BRAIN DRAIN IN MALAYSIA'S BANKING AND FINANCE INDUSTRY: CAUSES, IMPACTS, AND STRATEGIES FOR TALENT RETENTION

JACKIE YEW ZHI DAR
KAUSHAN A/L SUNDARIAL
SHIRLEY YONG LI YUNG
TERENCE LIM RUN CE
WAI RU EN

BACHELOR OF BUSINESS ADMINISTRATION (HONOURS) BANKING AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
DEPARTMENT OF BANKING AND RISK MANAGEMENT

SEPTEMBER 2024

BRAIN DRAIN IN MALAYSIA'S BANKING AND FINANCE INDUSTRY: CAUSES, IMPACTS, AND STRATEGIES FOR TALENT RETENTION

BY

JACKIE YEW ZHI DAR
KAUSHAN A/L SUNDARIAL
SHIRLEY YONG LI YUNG
TERENCE LIM RUN CE
WAI RU EN

A final year project submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF BUSINESS ADMINISTRATION (HONOURS) BANKING AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
DEPARTMENT OF BANKING AND RISK MANAGEMENT

SEPTEMBER 2024

DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work, and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

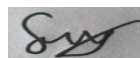(4) The word count of this research report is _____22634_____.

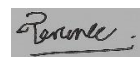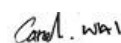| Name of Student:	Student ID:	Signature:
1) Jackie Yew Zhi Dar	1903281	
2) Kaushan A/L Sundarial	2000160	
3) Shirley Yong Li Yung	2200530	
4) Terence Lim Run Ce	2102409	
5) Wai Ru En	2100358	

Date: 31 August 2024

ACKNOWLEDGEMENT

First and foremost, we extend our gratitude to Universiti Tunku Abdul Rahman (UTAR) for providing convenient facilities such as the library, learning space, and lecture halls, which have given us a comfortable environment to enhance our skills and knowledge throughout our undergraduate studies. These facilities significantly contributed to the successful completion of this research project.

In addition, we would like to express our appreciation to our research project supervisor, Prof. Dr. Abdelhak Senadjki. His expertise, professional insights, and supervision provided us with a deeper understanding and direction when we faced challenges.

We are also thankful to our examiner, Mr. Cheah Chee Keong, for his valuable advice during the proposal defense and presentation, which guided us to improve and ultimately succeed in this research project.

Moreover, we would like to express our gratitude to those who contributed to our research project, including UTAR, lecturers, tutors, family members, and the 449 respondents involved in the study. Their contributions enabled us to obtain crucial data and better insights into the industry.

Lastly, we appreciate the cooperation and contributions of all team members. Their continuous commitment, collaborative spirit, and enthusiasm kept the team motivated throughout the research project. Our study would not have been possible without their collaboration and dedication. Once again, we express our deepest gratitude to all parties involved in the research project.

DEDICATION

First and foremost, we would like to dedicate this project to Universiti Tunku Abdul Rahman (UTAR), the cornerstone of our academic journey. It is the institution that has instilled us regarding the values of resilience, and diligence.

Furthermore, we would like to express our overwhelming gratitude to our research project supervisor, Prof. Dr Abdelhak Senadjki, for his support and guidance throughout the research study. His expertise, and encouragement had provided us support when we faced challenges in the project.

Last but not least, we would like to dedicate this research project to our families and friends for their support throughout the completion of our research. We are deeply grateful for their moral support, and determination that inspired us to perform well. Group members are utmost significant as well in the contributions of time, cooperation, and knowledge that play important role in the succeed of the research project.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

LIST OF ABBREVIATIONS

AVE   Average Variance Extracted

CD   Career Dissatisfaction

CVA   Convergent Validity Analysis

DV   Dependent Variable (Intention to Work Abroad)

DVA   Discriminant Validity Analysis

HTMT   Heterotrait-Monotrait

NELM   New Economics of Labor Migration

ME   Mediator (Career Advancement Abroad)

MO   Moderator (Level of Experience and Expertise)

PLS-SEM   Partial Least Square Structural Equation Modelling

QL   Quality of Life

SC   Salary and Compensation

VAF   Variance Accounted For

LIST OF APPENDICES

Page

PREFACE

This study is utmost significant for the completion of our undergraduate course which is Bachelor of Business Administrations (Honours) Banking and Finance offered by Universiti Tunku Abdul Rahman (UTAR). The topic of this study is "Brain Drain in Malaysia's Banking and Finance Industry: Causes, Impacts, and Strategies for Talent Retention". Hence, in this study carried out, the factors that significantly affect the intention of professionals from Malaysia banking and finance industry to work abroad, with the mediator of career advancement abroad and moderator of level of experience and expertise are to be explored.

With the development of information and technology nowadays, people are having more exposure to the world outside their home country, making comparison between them in every aspect, especially when it comes to the personal career. In this era of modernisation, people tend to compare the career dissatisfaction, salary and compensation, and quality of life as the factors to aid their decision, whether to work abroad. Along with these factors, some people may also consider career advancement opportunities abroad, which can mediate the relationship between the mentioned factors and their intention to work abroad. Furthermore, the level of experience and expertise is believed to have moderating effect on the strength of the decision among the professionals.

Having this holistic study from most of the relevant aspects in affecting the decision of working abroad, this study is not only serves to improve academic research, yet to provide the government and employers with better understanding of the source and root of brain drain, subsequently retain a well-defined workforce, and support the country's future economic stability.

ABSTRACT

Brain drain refers to the phenomenon where professionals regardless of their industry in a country emigrating to other country to work due to many reasons such as better job opportunities, favourable salaries, better political stability and so forth. This phenomenon may lead to shortage of skilled professionals in their home country which will subsequently affect the country's economy negatively. The primary objective of this study is to determine the factors influencing the intention of professionals in Malaysia banking and finance industry to work abroad. The relationships of career dissatisfaction, salary and compensation, and quality of life on intention to work abroad are analysed. Quantitative research method is applied as the methodology for this study. The primary data analysed in the study is collected via the application of online questionnaire known as Google Forms. In order to collect the data required, convenience sampling techniques under the non-probability sampling technique is utilized. The reliability of the questionnaire is test via SPSS under Pilot test of 40 respondents. After determining the reliability of the questionnaire, the questionnaire is distributed to professionals under the banking and finance industry in Malaysia, including those students under banking and finance that planned to join the industry in future. The questionnaire received at total of 449 responses, where 413 of them are eligible for the study. The data collected is analysed thoroughly using SmartPLS 4, and described in the form of descriptive analysis, reliability test, convergent and discriminant validity analysis, and assessment of structural model. The results obtained reflects that career dissatisfaction, and quality of life are having significant relationship with the intention of professionals under Malaysia banking and finance industry to work abroad. While the relationship of career advancement abroad does not have mediating effect on the relationship of independent variables and dependent variable. In order for better results in future study, some limitations and recommendations are provided in the end of the study for future researchers.

CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

Research overview provides a concise abstract of the issue of brain drain. From the research background of the study, the phenomenon of brain drains, current situation, and the relationship between the determinants are explained thoroughly to provide a basic understanding of the studied field before moving into deeper. This study will attempt to examine and discuss the problem statement, followed by the identification of research questions and objectives both generally and specifically. Furthermore, the scope of study will explain the focus of the study in details. In the end of this chapter, there will be a conclusion.

1.1   Research Background

1.1.1 Phenomenon of Brain Drain

What does it mean by brain drain? According to Young (2023), brain drain refers to human capital flight, where educated or people with certain professions such as financial analysts, bankers, engineers, doctors and so forth emigrate or migrate to foreign countries or other companies mainly for the purpose of better standard of living. There are mainly two categories of brain drain which are geographic brain drain and organizational or industrial brain drain. For geographic brain drain, it refers to the emigration of professionals from one country to another country, while

the latter refers to the leaving of professionals from their former company or industry, yet not cross countries.

Looking from the historical perspective of the brain drain phenomenon, the issue of brain drains emerged during the 1940s to 1950s, where World War II was the main contributor (Beck, 2018). This brain drain phenomenon involved the emigration of professionals from Europe to United States due to political instability such as anti-Semitism against Jewish people. To illustrate, Albert Einstein, a notable physicist, had involved in this emigration from Germany to United States at the age of 54. Besides Einstein, Niels Bohr, a Danish physicist that contributed to the Bohr Model creation emigrated to United States as well due to the rise of Nazi in Germany. These emigrations of professionals are huge national losses to their origin country, but brain gains for the country they landed.

In between 1940s to 1950s, the decolonization and independence movements had further driven the brain drain issues. This decolonization happened in Southeast and South Asia due to the downfall of Indian, British, and Australian soldiers in Malaya, today known as Malaysia (Jeffreys, 2024). This decolonization in involved countries that just gained independence had led to brain drain due to the political and economic instability such as underdeveloped industries, lower standard of living and more. Moving forward to the era of globalization and technological advancement in 1970s to 1990s, the issue of brain drain continues due to several factors where one of them is the access to information and mobility that had exposed people with opportunities and comparison of living standards among countries. To further illustrate on this scenario, the globalization and technological advancements starting from 1970s increased the interconnectedness between countries, and access of information regarding job opportunities, living standards, and educational advancements. Hence, professionals tend to make decisions on leaving their origin countries for a better opportunity in foreign countries, leading to severe brain drain issues. Coming back to these days of information technology, brain drain is still a

significant issue around the world, especially in developing countries, such as Malaysia.

Focusing on non-ASEAN region, according to the research conducted by Dodani and LaPorte (2005), majority of brain drain issues take place among developing countries and developed countries where developing countries are the loser of this case. This is in light of the fact that brain drain in developing countries is a loss as investment in term of education and training incentives had been done to cultivate professionals for the country's future, yet end up emigrating to developed countries. Looking at the past brain drain issues around the world, a study on South African had been conducted by Kaplan and Höppli (2017), where it is found that South Africa was facing significant shortages of skills due to the outflows of professionals limiting the country's economic growth in the studied period of 2000 to 2013. Based on the study done by Rizvi (2005) about the issue of brain drain in the era of globalization, the study which focused on international students from foreign countries in Australian and American universities found that the number of Southeast and East Asia students that pursued their studies in Australian increased significantly in 2005, where more than half of them decided to stay in Australia, reflecting the brain drain in Asia. Figure 1.1.1 below is the result obtained by Rizvi (2006) via OECD (2004) and Tremblay (2004), focusing on the brain drain of doctoral students pursuing their study in United States from selected countries.
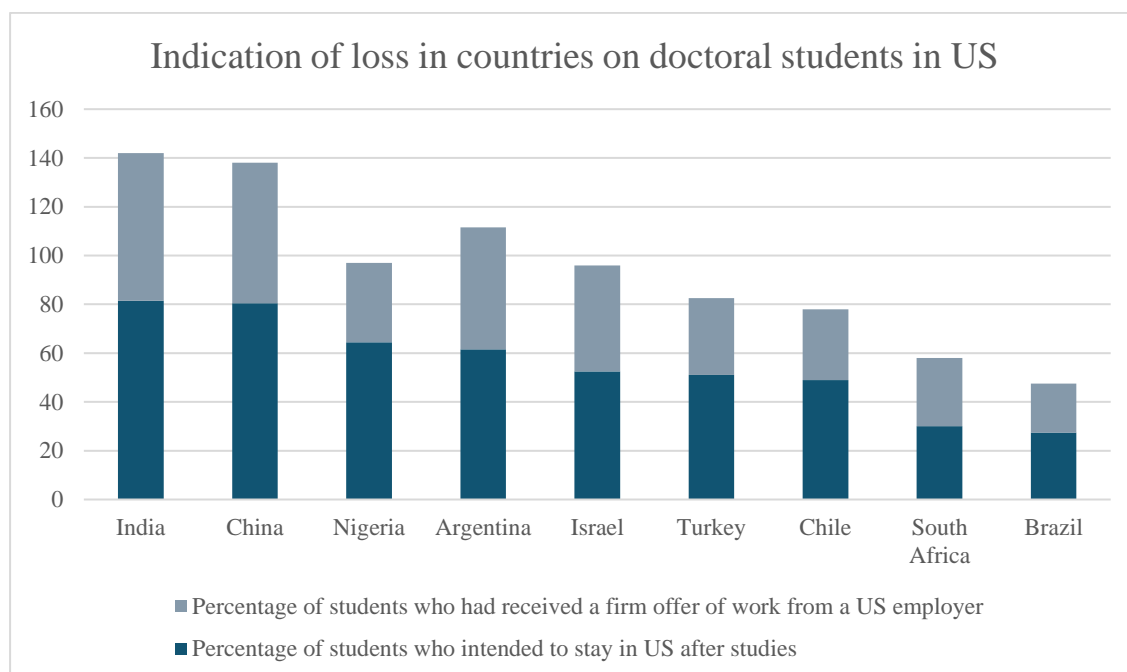
Figure 1.1. 1: Indication of loss in countries on doctoral students in US (OECD, 2004) & (Tremblay, 2004)

Apart from that, another study was conducted on brain drain losses on Serbia by Radonjić and Bobić (2020). The study found that brain drain issues occurred in that country as well where it had led to a massive loss not only in terms of money, yet skills as well. To illustrate, there are approximately 708,804 emigrations in Serbia between the years 1990 to 2017, where up to 79% of them are leaving for European Union (EU) countries that consists of 27 members and all under categories of developed. Also, from a survey conducted, it is found that the main driving factor for them to stay in EU countries is the higher life quality and living standard compared to in Serbia. From another brain drain related study conducted on Iran by Torbat (2002), it is found that political instability was the main factor driving people from Iran to migrate to United States especially among university professors and physicians that perform important role in the development of the country. To illustrate, the war between Iran and Iraq that lasted for 8 years not only damaging the country's political stability, yet at the same time deteriorating the economy stability as well. In this study as well, it is pointed out that economic growth of country is highly affected by both human and physical capital, where in this case referring to the emigration of the professionals in Iran.

Moving forward to the focus on ASEAN countries, a study had been conducted on Philippines by Lu (2014), it is again proven that brain drain happened in developing countries, where the brain drain in Philippines mostly consists of groups of teachers, health professionals, information-technology specialists, and engineers. From this study conducted, it can be concluded that condition of livings and career advancement are the driving factor for professionals to emigrate for developed countries. Apart from that, it is discovered that political instability, unfavorable salaries, and high competition of employment that limits the job opportunities had as well driving the brain drain issue among professionals in Philippines. Furthermore, another study was conducted on the brain drain in Indonesia by Basorudin and Kusmaryo (2018), where the main focus of the driving factors of the brain drain is the Indonesian economy between the period of 2009 to 2017. From the study conducted, it is observed that the brain drains in Indonesia increased significantly right after the global economic crisis in 2008. This can be explained by economic downturns of Indonesia, reflecting the instability of the country's economic conditions and eventually reduced the investor confidence in their market. Moreover, from the case study on Indonesia, the deficit of budget of the country had driven the human capital flight as this deficit reflected the political incapability and lowered the living standard in Indonesia. Figure 1.1.2 below shows the movement of capital flight, also known as brain drain in Indonesia between the period of 2009 to 2017. It can be observed that the issue of brain drain in Indonesia fluctuated in the beginning of the period and experienced continuous increment up to the year 2017.
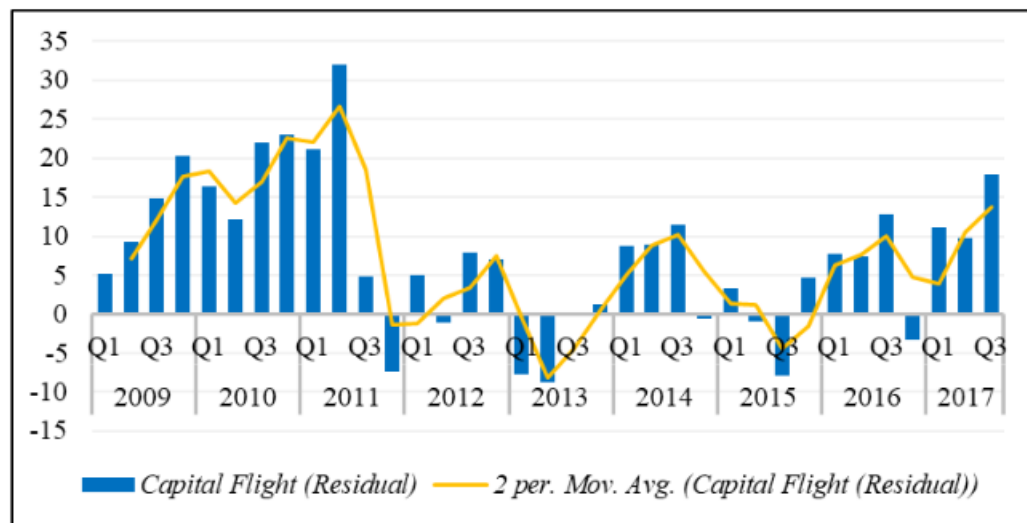
Figure 1.1. 2: Dynamics of capital flight in Indonesia in the period of 2009-2017 (Basorudin & Kusmaryo, 2018)

