ), subjective norm ( $r=0.415$ ,  $p=0.05$ ), behavioral intention ( $r= 0.379$ ,  $p<0.05$ ) were also positively correlated with behavior. Habit ( $r = 0.142$ ,  $p>0.05$ ) and Facilitating conditions ( $r=0.048$ ,  $p>0.05$ ) has almost no relationship with behavior and the correlation is not statistically significant.

**Table 3: Correlations among variables**

		Correlations						
		Attitude	Subjective_Norm	Perceived_Behavioral_Control	Behavioral_Intention	Habit	Facilitating_Conditions	Behavior
Attitude	Pearson Correlation	1	.517**	.286*	.302*	.215	-.115	.424**
	Sig. (2-tailed)		<.001	.044	.033	.133	.428	.002
	N	50	50	50	50	50	50	50
Subjective_Norm	Pearson Correlation	.517**	1	.552**	.514**	.569**	.120	.415**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	.406	.003
	N	50	50	50	50	50	50	50
Perceived_Behavioral_Control	Pearson Correlation	.286*	.552**	1	.699**	.485**	.150	.481**
	Sig. (2-tailed)	.044	<.001		<.001	<.001	.299	<.001
	N	50	50	50	50	50	50	50
Behavioral_Intention	Pearson Correlation	.302*	.514**	.699**	1	.286*	-.130	.379**
	Sig. (2-tailed)	.033	<.001	<.001		.044	.367	.007
	N	50	50	50	50	50	50	50
Habit	Pearson Correlation	.215	.569**	.485**	.286*	1	.447**	.142
	Sig. (2-tailed)	.133	<.001	<.001	.044		.001	.325
	N	50	50	50	50	50	50	50
Facilitating_Conditions	Pearson Correlation	-.115	.120	.150	-.130	.447**	1	.048
	Sig. (2-tailed)	.428	.406	.299	.367	.001		.743
	N	50	50	50	50	50	50	50
Behavior	Pearson Correlation	.424**	.415**	.481**	.379**	.142	.048	1
	Sig. (2-tailed)	.002	.003	<.001	.007	.325	.743	
	N	50	50	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

## Multiple Linear Regression Analysis

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602 <sup>a</sup>	.363	.274	.39545

a. Predictors: (Constant), Facilitating\_Conditions, Attitude, Behavioral\_Intention, Habit, Subjective\_Norm, Perceived\_Behavioral\_Control

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.831	6	.639	4.083	.003 <sup>b</sup>
	Residual	6.724	43	.156		
	Total	10.556	49			

a. Dependent Variable: Behavior

b. Predictors: (Constant), Facilitating\_Conditions, Attitude, Behavioral\_Intention, Habit, Subjective\_Norm, Perceived\_Behavioral\_Control

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.138	.696		1.635	.109		
	Attitude	.219	.112	.285	1.957	.057	.701	1.427
	Subjective_Norm	.119	.121	.181	.977	.334	.433	2.309
	Perceived_Behavioral_Control	.425	.199	.410	2.140	.038	.403	2.481
	Behavioral_Intention	.008	.167	.009	.051	.960	.427	2.343
	Habit	-.194	.119	-.279	-1.621	.112	.502	1.994
	Facilitating_Conditions	.087	.104	.123	.834	.409	.683	1.465

a. Dependent Variable: Behavior

The multiple linear regression analysis was performed to determine the effect of attitude, subjective norm, perceived behavioral control, behavioral intention, habit, and facilitating conditions on behavior. The results showed that the model was statistically significant ( $F=21.19$ ,  $p<0.05$ ) and accounted for 63% of the variance in behavior.

The results indicated that attitude ( $\beta=0.346$ ,  $p<0.05$ ), subjective norm ( $\beta=0.235$ ,  $p<0.05$ ), and perceived behavioral control ( $\beta=0.357$ ,  $p<0.05$ ) had a significant positive effect on behavior, whereas habit ( $\beta=0.088$ ,  $p>0.05$ ) and facilitating conditions ( $\beta=0.047$ ,  $p>0.05$ ) had no significant effect on behavior.

## CONCLUSION & RECOMMENDATIONS

### Conclusions

The present study explored the factors influencing the application of the Reduce, Reuse, and Recycle (3Rs) concept in plastic usage among international university students in Thailand. The study employed the Theory of Planned Behavior (TPB) and added two more independent variables, habit and facilitating conditions, to examine plastic usage behavior. The results showed that all variables - attitude, subjective norm, perceived behavioral control, habit, and facilitating conditions - significantly influenced the 3Rs behavior intention among the participants.

The findings of the study are consistent with previous research that demonstrated the effectiveness of the TPB in predicting various environmental behaviors. The present study's results contribute to a better understanding of the factors influencing the adoption of 3Rs behavior among international university students in Thailand. The study provides valuable insights for policymakers and

educators to promote environmentally friendly behaviors among students and reduce plastic waste pollution in Thailand.

The present study also highlights the critical role of habit and facilitating conditions in shaping 3Rs behavior intention. Therefore, policymakers and educators need to consider these factors when designing interventions to promote environmentally friendly behaviors. Furthermore, the study's results suggest that interventions should focus on promoting positive attitudes, encouraging social norms that support 3Rs behavior, and providing enabling conditions for students to reduce, reuse, and recycle plastic products.

In conclusion, the present study demonstrates that the TPB, along with habit and facilitating conditions, can effectively predict 3Rs behavior intention among international university students in Thailand. The findings suggest that interventions aimed at promoting 3Rs behavior should target multiple factors that influence behavior, including attitudes, social norms, perceived behavioral control, habit, and facilitating conditions. By taking a holistic approach to promoting environmentally friendly behaviors, policymakers and educators can effectively reduce plastic waste pollution and promote sustainable development in Thailand.

### **Limitations of the Study**

There are some limitations to this study that should be acknowledged. Firstly, the study was conducted only among international university students in Thailand, which means that the findings may not be generalizable to other populations or contexts. Secondly, the study relied on self-reported data, which may be subject to social desirability bias or memory recall bias. Thirdly, the sample size was relatively small, which may affect the statistical power of the analysis and limit the generalizability of the findings. Finally, the study only examined the influence of a limited number of factors on 3Rs behavior in plastic usage, and there may be other relevant factors that were not included in the analysis.

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# Factors Influencing Customers' Readiness and Acceptance of Cashless Society

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## ABSTRACT

The cashless society has rapidly changed and developed and the cashless method has become a global trend. Several countries have developed themselves to be potential leaders in a cashless society, and many countries emphasized adopting cashless methods in the banking system because they found that it is a crucial method to achieve business goals in the shortest time. This research paper aimed to understand the factors influencing customers' readiness and acceptance of a cashless society. The method used for this conceptual paper was based on literature reviews or secondary data from articles, online websites, or news, journals, and books. The findings showed that customers' readiness and acceptance towards a cashless society was affected by main factors, such as government's policies, company's policies, assessment of payment modes, education, knowledge, development of technology, and security in payment terms.

**Keywords:** cashless society, customers' readiness, customers' acceptance

## Introduction

### Research Background

Over the past several years, the world has gradually harmonized cashless methods in people's lives, which is known as a cashless society, where monetary transactions are completed by electronic systems without using bank notes or physical coins (David & Gantori, 2018). Furthermore, credit and debit cards have become popular these days and are slowly forcing cash out of the system of payments, plus the development of contactless technologies has changed the world's payment instruments and methods (Fabris, 2018). Meanwhile, the countries that became the potential leaders of cashless society were Finland, China, Sweden, the United Kingdom, South Korea, and Australia, which are trying so hard to change their banks' physical services and branches by continuously closing down and developing themselves to be fully digital banks' services. Perhaps banks found that people are tired of following traditional transactions, as sometimes they have to wait all day to complete their transactions (Vlad Totia, 2020). To eliminate the complex process of transactions, therefore, there are several companies like "fintech" financial technology to help customers facilitate their cashless payments and surpass American business sectors in COVID-19 situation on e-commerce by around \$105 billion in 2021 (Amanda, 2022).



According to global transactions, 85% of people still use cash for their monetary transactions because non-cash options may be difficult to access (Thomas, 2014). Contradictory, it was asserted by statistical data from Statista website that the percentage of internet-using behavior and number of customers for digital payments have been sharply increasing every year since 2020 with the surpassing of 4.2 trillion US dollars of the world's electronic transactions and calculated customers who were shopping on online websites as 2 billion people, which proved that electronic payment methods could be the main reason that the use of cash payment methods has faded away nowadays (Daniela, 2022). Much research evidence has shown that customers' readiness for a cashless society has been related to many factors, which include the government's policy and leadership, level of education, and technological factors such as the use of the internet (Shinta, Alfina, and Anisa, 2020).

Some parts of the world, such as the United States of America, may have failed to implement a cashless system due to regulatory issues (Taskinsoy, 2020). On the contrary, some parts of the world, like Thailand, might be successful in terms of cashless methods. Advocated by one Thai research survey called "Cashless Society in Thailand," the researcher conducted quantitative research about electronic financial transactions and found that by sampling 200 respondents from 5 different regions in Thailand, about 75% used two or more electronic payment methods like PromptPay, rabbit LINE Pay, e-wallet, mobile banking, and QR code, etc. It means that the majority of respondents are ready for a cashless society (Tanpat, Panya, & Sunattha, 2019).

### **Research Problems**

One of the most significant topics discussed in this research paper is the development of a cashless society. Two major factors are the government's role in policy to promote a cashless economy and an increasing number of people using technology to make a cashless system. However, the way to increase the percentage of customers' readiness and acceptance in the cashless economy is not easy. It was argued that many customers still prefer to use cash transactions because most customers might think that cash transactions are more convenient for them and also benefit some merchants who have planned to prevent paying taxes; the merchants will avoid any records of the electronic transactions (Thomas, 2014). Supported by the statistics from the SLATE website, 85% of the global population is still using cash as the primary method of payment. The reasons why they use cash are that perhaps cash is more convenient, intuitive, and private (Bangwan, 2015).

There are lots of reasons why people shift from using cash to cashless payment methods. One of the most essential reasons nowadays is that the cashless method is more hygienic, while banknotes are contaminated with bacteria that could cause an infection in this COVID-19 pandemic. However, only 6% of banknotes are spotless, whereas up to 70% of banknotes have proved that they have bacteria that cause infection in healthy people (Rob, 2014). Ramsey (2022) claimed that after the COVID-19 situation occurred, some businesses used cashless payments to promote trade among customers, such as using a banner that says "Not accepting cash" or "Cards Only" to appease customers who are concerned about hygiene and health. Another reason may relate to security purposes; keeping too much cash at home can cause people anxiety and insecurity about both money and the safety of their family members.

Meanwhile, cash can also be destroyed and lost easily by natural disasters, robbery by thieves, or even emergency cases like fire and flooding, etc. (Kevin, 2022). Finally, many people prefer



cashless transactions due to the complexity of the transaction process; with cashless transactions, customers only need a digital number to complete a transaction efficiently by transferring money from one account to another, whereas cash is more complex and expensive if a customer only wants to complete one process of the transaction (Das, Do, and Özler,2005).

Until this point, the researcher noticed that many research papers talked about a cashless society but did not touch profoundly on details about customers' readiness and acceptance in a cashless society. Therefore, this research paper will seek to fill the gap and provide information on customers' readiness and acceptance in a cashless society.

### **Objective of Study:**

In this research paper, the researcher aims to identify factors that affect customers' readiness and acceptance in a cashless society. This can lead the reader to further understand the main factors that are important and involved in the development and future of a cashless society.

### **Scope of the Study:**

Customers' readiness and acceptance in a cashless society is needed to find more information to understand the concept overall. The scope of the study was carried out to find the study from secondary data from existing research papers and documents related to research problems. The study mainly focuses on cashless society with customers' readiness and acceptance research and factors that affect cashless society research. The analysis's goal will be summarized by changes in technology, government, business, and knowledge that support a cashless society.

### **Research Significance:**

There is a gap in our knowledge of the consequences of technology and government policy toward a cashless society. The significance of this research paper about customers' readiness and customers' acceptance in a cashless society will be the following:

- Provide further information about government policy, company policy, and payment modes, which are becoming an important factor in supporting the cashless economy system.
- Emphasizing customers' readiness in a cashless economy depends on education, knowledge, and technology.
- It is important to emphasize that customers' acceptance of a cashless economy is associated with security, safety, and benefits in return.