Coming back to brain drain issue in Malaysia, according to research conducted by Wahab (2014), the research found that better salary, economic stability and condition, career advancement or satisfaction, and influences of family are the driving factors of brain drain among Malaysians. From the study conducted, it is pointed out that the issue of brain drain in Malaysia had deteriorated where 2 out of 10 tertiary educated Malaysians are choosing to work abroad, leading to increase of brain drain and severe human capital or skill loss in Malaysia. Looking at a particular industry, accountancy for say, Australia that is paying better salary tends to attract Malaysian with accountancy profession to emigrate for better pay. Apart from Australia, the destination of brain drains in Malaysia can be summarized via the figure 1.1.1.1 below, showing the most popular choice of Malaysian professionals to land in Singapore compared to other countries.
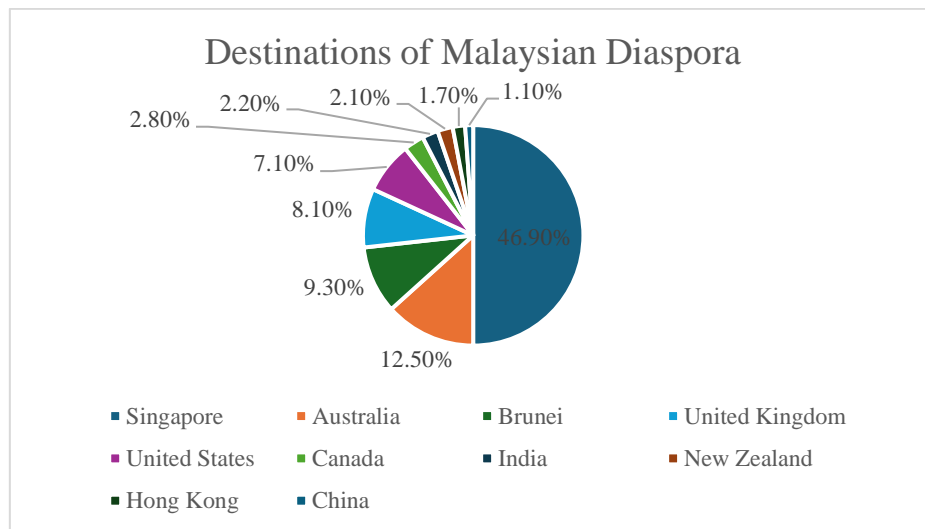
Figure 1.1. 3: Destinations of Malaysia diaspora in 2015 (The Brain Drain Phenomena, 2020)

According to another research conducted by Ullah (2018), it is further proven that the seriousness of brain drains issues in Malaysia where over 308,834 Malaysians with professions emigrated to Singapore and OECD countries in 2013, instead of working locally. When looking into the reasons of emigration, the driving factors were more or less similar to brain drain in other countries regardless European or ASEAN, which are better wages, and political instability or unfavourability. This continuous outflow of skilled labour had led to significant loss to Malaysia, especially in term of the financial loss as higher cost are required to import skilled labour from other countries. In order to retain and reduce the issues of brain drain in Malaysia, the government of Malaysia had announced the establishment of Talent Corporation Malaysia Berhad (TalentCorp) that aims to attract, develop, and retain those talented among Malaysians to contribute to the country's development rather than emigrating (Leong, 2010).

1.1.2 Current Situation

According to Yeap (2024), up to the year 2024, the issue of brain drains in Malaysia continues as Malaysians, regardless of their professions, tend to prefer more on emigrating to Singapore due to better salaries, job opportunities, and favorable exchange rate that reflects the stability of Singapore Dollar compared to Ringgit Malaysia. In the report, it is pointed out that as much as 1.13 million out of 1.86 million Malaysians that emigrated, chose to live in Singapore and more than half of them are tertiary educated, which further proven the severity of brain drain issues in Malaysia. From the Singapore employers' perspective, there are few reasons why they are willing to hire Malaysians, where one of them is the costs of hire that is similar compared to local employee, making Malaysian to have not much difference compared to Singaporean in term of employment. Furthermore, it is pointed out that Malaysians are having high employment and job opportunities in Singapore due to their high similarities of language and culture, making them the best alternatives in most of the industry (Yeap, 2024). Apart from that, a study on brain drains among Southeast Asian's highly skilled emigrants to Singapore had been conducted and it is found that among the countries studied, Malaysia is having the highest percentage of emigrants to Singapore, which is around 32.2% (*Brain drain in Southeast Asia: the case of Malaysia and Indonesia*, 2023). The result is shown in Figure 1.1.3 below.
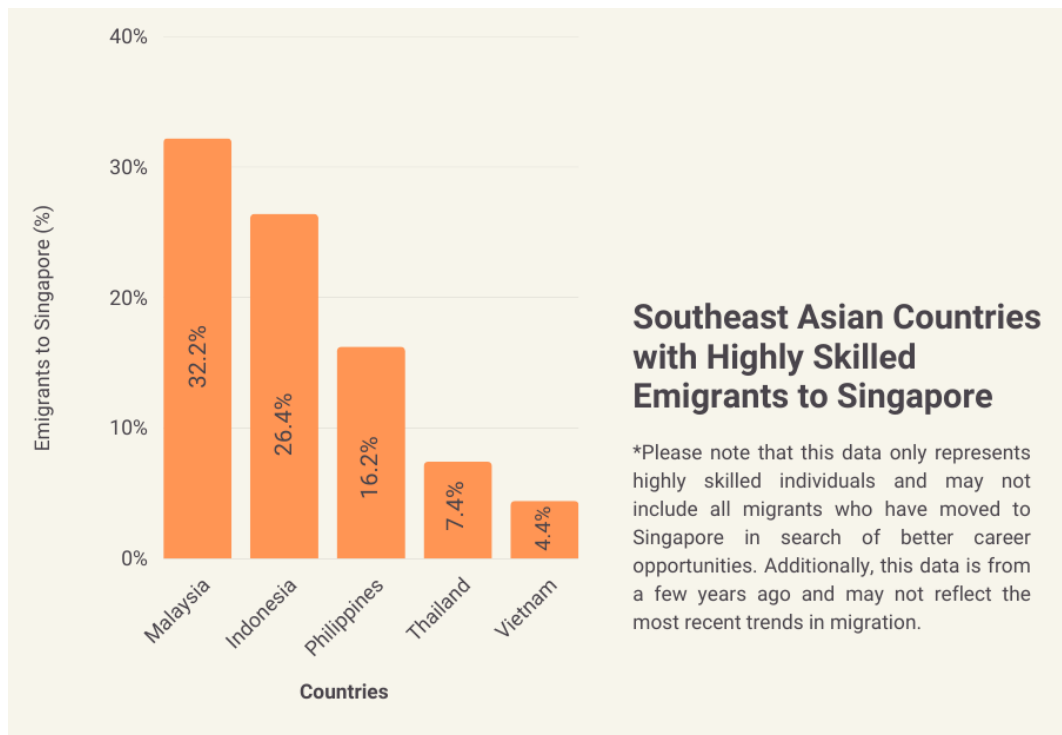
Figure 1.1. 4: Emigrants to Singapore among Southeast Asian Countries (Brain drain in Southeast Asia: the case of Malaysia and Indonesia, 2023)
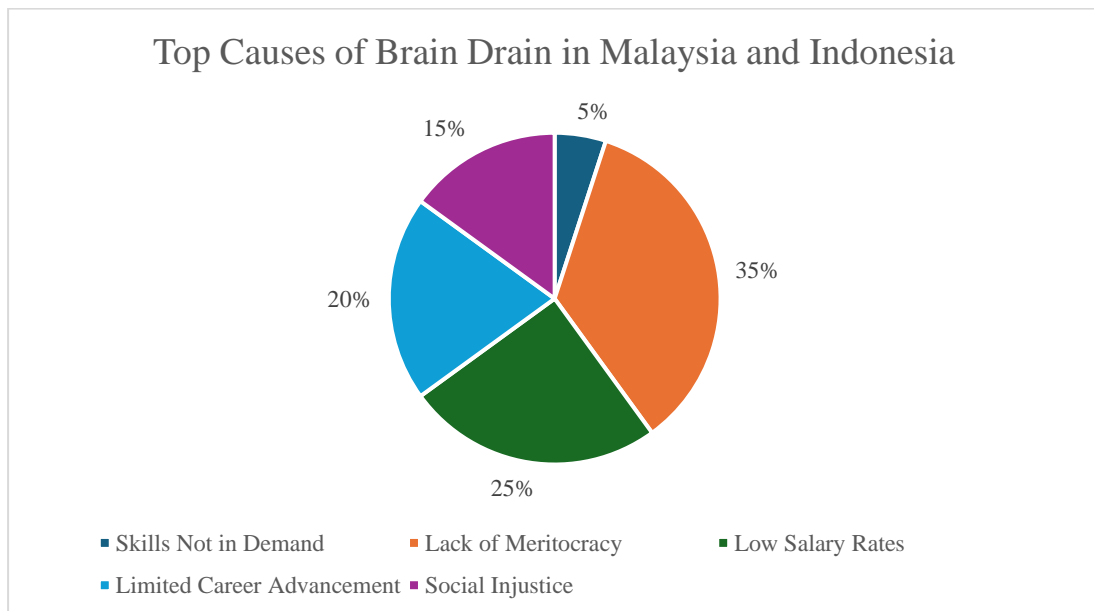
Figure 1.1. 5: Top causes of brain drain in Malaysia and Indonesia (Brain drain in Southeast Asia: the case of Malaysia and Indonesia, 2023)

Regarding the reasons of Malaysia higher brain drain among the studied Southeast Asia countries, the result is displayed in the form of pie chart in figure 1.1.2, where the main contributor is the lack of meritocracy in Malaysia working environment. According to FMT Reporters (2023), the issue of social injustice in Malaysia workplace, especially among professionals, had led to dissatisfaction that end up with the emigration of skilled or professional human capital to flow out from Malaysia. These emigrated professionals will tend to land on developed countries most of the time due to the well-developed laws that protect their rights from being exploit, in term of their salaries, discrimination, and career advancement.

Furthermore, the research conducted on brain drain in Malaysia by Foo (2011) is referred, where a three-weeks survey had been conducted and a total of 194 responses were collected in this study, targeting Malaysian migrants, resulting in the three highest determinants of brain drain in Malaysia which are better career prospects overseas in the sense of social injustice, and the third is attractive and favorable salary or benefits in foreign countries. Figure 1.1.4 below is the findings collected by Foo (2011) in the survey conducted under his research.
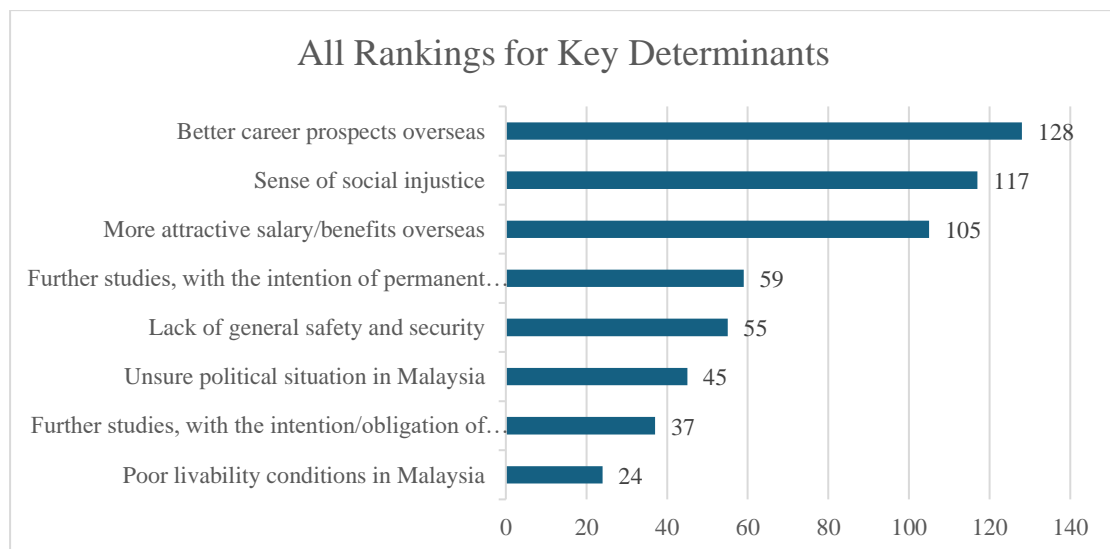
Figure 1.1. 6: Respondents' ranking of the proposed determinants (Foo, 2011)

Furthermore, from the research conducted, it is discovered that majority of Malaysia migrants achieved their professional goals, which further strengthening the linkage of career advancement with the brain drain issue in Malaysia. It is concluded by Foo (2011) that the migrants of Malaysian to developed country such as Singapore, New Zealand, or Australia is not only limited to the better career opportunities, yet better standard of living as well.

To further examine the issue of brain drain in Malaysia, another research conducted by Junaimah and Yusliza (2011) is studied, where their study focused on emigration of Malaysian with profession. From the result obtained in the study conducted, it appears that the driving factors leading to the brain drain among Malaysia professionals are the dissatisfaction in career, lack of engagement in career by the organization that reflects the career advancement, and benefits. Looking back at the previous study by Foo (2011) in Malaysia, it can be observed that the contributing factors to brain drain issue in Malaysia during the year 2011 are mostly similar, where Malaysia professionals emphasize more on their career advancement, and better salary when considering emigrations. Both studies conducted on the year 2011 are found to be relevant till the current trend of brain drain in Malaysia today.

Moving forward to the empirical studies conducted by Yeow, Ng, and Chin (2013), which targeted on undergraduate students' perception in 2013, the determinants of personal behavior, job satisfaction, personal safety, work stress, and human resource policy were studied. From the result obtained, it is concluded that only personal behavior is not significant when making the decision of working abroad. However, in this study conducted, there is no further justification of the result is discussed, yet the result obtained found to be relevant to the trend brain drain in Malaysia nowadays. Based on another study carried out by Wahab (2014), it is mentioned that the top three contributors to the brain drain in Malaysia are the career prospects, social justice, and compensation, where Singapore occupied over half of the countries they landed on. It is pointed out that the higher currency exchange in Singapore Dollar is another reason led to the emigration of Malaysians and to work

in Singapore. According to Shanmugam (2023), referring to a survey done in 2018, it is discovered that 51% of Malaysians that work in Singapore are able to save at least 10% of their salaries, which is higher compared to those Malaysians work locally. This reflects that developed countries, in this case, Singapore, not only having a favorable and strong exchange rate, but at the same time offering better salaries and opportunities for career advancement.

In 2017, factors contributing to brain drain in Malaysia is further conducted by Fong and Hassan (2017), showing that the issue continues and have not been solved across the years. Similarly, this study includes SC, political instability, economic conditions, and job related as well, as the determinants of brain drain in Malaysia. One extra factor compared to the previous studies is the influence of family in decision of working abroad. Looking at the result of the study, it is found that family influence is not significant in the continuous increment of brain drain in Malaysia, while SC, and economic situation are main factors behind the issue that Malaysia struggling nowadays. In addition, Fong and Hassan (2017) emphasized that the increasing of brain drain in Malaysia is not a positive scenario towards Malaysia's economy due to the decrement of productivity level as required professionals are not available locally.

From the previous empirical studies that are contributed on the issue of the brain drain in Malaysia, it can be concluded that the results of the studies are relatable to the current situation in Malaysia, where the issue continues and deteriorate from time to time. Moving to the observation of brain drain trend in Malaysia, based on the study conducted by Fong and Hassan (2017), it is pointed out that brain drain which comprised of the loss in professionals will lead to the deterioration of country's economy, contributed by the reduction in productivity level. According to Yeap (2024), the issue of brain drain in Malaysia had led to a significant deficit of human capital, where this scenario indirectly slowed down the economic development of the country, especially in term of the income status. Taking Malaysia as a developing country, the study Adeyemi et al. (2018) is relevant in

explaining the effect of brain drain on economic development in Malaysia. In the research conducted, it is discovered that brain drain not only affecting the country in term of economic development, yet also the social, where the lack of professionals may lead to deterioration of service quality in certain areas such as healthcare and banking sectors that require better professionality and qualification.