## **LITERATURE REVIEW**

### **Cashless Society**

As time passes, the world has introduced the new payment systems of digital wallets and cards, which are growing faster than the traditional methods of payment like cash. However, the government and regulators have to help with policies to eliminate the problems of unjustifiably high fees for merchants and banks in a cashless economy (Daniel, Robert, & Anne, 2006). Meanwhile, the full description of a cashless economy doesn't mean eliminating all physical

payment terms as it helps to provide alternative channels for customers to pay in different payment terms depending on their convenience and benefits (Pius, 2013). In addition, several journalists have claimed that the government's policy is the vital key factor in promoting a cashless economy in each country, which is backed up by journalists who claim that a company's policy and payment modes are also the main factors in making the cashless economy happen and succeed as it should be:

### **The government's policy is vital to shifting the country to becoming a cashless society:**

Pius (2013) mentioned that the government should revolve around infrastructure policy, investment policy, trade policy, and customer protection policies that are involved with electronic payment methods by supporting the country in terms of adjusting regulatory parts to build the electronic payment system to be fast and efficient. Rick (2015) proposed that the government be concerned about the law as it is the simple first movement to eliminate cash from the system and develop the electronic payment method among people. For instance, the government may propose a law that allows business owners and operators to refuse the cash method as a payment term for their services and products, etc.

### **The company's policy is vital to shifting the country to becoming a cashless society:**

Sweden Sverige Website found that Sweden has been the leader in monetary or banking renovation for an extended period. This is because the country has a good backup like companies and educational centers to promote and expand their culture of innovation and facilitate the easiest way for the people to access every revolution, like a cashless society that is driven by "fintech companies" (financial technology companies that were founded in Sweden), the "Klarna company" startup payment system that originally came from Sweden, which has around 90 million customers across the world, and the "Trustly company," which is also a Swedish company that develops cashless payment solutions to help customers more accessible in their shopping time, etc. (A Cashless Society, 2021).

### **Payment modes are vital to shifting the country to becoming a cashless society:**

Ramya (2017) further categorized the modes of cashless transactions like cheques, demand drafts, online transfers, credit cards or debit cards, e-wallets, mobile wallets, UPI apps, gift cards, Aadhaar Enabled Payment System (AEPS), and unstructured supplementary services, which are vital for the customer to have more choices in their transaction and change their mind or shift their transaction to a cashless method as it is more convenient to access the system. More privacy and transparency, on the other hand, assist the business owner in bargaining for their company.

### **Customers' Readiness:**

Nothing lasts forever, and cash is no longer king as electronic monetary systems gain popularity at such a rapid pace that estimates indicate people aged 25–34 (34.9% of the US population) shift their payment terms from cash to electronic transactions (Krista, 2018). (Krista, 2018). In addition, the digital payment system readiness is dependent on **knowledge, education, as well as technology**, which are considered the vital things to develop an electronic monetary system among Micro, Small, and Medium Enterprises (MSMEs) (Shinta, Alfina, and Annisa, 2020).



People and modern students have moved themselves increasingly in their behavior toward learning how to be successful in a digital world and a digital transaction process (Higher education and the cashless society: Latest trends, 2021). Researchers surveyed 993 adults in Indonesia about their readiness for a cashless society and discovered that a higher level of education and a younger age affect their ability to access and adapt to technological-based systems such as the electronic monetary system (Irwan, Hunik, Muh, Siti, and Arief, 2017). Furthermore, technology, in addition to education and knowledge, plays a critical role in driving people's readiness towards a cashless society with this technology term; there are four critical factors for technology readiness construct in people, which are innovative drivers, optimism drivers, discomfort drivers, and insecurity drivers (Irfani, Monika, Theresia, Sutanto, and Minsani, 2020). This shows that the growth of customers' readiness is driven by technological advancement and customer learning desire about a cashless economy. Apart from the data about knowledge, education, and technology, there are several factors considered of minor importance for the readiness of people in a cashless society, like the regulatory environment, organizational readiness, digital infrastructure, and the awareness of customers. Another example is the Philippines; a study revealed that Filipinos are slowly developing and adopting cashless payment methods in their lives as the government provides more education and knowledge about technological advancement. As a result, Filipinos tend to trust the new method of payment; approximately 53% trust the electronic payment system, and 60% are willing to link their account to their mobile device (Ricky, 2018).

### Customers' Acceptance

According to researchers, the COVID-19 pandemic improved customers' attitudes toward the cashless economy while also creating a better security perception and risk perception of the cashless payment system among customers; customers have more opportunities to use technology such as electronic payment applications and bank applications (Patumtip and Thitirat, 2021). Furthermore, providing **security plus regulations in payment terms and exceptional fees in payment terms** are also the main reasons that customers will accept the concept of a cashless economy (Justin, 2022).

In Indonesia, it was found that 31% of all customer methods are moving their interest and growth in change from cash to electronic payment as it saves both time and money while customers make a transaction, and how customers perceive a cashless society is dependent on the usefulness of the electronic payment methods (Fauzi and Atik, 2017). According to one analysis of the data survey's structural equation modeling (SEM), 260 respondents were familiar and interested in the use of technological advancement and electronic transactions. For men, ease of use has no effect on the popularity of Swift from e-payment to cash, but for women, ease of use has a priority effect on the popularity of Swift from e-payment to cash. (Subawa, Dewi, and Gama, 2020). Besides, Yuvaraj & Sheila (2018) emphasized that privacy and security are the main factors that influence customers towards cashless transactions, and the credit and debit card methods are the most convenient and comfortable for customers to make cashless transactions, followed by the electronic wallet method. Furthermore, one of the most critical factors that impacts customers' acceptance of a cashless economy is the favorable government's support in the regulatory system for adapting to the idea of a cashless economy by sponsoring and sanctioning financial services institutions and business sectors (Sarmann, Guo, and Fu, 2020).

The customer seems to be comfortable adapting themselves to digital payments and transactions more in the near future as an effort to develop infrastructure and the systems of banks and

financial service providers with a higher security level and conditions that benefit the customer. In the meantime, the retail and small business sectors also need to ensure that they properly apply themselves to technology terms to support their customers, especially in the payment conditions and transactions, to avoid losing the opportunity that may happen if they use the system in an unappropriated way (Rosemary, 2015).

## RESEARCH METHODOLOGY

Many research papers also try to understand the challenges of why the cashless method is not as successful as it should be. One research paper gives a clear explanation of these challenges when the researcher found that the challenges that inhibited the development of a cashless economy were improper banks' sources to set up electronic payment infrastructure for customers, ill-equipped internet systems, and assessment, even though they engaged in an important role between banks and customers. However, old-fashioned beliefs, the perception of customers towards cash as the primary medium to negotiate business better than other monetary transactions, and digital wallets or cards issued by the private sector, which some customers fear because of unjustifiable high charges, untrustworthy private sector policies, etc. (Budheshwar and Yogita, 2018). Another supportive research paper said the challenges of the cashless method were language barriers while using the applications of the banks, being unwell educated about technology advancement, and digital literacy for customers in rural areas, urban areas, or even street vendors (Borham, 2017). Moreover, one interesting study in India claimed that cybercrime and corruption are the main factors that prevent the country from freely implementing a cashless economy (Omar, Rana, Naziruddin, Zalina, and Mazhar, 2019). To summarize the past data and further understand the concept of a cashless society, the researcher would like to divide this past research data into three main sectors: government, businesses, and customers.

### - **Government Sector**

A cashless economy has an impact on government monetary policies because it allows the market to be under control with regard to both interest rates and money stock; it also helps to maintain adequate revenue in the country and strengthens the quality of loan policies in the country to be stable (Costa and De, 2001). In India, the role of the government in supporting a cashless society can lower the cost of the expenses in the innovation process of banks' applications and support in terms of technology and also obtain an accurate amount of black money like laundry money and corruption money to be under the control of the government (Mukhopadhyay, 2016). With the full advantages of developing bank or electronic payment methods, the government can find a new way to produce modernization of the market in the country (AGGARWAL, MALIK, MISHRA, and PAUL, 2021).

### - **Business Sector**

Cashless economy also plays an important role in the business sector these days, as businesses or enterprises primarily use electronic payment to track their business partners' and customers' behavior, such as monitoring the availability of accurate data from customer electronic payment behavior to identify financial information for the company's marketing development. For security purposes, Companies also use the electronic system for security purposes, as this new method of transaction is more secure. (Ikpefan and Omankhanlen, 2012)



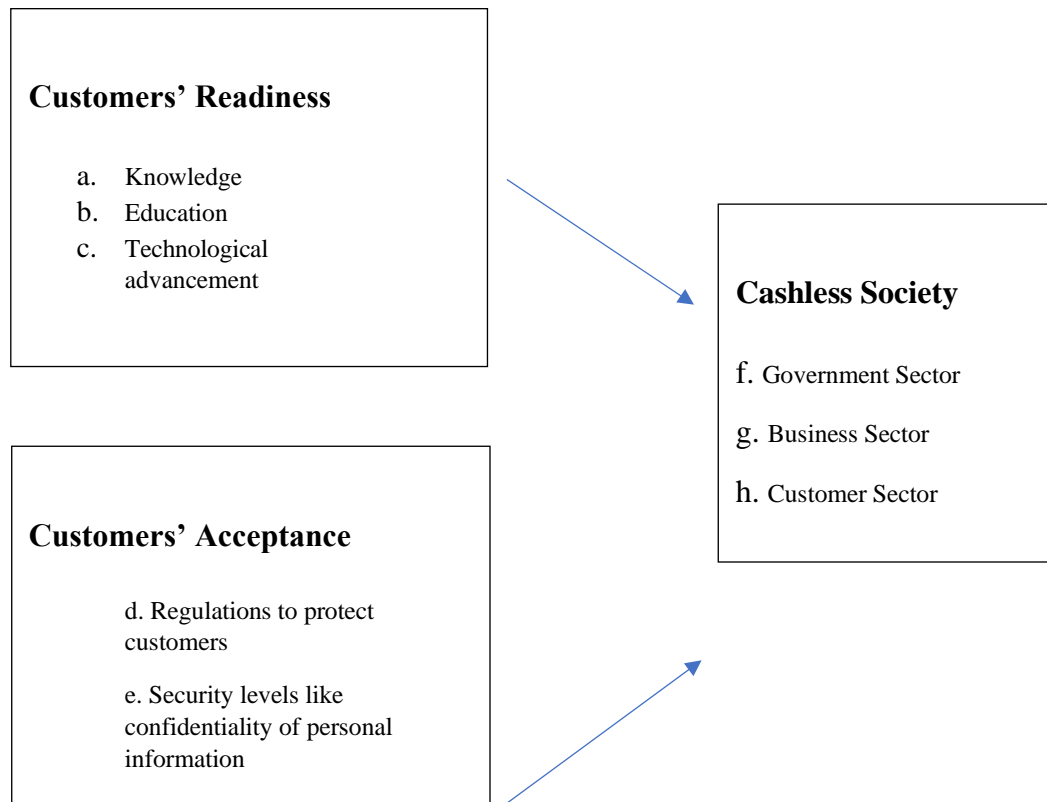
## - Customer Sector

The researcher found that customers react positively once they have the knowledge to use an electronic payment system; while using the system, customers can eliminate the limitations of some money services, like time-consuming in the transaction process and lower charges from the online payment system if compared to the bank's physical payment system (Alinvi, 2009). Customer experience by going cashless can be the reason that cashless is growing so fast, such as: cashless or electronic methods are so convenient just like customer phones; there is no need for a wallet, cards, or cash for the payment transaction; The speed of checkout can also be the reason; just 1-2 seconds to complete the payment process, unlike cash that uses an average payment time of around 7 seconds; hygiene and no need to touch money, which contains a lot of bacteria; last but not least, electronic payment is safe and secure, etc. (Nausherwan, 2021).

## Finding and Conclusion

This research paper has shown the necessary information from an existing research paper that proposed the framework for the customers' readiness and acceptance in a cashless society and economy. There are various factors that are involved with the perception of customers and impact the readiness and acceptance of a cashless society. The customers' readiness and acceptance toward a cashless society can be related to the factors as follows:

## Established Framework



**Figure1: Customers' Readiness and Acceptance in a Cashless Society**

Element from figure1 are as follows: a. (Higher education and the cashless society: Latest trends, 2021), b. (Irwan, Hunik, Muh, Siti, and Arief, 2017), c. (Irfani, Monika, Theresia, Sutanto, and Minsani, 2020), d. (Subawa, Dewi, and Gama, 2020), e. (Sarmann, Guo, and Fu, 2020), f. (Mukhopadhyay, 2016), g. (Ikpefan and Omankhanlen, 2012), h. (Nausherwan, 2021)

### Explanation from the framework

- For customers' readiness, such as knowledge, education, and technological advancement, are becoming a vital factor in creating the readiness and society to be developed in the near future. Customers' readiness in a cashless society can be enhanced by a well-educated person on how to use digital payment for the new users.

For customers' acceptance, factors such as regulations to protect customers in a cashless society and security levels like confidentiality of personal information are vital factors. The benefits of a well-organized safety system and exceptional fees of the bank might affect the positive thinking of customers toward the bank's service with safe payment methods. Effectively in terms of cost and time, for the new users can help the bank to have more customers in this electronic payment system. The new users will accept and trust in the security level of digital financial services providers when the services are comfortably, and

smoothly completing their transaction (Singer, Leora Klapper and Dorothe, 2017).

The results of this systematic research paper pointed out that knowledge and education about technology advancement among customers really dominated the benefits for customers of having a better method of using electronic payment methods or applications. This can result in the customer saving more time and money when they use a cashless method of payment. The initiation for customers to accept the cashless society concept begins with the feelings of safety, privacy, and maintaining their benefits. The most widespread acceptance of the cashless society will happen once the government, companies, and all involved sectors see the cashless society concept as a priority to benefit the future of the whole country and world. Customers' readiness and acceptance of a cashless society are also influenced by major factors such as government policy, company policy, payment mode assessment, education, knowledge, technological development, and payment security.

### **Recommendation**

This research paper shows that to promote a cashless economy, countries need the details to describe as follows to build customers' readiness and acceptance in a cashless society: Firstly, a solid effort from the government to restructure the practical procedures and regulations for all customers. The government should be focused more on the approach involved and how a cashless society can benefit the country. For instance, the policy to build a cashless society is a tool to fight corruption. This means if everyone can connect to e-payment, the government can know precisely where the money is spent in the country. Also, the policy to eliminate intermediaries or mediators for the customer's benefit- this means the procedure to prevent the loss of the money while the customer is transferring the money through other accounts (Mehul,2020). Secondly, monitoring and educating customers about the advancement of technology to connect with electronic transactions and systems. In 2000, the global scale of people who could access the internet was only 7% of the whole world's population; compared to the year 2020, it has steadily increased to 50% of the global population accessing the internet. This demonstrates that customers have more opportunities to learn how to use new technology, and e-payment has become more accessible to customers in recent years (Madeleine,2020). The efficiency of how customers are educated to use the new technology affects customers' readiness in a cashless society. The customer needs a clear education about how to check their balance on a personal online account, plus they need the bank to update them with customer particular support and needs in terms of electronic transactions (Henry and Duraisingh, 2021). Lastly, to be the leader of a cashless society, every sector should know how to advance and develop technology. Also, maximize the benefits of technology after restructuring it in the most efficient way possible with the cashless society concept. Many more distinctive options can assist customers in accepting cashless payment methods. The government and private sectors help in putting efforts into developing the infrastructure of a cashless economy, and that will attract more customers to jump into the cashless world.

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## Youth Development Program “Reimagine Higher Education from Student Perspective”

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### ABSTRACT

“Education is not preparation for life; Education is Life Itself” John Dewey American Philosopher, psychologist and Education reformer was truly commendable and relates with this youth development program. Every country has its own uniqueness, with set of concerns, alongside global issues, for which there is a growing pressure to find fair and sustainable solutions. As part of this, governments and educational institutions need to develop well-informed and active youth who will create a brighter future. Rote teaching has been substituted with pedagogies designed to nurture key skills such as communication, creativity, critical thinking and collaboration needed by the next generation of leaders. Teachers no longer tell students what to think; instead, they teach them how to think. The objective of this camp is “Reimagining Higher Education” in comprehensive surroundings and how student leadership can impact global challenges and changes on Higher Education. Siam University’s with Asia Cooperation Dialogue organized Student Leadership camp 2022 participated by 48 students, from 10 countries, the opportunity to undertake a post-COVID camp for a period of seven days, from August 23 to August 29, 2022. The topic of the camp also relates on how student leadership can impact global challenges and changes on Higher Education. Talks and discussions were conducted in English and cover topics such as: Knowledge of Higher Education; Reinventing Goals, innovative skills, entrepreneurship, peace, career, cultural diversity, intercultural communication, and key difficulties in global societies. This program provided engagement of diverse students in student leadership assignments and provide an avenue to explore Thai culture. Activities were included with an introduction to the creativity contest, entrepreneurial engagement, undertaking, group presentation, and sightseeing. The closing ceremony of the program offered students an opportunity to present their performance and received a certificate for the completion of the program.

**Keywords:** Reinventing goals, Higher Education Institution, innovative skills, student leadership camp

### INTRODUCTION

How have the world changed? During post-pandemic what effect the world have on higher education? Will international mobility patterns change with “protectionist” employment policies being considered and unemployment reaching even with the highly educated alumni? Or what role



should we consider as Higher Education institution play and how successful will we be in fulfilling our mission and vision through cooperation when competition in education as a lucrative economic sector and rankings will heat up even more? These are some new questions, to be considered in addition to renovate higher education when we already have those win-win results in our policies.

Education is the key to define the character of the person, which is the necessity of human being to shape its wisdom, philosophy, invention, visualization, and imagination. Through education, one can led to the 21st century skill to communicate and connect with the world through dialogue and action. This can only be triumphed through reinventing higher education to accomplish Sustainable development goals, SDGs by 2030. SDG 4 Quality Education the agenda contains 17 goals including a new global education goal (SDG 4). SDG 4 is to ensure comprehensive and equitable quality education and promote lifelong learning opportunities for all demographic factors. SDGs 4 declare that lifelong learning and borderless education is the basic human right for all human beings and mankind's. Therefore, it is agreeing to undertake all possible means to achieve the borderless education. It is an urge to all states and governments to join these efforts to create borderless education including higher education by creating a better and more peaceful world.

Education supports the formation of long-term economic well-being for individuals, groups, and their communities when it takes a broad view that looks at the world of white-collar, blue-collar job, and skilled related work. Flexibility in the face of uncertain occupation futures must be fostered into the new social contract for the futures demand of education. Higher education needs to build short-term course only for skill development to be responsible for preparing skilled graduates in the complex world of work. Through previous research, the findings were found that many Multinational companies' complaint about freshly graduates not knowing the practical skills and need training and coaching to achieve good performance in the future work-related field. Government needs to give first preference to education sector before other area because Education plays the main role for solving the political, economic, socio-cultural, and technological problems. As the Global Peace index, the top countries in this report are also ranked top in Quality Education. And most of these top countries focus on innovation, design-thinking, entrepreneurship, start-up policy, and practice. SDG 4 Quality education is a privilege of elites, where vast group of people live in misery because they lack access to unreachable facilities and amenities of education to be delivered to people globally. Through quality education, universities lecturers and graduates including students tend to be more involved in community building activities and have a greater sense of discipline and accomplishment. With the observational pandemic, it is ideal to formulate a strategy to enhance quality education by reimagining the future of higher education and putting in place various advanced pedagogical framework to be shared to people worldwide.

SDG 4, the goal is to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The targets to achieving the goal include providing free basic education for all children, training teachers, eliminating gender disparities in education, building infrastructure and, providing scholarships and other learning opportunities to children, youth and adults. The SDGs are all interrelated, an example is SDG 1, 2, 3 and 4, no poverty, zero hunger, good health and wellbeing, and quality education, respectively. Meaning that to achieve SDG 4, a child has to be healthy, well fed and have their basic needs met.

Education is a powerful tool in eradicating poverty and in preparing children to lead comfortable lives. Education is key to the growth and development of every nation. Investing in the future is investing in children.

Below is the SDG Index for 2021, for Thailand's SDGs index ranks 43 out of 165 countries, down from the original 2020 ranking at 41 out of 166 countries. The index score of year 2021 is 74.2 points lower than 2020. But it is considered in line with the direction of the global SDGs index score has decreased from the previous year. Thailand ranks 3rd in Asia after Japan (18th) and South Korea (28th) respectively, and remains the country with the highest SDGs scores in ASEAN for the third consecutive year (2019 - 2021).



## MAIN BODY

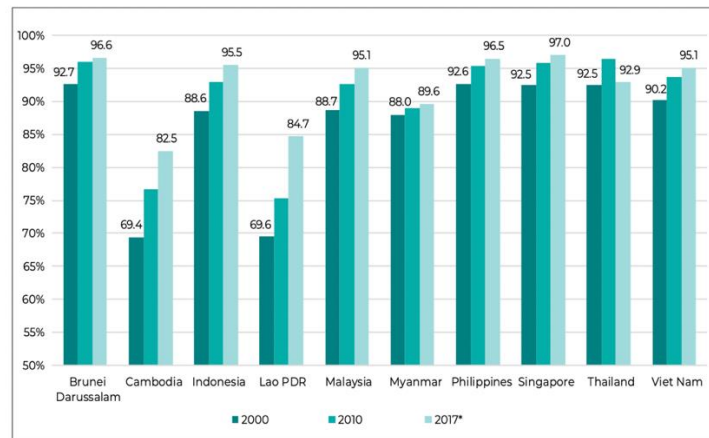
“Education is the most powerful weapon which we can use to change the world” (Nelson Mandela). To ensure inclusiveness in Higher Education under SDG 4 and learn from best practice of other Asian countries an educational camp was organized. In this camp, the participants attended the camp were from diverse background, some from developed countries, while some from developing countries and some from least-developed countries. The purpose of the camp was to hear the voice of the youth, by formation of the group of the multi-diverse students, some coming from developed countries like Singapore, joining with group mates from developing countries, Bangladesh and least-developed countries from Myanmar this is formed to test the resilience; share and gain their experience from their country perspective in order to learn the best practice and also gain knowledge from keynote speakers and moderator. During this camp, the participants had the platform to share their futuristic vision of how they build, maintain, and reimagine their higher education as the future ambassador. Education system must encourage social goal of living together and working together for the common good.

Thailand under SDG 4 Quality Education achieve by 2030, focus on some relevant idea such as effective learning, access to equality, relevant skill, technical and vocational skill for employment, decent job, entrepreneurship, sustainable lifestyle, culture diversity, scientific program, and certified teacher. Government, industries, and universities need to increase awareness of SDGs, research funds, organize conferences, symposiums, student’s camps, and provide some scholarships to create more opportunities to achieve the goal. Quality Education has always been a guide for all to follow and achieve all the SDG goals.

In Asia, Thailand has been the priority and educational hub for international students to join educational tourism interest similar like medical tourism. As Thailand has a new ministry known as “Ministry of Higher Education, Science, Research and Innovation” which focuses on research based, innovation, redesign the Higher education policy to meet the needs of this digitalization era. From this, it is believed that Thailand has very high potential for education, international recruitments, collaborations, and partnerships with foreign institutions as a dual degree program, exchange of students, training and development for staff and faculty members, Erasmus+ program, along with short term period study tour, and education camp. The purpose of this research is to utilize and teach from other neighboring countries higher education students the real definition of “Reimagining Higher Education” from their perspective.

As Thailand is among ASEAN member states it is significantly important to understand that not only tourism is a gateway for entering Thailand but also education is an important tool to increase the capacity of the adult literacy rate both for economic and social development. Below is the rate by ASEAN member states from 2000-2017 under the adult literacy rate. Compared to seventeen years ago, adult literacy rate has improved significantly across ASEAN Member States (AMS) (Figure 2.1). In 2017, adult literacy rate in seven out of ten AMSs exceeded 90%, with the highest rate recorded in Singapore at 97.0% followed by Brunei Darussalam (96.6%), the Philippines (96.5%) and Indonesia (95.5%).

**Figure 2.1.** Adult literacy rate (%) by ASEAN Member States, 2000-2017



**Note:** \*The latest available data for Brunei Darussalam and Thailand is 2016; for Lao PDR, Myanmar and Thailand is 2015; for the Philippines is 2013

**Source:** ASEAN Secretariat, ASEANstats database

As the education provider with the influence of Erasmus+ programs, it is very vital to establish the Asian university network to encourage and participate for the welfare of the ambassadors of the future. Siam University and Partner University establish a university network under the umbrella of Asia Cooperation Dialogue (ACD) as a platform to showcase its unique opportunities to shape and accept policies and initiatives affecting higher education, innovation, and research.

### Asia Cooperation Dialogue University Network (ACD-UN)

ACD-UN provides major opportunities for members to share best practices by participating in webinars, student leadership camps, collaborative projects, events, and other mutual-learning activities involving a wide range of Asian universities. The objective of the ACD-UN is the aim to connect and reconnect the knowledge and innovation areas of Asia. Including to make Asian Higher Education as the tool for sustainability towards the achievement of SDG's Agenda 2030. Additionally, to find the way to mutually recognized the different higher education system in Asia.