Furthermore, Adeyemi et al. (2018) pointed out that the cost of cultivating professionals in certain sectors that ended up as brain drain is a cost to the country's economy. To further illustrate, ton of initiatives had been provided by Malaysian government to tertiary studies, such as PTPTN Education Financing Scheme that offers lower rate, introduction of technical and vocational education, updating on more industrial learning, and so forth which require funds to be invested in it (Nordin, 2023). Looking from the perspective of technology innovation in Malaysia, it is found that the brain drain issues had led to significant gap between the supply and demand of experts in technology innovation (Gomes, 2023). This imbalance of professionals especially in research and development (R&D) will limit the country's global competitiveness in term of technology landscape, compared to those with sufficient professionals. According to Wang et al. (2023), it is important for country to invest research and development (R&D) as it plays significant role not only in term of economy, but social and technological advancement as well. This development in R&D can contribute to the breakthroughs of various sectors in a country, increasing the standard of living and better economic efficiency.

All in all, the recent trend of brain drain in Malaysia had affected Malaysia negatively regardless of economy or social.

1.1.3 Relationships between The Dependent Variables, Independent Variables, Mediator and Moderator

1.1.3.1 Career Dissatisfaction (CD)

CD also significantly influenced the highly educated Malaysian citizens to have the DV. According to PwC (2022), the job satisfaction rate among Malaysian respondents stands at 59%, which is a positive indication. Meanwhile, the remaining 41% of Malaysian are dissatisfied with their job. However, 17% of respondents are highly likely to switch to a new employer within a year. Talented and skilled individuals are always hoping for increased job satisfaction in the form of financial advantage and career advancement. Therefore, when professionals in Malaysia are dissatisfied with their current jobs, they tend to leave for more favorable countries in search of better opportunities, which causes a brain drain. When professionals' perception of Malaysia has become more negative, this leads to an increasing brain drain trend (Fong & Hassan, 2017).

1.1.3.2 Salary and Compensation (SC)

In Malaysia, brain drain is significantly influenced by the salary offered in destination countries. Numerous immigrants seek work abroad primarily due to the lucrative salaries offered, particularly in professions such as doctor, engineer, lecturer, bank executive and other professional roles (Ghazali et al., 2015). Malaysia's salary package is quite low when compared to other developed countries such as Singapore, United States, and United Kingdom. Hence, the majority of highly educated Malaysian citizens are planning to leave their country of origin in search of higher paying jobs abroad due to the low salary package (Fong & Hassan, 2017). According to Norazhar (2023), the former Minister of Human Resources, V

Sivakumar, has stated that 1.13 million of the 1.86 million Malaysians who work abroad were living in Singapore as 2022, with the brain drain rate of 5.5% is higher than the global average of 3.3%.

Salary Expectations by Employees in Malaysia

Year	Decrease	No change	Increase < 3%	Increase 3-6%	Increase 6-10%	Increase > 10%
2022	1.6%	15.4%	16.9%	23.8%	18.4%	23.9%
2023	1.2%	11.9%	14%	25.3%	19%	28.6%
2024	1	12.6%	19%	29.3%	15.3%	22.8%
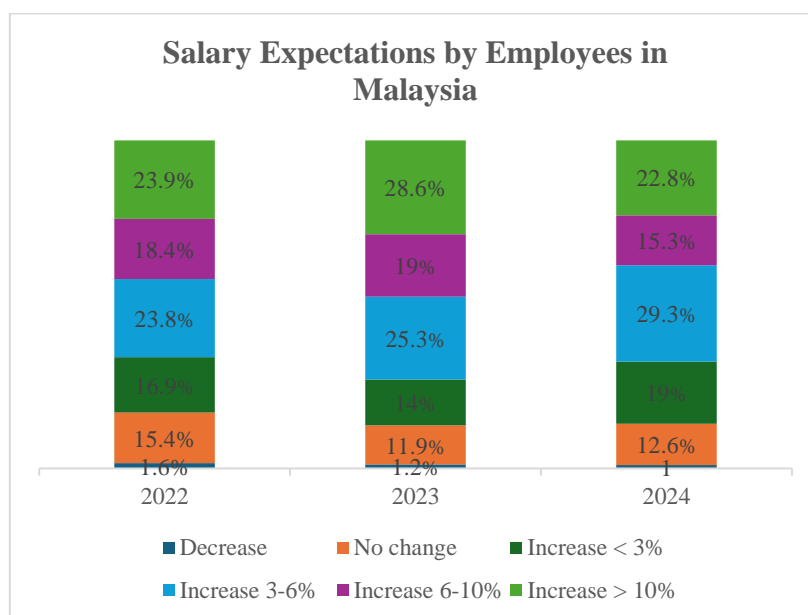
Figure 1.1. 7: Salary expectations by employees in Malaysia (Hays, 2024)

Readiness to Provide Salary Increments by Employers in Malaysia

Year	Decrease	No change	Increase < 3%	Increase 3-6%	Increase 6-10%	Increase > 10%
2022	4.3%	33.1%	24.6%	24.5%	7.8%	5.7%
2023	2.3%	15.9%	25%	35.6%	10.8%	10.4%
2024	1.8%	12.6%	22.2%	43%	14.7%	5.7%
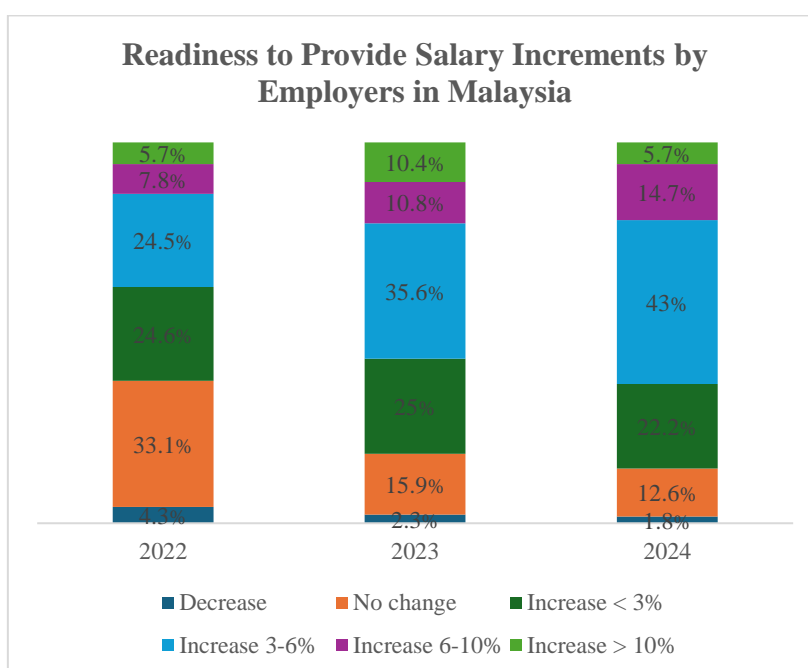
Figure 1.1. 8: Readiness to provide salary increments by employers in Malaysia (Hays, 2024)

According to Hays (2024), over 15% of employees in Malaysia aspire to receive a salary increment of 6-10% from 2022 to 2024. However, employers' readiness to provide such salary increments is reported to be 7.8%, 10.8%, and 14.7% in 2022, 2023 and 2024, respectively. Furthermore, more than 20% of employees are seeking a salary increment of over 10%. However, from the employers' perspective, only 5.7%, 10.4%, and 5.7% of employers are willing to provide salary increases of more than 10% to their employees in 2022, 2023, and 2024, respectively. Hence, this shows that there is a discrepancy between employees' salary expectations and employers' readiness to meet those expectations, which may lead to dissatisfaction among employees and potentially contribute to retention challenges or brain drain.
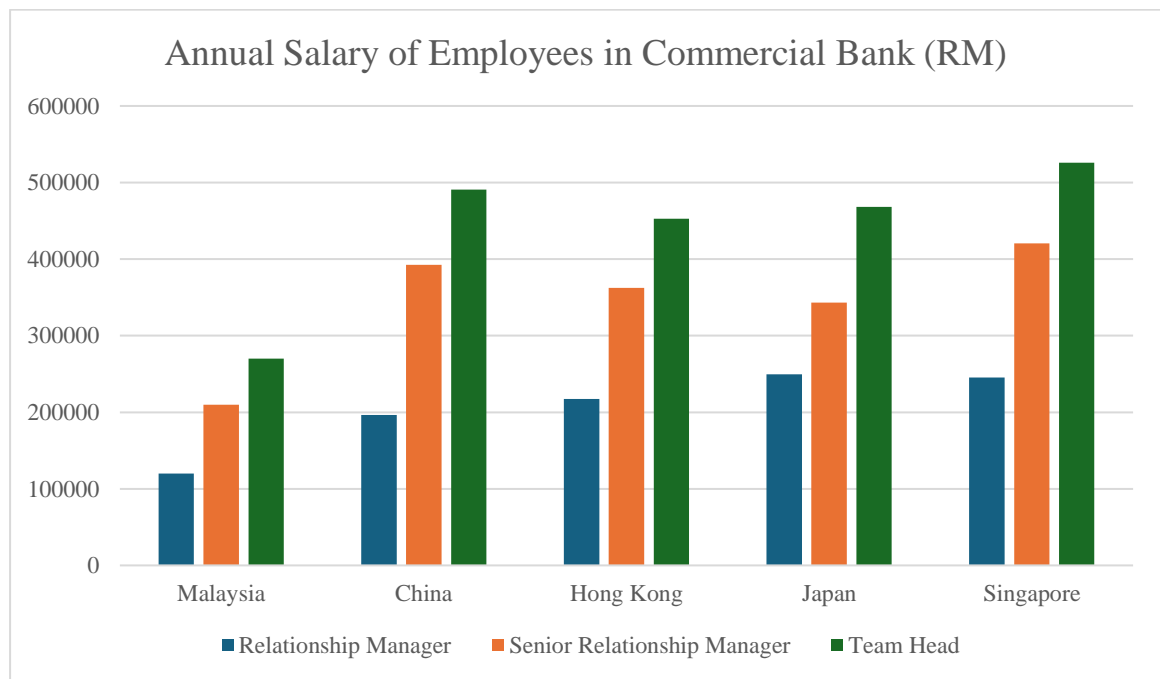
Figure 1.1. 9: Annual salary of employees in commercial bank (Hays, 2024)

Moreover, the salaries of employees in different regions also show a difference, which means the salaries in China, Hong Kong, Japan and Singapore are higher

than the salary in Malaysia for the same position. According to Hays (2024), for the same position in commercial bank like relationship manager, senior relationship manager and team head, the salary in China, Hong Kong, Japan and Singapore are higher compared to Malaysia. Therefore, Malaysian professionals are more likely to work abroad due to the higher salaries provided in other countries. This research constructed by Hays (2024) also shows that financial considerations play an important role in Southeast Asia, with 51.7% of talent in Malaysia highlighting them as a primary factor when considering working abroad.

1.1.3.3 Quality of Life (QL)
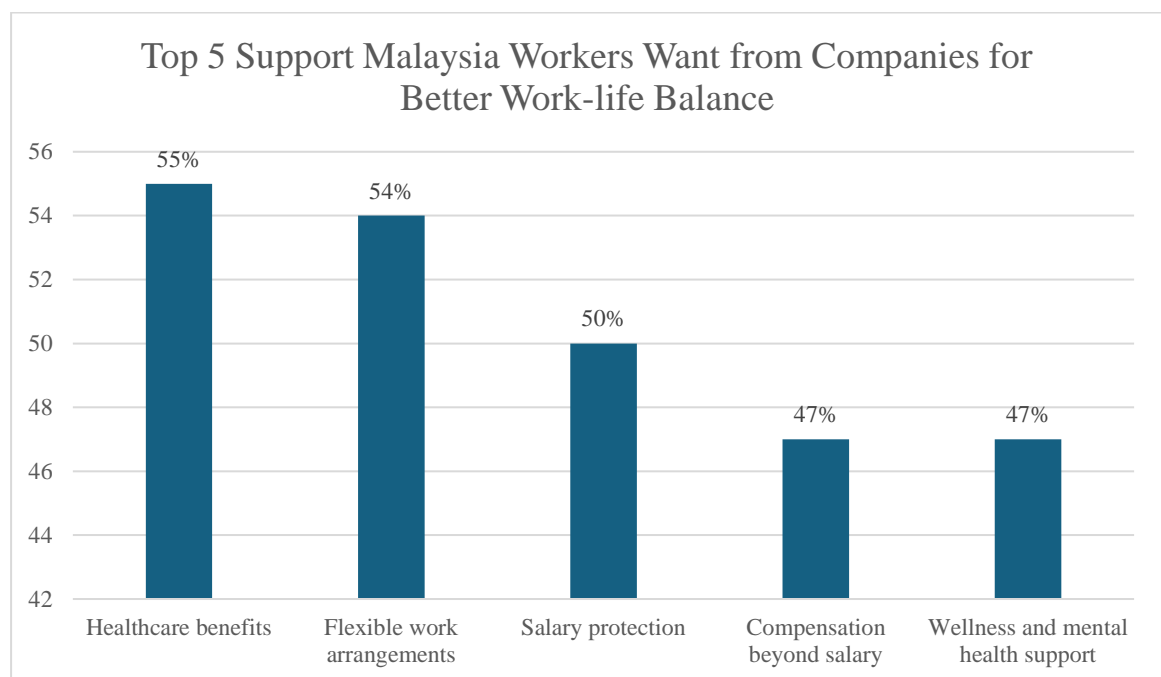
Figure 1.1. 10: Top 5 support Malaysia workers want from companies (Randstad, 2022)

QL is another factor that significantly influences the brain drain in Malaysia. According to Randstad (2022), the most important employee value proposition (EVP) among Malaysian respondents when considering an ideal employer is

"attractive salary and benefits" at 74%, followed by "good work-life balance" which ranked second at 70%. Based on the research, 55% of employees desire additional support from their employers in the form of mental health and healthcare benefits to better manage their evolving work-life expectations. For instance, the COVID-19 pandemic has brought attention to how important health is. However, many Malaysians find it difficult to obtain expert assistance in time for better patient outcomes due to the increasing expenses of healthcare. In short, the lack of adequate support for QL factors such as healthcare and mental health benefits can contribute to brain drain in Malaysia by reducing employee satisfaction and increasing the attractiveness of opportunities abroad where such support may be perceived to be better. Thus, companies should evaluate and improving their company insurance and benefits packages to make sure that their company insurance is strong enough to attract and retain talent (Randstad, 2022).

1.1.3.4 Career Advancement Abroad (ME)

The decision to pursue career advancement overseas can be difficult, due to a range of factors including both professional and personal goals. With higher salaries and better promotions, it is obviously very appealing towards those looking for ME. Those talented professionals would be considering a relocation so that their skills would not be wasted.

Furthermore, the potential of ME has a major effect on people with the intends to seek chances outside Malaysia. The chance of moving up the professional ladder, obtaining tasks with more responsibility, difficulties, and rewards, could serve as a powerful motivation (Norhayati, Jayaraman, Dahlan & Ang, 2018). In many circumstances, professionals are drawn to countries or regions with availability of high-value jobs and opportunities for advancement that align with their sacrifices.

However, it is not only the idea of earning money that motivates this cause for working abroad. Personal growth and development are also important aspects to consider. Skilled professionals tend to be drawn to situations that promote learning and skill development, allowing them to widen their views, deepen their professional knowledge, and cultivate new skills (Ahmed, Sharif, & Ahmad, 2017). Working with various teams, taking on new challenges, and expanding one's professional circle can be a help in building a successful career path.

Deciding to pursue an international career advancement is full of obstacles. Many people will find it difficult to leave their comfort zone, and just went on to the unfamiliar country. However, for those working in local workforce would understand the hardship that had to be overcome. According to Isacc (2023) there are lots and lots of challenges to reach advancement in career in Malaysia, such as limited job opportunities and a lack of options for promotion. Those aspects would be the reason for why people grew the desire to seek better career opportunities abroad.

1.1.3.5 Level of Experience and Expertise (MO)

The chance to work abroad attracts quite a few numbers of Malaysian workers, especially for those with some level of experience in their field of expertise. There has been 72% of Malaysian workers showing interest in working abroad for the purpose of higher pay and better career opportunities, according to (The Malaysian Reserve, 2021).

One of the important aspects driving the current pattern is because foreign companies has given their acknowledgment of local talent, who they place a high value on individuals with significant MO. As globalization decreases

geographical limitations, individuals who have worked in international environments will have a major advantage (Vorobyova, 2021). These individuals, who worked their skills across various backgrounds, are not only capable of performing well in new environments, but also eager to take on even more global exposure.