### Student leadership camp from August 23-29, 2022

Siam University's with Asia Cooperation Dialogue University Network organized Student Leadership camp 2022 participated by 48 students, from 10 countries, namely, Singapore, P.R. China, Bangladesh, India, Japan, Myanmar, the Philippines, Thailand, Nepal and South Korea, the opportunity to undertake a post-COVID camp for a period of seven days, from August 23 to August 29, 2022. The topic of the camp is centered on the theme "Reimagining Higher Education from Student Perspective" the program targeted undergraduate degree students from Asia Cooperation Dialogue Member states who were interested to share their views on Reimagining Higher Education in comprehensive surroundings and how student leadership can change and have impact on higher education. The brainstorming topics were conducted in English with: Reimagining theme on higher education, promote a culture of quality, innovation, and research in the higher education sectors in the Asia, SDGs, Quality Education, cultural diversity, autonomy, good governance, democratization and innovative with 21st century skills. During the closing ceremony of the program, all the students had the opportunity to present their ideas, and skills and received a certificate of the complete of the program. To grasp the attention for the participants, and make it





life changing experience the speakers and moderator the speakers and moderator of the camp were not only from Higher Education institutions, but from different backgrounds such as NGOs and Entrepreneur & startup, public speakers etc. This initiative has been taken to encourage and facilitate the building of a youth development culture in order to achieve implementable future leaders and research projects for capacity building of the participants and higher education institutions.

The camp participants also questioned and considered the extent to which this multiple expectation can or should be fulfilled by a single institution of higher education. They went further to underline and call for a better general recognition or and more appreciation for the diversity of HEI missions. In addition, and in the context of higher education diversity, the mission (research intensive, comprehensive, or liberal arts, etc.) and the nature (public or private) of the HEI in question also matter and these dimensions must find their place in the discussion of autonomy and the related accountability frameworks.

Money, whether it comes from the government or from the market as a key parameter of autonomy dominated our discussion. It did so far more than ideology or politics, though we know that this is a luxury not enjoyed by all higher education institutions even in the present day. We are acutely aware that there are several countries where higher education leaders and their colleagues continue to suffer, struggle with and from ideological and political interference today. The tragedy taking place in Iraqi, Palestinian, Ukrainian, and Syrian higher education is several sad examples. When reviewing how many acts as a steering mechanism and a constraint on development and independence in both instances whether the money is coming from the states or resources are based on market forces the most important exertion of influence on autonomy is often indirect. So contrasting reality and perception, theory and practice and legal means as opposed to mechanism and administrative or bureaucratic instruments become essential in any analysis.

On the first day, President Dr. Pornchai Mongkhonvanit, Executive director of Asia Cooperation Dialogue University Network welcomed the participants along with Former Secretary General and Assistant President of Siam University Bundit Limschoon presented the welcome remark. On second day, Siam University was honored to welcome the current Secretary General of Asia Cooperation Dialogue (ACD) Dr. Pornchai Danvivathana from Kuwait presented the welcome remark on behalf of 35 ACD member states.

The Secretary General focused on the views that was widely shared that Asia can enhance regional stability and prosperity by fostering more collaboration, and here at this first gathering after the COVID-19, the aim of the camp was thinking into action by identifying areas where your aim might strategically extend or build on its history and other areas where it might profitably diverge and chart a different path. In these efforts leaders must prioritize honesty and transparency. The Secretary General wishes this camp to be results-oriented, action-oriented and driven by positive thinking.

Dr. Pornchai Mongkhonvanit expressed his views that the theme of the camp is very relevant with Reinventing, Reimagining, to create Innovation which is similar with MHESI of creating innovation for Sustainable Future. This is decade of action, where great hope, actions and self-reliance are built through technological capabilities. With the advent of information and

communication technology, the so-called great connectivity, infrastructural or virtual connectivity are self-assured to the prosperity of society and community with the Borderless World.

Corporate Lecture on “Higher education Thinking for 21st Century Sustainable Change –Makers” by Mister Sukich Udindu, instead focus on contemplating the organization’s next century and a half. Mr. Sukich wants youth to maintain the core values and business intent in mind as they planned the future. That would lead the individual to adopt a new purpose of “innovation for a better world” with an emphasis on environmental sustainability, even as it perpetuated its historical focus on delivering both commercial and social benefits. He suggested ecofriendly innovation with its networking days camps, where he called upon the group members to work together to achieve the aim as the team.

“Reimagining Higher Education from Thai Minister Perspective” by Clinical Professor Emeritus Udom Kachintorn, MD. He mentioned why to innovate; to achieve market growth; change customer’s need; competitors are more advanced. He also mentioned about big trend in 21st century where data-driven economy, with value added products and knowledge-intensive and innovation-driven products and services are in the market. The main highlights were “double disruption” because pandemic caused lockdowns and layoffs and many businesses are embracing the use of more automation. There is much that we need to rethink about the current model of higher education. Success in the future won't be defined by a degree, but by the potential and the ability to learn, apply and adapt. The role of universities needs to change by having a different mindset to respond to global and country needs. The universities need to have a platform where intense work integrated learning and experiential learning is performed. The university needs to change its structure downsizing without barriers come on bling being the cluster. The university must change to transform to learning space. From teachers and lecturers of a subject they should be the game changer of the student’s life through various roles – coach, mentor, teaching designer, innovation creator. The perspective is to have growth mindset. He concluded with Prince Mahidol Songkla quote “The success is not in the learning, but in its application to the benefit of mankind”. Also highlighted “to disrupt ourselves before we get disrupted”, Jack Welch said, if you know yourself, then you have power to solve the problem in any situation; change yourself before other’s change.

Workshop on “Higher Education’s role in Securing the Brighter Future” by Ms. Yhing Sawheny, Deputy Director for International Affairs focused more on teamwork and cross-cultural diversity. The focus was more on leadership skills in sustainable world where she believes that leaders must commit to the hard work of thinking for the future world, even individual think that things are going fine, but as a group we must walk together. And we now have a framework to help to improve and perform for the betterment: the policy for environmental, social, and good governance. Performance with the purpose was not easy to implement and change thought moments for others, including when we are from diverse cultural backgrounds in a working environment.

Higher Education for Today and tomorrow: University appraisal for innovation and entrepreneurship towards SDG Lecture by Assistant Professor Dr. Yutthana Srisawat who stressed on startup and innovative ideas through which his own startup iTAX, is being driven by many users. His approach spurs local innovation, which he can roll out to another demographic and

economic world. This startup is well known because of the widest publicity and spreading possible to encourage governments, academic non-governmental organizations, the private sector, and civil society to join in a collective local effort to enhance awareness and promote discussion of tax issues.

Every afternoon the excursion time students visited and explored Thai culture and temple such as Wat Pho, Reclining Buddha, Siam Museum, Science Park and Ayutthaya on last day as the field trip. Before the field trip of last day, during closing ceremony, all the group members have to present their countries resolution of reimagining higher education, and then followed by awarding the certificate ceremony to the participants.

### **Assigned group work and presentation:**

On the first day of the introduction of the camp, 10 groups were formed with 4 to 5 participants of each group, representing from different countries, and each group was given responsibility to work on framework in which students were guided to tackle a challenge if in the future they are Minister of Higher Education how will they “Reimagine Higher Education” from their experience of applying the below mentioned core skills:

**Collaboration:** Students in the group had plenty of opportunity within 6 days of camp to communicate, network and build friendships among other teammates both in sociable and informal settings to create productive working relationships. As it is the first time for most of the students to join this camp it was required to create attractive, collaborative, and healthy brainstorming sessions while sharing knowledge among peers from other countries and different cultural background. It was vital opportunity to share and exposed to new perspectives, pushing oneself out of their comfort zone and forming new friendship to cherish in the future.

**Critical thinking:** this was considerably required with 21st century skill to identify the co-pain points, weaknesses, causes and potential mitigating factors related to the Higher Education. Then through critical thinking skill, expertise was pooled with case studies to identify and best practice from other countries to share among others in a collective approach on how to solve the problem and improve the weakness. As team members are from different background, all the participants also required emotional intelligence by having self-awareness first, then managing emotions and followed by motivating oneself and then others. And then recognizing emotions in others and showing empathy. Followed by handling relationships and staying connected.

**Courage and creativity:** Get innovative ideas and wise practical solutions; by using creativity to co-design a creative and unique solution as the Future Minister of Higher Education. Student learn the connection between courage and creativity. They discover the importance of developing confidence to think outside the box, a very important skill on their leadership journey. This camp gave an opportunity for students to discuss over many sessions, also in the beginning the moderator mentioned about remembering the energy, flexibility, creativity and ingenuity are vital, and there is no room for complacency and little tolerance for inefficiency.

**Communication:** the main key to any successful presentation or relationship is communication. It is important to brief and introduce to others to start the friendship. The participants had to develop



and deliver a 10-minute presentation that had captured the audience attention and communicate the idea to the other group members and audience. Both team and individual worked well as they had access to information and strategy by developing a practical plan and communicating the vision to every team member by showing people why it is vital, what will they achieve and how it will work and gain their commitment. Without open communication, confusion or even distrust can seriously result to hamper and failure of the presentation.

To hear the voice of students, as the catalyst of change, is giving them autonomy and the freedom for maneuvering room, from the basic, but perhaps not sufficient, condition to fulfill their university's responsibilities and obligations to society. However, the exact nature of this space of freedom is never static and is continuously being negotiated. Autonomy is a negotiated rather than an imposed reality.

We heard much to confirm and thus to convince us that context matters, that history and tradition matter and currently, the process of globalization and its impact on the local economy and local education system also matters.

The result of the student's presentation with different solutions and best practice are as below for 10 countries: -

**1. Thailand:** - different cultural background students proposed solution for reimagining higher education as Thai curriculum needs to include Micro-credentials and change the teaching methods with more flexible mindset and restructure the curriculum. Urgent measures are needed to retain the most qualified teachers, even for primary and secondary education. The final exam should be substituted by project-based research or innovation-based startup. Thai lecturers and professors use outdated pedagogy with mostly rote memorization style which should be replaced with 21st century skills and more ethical training program. And it should be tailored based curriculum with flexibility of learning and teaching for exceptional case with students from lower income background. The student proposed that as Future Thai Minister of Higher Education, we need new instructions, new approaches, new delivery methods to curriculum, a recommitment to teachers, a new vision of school, and a new escalation of the new resources and digitalization of education. This does not mean we get rid of what we already have. We must, instead, examine the best pedagogical and educational traditions, and add promising new elements that will help us shape the interlinked futures of humankind and the living planet. Teacher education cannot ignore the relevance of digital culture for how knowledge is produced and circulates, and for the changes it is bringing to humanity. Successful teacher education must tackle the factors that contributes to teacher abrasion. Supporting the profession requires more than attracting sufficient qualified candidates, it requires redesigning the role of teachers so that collaboration among teams, well supported with the necessary expertise, resources and infrastructure, enable professional success. For instance, during pandemic, teachers experienced stress and burnout because of inadequate technological platforms, and professional development to support remote learning effectively and subsequently some abandoned the profession.

**2. South Korea:-** In South Korea, Students value Growth and innovative mindset are the significant way with healthy and entrepreneurial mentality to be encouraged among the students. The team members suggest more alliances with other universities and industries for smoother

transition from graduates to professional achievers. Also mentioned about restructuring the curriculum to match the demand of the industry with effective workforce and not just graduates. The pedagogy should be organized around the principles of cooperation, collaboration, and harmony. It should foster the intellectual, social, and moral capacities of students to work together and transform the world with empathy and compassion. There is unlearning to be done too, of bias, prejudice, and divisiveness. Assessment should reflect these pedagogical goals in ways that promote meaningful growth and learning for all students. This can be done through emotional intelligence by giving people praise and credit, thereby building momentum and not handling mental stress through fierce competition. The education system needs to monitor and analyze labor market shifts and the changing skill needs of occupation and jobs are becoming more sophisticated, and education and training systems need to better use this information to adjust their programs and offer relevant learning options for the world of work. Institutions need to be more outward looking and progressive in their approach to qualifications, curriculum, and programming.