However, beyond the perks of having job satisfaction and financial gain, there is a deeper reason lies within, where they were motivated by the desire for personal growth and development. Individuals with certain MO who considered foreign employment would be drawn to the ability to gain new experiences, immerse themselves in different cultures, and engage in constant skills growth (Çelik, 2017).

1.2   Problem Statement

Brain drains in Malaysia is influenced by a multitude of socio-economic factors, leading to the departure of numerous high-skilled and middle-skilled talents to overseas destinations. As highlighted by Dodani and LaPorte (2005), this phenomenon occurs when highly skilled professionals, including engineers, researchers, and academics, choose to relocate to other countries in pursuit of better opportunities for their career development. According to Yeap (2024), notes that portion of emigrating Malaysians, totaling 1.13 million out of 1.86 million, choose to settle in Singapore, drawn by the favorable exchange rate and stability of the Singapore Dollar compared to the Ringgit Malaysia.

Based on Kementerian Kewangan Malaysia (2023), Malaysians working in Singapore are categorized into two groups: commuters, who reside in Malaysia but work in Singapore, and residents, who both live and work in Singapore. Among

commuters, 58% are engaged in semi-skilled occupations. In contrast, residents primarily consist of tertiary-educated individuals, with 58% working in skilled occupations such as managers, professionals, and associate technicians.

The MEF Salary Survey for 2022 further illustrates the allure of higher salaries in Singapore. For instance, a manager in the manufacturing industry in Malaysia receives a basic monthly salary of RM10,304, whereas a comparable position in Singapore offers SGD7,532, equivalent to RM24,695. This significant wage disparity serves as the primary motivator driving Malaysians to seek employment opportunities across the border.

The ramifications of brain drain are felt both by individuals seeking better prospects abroad and by Malaysia itself, which experiences a loss of valuable talent and human capital. Particularly affected are key sectors such as healthcare, education, and technology, where skilled professionals are in high demand (Justin, 2024). Addressing this issue is imperative to mitigate the adverse effects on Malaysia's socio-economic development and ensure the retention of talent critical for national progress.

Additionally, according to Ismail et al. (2022), research on the brain drain in the Malaysian employment sector has revealed that the banking sector exhibits a significant rate of 14.7%, ranking second highest among various sectors. The primary sector affected by brain drain is the medical field, with a rate of 20.2%, as per their study findings. This highlights the substantial impact of brain drain on the banking and finance sector, indicating challenges in retaining career professionals in this field.

Various attempts have been made to solve the problem of brain drain in Malaysia, including government policies aimed at retaining talent, improving working

conditions, and providing incentives for professionals to stay (Champa, 2023). However, these efforts have had limited success, and brain drain continues to be a significant challenge for the country. Issue of brain drain in Malaysia is fundamental for various reasons. Firstly, it directly impacts the country's economic development and competitiveness on the global stage. The loss of skilled professionals hinders Malaysia's ability to innovate, compete, and sustain economic growth in an increasingly knowledge-based economy (Ilasco, 2021).

If the problem of brain drain is not adequately addressed, Malaysia risks falling behind in key sectors and failing to realize its full potential for development. The consequences of brain drain are felt not only by the government and businesses but also by ordinary citizens who rely on essential services such as healthcare and education (Najib et al., 2019).

Our research specifically focuses on the banking and finance sector in Malaysia. Despite Malaysia's efforts to develop its financial industry, brain drain remains a pressing issue within this sector. Based on the research by Junaimah et al. (2009), highly skilled professionals, including bankers, financial analysts, and accountants, are opting to leave the country in search of better opportunities abroad. This trend is concerning as it not only deprives Malaysia of valuable talent but also undermines the growth and stability of its banking and finance sector.

The aim of this study is to determine the underlying causes of brain drain in Malaysia and propose more effective approaches to retaining talent and addressing the problem. This project aims to drift on how salary package, QL and CD would affect brain drain in Malaysia. The aim of this research is to investigate the experiences and motivations of highly skilled persons who choose to migrate from Malaysia., in order to get insights that can be used to design strategies to encourage them to remain or come back and contribute to the country's progress.

1.3   Research Questions

1.3.1 General Research Question:

Which aspects affect the phenomenon of brain drain in Malaysia's banking and finance industry?

1.3.2 Specific Research Question:

1. What is the relationship between CD and DV among professionals in Malaysia's banking and finance industry?
2. What is the relationship between SC and DV among professionals in Malaysia's banking and finance industry?
3. What is the relationship between QL and DV among professionals in Malaysia's banking and finance industry?
4. Is there mediating effect of ME on the DV among professionals in Malaysia's banking and finance industry?
5. Does MO moderate the link between ME and DV among professionals in Malaysia's banking and finance industry?

Discovering the factors contributing to brain drain in Malaysia's banking and finance industry, particularly focusing on the influence of level of CD, SC and the QL is main purpose of the study. By examining these factors, we aim to uncover the underlying reasons why skilled professionals in the banking and finance sector

choose to emigrate from Malaysia. Specifically, we will investigate how competitive salary packages, the overall economic stability of Malaysia, and the level of CD among professionals in the industry influence their decision to stay or leave the country. By conducting this study, valuable insights into the dynamics of brain drain in Malaysia's banking and finance sector can be obtained, offering policymakers and industry stakeholders a deeper understanding of the challenges and opportunities for talent retention in this critical industry.

1.3.3 General Research Objective:

To investigate the factors causing brain drain in Malaysia's banking and finance industry.

1.3.4 Specific Objectives:

1. To identify the relationship between CD and DV among professionals in Malaysia's banking and finance industry.
2. To identify the relationship between SC and DV among professionals in Malaysia's banking and finance industry.
3. To identify the relationship between QL and DV among professionals in Malaysia's banking and finance industry.
4. To determine the role of ME in influencing the DV among professionals in Malaysia's banking and financial business.
5. To determine the moderating influence of MO on the association between ME and DV among professionals in Malaysia's banking and finance sector.

1.4   Significance of Study

This study aims to examine the factors that impact the causes, consequences, and methods for retaining talented individuals in Malaysia's banking and finance business, specifically focusing on the brain drain phenomena. This study considers CD, SC, and QL to carry out this research. This can serve as a valuable resource for understanding the reason behind why people choose to work abroad. The study's analyses may provide additional information and insights for future potential groups of individuals such as the government, organizations, policymakers, the public, economists, and researchers.

Furthermore, this study could guide future researchers on their study regarding the correlation among individual intention to work overseas. People often associate employment overseas with higher salary, greater opportunity and professional experience, and the possibility of obtaining permanent citizenship. Ironically, the relationship between willingness and other circumstances is often neglected, leading to a misunderstanding of why people choose to work abroad.

Aside from that, this study helps to relate and correlate Malaysia's financial wellness and security with the inclination to work overseas among Malaysian employees in the banking and finance industry. Furthermore, the findings from this study might assist employers to have a better understanding of Malaysian banking and finance industry employees' inclination to work abroad. This allows for the development of stronger and more compelling human resource regulations, as well as more tempting benefits, bonuses, and compensation structures, in order to recruit local talent to work in Malaysia. It also indirectly helps the government retain talent in order to establish a possibly more well defining work force for the country's future.

Finally, the government should collaborate with the major ministries departments to ensure public satisfaction. Satisfied individuals are unlikely to leave their home country and choose to work overseas. This research can identify the root causes of brain drain in the country, allowing for proactive measures and strategies to reduce the phenomena of Malaysian's banking and finance industry employee's DV. While talent migration benefits other countries by improving their economies, Malaysia's GDP will remain stationary.

1.5   Scope of Study

This study focuses on phenomenon of brain drain with the banking and finance industry in Malaysia. The primary aim is to investigate the factors contributing to the emigration of these professionals from the industry DV. The research will be conducted on professional from whole Malaysia's banking and finance industry professionals and those banking and finance students that plan to become one as well.

1.6   Conclusion

This chapter provides a comprehensive explanation that provides an overview of the study's history, issue statement, research aims, research questions, and the significance of the study. The remaining of this journal will be Chapter 2, explaining the literature review that reviews earlier journals and studies related to brain drain conducted by other researchers. Besides, it will then follow by Chapter 3 that presents research methodology that comprises of details on how the collection of

data is conducted and how the data will be processed. Coming up next, Chapter 4 will describe the result of analyzed data. Finally, Chapter 5 presents a comprehensive conclusion of the study by summarizing the collected results, identifying the limitations of the study, and providing recommendations for future researchers to achieve better and more accurate results.

CHAPTER 2: LITERATURE REVIEW

2.0   Introduction

The theories on brain drain that explained the study are identified under literature review. Apart from that, the theories gap is identified as well. The connection between the determinants and brain drain are reviewed from previous literature as well. Lastly, referring to the goals of the study, a conceptual framework is built.

2.1   Theories Related to Brain Drain

The study of brain drain has indeed undergone significant evolution since its initial identification in the 1950s and 1960s (Giannoccolo, 2009). During this period, scholars began to observe the migration of highly skilled individuals from developing countries to more developed nations, sparking concerns about the implications for both the countries losing talent and those gaining it.

2.1.1 Human Capital Theory

As the phenomenon garnered more attention, particularly in the 1970s and 1980s, the human capital theory emerged as a leading framework for analysing brain drain (Docquier & Rapoport, 2012). This theory postulated that individuals possessing

higher levels of education and skills are crucial contributors to economic development.

Therefore, when such individuals migrate to more developed countries, it results in a significant loss of human capital for their countries of origin. This loss is detrimental to sending countries as it undermines their capacity for sustainable growth and development (Docquier & Rapoport, 2012). Furthermore, the human capital theory also highlights the potential negative impacts of brain drain on the economies of the receiving countries. While these nations benefit from the influx of skilled migrants who contribute to innovation, productivity, and economic growth, brain drain can exacerbate existing inequalities and labour market shortages in the countries left behind (Docquier, 2014).

2.1.2 New Economics of Labor Migration (NELM)

In the late 1980s and 1990s, a significant shift occurred in the study of brain drain as scholars began to apply the New Economics of Labor Migration (NELM) framework to better understand this phenomenon (Breinbauer, 2007). NELM departed from traditional theories by focusing on individual and household-level factors that influence migration decisions, including income differentials and network effects. Unlike previous theories that primarily examined macroeconomic factors, NELM emphasized the importance of microeconomic considerations in shaping migration patterns (Breinbauer, 2007). Specifically, it highlighted how individual and household-level circumstances, such as income disparities between origin and destination countries, play a crucial role in determining whether individuals choose to migrate.

Additionally, NELM recognized the significance of social networks and kinship ties in facilitating migration decisions, underscoring the role of personal connections and information exchange in shaping migration flows. By incorporating these microeconomic perspectives, NELM provided a broader understanding of the motivations behind brain drain. Rather than solely attributing migration to structural factors or national policies, NELM acknowledged the agency of individual migrants and their families in responding to economic incentives and opportunities (Breinbauer, 2007). This approach allowed researchers to explore the nuanced interplay between economic factors, social networks, and individual aspirations in shaping migration dynamics.

2.1.3 Brain Gain Theory

In the early 2000s, a notable shift occurred in the discourse surrounding brain drain, with some researchers proposing an alternative perspective known as "brain gain." This theory challenged the traditional narrative of brain drain as solely detrimental to sending countries by highlighting the potential benefits that skilled diaspora networks could bring to both host and origin nations (Bortolazzi & Khan, 2023). Central to the brain gain theory is the recognition of the significant contributions that skilled migrants can make to their home countries, even while residing abroad. Proponents of this perspective argue that diaspora networks can serve as conduits for knowledge transfer, investment, and trade between host and sending countries. Skilled migrants, through their expertise, connections, and resources, have the potential to facilitate economic development and innovation in their countries of origin.

Moreover, brain gain theory emphasizes the idea that brain drain does not necessarily represent a permanent loss of talent. Instead, it posits that when skilled migrants return to their home countries or contribute remotely through avenues such

as remittances, entrepreneurship, or academic collaborations, brain drain can transform into a net positive for both parties involved (Giannoccolo, 2009). By leveraging their skills and experiences gained abroad, skilled migrants can help catalyse growth and development in their home countries, thereby offsetting the initial loss of human capital. Furthermore, brain gain theory underscores the importance of fostering conducive environments that encourage skilled migrants to engage with and invest in their home countries. This may involve implementing policies that incentivize return migration, facilitating knowledge exchange initiatives, and creating supportive ecosystems for entrepreneurship and innovation.

2.1.4 Maslow's Hierarchy of Needs

Maslow's hierarchy of needs is a human motivation theory introduced by Abraham Maslow in 1943. It categorizes human needs into five levels: physiological, safety, love, esteem, and self-actualization. This theory also incorporates the concept of innate curiosity. The hierarchy is represented as a pyramid, with each level representing different forms of needs that drive human behavior (Maslow, 1943). Maslow defined physiological needs as the basic demands for survival, including food, drink, and shelter. After satisfying these desires, individuals tend to focus on security. A high wage and benefits putting together could deliver financial security for an individual (Harish, 2014). The Figure 2.1.1 below portrays Maslow's proposed Hierarchy of Needs, with each row indicating physiological, safety, love or belonging, esteem, and self-actualization.
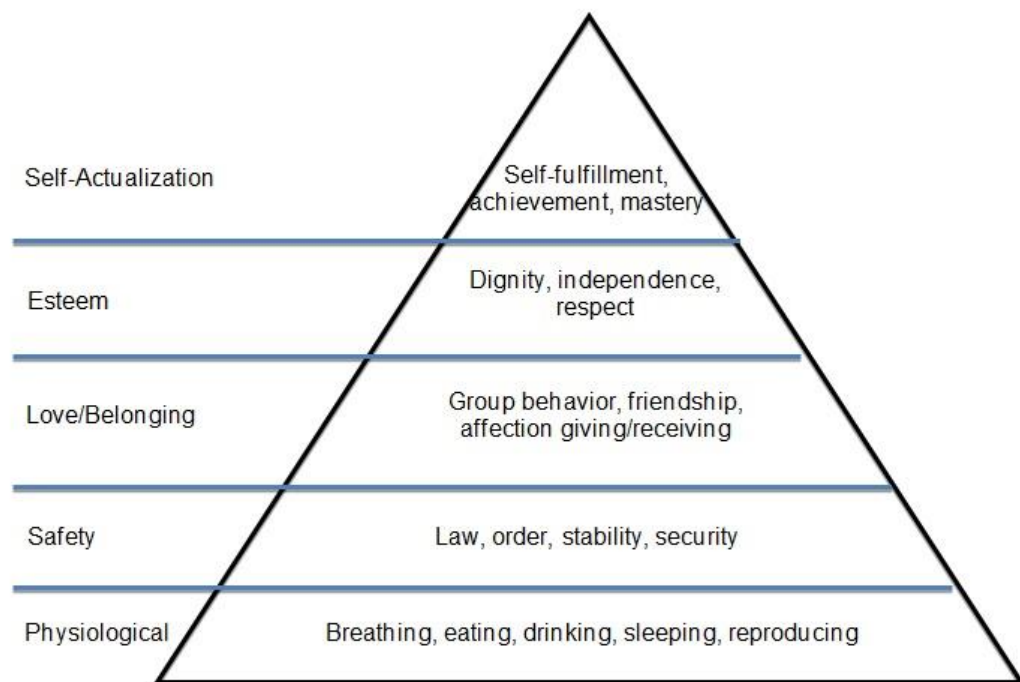
Figure 2.1. 1: Maslow's Hierarchy of Needs (Simply Psychology, 2024)

Maslow's hierarchy of needs places the most basic demands at the bottom. Maslow's hierarchy of needs states that basic needs must be fulfilled before higher-level demands become prevalent. In other words, the person will not feel or prioritise their second level requirements until their first level necessitate are fulfilled. Similar pattern goes for third-level needs, and so forth. According to Maslow's hierarchy of needs, once a need is fulfilled, it no longer serves as motivation (George & Jones, 2008). Hence, individuals may still migrate from developed nations to meet their higher-order demands, even if they have adequate income and a job in their own nation (Bhardwaj & Sharma, 2023).

To take an overview of hierarchy of need, it needs to be viewed in sequential order. If one level fails to be achieved, it is impossible to go to the next stage. The second level emphasises on safety and security. In terms of brain drain, safety is associated with stability in political environments. The third level includes social demands including family and close friends. The tip of the pyramid represents self-actualization or self-fulfilment, which refers to the realisation of one's own worth

and the desire to improve. In the brain drain events, this level may indicate highly qualified professionals who are competent but dissatisfied with their current work environment and seek to get better opportunities by working in other countries (Vakili & Mobini, 2023).