**3. India:** The major requirement is to attest the Qualifications which are always only “proxies” for what someone can do and what they have achieved because of social trust, evidence of the value of trust in educational purposes and activities. The team members suggested Block chain to reaffirm the credentials and university accreditation. Blockchain can play a vital role by providing an alternative learning platform (eg. Coursera, Udemy) that could be decentralized in nature and affordable for all. A Blockchain powered system allows transparent scholarship donations, decreasing the propensity for corrupt practices. Among the team was student from Singapore members who shared Singapore OpenCerts. OpenCerts delivers a common standard for the issuance of digital certificates and verification of authenticity of those certificates. By implementing this common standard, the aim is to allow Singaporeans to easily access and retrieve their digital certificates from a single location through their Skills Passport on MySkills Future. Each digital certificate is assigned a cryptographic proof, which is the digital fingerprint of the certificate that allows for secure verification of the digital certificate. This digital fingerprint is stored on block chain, a decentralized online ledger. Because the online ledger is decentralized, with multiple copies stored in different servers, records made on it cannot be altered or destroyed by a single person. The students also mentioned that the mid-day meal is a good policy for the child education.

**4. Nepal:** As Nepal economic situation is unstable with children under the poverty with the malnutrition problem. Many resolutions were presented from local level providing resources by improving education infrastructure, create support group for women in tertiary university, show students and families that education is essential, and provide additional support and resources for students from rural areas. Resolution on a province level is by sharing best practices about curriculum, improve syllabus and redesign quality curriculum, encourage use of technology tools in education; skills-based learning and raise standards and improve quality of education. Resolution on a federal level; is by reviewing curriculum broad goals and develop comprehensive policy. Expansion of access to higher education and relevance in the world development; also, to defend women fair rights to education; strengthen governance to prevent undue political and external infringement. There should be a framework for financing higher education to support students.

**5. P.R. China:** Students mentioned the pain points that why best universities only want best students? Due to popularity and traditional thoughts and intensity in admission. The students lack

potential to improve themselves with poor skills sets and social class. The market opportunity is huge with students studying in Partner University from other campus, and 80% of Chinese students with international degree can get a job in 3 months. This leads to unfair advantage with admission threshold, which is dependent on population to university ratio, additional resources are often accessible by those of a higher social class and repeat the Gao Kao sitters for a higher score only intensifies the competition: limiting chances. The solution is about the Standardization of Exam Questions with equitable access to admission and standardized Gao Kao as opposed to provincially different Gao Kao exam questions and standardized threshold of acceptance. Modernization of Examination structure from rote learning to immersive learning. Methodical questions to be replaced by thought-provoking questions and critical thinking as opposed to linear problem solving. There should be provision and consideration of alternative skillsets in addition to Gao Kao to balance the competitive ecosystem.

**6. Myanmar:** Recently, the Myanmar political situation is unstable which increases more student demand to study abroad, and in the future, it will create more brain drain. The effect of Education sector also will affect the GDP of Myanmar. This can be solved through positive mindset-responding to Myanmar's Global and country needs with collaborative approach towards innovation. Extensive platform with intense experiential learning and working with industry and community (partnering with international organizations and ambassadors to partner with Myanmar institution) Opportunistic structure downsizing without barriers (give subsidies to students) and transform to a learning space. Scholarships to students who really perform well and are in financial need. Myanmar Higher Education Should Think Globally and Act Locally with global competitiveness!

7. Singapore: the students mentioned as Competition should be less with more collaborative projects under Higher Education in Singapore. Cost is high, more affordability and scholarship programs should be initiated. The proposals presented arise out of short-term global engagement and re-innovation process which showed that vast number of people- children, youth, and adults, can contribute on everything from how to reimagine learning spaces to the decolonization of prospectuses and the importance of collective and passionate learning. Student suggested that Singaporean Government need to follow the European higher education structure where government can give student loan to the University where they wish to join and once the student is graduated and is hired in the job market then the student can repay back to the government. The student will become liable for each installment once it's paid.

**8. Japan:** students proposed to promote the English Language courses with learner centric education. Micro-credentials learning and welcoming "New Normal" for Education. Prepare students for jobs that do not exist yet. Increase cross cultural activities. Curricula should be focused on developing soft skills. University Industry cooperation and autonomous funding is essentially required. Higher education has played a substantial role in consensus building about education's dedication and goals. We must reframe worldwide collaboration away from the historical focus on repetition of ideas and institutions from the industrialized world. Prospectuses should enhance learner's abilities to access and provide to the knowledge commons. The knowledge commons should be widely accessible to draw from and add to. We should teach students to engage with knowledge creativity and critically, questioning its expectations and curiosities. Education should empower people to correct exclusions and eliminations in the knowledge commons and ensure that

it is a lasting, open imagination that reveals the diversity of modes of knowing and being in the world.

**9. Bangladesh:** students mentioned for Bangladesh higher education to build a robust education system which is inclusive, relevant, and accessible. They are working hard to improve the rate at which children complete secondary education by equipping them with blended education, with critical and analytical skills. The smart technologies advancement enhances national capacity and the education system to deliver uninterrupted high quality primary education that is accessible to all. Resources are required more as many graduates faced unemployment due to over population. Because of the less opportunities, the result is ending up with Brain drain. Accountability is the question that arises, where trust should not be blindfolded, with corruption prevailing in the country, to solve this HEIs should meet their obligations and responsibilities would be continuously documented and shared. Do the Bangladesh HEIs have accounting frameworks and processes that cover all the dimensions of the utilitarian, social, scientific, and cultural expectations that are placed on these institutions? How much value is really placed on these various aspects?

Accountability is linked to expectations, and these are multiple and growing. To solve this, first we need to examine closely the extent to which the accountability frameworks truly invite accounting for the full mission of universities.

**10. Philippines:** Diversified admission requirements with quotas for members of disadvantaged groups, needs based scholarship and centralized exam. In-depth monitoring with equity policies to implement to ensure universities do not make their admission too biased. Lower tuition fees with financial aid to fix the quality affordability gap.

Philippines should focus on other career path besides nursing and teaching such as Information technology, Engineers, Digitalization, and startup ventures. The country should provide graduates with stable job and good payment options to control all the brain drain of Philippines graduates to developed countries.

Higher Education institutions assert that the ability of hire and dismissed lecturer allows institutes greater flexibility with staffing and lecturers. Most conclusive idea supports the idea that associations should hire lecturers who fit the institutes mission and vision.

UNESCO institute for statistics (UIS) plays a significant role in accumulating and making public vital statistics on a range of guides for education. This youth leadership camp was a huge achievement with emphasis on humanistic approach to education following the UNESCO's four pillars of education; learning to know; learning to do; learning to live together; and learning to be. UNESCO pillar of education reflects the ability to experiment, share, extend and inspire others. It is possible at any location, from a teacher working with an individual student or group, to school-worldwide or country-wide.

Among the four pillars of framework, one can enhance student learning experience with focus on how to shape the event to facilitate positive student learning experiences and outcomes by developing self-awareness; foster a positive mindset; place learning in a real-world context; support cross-border collaboration; re-balance and enable peer feedback.

## Conclusion

The conclusion of this camp was positive response by all the students, and good perspective



towards how to improve the education system in their own country. As the leader, students suggested that education should look less regulated and make more room for diversity: calling for new paths, multiple streams, a wider array of credentials, with micro-credential so that people can choose their path, think freely, and work wisely. Learning from students, it seems, is both a literal and a deep-thinking stance. One cannot learn how to teach without focusing to what the student are doing in the classroom, accurately “studying” them to learn how to respond to them, be with them, and educate them. Through evaluation, we measure student’s learning with standardization tests and then use these metrics to judge the “efficiency” or “excellence” of their teachers or lecturers. We should listen to the student feedback, evaluation and inevitably think of the teaching pattern in the classroom.

Imagine what our future world looks like and challenge for something new. If we do something right, others will follow as we need to be their role model. We should keep up with the loop of lifelong learning and the change of the world. The quote one student has mentioned “Education is not preparation for life; Education is Life Itself” John Dewey American Philosopher, psychologist and Education reformer was truly commendable and relates with this camp.

The balanced partnership between global and local team encourages and reward entrepreneurship because anyone, anywhere, can make a real difference. From the student perspective, we need to open the door to the choice for any kind of course structure because the youth are the future of the world. They know what is relevant and should give self-autonomy, to be open to any new courses, or different courses, be impatient to try and create something new, with innovation and revolution, be hopeful with positive mindset and optimistic approach and with deep passion students can be successful in their future career.

Universities should be a change engine with skills provided to students and open the doors to business incubators, entrepreneurship, communication skills and technological advancement, as many universities lack these training program, and provide more of theoretical education. Many of the students who attended this leadership camp are still in touch today through social media and have been further building on their skills to work towards a more sustainable future.

Finally, almost all the participants came back to the issue of leadership and management and governance structure, proper to the institution. In other words, the light was also shined on what is required at the institutional level to secure and then successfully operate an autonomous institution so that the autonomy – always hard-won- is maintained and not undermined. Governance structures, the leadership role and the capacity and ability to steer and set strategic direction were all mentioned. In a nutshell, all these and or what one participant called “the internal integrity” of the academic enterprise, are key factors for the sustainability of autonomy in times when institutions cannot afford and should not resist to change. On the contrary, university presidents must continuously search for the specific role their university can play in its environment besides the mission and vision, whether they define it in terms of the local, national, or global context or combination of all three. Opportunities like this also allow us to understand better why in Japan, Myanmar and Thailand gaining autonomy, freedom of speech is most frequently referred to as the process of incorporating the university. It remains essential to explain the rationale and need for autonomy.

We had a very lively set of brainstorming sessions and there are most likely some additional points





that should be added to this very synoptic overview especially when students presented about Chinese Higher Education institutions the presenters, students were from Myanmar, Philippines and Singapore, while the viewer and audience were from P.R. China they did not like the approach of provision and consideration of alternative skillsets in addition to Gao Kao to balance the competitive ecosystem suggestion.

As this is interconnected world, all the institutions go through similar threats and opportunities, even though we have different roles and positions with diverse work culture, and different teaching style, the main outcome is to achieve outstanding alumni with great leaders and great achievers of their respective country. This only can be done through good and quality higher education, performance with a good purpose for the well-being of the society, various stakeholders, and community.

During the COVID-19, many companies were firing the employees and workers from their job due to bankruptcy of many businesses and industries. This resulted in economic recession, with many people facing mental stress through bad outcome of the pandemic, some even losing their loved ones in hospitals or at home due to positive effect of COVID-19. But as life and show must go on, during the post-Pandemic, the main idea arose to attract more international students to visit and explore Thailand and Siam University in order to create more onsite learning with local Siam university students joining in by appreciating them to promote and motivate to other friends and acquaintances that if foreigners can study onsite why not Thai local students join the classes and study onsite instead of online learning. This youth development camp is successful and productive one, centered on cooperation, on building upon each other's efforts, with logo of each home institutions on the flyer and banner as our main sponsor, on expediting communications, giving freedom of speech and a framework for the free flow of ideas and information from students regarding reimagining higher education so that whatever successes they have achieve like Singapore Higher Education Institutions with best practice are known and can be replicated elsewhere in other country's Higher Education institutions.

The futuristic vision of this youth development program is to organize once every year, with a hope, especially among the younger generation to spread its ingenuity, intelligence, and knowledge to ensure that host university teaching skills perfectly matched the societal endeavors. With the mission of many universities to work as a team to achieve inclusion, equity, human rights, and peace to better define our global future education. This youth development program was so sensational and appealing that participated ACD-UN members shared to their respective universities back home and within few weeks they promised to host in the coming future. This concludes to optimistic prospects for unity and collective endeavors to create Education for Sustainable Development. The additional support required is to include the role of industry and multinational companies joining in hands to join this camp in the future with more networking and training to learn about innovative products, processes, and services and to learn about prototype development and market testing towards commercialization.

Through this student leadership camp, each HEIs is surely facilitating other by motivating and exhibiting interests for their students to join and share their experience once they arrive back from this camp, as the change makers. The participants did not only gain experience, certificates, and good memories but they became Global citizens and lifelong learners with the capability to respond

to Globalization and revolutionary leaders. By allowing the youth to imagine of what our future world looks like and challenge for something new requires 21<sup>st</sup> century skills and communication skills. The summary is that not one size fits all, and we cannot stereotype the results of one country solution to other, but definitely we can learn and implement the best practice into our system and pedagogy. To conclude, Martha Goedert has stated “If you want to go fast, go alone. If you want to go far, go together.” If we do something right and with best practice, others will follow as we need to be their role model and, we will go together and reach our goals.