2.1.5 Theory of Reasoned Action

Fishbein and Ajzen (1975) established the Theory of Reasoned Action (TRA) model in response to a lack of appropriate theories or models that could clarify the effect of individuals' attitudes on their intentional and genuine behaviour. A positive attitude is established when the examined person believes that the outcomes of the activity will allow them to attain a specific objective (Fishbein & Ajzen, 1975).
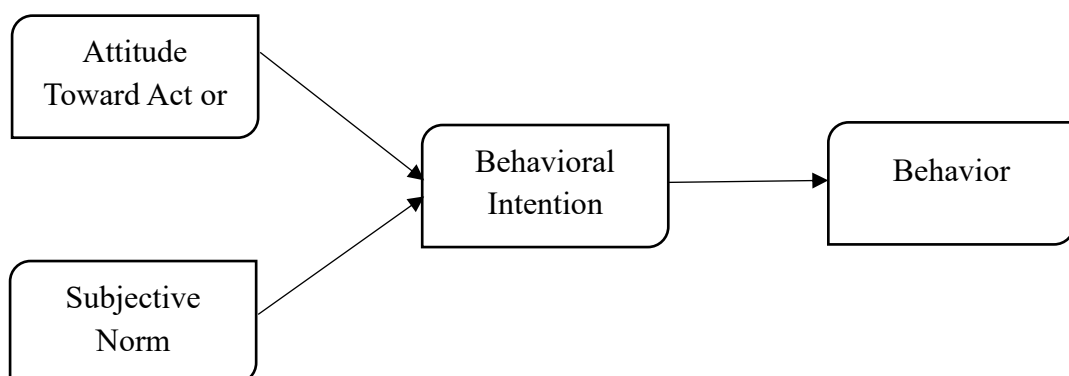
Figure 2.1. 2: The Theoretical Framework of Theory of Reasoned Action (Fishbein & Ajzen, 1975)

Nonetheless, if a person feels inclined to behave in a certain manner, he or she is far more likely to carry out the action (Fishbein & Ajzan, 1975). In this study, the Theory of Reason Action could be applied to the variables influencing the DV. These variables are the factors that motivate talented professionals to work overseas, as skilled workers have many more options in terms of job satisfaction and other compensations or benefits packages. Skilled professionals will constantly seek for tasks or projects that will give them with the most satisfaction in terms of both

monetary and career benefits. In cases where skilled professionals believe that opportunities are not being provided or that they are dissatisfied with their current circumstances in Malaysia, their mindset will push them to seek better opportunities elsewhere, resulting in brain drain. According to Fishbein and Ajzen's Theory of Reasoned Action proposes that human behaviour is solely determined by intentions (Fishbein & Ajzan, 1975). Many professional individuals, particularly doctors, choose to work abroad for various reasons, according to research (Adovor et al., 2021). Various factors influence skilled workers' intention to defect, above all is that relocating overseas give them the potential for increased income.

2.1.6 Push and Pull Factors
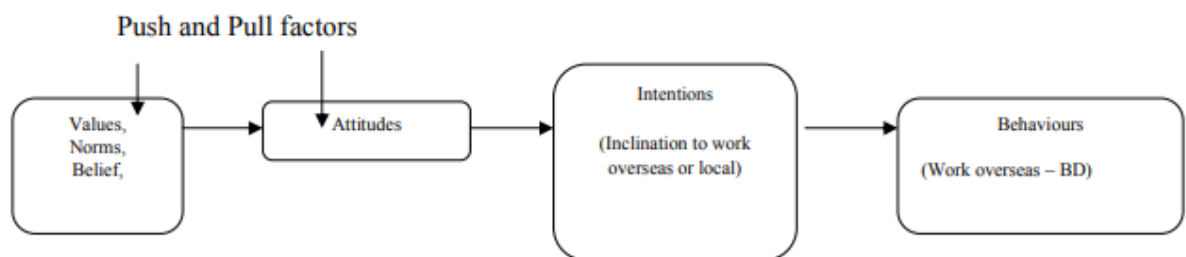
Figure 2.1. 3: Fishbein and Ajzen Theory of Reason Action/Consistency Theory for Working Overseas (Wahab, 2014)

There are multiple variables that entice individuals to seek employment abroad. The primary reasons for migration are typically attributed to situations in the home countries, commonly referred to as push factors. The factors contributing to these circumstances frequently encompass economic aspects such as low earnings and unemployment, social aspects such as low education and bad living and working conditions, political aspects such as instability and persecution, and personal aspects such as cultural pressures and religious and ideological prejudice (Greece, 2016). According to Lowell and Findlay (2001), skilled workers are motivated to pursue employment in industrialized countries due to several factors, including

higher earnings, superior working conditions, access to more knowledge, better job possibilities, and lower transportation costs. Employees may be motivated to pursue possibilities abroad due to a mere discontent with their working conditions in comparison to those of their bosses (Brockhaus, 1980). Lowell and Findlay (2001) argue that migration is primarily driven by worldwide disparities in development, which are generally caused by factors such as low pay, limited incentives, or unfavorable working conditions. Highly trained and educated persons often relocate to nations with more favorable conditions for scientific, technological, and professional activity (Tyson, 2011; Portes, 1976; Winston, 2014).

According to The World Bank (2011), the primary motivations for Malaysians to seek employment abroad are professional opportunities (66%), social fairness (60%), and salary (54%). A significant proportion of Malaysians opted to pursue employment opportunities abroad Singapore (54%), Australia (15%), the United States (10%), and the United Kingdom (5%) (The World Bank, 2011). Chinese Malaysians were drawn to Singapore for several reasons, including its geographical proximity to Malaysia, greater wages and benefits, preferential treatment from the Chinese government, and advantageous currency exchange rates. The sectors most impacted by Malaysia's emigration of highly skilled professionals were accountancy, engineering, medicine, and architecture (Junaimah & Yusliza, 2011). A significant number of Malaysians who are looking for job overseas have stated that the main reason for doing so is the comparatively lower salary and benefits offered in Malaysia. Reports have also claimed that reasons such as inflexible bureaucracy, unresponsive administration, limited personal liberties, racial animosity, and religious divisions were at play. Nevertheless, the prevailing pattern was primarily driven by economic factors, as the majority of individuals chose to migrate to industrialized nations that provided greater financial compensation and more favorable prospects for professional advancement, rather than to countries renowned for their emphasis on human rights, such as Switzerland or Germany.

2.2   Theories Gap

Recent approaches have broadened our understanding of brain drain, with network theory gaining prominence in studying this phenomenon by examining how social networks influence migration decisions and knowledge flows.

However, a comprehensive review of previous studies examining the relationship between CD, salary, compensation, and the DV reveals several significant research gaps. Firstly, many studies have focused on specific sectors like healthcare and accounting, limiting the breadth of insights into brain drain across various industries. Therefore, there is a notable gap in research that encompasses diverse sectors to enhance the understanding and insights of the phenomenon.

Furthermore, the predominant reliance on cross-sectional analysis as the primary research method represents another research gap. While cross-sectional studies offer insights into variable relationships at a specific point in time, they may fail to capture longitudinal dynamics or causal relationships effectively (Rosli, 2019). Hence, there is a pressing need for methodological diversification, including longitudinal studies, time-series analysis, or panel data analysis, to explore the temporal and causal aspects of brain drain more comprehensively (Docquier & Rapoport, 2012).

Nevertheless, Maslow's Hierarchy of Needs provides a comprehensive framework for understanding individual motivations, particularly in the context of brain drain, but there is still a lack of research on the relationship between individual motivations and external socioeconomic circumstances (Henwood et al., 2014). Specifically, there is a need for more research on how macroeconomic conditions and government regulations influence the manifestation of motivations behind the intention of working abroad. Current research on brain drain focuses mostly on the

internal psychological goals that drive working abroad decisions, such as the desire for self-actualization and professional fulfilment (Freund & Lous, 2012). However, there is a need for research that examines migrants' experiences and perspectives, providing insight into a complicated relationship of internal and external factors (Henwood et al., 2014).

Whereas the theory of reasoned action's research gap is about the conversion of intentions into real behaviours, particularly in the context of numerous fields such as health-related behaviour, new technological acceptance, consumer intentions, and environmental actions. Existing literature frequently focuses on identifying factors that influence intentions, but there is a shortage of actual research on how these intentions are translated into actions (Nguyễn et al., 2018). Furthermore, there is little study on how one's intentions influence decisions about these behaviours (Conner & Norman, 2022). Future research should try to bridge these gaps by exploring the mechanisms by which intentions are transformed into which behaviours, as well as taking a multifaceted strategy that takes into account both individual-level motives and external contextual variables which impacts the behaviour of an individual.

Regarding theoretical frameworks, the gap in understanding arises from the contrast between traditional theories emphasizing brain drain's negative impacts and newer perspectives highlighting potential benefits. Traditional theories like the human capital theory focus on brain drain's detrimental effects on sending countries, emphasizing the loss of skilled individuals and its adverse impact on economic development (Docquier & Rapoport, 2012). Conversely, brain gain theory offers a more optimistic outlook, emphasizing potential benefits such as remittances, knowledge transfer, and investment to both sending and receiving countries (Kone & Özden, 2017). Bridging this gap requires integrating insights from both perspectives and developing nuanced models that capture the dynamic nature of migration and its implications for global development. Understanding the mechanisms through which brain drain can transform into brain gain involves

examining how diaspora networks, remittances, and other migrant contributions facilitate development in sending countries, contributing to sustainable growth and human capital formation (Giannoccolo, 2009).

2.3   Previous Empirical Studies

2.3.1 Intention to Work Abroad (DV)

DV refers to plan or desire of individual, especially professionals and highly educated individuals in this study of brain drain, to seek for employment opportunities abroad, instead to work locally. This DV is supported by few significant driving factors that should be focused and overcame, in order to overcome the brain drain issue. According to the study accomplished by Wahab (2014), DV is a measurement used to study the brain drain trend which is affected by push and pull factors studied in this research, including CD, SC, and QL. This decision on working abroad in utilized to measure the brain drain is further supported by the study conducted by Milićević et al. (2015), where the research focused on intention of college and specialist nursing graduates in Serbia to work abroad.

2.3.2 Career Dissatisfaction (CD)

CD refers to the feeling of stressful or uncomfortable with career path which may result in the lack of motivation, facing boredom or lack in productivity. This dissatisfaction in career can be contributed by various factors such as lack of opportunities of growth or advancement in career or incompatible expectations.

According to Wahab (2014), CD can be measured via the promotion opportunity and stressfulness of task responsibilities. Similarly, these are proven by the studies conducted by Junaimah et al. (2009) and Anees et al. (2021), where the career satisfaction is measured via the hygiene factor comprised of job context, motivator factor comprised of job content, and job stress. Hygiene factors and motivators are theorized by Frederick Herzberg on employee satisfaction where hygiene refers to issues that reduce employees' dissatisfaction, while motivators increase the satisfaction of employees (Syptak et al., 1999). From another study conducted by Luciana and Sofia (2023), career satisfaction, known as job satisfaction in their study is represented by a comprehensive assessment of job aspects that are relevant such as socio-demographic characteristics, education choices, previous migration experience, current labor conditions, and individuals' academic network. While from another perspective of CD, it can be contributed by the unfair recruitment procedures where this issue of lack transparency may not be fair to employees in terms of the competition (Khan, 2021).

According to the study conducted by Khan (2021), it is found that the job dissatisfaction measured via the unfairness in recruitment procedures is having significant positive impact on brain drain. This indicates that the increment in the job dissatisfaction will lead to the significant increment in brain drain as well. From this study conducted in Europe, this job dissatisfaction will further push the brain drain of highly skilled human capital to leave Europe. This relationship is supported by another study conducted by Kadel and Bhandari (2018) on the cross-sectional brain drain among nurses in Nepal, where it is found that push factors under CD such as lack of career advancement, unsatisfactory living condition, poor working environment are having significant and positive impact on the brain drain issue. To further illustrate, it is found that up to 92.9% of respondents mentioned that lack of career development led to their DV. It is pointed in the study that other contributing factors to the brain drain in Nepal related to the job dissatisfaction could be the lack of promotion prospects, heavy workload and followed by poor management.

Furthermore, looking at another study by Anees et al. (2021) that obtained the same result via partial least squares-structural equation modelling (PLS-SEM) method, it is found that the job dissatisfaction is studied from another perspective, where it focused on job satisfaction and focusing on the contributing components, including job stress and workload. This study obtained similar results where the job satisfaction is significantly and negatively affecting the brain drain. This relationship is similar to the previous studies mentioned, where the increment in the job satisfaction will reduce the brain drain, and vice versa. When broken down to the components, it is found that job stress is positively affecting the job satisfaction and brain drain, showing the indirect relationship that ended up with the similar result. Apart from that, Luciana and Sofia (2023) found the similar result of significant and positive relationship of job dissatisfaction on the brain drain. In this study focused on Uruguay as developing country, it is found that dissatisfaction in this study zoomed more on the perceived mismatch on the expectations for both pecuniary and non-pecuniary, leading to dissatisfaction.

On the other hand, a cross-sectional study conducted by Junaimah et al. (2009) obtained a different result in the relationship of job dissatisfaction impact on brain drain. This study focused on the brain drain among accountants in Malaysia, where the job dissatisfaction is measured via the promising job opportunities and job scopes which is under hygiene factor. It is found that the job scope is not significant on the issue of brain drain.

From the previous empirical studies on the CD on brain drain studied, there are different results obtained due to the existence of research gaps. First and foremost, the first research gap may be due to the limited number of respondents. To illustrate, the study done by Junaimah et al. (2009) only study on 150 respondents, while Kadel and Bhandari (2018) only study on 99 respondents. This insufficient number of respondents may lead to inaccurate result due to sampling bias where small sample size unable to represent of larger population. Secondly, research gap of the studies could be the geographical boundaries where all the study focused on only

one place such as Malaysia, Uruguay, Europe, and Nepal. These boundaries may lead to inaccurate or different result due to the regional difference where different regions may have different characteristics in terms of their cultural norms, demographic characteristics, political and governance structures and so forth. Last but not least, sector-specific research is the last research gap where some of the study such as Junaimah et al. (2009) focused on accountants only, Kadel and Bhandari (2018) focused on nurses at private hospitals, and Anees et al. (2021) focused on universities. These results obtained from sector analysis may be appropriate and applicable for other sectors due to their difference in nature and job context.

2.3.2 Salary and Compensation (SC)

According to Birt (2023), salary refers to the regular money paid to employees on their job usually in monthly basis, while compensation refers to both financial and non-financial rewards offered to employees on their job, comprising of bonuses, health insurance, commissions and so forth. For the case in Malaysia, it is studied and discovered by Suraya (2022) that there are few contributing factors to the underpaid or low salary in Malaysia, where one of them is the prevalence of low-cost production where foreign workers are more preferable. Moving on to the second reason, low salary in Malaysia is contributed by the scarce in high-skilled jobs due to lesser creation of high-skilled employees. While the third reason related to brain drain, especially for professionals, is the Malaysia employers that reluctant to pay higher salary, leading to misalignment of the job scope and salary. It is reported by Rosli (2019) that Malaysian employees are receiving lower compensations compared to benchmark in world's advanced economies. This is further proven by the cross-country comparison on productivity and wages by Bank Negara Malaysia (2018) in 2017 as below in Figure 2.3.1, showing the misalignment and low salary paid to employees in Malaysia.
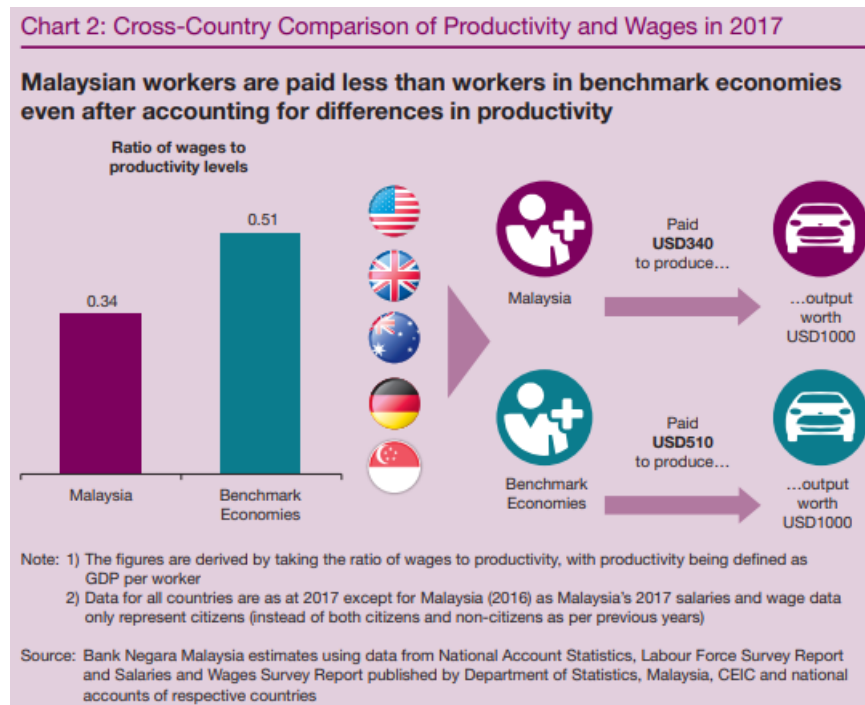
Figure 2.3. 1: Cross-country comparison of productivity and wages in 2017 (Bank Negara Malaysia, 2018)

According to a cross-sectional study conducted by Sohail and Habib (2016) on doctors' career intention in Pakistan, it is found that high salary abroad compared to home country is significant in the increment of brain drain. The study involved 132 participants who were surveyed about their preferences when considering working overseas, with salary being the primary element of concern. This was particularly relevant for wealthy countries like the United Kingdom and the United States. Another study by Khan (2021) in the European found the same result of significant and positive impact of SC on the brain drain issues but using different method of qualitative meta-synthesis. This indicates that the higher the salary in foreign countries compared to home country, the higher the rate of brain drain. In this study over the European, it is found that the low salary in the home country compared to United States or Japan forced professionals to leave their home country for better SC, in order to pursue their living standards. To illustrate, it is pointed out that there is as much as 37% of differences between average salaries of academic

researchers between United States and Europe, where the latter having the lower salaries.

Looking at another research conducted on Malaysia by Fong and Hassan (2017), it again resulted in the similar relationship of significant and positive of SC on the brain drain. It is mentioned in the study that up to the year 2000, Malaysia had lost a huge amount of skilled and talented professionals due to better SC in foreign countries, especially Singapore. Apart from that, Junaimah et al. (2009) that as well study on brain drain in Malaysia, yet further focused on accountants supports the relationship as well. From the cross-sectional study completed by Junaimah et al. (2009), comparisons between the salary of accountants in Malaysia and Singapore were conducted, where it is discovered that Malaysia accountants are receiving significantly lower salary compared to in Singapore. Looking from the perspective of compensation, it is found that the reason behind accountants in Malaysia demanding better compensation is to fulfil their physical needs for a better living standard.

This firm relationship of significant and positive of SC on brain drain are obtained in cross-sectional studies conducted by Kadel and Bhandari (2018) and Hashish and Ashour (2020), even though their studies focused on different countries but same sector of nursing. For research done by Kadel and Bhandari (2018), it was conducted among nurses working at private hospitals in Nepal, where 96% from 99 respondents are not satisfied with the salary offered for those yet to migrate for work, while 55.22% of migrated respondents mentioned the same reason. In the other hand, the study conducted by Hashish and Ashour (2020) was focusing on Egypt, obtaining the same significant and positive relationship of salary and benefits on brain drain. It is pointed out in the study that this result is as well obtained in different countries such as African where the misalignment of obligations and salaries occurred to be the pull factor of brain drain.

Referring to all the previous empirical studies mentioned above, it is found that they obtained the similar result of relationship between SC on the brain drain. However, research gaps still exist in the studies, where one of it is the limited number of respondents. To illustrate, the research done by Fong and Hassan (2017) only include 100 respondents in their sampling via convenient sampling that lacks clear generalizability that may lead to bias in the result (Jager, Putnick & Bornstein, 2017). This gap occurs in the study conducted by Junaimah et al. (2009) as well due to the small sample size of 150 respondents only in the study conducted. Moving to the next research gap, majority of the studied conducted are focusing on healthcare industry where their focuses are on professionals such as nurse and doctors. This sector-focused boundaries may not produce a comprehensive and persuasive result or relationship when studying other sectors, Banking and Finance in this study.

Furthermore, the qualitative meta-synthesis applied by Khan's (2021) study may not provide the most accurate result due to the secondary data analysis of migrants, where the data used is not complete on the flows of migrants from Europe when studying the relationship in brain drain. Moreover, it is found that majority of the previous empirical studies applied the same method of cross-sectional analysis and studies, where none of them using other methods such as time-series analysis, longitudinal analysis, or panel data analysis. This gap in the research may lead to limited causality where the relationship and impact only applicable for single point of time, leading to difficult establishment in causal relationships between the variables.

2.3.2 Quality of Life (QL)

According to Gattino et al. (2013), QL refers to an individual's overall well-being in all aspects of life, such as the absence of disease or illness, and a person's overall health, including mental and physical. According to Hamid et al. (2022), QL also

can be defined as an individual's sense of satisfaction with their lifestyle and fulfilment in life, including factors such as social relationships and economic status. Moreover, environmental factors such as crime rate, security level, and cleanliness contribute to the overall QL (Hamid et al, 2022). Generally, citizens from countries with lower QL rankings, tend to move to countries that offer a higher QL, such as New Zealand, Germany, Singapore, and Poland (Hamid et al, 2022).

Differences in QL can influence an individual's decision to work abroad. Choong et al. (2013) found a strong and positive correlation between low QL and the phenomenon of brain drain. Safety and security issues are likely to be significant concerns, with stories of kidnappings and armed robberies are common in the Malaysian community and serve as a justification for staying overseas. Hence, countries like Australia, New Zealand, and Singapore become preferred destinations for talented Malaysians to migrate to, as these countries prioritize social and ethnic harmony through robust laws against discrimination of all kinds. This aligns with the findings of Fong and Hassan (2017), which stated that the increasing crime rate is encouraging many individuals to consider migrating to countries with higher levels of security.

Apart from that, Ishak and Aziz (2014) suggest that favourable working conditions, for instance, achieving a good work-life balance, are key aspects of QL. The poor work-life balance faced by most of the workforce in Malaysia , especially the professionals, had significantly impacts the construction sector, contributing to a lower quality of lifestyle, and influencing the construction professionals to work abroad. Some high-skilled workers seek better career opportunities abroad to utilize their expertise, while some individuals prioritize enjoying life over earning a high salary, so they choose to work in countries that offer their desired lifestyle. The research conducted by Foo (2011), Chandar et al. (2015) and Hamid et al. (2022) has also proven that QL has a significant impact on brain drain. Based on these studies, respondents believe that working abroad is not limited to seeking better job opportunities, but also seeking a higher QL.

Although the previous empirical studies have the similar result of relationship between QL and brain drain, however, there are several research gaps exist in the previous empirical studies. Firstly, the number of respondents is limited in the studies. Firstly, the number of respondents is limited in the studies. For instance, the study conducted by Chandar et al. (2015) only consists of 170 postgraduate respondents, while Foo (2011) only include 194 respondents, indicating that the sample size may not be large enough to generalize the findings. Having a large sample size may lead to different outcomes. Then, the studies primarily focus on only one country without comparing their experiences with those of other countries. For example, Foo (2011), Chandar et al. (2015) and Choong et al. (2013) only focus their study on Malaysia. A comparative analysis across different countries with different level of QL could provide a broader understanding of how QL impact brain drains on a global scale. Finally, there is limited exploration of the impact of QL on brain drain in other sectors. For example, research by Ishak and Aziz (2014) is only focused on construction professionals. Thus, future research could examine brain drain trends in various industries to provide a more complete understanding of the phenomenon and its implications for different fields.

2.4   Conceptual Framework
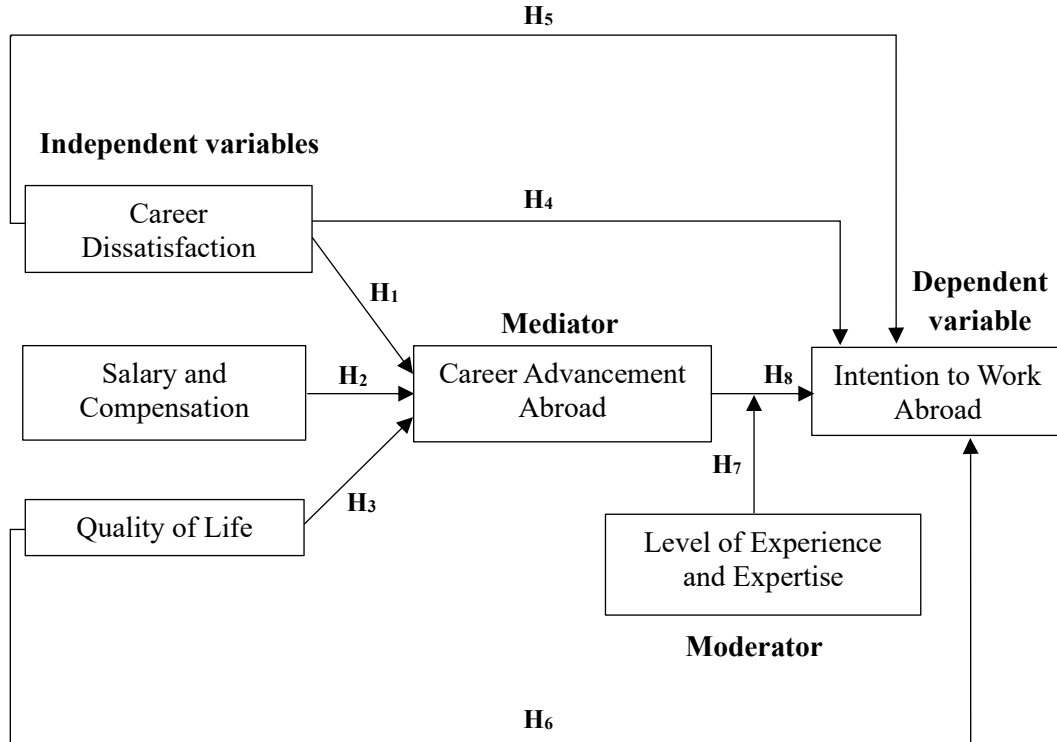
Figure 2.4. 1: Dependent and Independent Variables including Moderator and Mediator

Figure 2.4.1 above represented the developed conceptual framework that reflects the brain drain in banking and finance industry in Malaysia. The goal is to provide directions and a demonstration for identifying the connection between dependent and independent variables, along with the mediator, moderator and the factors controlling the DV. This study aims to investigate how CD, SC, and QL affect the brain drain via the measurement of intention of professionals in Malaysia's banking and finance industry to work abroad.

2.5   Hypothesis Development

H1: There is a significant relationship between level of CD and ME in Malaysia's banking and finance industry.

Junaimah et al. (2009) and Anees et al. (2021) discovered that insufficient growth opportunities associated with high job stress impact decisions to seek employment abroad. Therefore, addressing CD through improved job roles, mentorship programs, and career progression reviews can help mitigate this issue.

H2: There is a significant relationship between SC and ME in Malaysia's banking and finance industry.

Suraya (2022) indicates that underpayment and misalignment of job scope and salary are major issues in Malaysia, contributing to professionals leaving the country. This aligns with findings by Sohail and Habib (2016), which emphasizing the need for competitive compensation to retain talent.

H3: There is a significant relationship between QL and ME in Malaysia's banking and finance industry.

Hamid et al. (2022) mentioned that poor QL, including high crime rates and poor work-life balance, drives professionals to seek opportunities in countries with better living conditions. Choong et al. (2013) and Ishak and Aziz (2014) also support this by identifying safety, security, and work-life balance as critical factors influencing the decision to work abroad.

H4: There is a significant relationship between level of CD and DV among professionals in Malaysia's banking and finance industry.

Khan (2021) found in Europe that job dissatisfaction, particularly stemming from unfair recruitment practices, significantly increased brain drains, pushing skilled individuals to leave. Similarly, Kadel and Bhandari (2018) discovered in Nepal among nurses that factors like lack of career advancement and poor working conditions strongly drove intentions to work abroad, exacerbating brain drain.

Contrarily, Anees et al. (2021) focused on universities and identified a significant negative relationship between job satisfaction and brain drain, indicating that high satisfaction, driven by manageable workloads and low stress, reduces migration tendencies. Luciana and Sofia (2023) in Uruguay highlighted the role of perceived mismatches in job expectations in contributing to brain drain. However, Junaimah et al. (2009) found among Malaysian accountants that job dissatisfaction factors like promising job opportunities did not significantly influence migration intentions.

H5: There is a significant relationship between SC and DV among professionals in Malaysia's banking and finance industry.

Suraya (2022) identifies several factors contributing to low salaries in Malaysia, including the preference for low-cost production and a scarcity of high-skilled jobs, leading to employers' reluctance to offer higher salaries. Rosli (2019) supports this by comparing Malaysian compensation with benchmarks from advanced economies, highlighting the disparity. Sohail and Habib (2016) cross-sectional study on doctors' career intentions in Pakistan finds a significant influence of higher salaries abroad on brain drain, especially to developed countries like the United Kingdom and the United States. Similarly, Khan (2021) discovers a positive impact of SC on brain drain in Europe, where professionals are attracted to higher-paying opportunities overseas.

H6: There is a significant relationship between QL and DV among professionals in Malaysia's banking and finance industry.

Foo (2011) highlighted that QL significantly influences brain drain, with many individuals seeking better living conditions abroad. Similarly, Chandar et al. (2015) found that professionals from various sectors consider factors like better healthcare, education, and overall well-being when deciding to migrate. Hamid et al. (2022) corroborated these findings, showing that a higher QL, including economic stability and social relationships, drives people to move to countries with better living standards. In contrast, Fong and Hassan (2017) highlighted that an increasing crime

rate in Malaysia prompts individuals to seek safer environments abroad, further emphasizing the role of QL in migration decisions.

H7: The relationship between ME and DV among professionals in Malaysia's banking and finance industry is significantly moderated MO.

Experienced and highly skilled professionals are more likely to seek ME, which in turn impacts brain drain.

H8: There is a significant relationship between ME and DV among professionals in Malaysia's banking and finance industry.

Career advancement opportunities abroad directly influence brain drain. Skilled professionals often migrate to countries where they can achieve better career progression, highlighting the need for local organizations to provide similar opportunities to retain talent.

H9: The relationship between level of CD and DV among professionals in Malaysia's banking and finance industry will be mediated by ME.

CD leads to a desire for ME, which then drives brain drain. By addressing the root causes of dissatisfaction and providing career growth opportunities domestically, the impact on brain drain can be mitigated.

H10: The relationship between SC and DV among professionals in Malaysia's banking and finance industry will be mediated by ME.

Higher salaries abroad attract skilled professionals, driving brain drain. By offering competitive salaries and comprehensive compensation packages locally, organizations can reduce the need for employees to seek better-paying opportunities abroad.

H$_{11}$: The relationship between QL and DV among professionals in Malaysia's banking and finance industry will be mediated by ME.

Improved QL abroad, including better living conditions and work-life balance, directs professionals to seek career advancement opportunities in other countries. By enhancing the QL locally, such as through better healthcare and safer environments, organizations can reduce the inclination to migrate for career advancement.

2.6 Conclusion

To avoid any misunderstanding of the study, information discussed in Chapter 2 is crucial. This chapter provides a comprehensive explanation of the link between dependent variables, independent variables, mediator, and moderator. Additionally, Chapter 3 explains the suitable research methods to support the study.

CHAPTER 3: METHODOLOGY

3.0   Introduction

This chapter provides details of the research design, including data collection method, sampling design, research instrument, construction of measurement, data analysis, and Partial Least Square Structural Equation Modelling (PLS-SEM) analysis. The purpose of this chapter is to generate the methodology and test the hypotheses developed in Chapter 2. The details of the questionnaire can be found in Appendix 3.1.

3.1   Research Design

The study design is characterized as a systematic and comprehensive approach that aids in obtaining significant and reliable results by utilizing experimental data (McCombes, 2023). Research design is divided into two approaches which are qualitative and quantitative, and the quantitative approach will be conducted in this research. The quantitative research approach is beyond the qualitative research approach due to this research applies the questionnaire to gather data with a huge number of respondents. Besides that, another explanation is questionnaire will be implemented to gather research data rather than conversations or discussions.

3.1.1 Quantitative Research

After observing the subjects of the research, the researcher will formulate a hypothesis and estimate how the data should appear if the hypothesis is correct by deductive reasoning. According to Apuke (2017), the quantitative research approach is a process of obtaining numerical data and utilizing mathematical techniques to interpret the data in order to clarify the problem and phenomenon. Hence, the quantitative research approach operated by measuring and evaluating variables in this research to obtain the outcomes. Once the data is gathered and analysed, the hypothesis is either confirmed or disproved.