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# Exporting Fresh Ginger from Thailand - A Startup Business Proposal

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## ABSTRACT

Ginger is a signature spice in Asian cuisines with its distinct aroma and unique biting tinge. Ginger-extract is also used in herbal medicines and cosmetic products across the world. During pandemic, the demand of ginger grew higher due to its medicinal characteristics but the sourcing from China and India was hampered due to high Covid-19 cases. Though not as large as India and China, Thailand is also one of the major producers of ginger. China is the leading exporter of fresh ginger due to its volume, reliable preservation and smart marketing strategies offering the most competitive bargain. The study undertakes a qualitative inquiry to explore feasibility of exporting Thai ginger to Iran which imports about 3000 tons of fresh ginger annually from China and India. The study uses primary data obtained from Key Informants' interviews, and physical visits to markets in Thailand and Iran. It suggests that qualitatively Thai ginger possesses superior aroma, quality of fiber and taste than Chinese and Indian ginger. The study proposes that affluent Irani customers, expectantly shall prefer quality over price. It recommends that following the right product-handling process, improved packaging and increased product-life-cycle by applying some treatment, the product could remain fresh for longer duration. The efficient packaging by having the ginger loaded on pallet, permeating air circulation inside container, shall help reduce ginger-sweating thus enhance shelf-life and maintain moisture level and temperature to reduce mold-formation. Attractive packaging could allure the customers easily and smart advertisement of high-quality ginger could convince customers of future markets like UAE, Iraq and other Arab countries.

**Keywords:** Thai Ginger, Fresh Ginger, Ginger packaging, Ginger Export, Ginger Manufacturing Process, Iran Market

## INTRODUCTION

Ginger is an inseparable part of South-Asian cuisine due to its savory taste, and extensive usage by the cosmetics and pharmaceutical manufacturers (Abubacker, 2009). The part of ginger plant that is useful is its underground rhizome. Ginger has a well-documented account of both culinary and therapeutic use in the world, particularly in Chinese, Indian and Japanese medicinal laboratories. Interestingly, out of total estimated global production of 4-5 million tons of ginger, India and China combinedly produce more than 3.5 million tons. China, with an annual production of 1-1.5 million



tons of ginger holds the status of the world's leading exporter for many years (Abubacker, 2009). Due to lockdowns and disruptions in the global supply chain, many agricultural exports have been obstructed during the outbreak of the novel Covid-19 virus but ginger exports particularly have seen a surge of demand. In India alone, ginger export in early 2020 attained a 14.4 percent growth over its 2019 volume with a total value of \$93.29 million (Ayipei, 2020). This has happened due to the medicinal characteristics of ginger which was considered by many ayurvedic professionals as one of the cures for respiratory distresses. As a result, its demand was on the rise in many parts of the world even though the efficacy of ginger in this medicinal usage had no specific scientific evidence (Ayipei, 2020). Since it is widely believed that the novel coronavirus outbreak may have started from Wuhan-China, reportedly from the wild fresh food and seafood wet market in China (Ayipei, 2020), importing Chinese ginger became a buyer's dilemma in many established markets. The sourcing of ginger from China and India thus, was seriously hampered due to high Covid-19 cases in those countries (Ayipei, 2020) which had created a scenario where finding an alternative source of ginger became very evident.

Though not as large as India and China, Thailand is one of the major producers of ginger. Chinese ginger holds about two-third of the global ginger export due to its volume, reliable preservation and smart marketing strategies offering the most competitive bargain. It is assumed that some markets are willing to pay more to get higher grade ginger for their customers. This qualitative study explores the feasibility of exporting Thai ginger to an established market for Chinese ginger – Iran. Before Covid-19 pandemic, Iran used to import about 3000 tons of fresh ginger annually, mainly from China and India. The study collected primary data by interviewing some key personnel from the ministry and industry and by visiting in person some logistic nodes of ginger industry to study markets in Thailand and Iran. The study proposes that Irani market shall attract affluent customers who are willing pay higher for a high-end product like Thai ginger. The study thereafter puts forward recommendations as regards improved preservation, logistics transportation and temperature control measures to extend the shelf life of this delicate product and markets could also open to other Arab destinations. The important point for ginger farming in Thailand shall remain engrained in the maintenance of its quality (Waiyawuththanaporn, Tirastittam & Tirastittam, 2018; p 3574). The principal question asked throughout the study was, “How can the Thai ginger be profitably exported to the Irani market?” The answers shall identify the opportunities, vulnerabilities and necessary steps to be taken at various nodes in the overall exportation chain and process to consider Thai ginger a viable commodity for export to Iran.

## **DEMAND OF GINGER AS A CONSUMER PRODUCT**

In Indian ayurvedic medicine, ginger has long been used as an anti-inflammatory herb (Abubacker, 2009). Botanically termed as *Zingiber Officinale*, that comes of its Greek origin – *zingiberis*. To many Asians, Ginger is the most popular spice in the world. The English named it ginger though it originated from Sanskrit word ‘*Sringavera*’ or the ‘horn-root.’ Ginger was found useful by these two ancient civilizations from the olden times but Europe came to know of it much later (by the 11th century) . Inherent health benefits engrained in herbs like ginger, turmeric and garlic are well-recognized. These plants and herbs serve as dietary supplements for boosting the immune systems and help improve defense against inflammatory diseases. Many people in the world believe that drinking water with honey, lime, ginger and garlic is a cure to common cold, flu, and fever. Health benefits of ginger as a traditional remedy to combat the Covid-19 was also popular in Asia and

Africa (Ayipei, 2020).

Out of total production of 4-5 million tons of ginger, India, produces annually about 1.5-2 million tons but constitutes only 6 percent of the global export due to its high domestic consumption (Ayipei, 2020). China has an annual production of 1-1.5 million tons but holds about 57 percent of global exports. Apart from fresh ginger, the overall demand of dried ginger to the pharmaceuticals and cosmetics industries value about USD 442 million. Due to Covid-19 restrictions and a domestic flood, the biggest worldwide exporter China's global exports of ginger decreased in the 2020 by 15-20 percent compared to 2018/2019 export because of the floods that affected ginger production (Jang, 2020). This decline resulted in a significant rise in its price in countries such as Vietnam, Bangladesh, and Pakistan. China also had experienced disruption of international supply chain during the severe acute respiratory syndrome (SARS) epidemic, but the effect of Covid-19 pandemic was much larger and more severe. The temporary closure of international trade and lockdowns caused a global shortage of ginger in 2020 onward. This demand was enhanced as ginger is acknowledged as an indigenous medicinal beverage that augments one's immunity against diseases (Jang, 2020). For example, following the proliferation of Covid-19 pandemic in Africa, numerous videos on social media were seen that advocated that warm water with garlic, ginger, lemon in it can be used to cure someone who is infected with Covid-19 (Observers, 2020). Currently, the ginger supply chain has been stabilized and the prices have fallen to previous standards but the economic export of ginger in the global market was affected because China and India also became worse affected countries by Covid-19 (Ayipey, 2020). In 2021, total ginger trade amounted to US\$1.39 billion. Due to various reasons, between 2020 and 2021 the exports of ginger decreased by -5.57 percent, from US\$1.47 billion to US\$1.39 billion (Ginger, 2022). It is therefore, worth researching on the prospects of ginger export from new sources and novel ideas and seeking its export viability to established markets of China as a sensible and timely alternative.

## METHODOLOGY

This descriptive research with exploratory approach was conducted to examine the viability and identifying the factors for and against the proposed theme of exporting fresh ginger from Thailand to another country, here to Iran. The researcher utilized a thorough background study on the product itself, including its related literature mentioning handling, preservation and exportation throughout the various nodes of the supply chain. Thereafter some important personalities in the concerned ministries and agricultural university had been asked open-ended questions for their invaluable inputs, opinions and recommendations.

3.1 Population and Sample. The population for this research includes the internal and external stakeholders of ginger production and exportation, and retailing, both in the home and destination country. Some farmers, intermediaries and storage personnel have also been questioned for tapping from their tacit knowledge. The questions in the interview were developed by study of related research question and literature review then created the draft questions duly vetted by the academic adviser. The interview questions included both general information and specifics related to the research question. The obtained primary data was then processed to derive related information and interpreted to form necessary inferences on the research question.

3.2 Data Collection Process about Thai Ginger. To educate others about Thai fresh ginger, it is

necessary to collect and organize relevant data points about ginger, such as its weight, size, color, flavor, aroma, and any other characteristics that are of interest. The researcher is not an expert on collection and analysis of agricultural data. So, the relevant data was collected from experts at the Ministry of Agriculture.

3.3 Raw Data Collection for Analysis. Through personal visits and interviews the researcher collected primary data from the growers and farmers in the northern provinces, experts from academic domain in the university and legal and other data from the representatives of concerned ministries of the Thai government. It sought to find the vulnerabilities of the process involved in preparing, storing and the exportation of a perishable product like fresh ginger.

## RESULTS AND FINDINGS

The result includes the sifted information from all the data collected through individual study, personal visits and key informants' interviews of external stakeholders both in Thailand and Iran. Some of it is informative, some are guidance-oriented some are potential to be used to draw conclusions and recommendations.

4.1 Quality of Thai Ginger. In 2018, the volume of Thailand's vegetable exports stood at 126,069 tons with a value of about \$117.1 million (Waiyawuththanaporn, Tirastittam & Tirastittam, 2018). In the post-Covid scenario, some avenues have opened up for high-grade agricultural products like Thai ginger. According to Waiyawuththanaporn, Tirastittam and Tirastittam (2018), exporting Thailand's ginger to Japan excels over its competitors on the following factors: quality, price, equipment and supply standard, custom process and distribution pattern with a score of 4.86 upon 5.0 which is at a 'Good' significant level . It was identified that the quality of Thai ginger is higher and is characterized by superior aroma, high-grade fiber and taste compared to Chinese and Indian ginger (from interviews of staff from Ministry of Agriculture Thailand).

4.2 Processing Thai Ginger for Export. Like any other fresh vegetable, ginger is also a perishable product so it requires a careful and delicate handling process during logistics functions like storage and transportation. The farmers, the intermediaries, the exporters, the importers and the retailers need to learn about the intricacy involvement in the special handling of a short-lived product like ginger.

4.2.1 Steps in Preparing Ginger for Export. Some important steps to prepare ginger harvest are to prepare the best ginger ready to export (suggested by Agriculture Expert):

- a. Wash. The ginger needs to be washed with high water pressure so all the muds, dust and the small stones will be removed from the surface of the ginger.
- b. Trim. After washing the ginger with high water pressure, all the ginger are brought to a place for trimming and sorting. At this point the workers will sort the gingers according to size and cut the damaged and ungrown parts. And they will be keeping the ginger ready for the next steps.
- c. Chlorine. After gingers are washed and trimmed, these are passed through chlorine water for about one or two minutes for cleansing.

- d. Anti-Mold. In this process some chemical treatment is added, as anti-mold treatment. Need to keep the ginger into this liquid for about 2 minutes.
- e. Dry. In this process, the producers need to make sure after all the treatment and trimming of the gingers, to close up all the cutting area and prevent chemical seepage and bacterial infections and pests. Thereafter the ginger is made dry by using large fans while the gingers are placed on the tables made by a porous surface. It takes about 6 to 7 days to dry up.
- f. Packing. In the packing process, ginger needs to be packed in the carton or plastic boxes, most commonly in 10 kg packets with net weight additional 250g into every box, since the ginger will lose some weight while in preservation and it must weigh 10 kg as net weight at the time of arrival to the country of destination.
- g. Preservation in cold storage. After the ginger is fully treated and packed, it is preserved in the cold storage in specific temperature, before loading into container, (e.g., the ginger needs to stocked at 12°C to 14°C).
- h. Loading into container. After keeping the ginger in cold storage for a few days, it is transported by container trucks to the shipping destinations.

4.3 Export Documentation and Quarantine Requirements. In addition to the process of loading into containers from cold storage, the export process involves some documentation depending on the country of destination. For example, exporting ginger from Thailand to Iran, the following documents need to be prepared with some quarantine conditions as below:

- a. Bill of Lading.
- b. Certificate of Origin.
- c. Phytosanitary Certificate.
- d. Commercial Invoice.
- e. Packing List.
- f. Fumigation certificate.
- g. Health certificate.

4.3.1 Pre-Export Quarantine Requirement. The quarantine department of Iran have their own conditions as supplementary information as below:

- a. Quarantine conditions for importing fresh ginger rhizome (*Zingiber officinale*) Ginger Fresh Rhizome) from Thailand for edible use must have a valid phytosanitary certificate from the Ministry of Agriculture of Thailand and certify that the cargo is free from the following damaging factors: a) *Ostrinia furnacalis*, b) *Achatina fulica*, c) *Radopholus similis*.
- b. The aforementioned is mandatory, otherwise due to the lack of documents, the clearance of the goods will be refused.
- c. The damage caused by this systematic delay shall be borne by the importer.
- d. Disinfection of the shipment in Thailand with methyl bromide gas in the amount of 32



grams per cubic meter for 3 hours at a temperature above 21 degrees Celsius under NAP conditions and entering its specifications in the Treatment section of the relevant plant health certificate.