3.1.2 Correlation Research

Correlation research represents the direction and degree of the relationship between two or more variables by examining the variables without influencing or modifying any variables (Bhandari, 2023). In addition, the degree may be positive, negative, or zero correlation. Determining correlated variables and examining the degree of correlation between them is a key component of this research methodology. Although correlation analyses are useful for examining the direction and degree of correlations between variables, they are not able to prove causation. As a result, this research design will apply correlation research. Given that the main aim of this study is to analyse the correlation linking independent components and a dependent variable, the scholars are unable to manipulate the variables in this investigation.

3.2 Data Collection Method

According to Simplilearn (2023), acquiring and analysing data and information from a variety of sources to assess outcomes as well as predict trends and uncertainty is recognized as data collection. It can assist in identifying and discovering the solutions to research problems. Furthermore, the strategy for gathering data should be consistent with the research objective, available resources, and the various information required for the research. There are two kinds of data collection approaches: primary data such as interviews, questionnaires, and so on; secondary data such as journals, articles, government records, and so on. This research will employ questionnaires as the major method of data collection.

3.2.1 Primary Data

Primary data is referred as the information gathered from the specific eligible respondents based on the study conducted. Primary data is unedited and unprocessed and can provide new insights that are directly related to the research topic (Stewart, 2024). Moreover, it gives a direct indication of the problem or theory under study as it is collected following the objectives and inquiries of the research. This direct linkage enhances the validity and accuracy of the findings as it does not weaken or omit key material related to the research question. This is in contrast to secondary data, the primary data can be transformed into a summary of results using statistical tools and the data can be used in other research.

3.3 Sampling Design

3.3.1 Target Population

According to Willie (2023), target population is defined as a specific group of individuals targeted or focused within a larger population for the purpose of studying, analyzing or serving. These targeted populations should fulfill the specific criteria required in the study to ensure the objectives and results achieved are accurate. Hence, it is significant to ensure that the respondents of the study to be appropriate with the survey to avoid biased or unreliable results.

The intention of the study is to examine the correlation involving CD, SL, and QL with DV among banking and finance professionals in Malaysia. In this study, the mediating effect of ME and the moderating effect of MO are also examined. This study targeted on Malaysia banking and finance professionals that are currently serving in the banking and finance sector, and banking and finance students that planning to join the industry in future.

3.3.2 Sampling Frame and Sampling Location

Rukmana (2014) defines a sampling frame as a comprehensive directory that includes all the specific individuals or groups that are the focus of a study. In order to identify the sampling frame, it is compulsory to recognize all the eligible respondents to be part of the intended population. In this study, sampling locations are utilized where the targeted population will be identified at places that they frequently present, especially workplaces.

3.3.3 Sampling Elements

Individuals selected from the sampling frame that represent larger group or population are known as sampling elements. This study will focus on Malaysia professionals serving in the banking and finance sectors regardless of their workplaces. In addition, the eligible participants of the study will be differentiated by classifications such as their ethnicities, highest level of educations, job scopes, and gender. As a result, including this information will provide a more accurate result obtained from the questionnaire distributed.

3.3.4 Sampling Technique

To obtain the objective of this study, the technique of convenience sampling is utilized. Nikolopoulou (2022) defines convenience sampling as a type of non-probability sampling approach. It involves selecting the most easily accessible sample that also meets the study's requirements. By applying this method, limitations such as time constraints, cost, and accessibility to subject including geographical, social and industrial can be overcame. However, although convenience sampling is providing tons of benefits, yet it had also few limitations which are the issue of inability of generalizations from population of interest and under coverage bias due to the respondents surveyed (Nikolopoulou, 2022). Therefore, in order to overcome the limitations, filtering of ineligible respondents when applying the convenience sampling is done, where these ineligible respondents will be prompted to the end of the questionnaire to avoid inaccuracy in the result collected. In order to address the limitations of generalizations, a minimum sample size of 400 eligible respondents is determined using the Taro Yamane formula. The sample size is adequate for a precise representation of the entire population within the banking and finance sector in Malaysia.

3.3.5 Sample Size

According to Andrade (2020), sample size defined as the number of respondents selected from a population in a study. The sample size should not be too small to avoid bias in the result obtained. In this study, the sample size of the online questionnaire is determined via the application of Taro Yamane formula, where the details of calculations are showed below. According to The Association of Banks in Malaysia (2024), it is found that up to March 2024, there are 168,832 employees that are currently serving in the financial services sector, representing the population of our study on Banking and Finance sector. From the formula applied, it is determined that the minimum responses that will be able to support the whole population is approximately 400 eligible respondents. Below is the formula of Taro Yamane formula (Israel, 1992).

$$n = \frac{N}{1 + N(e)^2}$$

where,

n = sampling size

N = population size

e = margin of error

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{168,832}{1 + 168,832(0.05)^2}$$

$$n = 399.05$$

$$n \approx 400$$

3.4   Research Instrument

3.4.1 Questionnaire Design

The design of the questionnaire is crucial and requires meticulous attention to detail for obtaining first-hand data, or primary data, from respondents in order to reduce the likelihood of error and acquire data more effectively. The questionnaire will be delivered in English language and will consist of closed-ended questions with various alternatives for answers.

The questionnaire will initially consist of a cover page that includes an introduction and clearly states the main objective of the study. While the second page will be partitioned into two sections, with Section A dedicated to collecting demographic information and Section B focused on recording construction measures.

Section A comprises five concise questions that inquire about the respondents' demographic information, including gender, age, highest education level, and current working status. This data facilitated the researcher in gaining a more comprehensive comprehension of the respondents and doing group result analysis.

Moving forward, Section B presents a general viewpoint on the developing measurements of CD, SC, and QL, which are categorised as three independent variables, one dependent variable, which is the DV, ME and MO. Section B requires respondents to utilize the Likert Scale, which is a 5-point scale ranging from 'Strongly Disagree' to 'Strongly Agree'. In this scale, a rating of 1 corresponds to 'Strongly Disagree' (SD), a rating of 2 corresponds to 'Disagree' (D), a rating of 3

corresponds to 'Neutral' (N), a rating of 4 corresponds to 'Agree' (A), and a rating of 5 corresponds to 'Strongly Agree' (SA).

The questionnaire for this study was established and modified using adaptations from relevant research articles. Aside from that, this questionnaire was reviewed and amended by the supervisor before being distributed to the designated respondents. In addition, Google form is utilized in the collection of data via questionnaire, where it is more practical, more affordable, and more effective than other research instruments, as it eliminates bias from interviewers and geographical barriers.

3.4.2 Pilot Test

A pilot study is undertaken earlier to the complete investigation to obtain more persuasive research results. It is a preliminary test that stands for a minor investigation capable of producing more favourable outcomes before designing a larger study.

The main objective is to assess the feasibility of the survey questions, ascertain the respondents' comprehension of the offered survey questions, and evaluate the accuracy, reliability, and validity of the survey itself. Consequently, the researchers will collect comments and proceed with the actual investigation.

Viechtbauer et al. (2015) recommends using a pilot test with a sample size that is 10% of the total sample size for the study. Under the application of Taro Yamane formula, the sample size of the study is calculated for a minimum number of 400 surveys must be completed; hence, at least 40 questionnaires must be completed

during the pilot test, and at least 400 questionnaires for the actual main study. Our respondents respectively are 6 of respondents currently serving as a professional under Banking and Finance industry, and 34 respondents planning to serve as a professional in Banking and Finance industry had taken part in this study, which ran from June 7, 2024, to June 11, 2024.

[Appendix 3.2: Result of Cronbach's Alpha]

[Appendix 3.3: Measurement of Cronbach's Alpha]

3.5   Constructs Measurement

Based on Pelz (2011), construct measurement in research is essential because it ensures clarity, validity, and reliability, of findings. By precisely defining and operationalizing variables, it fosters a common understanding of what is being studied. Valid measurements accurately capture the intended concepts, while reliable measures produce consistent results over time and across settings. Furthermore, construct measurement facilitates meaningful comparisons between studies and enhances the applicability of findings to broader contexts.

3.5.1 Scale Measurement

3.5.1.1 Nominal Scale

Nominal scale is a type of scale measurement that categorize something that is qualitative that does not imply any rank among them.

Illustration of Nominal Scale question:

[Appendix 3.4: Nominal scale question]

3.5.1.2 Ordinal Scale

According to Sekaran and Bougie (2013), ordinal scale is a type of measurement that categorize variables to form a list of ranking based on certain attribute.

Illustration of Ordinal Scale question:

[Appendix 3.5: Ordinal scale question]

3.5.1.3 Likert Scale

Likert scale is referred to a commonly used rating measurement where it typically includes 5, 7, or 9 points in the measurement.

Illustration of Likert scale:

[Appendix 3.6: Likert scale]

3.6   Data Processing

Data processing is the process of transforming primary data collected into a cleaned and corrected state so it can be applied for analysis (Kveder & Galico, 2008). It involves four steps such as checking, editing, coding and transcribing.

3.6.1 Data Checking

Data checking is a useful approach to ensure that the research under investigation does not have any missing data. It involves assessing the completeness and quality of questionnaire responses. Questionnaires might be considered invalid if there are oversight of data, overlooking of data, and unreliable responses. Data checking is primarily conducted to verify the accuracy, consistency, completeness, validity, and integration of the collected data.

3.6.2 Data Editing

Upon the completion of the data verification process, the next step is to make any necessary changes or modifications to the data. Data editing is crucial for the identification, correction, and modification of any missing or conflicting information. Data editing helps reduce the number of unreliable responses. In order to ensure the consistency of results, the data needs to be edited to enhance its completeness, understandability, consistency, and accuracy in preparation for subsequent steps.

3.6.3 Data Coding

For data coding, it is a process of converting the data to symbols or numerical codes to responses received to facilitate computer analysis. Subsequently, these numerical codes are entered into SmartPLS 4. Each response is allocated a code ranging from 1 to 5, while the missing values are assigned a code of 99.

Each demographic profile data in section A is coded with an answer:

[Appendix 3.7: Data coding]

In section B, C, D, E, F and G, 5-point Likert scale of agreement and disagreement is code:

[Appendix 3.8: Data coding for Likert scale]

3.6.4 Data Transcribing

Finally, the task of converting information into written form. Data transcription is the process of transforming raw data into useful information. This involves downloading the collected data and converting it into Microsoft Excel format. The data processed is then analysed using SmartPLS 4.

3.7   Data Analysis

Data analysis involves logical and analytical interpretation of gathered data to discern patterns, correlations or trends (Bhat, 2019). After data processing, the results are analysed to determine if the study's hypotheses were accepted or reject. In this research, the data is analysed using the statistical software SmartPLS 4.

3.7.1 Descriptive Analysis

Descriptive analysis includes the direct observation of the target behaviour in the natural events. Descriptive analysis is typically used as part of a thorough functional assessment of problem behaviour before doing an experimental functional analysis (Sloman, 2010). Descriptive analysis involves the examination and interpretation of data to understand its key characteristics and patterns. It includes techniques such as calculating measures of central tendency, measures of dispersion and graphical representations to present the data in a meaningful and understandable way. The table of descriptive analysis include the frequency and percentage, supported by the pie chart generated as well using the information from Section A.

3.7.2 Scale Measurement

3.7.2.1 Reliability Test

Subsequently, the reliability test is utilized to ascertain the coherence of the scale. The reliability test is assessed and determined by assessing consistency and stability. Internal consistency indicates the consistency of a scale within itself. Typically, internal consistency is assessed using Cronbach's alpha coefficient. Cronbach's alpha is a reliability coefficient that shows the level of positive correlation between a group of items (Sideridis et al., 2018). A greater Cronbach's alpha value, closer to 1, indicates a higher level of internal consistency reliability (Sekaran & Bougie, 2019).

[Appendix 3.9: Cronbach's Alpha Rule of Thumb]

3.8 Partial Least Square Structural Equation Modeling (PLS-SEM) Analysis

PLS-SEM has been broadly recognized in analysing complicated interactions involving both observable and unobservable factors. Researchers prefer PLS-SEM due to its numerous benefits, which include the capability in handling complicated models, modelling of mediators and moderator, and more prediction-oriented (Hair et al., 2011). Hence, PLS-SEM was the primary mean in this study due to the complicated relationships of all the studied variables.

3.8.1 Structural and Measurement modelling

This analysis typically consists of two sub-models: the measurement and structural model. In the analysis, the measurement model stage focuses on examining the connections between variables and their corresponding markers. This process comprises of the evaluation of indicator reliability, construct reliability, convergent

validity, and discriminant validity (Fauzi, 2022). Looking at this research, SC, CD, and QL are the latent variables, while their indicators are salary level, career prospects, and standard of living.

Moving to the stage of structural modelling, the connections between latent constructs are investigate, exploring how they influence one another. Structural model evaluating the significance and direction of these relationships, as well as evaluating the path coefficients, R-squared (R^2) values, quantifying size of effect, indirect effects, and lastly predictive relevance (Q^2) (Fauzi, 2022). This study investigates the correlation between CD, SL, and QL.

3.8.1.1 Measurement Model Evaluation

In this study, Cronbach's coefficient alpha and composite reliability (CR) were utilized measure the reliability of the constructs, where the benchmark of CR should be 0.60 (Bagozzi & Yi, 1988).

3.8.1.2 Structural Model Evaluation

PLS-SEM is often preferred when dealing with complex models and limited sample sizes. In the structural model, coefficients of determination, the magnitude and path coefficients are typically assessed. This is because the major aim of prediction-based PLS-SEM is to assess relationships among the variables and maximize explained variance. Acceptable thresholds for R^2 values depend on specific context of the study. According to Purwanto (2021), R-squared values of 0.75, 0.50 and 0.25 can be considered significant, moderate, and weak, respectively. To determine the

relative strength of path coefficients related to each indicator, standardized beta coefficients are calculated. Path coefficients, p-values, and t-statistics are emphasized in assessing the hypothesis significance, where the significance level fixed at $\alpha = 0.1$.

3.8.2 Convergent Validity Analysis (CVA)

Convergent Validity Analysis is an analysis of the links between question statements and latent variables (Amora, 2021). According to Kock (2014), a measurement instrument will have good convergent validity if the question statements associated with each latent variable are understood by the respondents in the same way as they were intended by the designers of the question-statements. In this study, the variables of SC, CD, and QL will undergo evaluation to ensure that they are measuring the same underlying concept. According to Amora (2021), CVA involves the assessment of indicator loadings, composite reliability (CR), and average variance extracted (AVE). For indicator loadings, it refers to the correlation between each indicator corresponding to latent construct, while AVE is the average amount of variance obtained by the latent construct from its indicators. For CR is the internal consistency and reliability measurement of the indicators for the construct. To obtain good convergent validity among the indicators, the indicator loadings should be high, supported with AVE that should have the value exceeding 0.5, and lastly 0.7 as the minimum for CR.

3.8.3 Discriminant Validity Analysis (DVA)

Discriminant Validity Analysis measures the degree of discrimination between the indicators of different latent variables. According to Hamid et al. (2017), evaluating

discriminant validity is essential in any study that involves latent variables along with the use of several items or indicators for representing the construct, to avoid potential multicollinearity problems. DVA can be evaluated by using cross-loading, average variance extracted (AVE), and square root of AVE of the indicators (Hamid et al., 2017). Cross-loading occurs when an indicator displays high loadings on multiple constructs. A good discriminant validity is indicated when the cross-loading is minimized, indicating that each indictor is highly loaded on its intended construct.

3.9   Conclusion

To collect the data for this study, the primary data was analysed using SmartPLS 4. Professional that is currently and students that are planning to join the banking and finance industry are targeted in this study. The data collected were then explained and reported in the next chapter.

CHAPTER 4: DATA ANALYSIS

4.0   Introduction

The analysed findings from the acquired data are reported in this chapter. This chapter will explain more on descriptive analysis, data reliability tests, and comparison of the results obtained, and the hypothesis developed previously in Chapter 2.

4.1   Descriptive Analysis

Referring to the previous chapter, the questionnaire was designed to observe the causes, impacts, and strategies of brain drain in Malaysia's banking and finance industry. To illustrate, we promoted the questionnaire to request the respondents in the industry to participate in the research. The Table 4.1.1 below presents the overall reflections of respondents.

Industry	Frequency	Percentage
I am currently serving as a professional in the Banking and Finance industry.	70	15.80%
I am from the Banking and Finance related programme/industry and planning to serve as a professional in the industry.	343	77.43%
I am not serving and not planning to serve as a professional in the Banking and Finance industry.	30	6.77%

Table 4.1. 1: Industry of respondents

In the demographic questionnaire, we processed 413 respondents who are currently engaged in the banking and finance programme or industry and subsequently excluded 30 respondents who are not employed and do not intend to become professionals in the banking and finance industry. Besides, the gender, age, highest education level, and current working status of respondents are included in the demographic information. The following tables present the demographic information of 413 eligible respondents.