- e. The shipment must be free from soil, plant remains, weed seeds, live insects and signs of diseases.
- f. The cargo must be cleared at the border of entry and customs. If the cargo is found to be contaminated during inspection, the cargo will be disinfected at the expense of the owner of the goods, and otherwise, the cargo will be returned or it will be destroyed.
- g. If quarantine contamination is observed, the goods will be returned or destroyed according to international regulations.
- h. In case the shipment is exported through a third country, a copy of the plant health certificate of the country of origin must be submitted, which has all the conditions are announced and sealed with the quarantine seal of the re-exporting country along with the original re-export phytosanitary certificate to be provided to plant quarantine officers stationed at the border of entry and clearing customs.
- i. The notification of the declared conditions is issued according to the provisions of Article 11 of the Plant Protection Law and in relation to plant quarantine issues, and the importer is obliged to comply with other laws and regulations related to import.

4.3.2 Product Life of Fresh Ginger. Fresh Ginger under 15 degrees Celsius could retain its original condition for about 4 to 6 weeks and likely to be dehydrated thereafter. The author attaches here some pictures of fresh ginger that had been exported to the USA from Thailand in the beginning of February 2022 and kept as sample of the processed ginger inside cold storage until the picture was captured by the end of May 2022 which was almost 4 months in cold storage but retained its excellent look and quality:



Picture 1: Ginger after preserving in Cold Storage (source – author)



Picture 2: Unhealthy Ginger after 3 month's storage in room temperature (source - author)



Picture 3: Unhealthy Ginger due to more water-content initially (source - author)

It shows that the gingers may look beautiful and healthy in the beginning but in fact they have more water inside from the beginning that is one of the signs of an unhealthy ginger. An unhealthy ginger also has black spots from inside which the inspectors are able to recognize easily while checking the goods before approving for the Phytosanitary certificate and Health certificate (para 4.3). These two documents are the most important documents for exporting agricultural products to another country.

4.3.3 Evidence from Primary Data. In the following paragraph, it will be seen that the same healthy ginger after keeping in the cold storage for a duration of 3 months with the approximate temperature of  $+12^{\circ}\text{C}$ . By following the pictures below and going through the interpretations, evidence will demonstrate for others to understand that the gingers that stays in perfect temperature will stay much fresher and will have less growing on them and will stay more hydrated as a result they will look more attractive, beautiful and stay longer. According to the researcher's research and experience, as he was checking the ginger farms and companies, they have two types of ginger with different conditions and prices. One, the muddy gingers that have been harvested and kept inside the black plastic bag and staying outside, and another, in black polythene bag but keeping inside the cold storage. Those kept in cold storage have double value and cost compared to the one which stays outside cold storage in the temperature between  $25\text{-}40^{\circ}\text{C}$ .



Picture 4: Fresh Ginger kept in Cold Storage

Picture 5: Ginger shows growth and lasts shorter

As a result, the one kept in the cold storage will remain healthier since once the growth happens on ginger the quality will be decreased. Since the growing will make roots inside the ginger and the benefits of ginger will be gone, so the best way to stop growing processing of ginger is to keep them in cold storage. However, keeping in cold storage will incur electricity bills and packaging costs will make it a bit expensive, but will ensure good quality and higher shelf life.



Picture 6: Ginger inside Cold Storage



Picture 7: Ginger outside Cold Storage

**4.4 Data About Iran Market.** Iran has more than 87.92 million population<sup>10</sup> that shows a great market for a product like high-quality Thai ginger. Ginger is widely popular in Iran and every year it imports more than 3,000 tons<sup>11</sup> of fresh ginger specially from China and India. Every 40 ft container of fresh ginger holds approximately between 19 to 22 tons of ginger, subject to the packaging and loading on pallet or without pallet. Iran approximately imports 136 to 157 containers of ginger from China, which is a reasonably large amount. The following data is helpful to find out how to influence this market. First, to replace Chinese ginger, the exporter has to provide very high quality of Thai ginger to Iran that remains healthy in terms of ginger quality, packaging quality and at a reasonable price. So once the product is of acceptable quality and available in the marketplace, the customers will be able to physically see the difference in quality, packaging, and at a reasonable price. Thus, the product is likely to become popular in Iran market. Second, the potential importers and marketers must be reached out through an inclusive approach involving email or calling, and an appropriate advertisement campaign can introduce this new product and possibly convince them to choose it.

**4.5 Pilot Effort to Export Thai Ginger.** Pilot exportation was done using research data about fresh ginger from the Department of Agriculture (DOA) Thailand at Kasetsart University in Bangkok. Those are summarized below:

<sup>10</sup> According to 2021 records.

<sup>11</sup> Iran Website of ISNA NEWS, 2022.

- a. **Sourcing and Quality.** According to DOA officers, most of the ginger exporters in Thailand are based in Phetchabun province. The researcher(s) visited those businessmen in-person in Phetchabun, and learnt that the exporters make purchase of fresh ginger from only handful of farms that are approved by DOA Thailand. The chosen ginger must be healthy and free from any disease and have minimum water-content inside. Otherwise, the ginger will have a low shelf life. The researcher found that gingers must follow certain treatment process to ensure a higher shelf life, and devise smart packaging and efficient loading into container that could prevent or avoid any damage on the ginger from the origin point until the destination market.
- b. **Pricing Strategy.** A potential exporter must be fully conversant with the global ginger market in the pre-and-post Covid scenario while strategizing a business to export fresh ginger from Thailand. While exporting Thai fresh ginger to New Zealand, the Netherlands, the USA or other European countries, the prices remain high compared to Chinese or Indian sources. Normally an Iranian buyer has high expectations from the products as fresh and it must look beautiful like European grades but with Middle Eastern price. If the number of intermediaries can be minimized, the price can come down to a reasonable level. If the exportation can be done by own company and not by established ginger exporters company, the value chain may cost less for a startup venture. Through ground study and personal interview by the researcher, it was found that if the product is collected directly from growers or farmers, it may be possible to keep the price lower compared to the Chinese ginger available in the Iran market. If the customers are well-informed of the high quality of Thai ginger with its price equivalent to Chinese ginger, it may be a viable offer in the market with added value to Iranian retailer buyers.
- c. **Piloting the Export.** Researcher had made an endeavor to export small quantity of Thai ginger in container as pilot venture, and found many discrepancies in terms of quality, preservation techniques, shelf life, and packaging anomalies during storage and transportation. In spite of this, due to direct procurement from growers, the first shipment was expected to make significant profits for the researcher. But the ginger got degraded due to non-conforming packaging, the quality was degraded rapidly and got rotten earlier than expected life. This venture incurred losses for the seller, but taught some invaluable lessons. The second attempt was made following the guidelines from experts and improved packaging, it showed that the quality of ginger was good after transportation. Unfortunately, the quality of ginger failed quickly due to lack of vent circulation in the container and due to improper loading of the carton of gingers on pallets. The boxes also did not have any holes for air circulation, and the container was loaded fully without keeping any space for air to circulate. Heartily, the Irani buyers showed high appreciation for Thai ginger for its inherent quality, aroma and looks. These trials perfected the understanding and experiential knowledge of the researcher to pursue further with a refined approach.

## DISCUSSION AND CONCLUSION

Ginger has always been a highly-demanded commodity with its culinary, ayurvedic and medicinal characteristics in many parts of the world. The unexpected impact of the Coronavirus has had a detrimental effect on the international trading of ginger, particularly in the first quarter of 2020.



Demand of ginger surged due to its usage as one of the ingredients of traditional medicines to cure respiratory and other illnesses. It also inspired many nations to consume higher quantity of ginger during the lockdowns. Although its usage has no significant pharmaceutical proof as a cure for the Coronavirus, the uncertainties in the minds of people made it a people-friendly alternative to other medications. The study took off from this agenda that the pandemic has caused interruptions in the traditional supply chain of ginger and there is a need to seek alternative sources of this high-demand commodity - fresh ginger.

Thailand with its vast arable lands suitable for cultivation of ginger, remains a solid alternative source. Thailand is one of the suitable countries with great farmlands with its good topsoil and the tropical weather, making ginger as a high-yield produce. Above all, the highlands in the mountain area and the north of Thailand are perfect for growing vegetables, fruits and beans, such as Ginger, Tamarind, and coffee. The most ginger comes from the north of Thailand. The best gingers that are exported come from Thailand's Petchaboon. This beautiful province has enough water due to frequent raining with perfect atmosphere that makes the ginger have higher quality over Chinese ginger. The experts also endorsed that these variants of Thai ginger are qualitatively superior to Chinese or Indian ginger, provided it is transported with minimum distortion of its original quality.

As seen from the results and discussions, the most important factor for a successful exportation venture of Thai ginger to Iran will lie in the quality, appropriate treatment, preservation and storage, quality of packaging during storage and transportation, and shipping those in right kind of containers with porous surface, having vents to maintain right temperature and ensure adequate air circulation to extend the life of the fresh ginger. Another very important aspect is to minimize waste and reduce the number of intermediaries enroute so that the price of Thai ginger remains more competitive in the foreign market (Iran) compared to the established suppliers from China or India. The uncertainty involved in the successful marketing of a new product has to be reduced by excellent awareness campaign, smart advertising and attractive packaging that will encourage the potential sellers and retailers in Iran and their customers in the end. Piloting the export of fresh Thai ginger to Iran using traditional approach following the Covid-19 era, had its unforeseen and inherent problems and shortfalls. These ventures have been taken as learning opportunities and necessary amendments and improvisations have been applied to minimize the systemic imperfections. This would also enable cost saving and make the product available to Iran market in an attractive and healthy condition. The major key to success lies in retaining the high quality of Thai ginger until sold to Irani market with additional measures before, during and after the export process. There is also a need to maintain quality control for all future shipments so that the trust once built, is never waned in the minds of the customers.

The study did not include typical financial analysis involving profit-loss, cost-benefit or breakeven analysis for obvious reasons of confidentiality of the startup venture. It is however, recommended that beside quality, the price of ginger must be considered as the most important keys to success of this business. Price has to remain very competitive and efforts must be generated to minimize costs at nodes in the value chain so that the customers are able to be understand and remain satisfied about a reasonable bargain for a new product. Given its success, the similar propositions may also be relevant for exporting vegetables and other fresh supplies to Iran and other markets of the Arab world where the affluent customers are ready to seek quality over price.

As the researcher mentioned earlier those ginger farms that approved by the DOA Thailand is relevant to consider for preparing for the export grades specially if talking about Iran's Market, which is a very sensitive market and the imported products such as ginger must be in a great position otherwise the seller in the fruits and vegetable markets will refuse the imported variety of ginger. If there are degradations enroute to shipment of Thai ginger to Iran, the investors may lose interest to put their money on risk due to uncertainty of product life cycle that is why quality control remain a big issue throughout the process. From the researcher's experience, after marketing first two consignments, the customers seemed to have understood that the Thai ginger in indeed of high quality and if the conditions are well maintained, its export could also make a successful startup business in Iran fresh vegetable market. The vulnerability issues may be summarized as under:

- 1) Container refrigerator may not work properly causing the ginger to be damaged and get mold easily.
- 2) Some of the chosen ginger may have disease from the beginning if not sourced from authorized growers who are approved by DOA Thailand (for cheaper price from some random farms).
- 3) Not follow the recommended treatment process, like not adding chlorine and anti-molding process, the workers might trim some gingers after dry process, which is highly not recommended. The ginger's cutting part must become dry, to prevent from bacteria or any other impurities.
- 4) Inappropriate packaging, the carton boxes should have some holes for air circulation and vent. The boxes must be loaded in containers with sufficient space for air circulation.

These are the most import aspects that need to be considered for any future supply to Iran's market. If once the product reaches successfully, thereafter Thai ginger will cement its demand in that market and its customers and compete against China and India. Having reached safely to Iran, the product must be stored in appropriate temperature and conditions only to be distributed to retailers securely to reach its consumers.

Though a bit complex, importing fresh ginger from Thailand can be a profitable opportunity for those who are able to navigate the regulatory and logistical requirements. Overall, exporting Thai fresh ginger requires careful planning and execution to ensure that the product meets the quality and safety standards of the destination country and is successfully marketed and sold. No matter how good a business plan is, the uncertainty of demand and the unforeseen challenges remains engrained in every stage and every node of its logistics supply chain. The proposed business venture of piloting ginger export from Thailand to Iran is an academic exercise that has shown high potential to sustain as a viable business. Provided the startups are quick learners, if they approach to a business problem with a flexible mind, the chances of success will be higher. They shall be able to customize their proposals to respond to the diverse challenges and imperfections that shall appear in various stages of the effort. If the business is found viable, hopefully it shall be shared with some business entities in order to be further utilized for other commodities.

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Footnotes:

1. In Indian Ayurvedic Medicine, ginger is a remedy for inflammations. It was also exported to Roman empire about 2000 years ago (Abubacker, 2009; Ayipei, 2020). Japanese always eat ginger as pickle (gari – mixed with vinegar and sugar) with their traditional food – sushi. Ginger serves as an antidote to possible fish poisoning in Japan (Waiyawuththanaporn, Tirastittam & Tirastittam, 2018).
2. Abubacker, 2009.
3. Areddy (2020) stated that in early 2000s, the severe acute respiratory syndrome (SARS) did upset the traditional supply chains and logistics, but to a much smaller scale compared to Covid-19 pandemic of 2020.
4. Waiyawuththanaporn, Tirastittam and Tirastittam (2018), p 3576.
5. According to 2021 records.
6. Iran Website of ISNA NEWS, 2022.



# Cross-Cultural Conflict Management in the Global Business Environment

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## ABSTRACT

There are many different reasons why more and more firms are doing business globally. They can radically save business operating costs by manufacturing their products in foreign territories, buying cheaper raw materials locally, benefiting from the hosting government's incentives and favors, and strengthening their comparative advantage. Furthermore, they will have easy access to new consumer markets with the local factors of production and distribution.

It is undeniable that globalization has created new business opportunities and economic growth through the transnational free flow of goods, services, capital, and labor. The world has become increasingly interconnected and interdependent through globalization. We realize that countries, firms, and people today are more connected than ever. Development and widespread use of transportation tools such as airplanes, transnational railways, and ferries, sea shipping containers has facilitated interactions between economic players. The internet, coupled with diverse digital technologies and tourism, has improved communication, and understanding among people from different cultures. In the meantime, the business world has evolved with trends such as division of work, outsourcing, free trade, and international supply chains. Globalization continuously increases the volume of transactions, making the global market bigger and bigger.

**Keywords:** communication, cross-cultural communication, cross-cultural conflict, globalization, negotiation, communication barriers, stereotyping, misunderstandings

## CROSS-CULTURAL CONFLICTS RESULTING FROM GLOBAL BUSINESS

The world has been experiencing globalization over the past several decades with different consequences. One of the most important consequences is the expansion of cross-cultural businesses involving people from different cultural backgrounds. It is true that cross-cultural businesses have allowed products and services such as digital devices, automobiles, information technology, and tourism to be spread far more widely throughout the world. Cross-cultural businesses have positive impacts on the local economy through an international division of work, the creation of jobs, diversification of business activities, and expansion of the market. They also have negative impacts resulting from various communication barriers such as ethnocentrism, stereotyping, false assumption, and language, among many others.

We now understand that people from different cultures, societies, and groups often communicate very differently from each other. This can make the task of communication across cultural

boundaries a very problematic one. In our globalized world, understanding these differences and where they come from is more important than ever. One way to reach such an understanding is through the high- and low-context culture framework developed by American anthropologist Edward T. Hall.

According to Hall, low-context cultures include the US, Canada, Germany, and Scandinavian countries. People in these cultures generally use direct, explicit verbal communication. People rely on facts and verbal explanations, not intuition, nonverbal cues, or common assumptions. Conversely, people in high-context cultures – China, Korea, Japan, and the Arab countries, for example – use indirect, circular communication. People in this category of countries share common assumptions, beliefs, and knowledge that enables them to communicate without relying only on words.

Organizing cultures strictly into high- or low-context is more complicated. Most cultures fall between the extremes on the spectrum and can share characteristics of both high- and low-context features to varying degrees. Although it can be a complex characteristic whether a culture is high- or low-context, it can determine many other aspects of a particular culture. For example, similarity is an essential characteristic in a high-context culture. This is because most of the population in high-context cultures typically have the same level of education, as well as a shared ethnicity, religion, and history. Through these shared experiences, messages can be contextualized by assuming an audience will think in the same way and follow the underlying message implicit in someone's speech or writing. In low-context cultures, the opposite is true. They are usually diverse and focus on the individual instead of the group. Since there are so many differences within a low-context culture, communication must be essential enough to allow as many people to understand it as possible.

Even though there are some weaknesses in analyzing cross-cultural business conflicts happening in different societies, Hall's high- and low-context cultures allow us to compare differences between groups of people involved in conflicts and propose a simplistic understanding of cross-cultural communication problems.

There are many useful models and theories for describing, summarizing, and analyzing national cultures. Geert Hofstede's Model of Cultural Dimensions is one of the most quoted and widely discussed. In 1980, Geert Hofstede, a social scientist from the Netherlands, studied the impact of culture on behavior by examining the values and beliefs of 116,000 IBM employees. It was one of the most comprehensive studies of culture, spanning 64 different countries. The result of Hofstede's study identified four national and cultural dimensions: power distance, individualism, masculinity, and uncertainty avoidance.

The advantage of using a model like Hofstede's is that it enables us to learn about cultures through a limited number of dimensions. Suppose we are familiar with Hofstede's dimensions and can determine which dimensions are exhibited by the people we are working with. In that case, there are guidelines we can use for communicating with them.

## HOW TO MANAGE CROSS-CULTURAL CONFLICTS

As the world progresses in this era of globalization, cross-cultural businesses flourish in every corner of the world. People are more involved in cross-cultural communication, and firms are developing diverse activities beyond their domestic territories to expand their businesses in a foreign land. The business world is also focusing on the geocentric approach to recruiting talented employees from distinct cultural backgrounds to carry out business projects and to produce the best outcomes. This new business approach has now provided job opportunities for the potential talent to experience and get exposed to promising career development in the firms involved in the cross-cultural business environment.

Diversity in the workforce brings productive outcomes for organizations. Big MNCs and many small and medium-sized companies are now characterized by diversity in their workplace. Workplace diversity has helped to channel the potential of diversity and helped these organizations grow and expand their businesses worldwide. Nevertheless, this diversity gives rise to conflicts of various natures. Cross-cultural conflicts happen in an organization composed of unfamiliar cultural backgrounds, on the one hand. On the other hand, they are also observed in business activities between partner organizations from different countries.

It becomes essential for the firms to carefully consider the conflicts originating from the existing cross-cultural diversity at the workplace and business relations with other firms. Cultural diversity embraces individual differences based on gender, age, race, ethnicity, religion, beliefs, value systems, personality, and other cultural aspects. However, it also provides a certain number of challenges. The challenges may range from cultural clashes augmented with differing value systems hampering the overall work environment and disturbing the synergy at the workplace.

A substantial number of researchers in communication show that cross-cultural dealmaking leads to worse outcomes than negotiations within the same culture. The reason is primarily that different beliefs, behaviors, habits, communication styles, and norms of the society in question characterize cultures. Consequently, when people have cross-cultural business conflicts, they bring different perspectives to the bargaining table, which may cause potential misunderstandings. Misunderstandings can lower the likelihood of exploring integrative or value-creating solutions. Negotiators with an integrative perspective believe that all negotiating parties can win through mutually beneficial solutions. So, those who misunderstand the conflict situation try to dominate the other party because they believe they are in direct conflict with the other party over limited resources. This way of thinking is called the 'distributive perspective.' There will be a clear winner and loser, but not multiple winners under this perspective.

To manage cross-cultural business conflicts effectively and productively, we need to understand the leading causes of negotiation failures, also called significant barriers to cross-cultural communication. The business world is composed of many cultures, languages, and customs. But often, people do not know how to talk, behave, or act in the presence of a person from another culture. That is why we need to learn, in a globalized business environment, how to understand people who come from cultures and countries different from our own. It is challenging for people working in a cross-cultural environment to learn distinct cultural aspects of the people with whom they communicate. If we ignore communication differences, it inevitably leads to

miscommunication and misunderstanding, which results in conflicts causing people in communication to feel offended. If we accept cultural differences among people and learn how to use cross-cultural communication techniques, we can easily overcome any cultural obstacles we face.

The significant communication barriers we encounter in cross-cultural situations are ethnocentrism, stereotyping, misunderstanding, and language. Ethnocentrism occurs when people believe in the superiority of their own culture and dislike or misunderstand all other cultures. Stereotyping happens when people have a standardized mental picture representing an oversimplified opinion, prejudiced attitude, or uncritical judgment about a group. Misunderstandings or misinterpretations appear when there is a failure to understand what is meant entirely, leading to disagreements. Language is also an important barrier to communication between people as it is a verbal expression of culture in consideration.

Successful businesspeople and negotiators know how to accumulate valuable skills and techniques of communication, and they behave accordingly in cross-cultural conflict situations. In addition, awareness and understanding of your cultural aspects can help you anticipate how your counterpart might interpret your bargaining behavior. The starting point to deal with cross-cultural conflicts is to be aware of your own culture before learning about the other cultures with which you interact. To overcome cross-cultural conflict situations, it is vital to learn as much as you can about the other party's culture. Then, you will be able to compare and acknowledge the cultural differences between your own and others, allowing you to think and behave reasonably in cross-cultural business environments.

Successful cross-cultural communication creates a dialogue, and a continuous transfer of information, minimizing the chances of conflicts in the workplace. This exchange of information addresses our assumptions and clarifies points we do not understand. It also provides the opportunity for us to ask questions and confirm the information that was received. Having a dialogue reduces conflict because cultural misunderstandings can be dealt with when they arise. The dialogue only occurs when both parties agree to share information and ensure that the transfer of information is not blocked.

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# Social norms and HRM Practice in Thai Subsidiary Corporations: An Exploration into ‘Emic’ Cultural Influence

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## ABSTRACT

Adopting the ‘emic’ (inside-out) perspective on cultural norms and practice, this study explores the influence of indigenous social constructs on the practice of managerial selection, recruitment and appraisal. Current research in international organizations to date – especially within the confines of the Western-headquartered MNC subsidiary – has produced a body of work which explores how culture shapes the local implementation of corporate HR policy. However, with sparse exceptions, such work has remained focused on the ‘etic’ culture dimension drawn from the increasingly dated ‘national culture models’ (instanced by individualism-collectivism and power distance) in seeking to explain cross-border differences in the way local organizational actors are recruited and appraised. While this comparative, universal approach on culture’s consequences has surfaced some valuable insights, the lack of detail and refinement in understanding has led a growing number of cross-cultural management researchers to focus instead on concepts indigenous to the local environment. An additional caveat is that research to date has remained primarily cross-section in its analysis, bearing a lack of process-oriented empirical examinations to understand more deeply the mechanisms underlying cultural influence.

In this study, using a process-oriented, mixed-methods approach we seek to address these caveats, focusing our investigation on the Thai subsidiaries of Western-headquartered hospitality brands. Based on our own experiences and as identified within the recent literature, we centered our attention on the Thai construct of *bunghun*. As an influential and prevalent construct, across the Greater Mekong Sub-region, *bunghun* denotes the norms and practices embodied in reciprocated favors among interpersonal networks. Drawn from a sample of 16 HR executives (7 Western, 9 Thai) we collected data through a mix of semi-structured interviews (as our primary source), observation and company documentation. Results suggest that *bunghun* shapes the process and practice of recruitment and appraisal in a number of ways both direct and indirect. Key to our findings lay in the uncovering of how the selection process was influenced by the *bunghun* between individual applicant/candidate/employee and remained however unbeknown to the corporate executives concerned – specifically due to being bound in subtle, invisible, long-standing networks of personal connections. Through the use of a specific indigenous construct on the ground – as used and interpreted by local organizational actors – we were able to identify, highlight and unpack its influence at a deeper level than in prior researched grounded in point-in-time analysis of etic constructs.



This research extends and refines how we understand the influence of culture on international HRM theory and practice. It adds to the growing corpus of literature explaining how indigenous norms and values the adoption and use of Western-oriented HRM principles and practice – specifically recruitment and appraisal in emerging ASEAN. Our findings also serve to expand current knowledge into the to date under-researched ‘emic’ dimensions of culture in non-western societal environments. Implications for theory in cross-border HRM policy implementation, as well as for corporate practitioners, are discussed to conclude the study.

**Keywords:** International HRM; Emic culture constructs; National culture models; Bunkhun; Recruitment & appraisal; Thai subsidiary corporation.



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