Gender	Frequency	Percentage
Male	180	43.58%
Female	233	56.42%

Table 4.1. 2: Gender of respondents

According to demographic table 4.1.2, the respondents who identified as female accounted for the majority with 233 respondents or 56.42%; male respondents accounted for 180 respondents or 43.58%.

Age	Frequency	Percentage
21 - 30	401	97.09%
31 - 40	7	1.70%
41 - 50	5	1.21%

Table 4.1. 3: Age of respondents

Looking at the demographic table 4.1.3 of age, the age group with the largest number of respondents is about 21 to 30 years old with 401 respondents or 97.09%. Besides that, there are 7 respondents in the age group of 31 to 40 years old and accounting for 1.70%; there are 5 respondents in the age group of 41 to 50 years old and accounting for 1.21%.

Highest Education Level	Frequency	Percentage
High school or below	7	1.70%
A-level / Foundation / Diploma	53	12.83%
Bachelor's Degree	340	82.33%
Postgraduate education	11	2.66%
Professional certificate	2	0.48%

Table 4.1. 4: Highest education level of respondents

From the demographic table 4.1.4 of the highest education level, the largest proportion of respondents with a bachelor's degree is about 340 respondents or 82.33%. Secondly, A-level / foundation / Diploma respondents accounted for 53 respondents or 12.83%. The remaining education groups are postgraduate education, which is 11 respondents or 2.66%, high school or below which is 7 respondents or 1.70%, and professional education which is 2 respondents or 0.48%.

Current Working Status	Frequency	Percentage
Student	339	82.08%
Part-time	13	3.15%
Full-time	45	10.90%
Self-employed	6	1.45%
Unemployed	10	2.42%

Table 4.1. 5: Current working status of respondents

Looking at the demographic table 4.1.5 of current working status, 339 students participated in this research, accounting for 82.08% which is the largest group. Secondly, there are 45 respondents currently in full-time working, accounting for 10.90%. Among the remaining respondents, there are about 13 part-time respondents, accounting for 3.15%; about 10 respondents are unemployed, accounting for 2.42%; and there are about 6 respondents with self-employed status, accounting for 1.45%.

4.2   Analysis

4.2.1 Data Reliability

According to Cheung et al. (2023), it is pointed out that the requirement of 0.50 in factor loadings must be exceeded to be significant in the research. According to the Table 4.2.1 below, all of the components including both internal consistency and convergent validity in the research exceeded the threshold of 0.50.

	Internal consistency			Convergent validity
	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted
CD	0.818	0.821	0.873	0.579
DV	0.757	0.762	0.838	0.511
ME	0.863	0.866	0.901	0.646
MO	0.861	0.862	0.9	0.644
QL	0.814	0.828	0.868	0.569
SC	0.794	0.799	0.858	0.547

Table 4.2. 1: Data reliability

Source: SmartPLS 4

4.2.2 Internal Consistency Reliability

According to Revicki (2014), internal consistency reliability is a consistency measurement of how well each individual items in the test correlate. Under the internal consistency reliability, there are three components included in the analysis including the Cronbach's alpha, composite reliability rho_a and composite reliability rho_c. The analytical result is displayed in Table 4.2.2 below.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
CD	0.818	0.821	0.873
DV	0.757	0.762	0.838
ME	0.863	0.866	0.901
MO	0.861	0.862	0.900
QL	0.814	0.828	0.868
SC	0.794	0.799	0.858

Table 4.2. 2: Internal consistency reliability

Source: SmartPLS 4

From Table 4.2.2, from the value of Cronbach's alpha obtained, by referring to the measurement by Sharma (2016), it can be observed that both the independent variables (CD & QL), mediator (ME), and moderator (MO) ranged between 0.80 and 0.90 are having good reliability, while the dependent variable (DV) and independent variable (SC) scored between 0.70 and 0.80 in Cronbach's alpha are having an acceptable reliability.

However, due to the limitations in Cronbach's alpha measurement of internal consistency such as assumption of tau-equivalence where all items are assumed to have equal factor loadings is rarely to exist in practice and lack of consideration in variance explained by underlying individual item loadings (Trizano-Hermosilla & Alvarado, 2016). Therefore, including composite reliability that incorporates the actual loadings and does not have such assumption will provide a more comprehensive understanding and result of internal consistency. The purpose of

including both rho_a and rho_c is due to the difference in their focuses where rho_a focuses on average variance extracted which is more conservative estimate, while rho_c uses the actual factor loadings in the calculation that provides a more reflective of true reliability (Hair et al., 2022). According to Hair et al. (2022), from the result obtained in Table 4.2, it shows that all of them are having good reliabilities with the value greater than 0.70.

4.2.3 Convergent Validity Analysis

According to Nickerson (2023), convergent validity analysis refers to the degree to which two or more measures in the same construct correlate each other and to shows that they are theoretically related. In the measurement of convergent validity, average variance extracted (AVE) is utilized where variables with loadings greater than 0.50 is considered good, while lesser than that should be removed (Hulland, 1999). Based on the analysis in SmartPLS 4, it is found in the Table 4.2.3 below that all the variables met the thresholds of 0.50 in average variance extracted that indicates the construct explains more than half of the variance of its indicators, and no variable is removed.

	Average variance extracted
CD	0.579
DV	0.511
ME	0.646
MO	0.644
QL	0.569
SC	0.547

Table 4.2. 3: Average variance extracted

Source: SmartPLS 4

4.2.4 Discriminant Validity Analysis

According to Hamid et al. (2017), discriminant validity refers to the extent to which constructs are empirically distinct from one another. It also calculates how much each overlapping construct differs from the other. In this research, three methods were employed: the Fornell-Larcker criterion, Heterotrait-Monotrait (HTMT), and cross loadings.

Table 4.2.4 presents the Fornell-Larcker criterion used to validate this investigation. The correlation of latent constructs is compared with the square root of the average variance extracted (AVE) using this method. It is expected that a latent construct will be better at explaining the variance of its own indicator than the variance of other latent constructs. Thus, the square root of each construct's AVE should be larger than its correlations with other latent constructs. The model's discriminant validity shows that all the latent construct's AVE result is greater than their squared correlation, compared to other factors. However, for the ME-MO construct (MO - ME), there is little dispute, but since the difference is too small, each with 0.013 and 0.015 respectively, hence, it can be ignored (Rahim & Magner, 1995). Overall, discriminant validity can be accepted for this measurement model.

	CD	DV	ME	MO	QL	SC
CD	**0.761**					
DV	0.7	**0.715**				
ME	0.748	0.624	**0.804**			
MO	0.714	0.59	0.817	**0.802**		
QL	0.652	0.617	0.61	0.526	**0.754**	
SC	0.671	0.555	0.701	0.677	0.53	**0.74**

Table 4.2. 4: Fornell-Larcker criterion validity

Source: SmartPLS 4

Note: The diagonals (in bold) show the average variance extracted (AVE) value, while the other entries show the squared correlation.

The Heterotrait-Monotrait ratio (HTMT) measures the correlations between indicators across different constructs as well as within the same construct simultaneously (Afthanorhan et al., 2021). According to Hamid et al. (2017), HTMT values close to 1 indicate a lack of discriminant validity. The rule of thumb states that all HTMT coefficients must meet the minimum requirement of below 0.85 for theoretically distinct constructs and while the minimum requirement for theoretically similar constructs should fall below 0.90. According to Table 4.2.5, all of the HTMT values are below 0.90, except for the correlation between ME and MO, which has an HTMT value of 0.948. This indicates that the ME-MO construct does not possess discriminant validity., indicating potential collinearity problems among the latent constructs and overlapping elements from the respondents' perspectives (Hamid et al., 2017).

	CD	DV	ME	MO	QL	SC	MO x ME
CD							
DV	0.89						
ME	0.886	0.765					
MO	0.848	0.726	0.948				
QL	0.776	0.775	0.698	0.594			
SC	0.821	0.705	0.837	0.815	0.629		
MO x ME	0.365	0.346	0.447	0.523	0.266	0.328	

Table 4.2. 5: Heterotrait-Monotrait (HTMT) Values

Source: SmartPLS 4

According to the traditional discriminant validity assessment methods, each indicator loading should be greater than all of its cross-loadings. Otherwise, the

measure in question cannot distinguish between the construct it was designed to measure and another (Henseler et al., 2014). The cross-loading results of this study are presented in Table 4.2.6. The results indicate that the external loading value of each indicator is higher than the sum of its loadings on other constructions. To summarise, all of the constructs' elements demonstrated quite good results across the three methods used to demonstrate discriminant validity.

	CD	DV	ME	MO	QL	SC
CD1	**0.699**	0.522	0.459	0.417	0.527	0.425
CD2	**0.755**	0.517	0.577	0.552	0.42	0.498
CD3	**0.784**	0.501	0.642	0.641	0.412	0.543
CD4	**0.771**	0.532	0.575	0.54	0.521	0.56
CD5	**0.792**	0.593	0.584	0.554	0.603	0.522
DV1	0.542	**0.72**	0.557	0.559	0.364	0.488
DV2	0.485	**0.789**	0.428	0.389	0.442	0.411
DV3	0.492	**0.614**	0.383	0.345	0.468	0.343
DV4	0.44	**0.648**	0.351	0.341	0.418	0.307
DV5	0.529	**0.785**	0.488	0.451	0.507	0.414
ME1	0.636	0.562	**0.831**	0.651	0.514	0.602
ME2	0.645	0.509	**0.829**	0.662	0.532	0.593
ME3	0.575	0.496	**0.771**	0.656	0.391	0.473
ME4	0.54	0.448	**0.778**	0.603	0.515	0.545
ME5	0.603	0.487	**0.806**	0.711	0.493	0.595
MO1	0.539	0.464	0.632	**0.784**	0.367	0.541
MO2	0.591	0.49	0.662	**0.827**	0.411	0.578
MO3	0.589	0.486	0.706	**0.845**	0.431	0.564
MO4	0.548	0.449	0.573	**0.726**	0.428	0.46
MO5	0.597	0.476	0.698	**0.825**	0.473	0.568
QL1	0.526	0.526	0.461	0.425	**0.782**	0.444
QL2	0.382	0.433	0.334	0.248	**0.735**	0.316
QL3	0.345	0.353	0.292	0.191	**0.674**	0.262
QL4	0.574	0.475	0.557	0.504	**0.778**	0.446
QL5	0.566	0.507	0.575	0.514	**0.797**	0.474

SC1	0.459	0.337	0.503	0.505	0.318	**0.701**
SC2	0.558	0.458	0.56	0.498	0.453	**0.757**
SC3	0.389	0.367	0.43	0.455	0.322	**0.71**
SC4	0.467	0.412	0.479	0.462	0.387	**0.758**
SC5	0.58	0.459	0.596	0.573	0.456	**0.769**

Table 4.2. 6: Cross Loadings for Construct

Source: SmartPLS 4

4.2.5 Assessment of Structural Model

Hypothesis testing is conducted to examine the relationships involving all the constructs under the structural model in the study. This involves evaluating significant values, as well as the strength and direction of the path coefficients. Figure 4.2.1 is the structural model of this study, showing the relationships among the variables. SmartPLS 4 was employed with the purpose of estimation, and bootstrapping techniques were utilized to test whether the parameter estimation for path coefficient is statistically significant via the using of 5,000 subsamples.
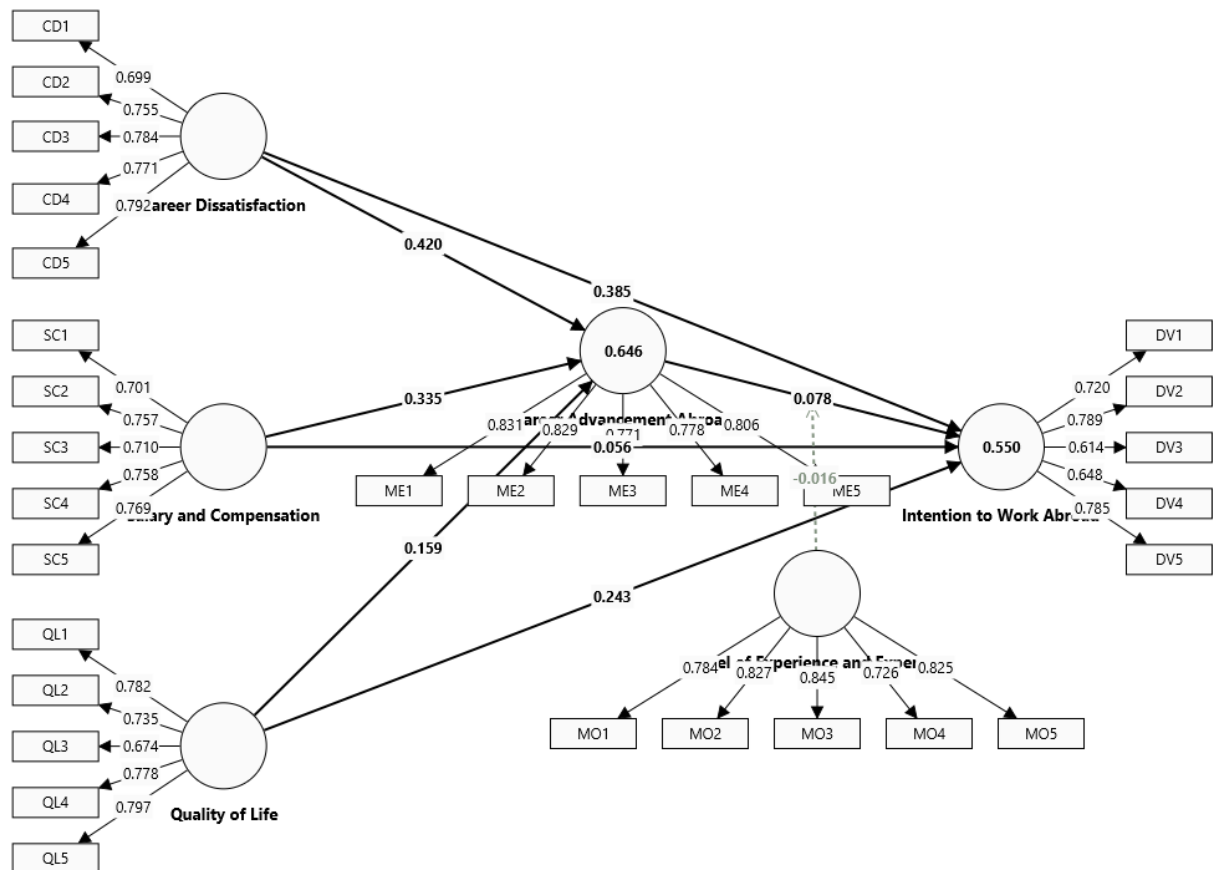
Figure 4.2. 1: Result of Structural Model

Source: SmartPLS 4

For a two-tailed test, the critical values are 2.57 for a significance level of 0.01, 1.96 for significance level of 0.05, and 1.65 for significance level of 0.10. In this study, a 5% significance level was chosen, with a t-value of 1.96 used as the criterion for statistical decisions. Figure 4.2.1 illustrates the structural model results. The R^2 for the DV (DV), is 0.55. This indicates that 55% of the variance in the intention of banking and finance professionals to work abroad is explained by the model.

	DV
CD	2.975
SC	2.284
QL	1.865
ME	3.984

MO	3.673

Table 4.2. 7: Inner VIF Value

Source: SmartPLS 4

Evaluating lateral multicollinearity for DV among professionals in the banking and finance industry (DV), the Inner VIF values for all independent variables, mediators, and moderators must be below 5. Table 4.2.7 shows that all Inner VIF values meet this requirement, indicating no multicollinearity issues.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P value	Results
CD→ME (H$_1$)	0.420	0.417	0.054	7.722	0.000	Significant
SC→ME (H$_2$)	0.335	0.336	0.054	6.255	0.000	Significant
QL→ME (H$_3$)	0.159	0.161	0.056	2.846	0.004	Significant
CD→DV (H$_4$)	0.385	0.385	0.067	5.728	0.000	Significant
SC→DV (H$_5$)	0.056	0.058	0.063	0.902	0.367	Insignificant
QL→DV (H$_6$)	0.243	0.248	0.059	4.139	0.000	Significant
MO×ME→DV (H$_7$)	-0.016	-0.016	0.023	0.697	0.486	Insignificant
ME→DV (H$_8$)	0.078	0.072	0.080	0.979	0.328	Insignificant

Table 4.2. 8: Results of Path Coefficients and Hypothesis Testing
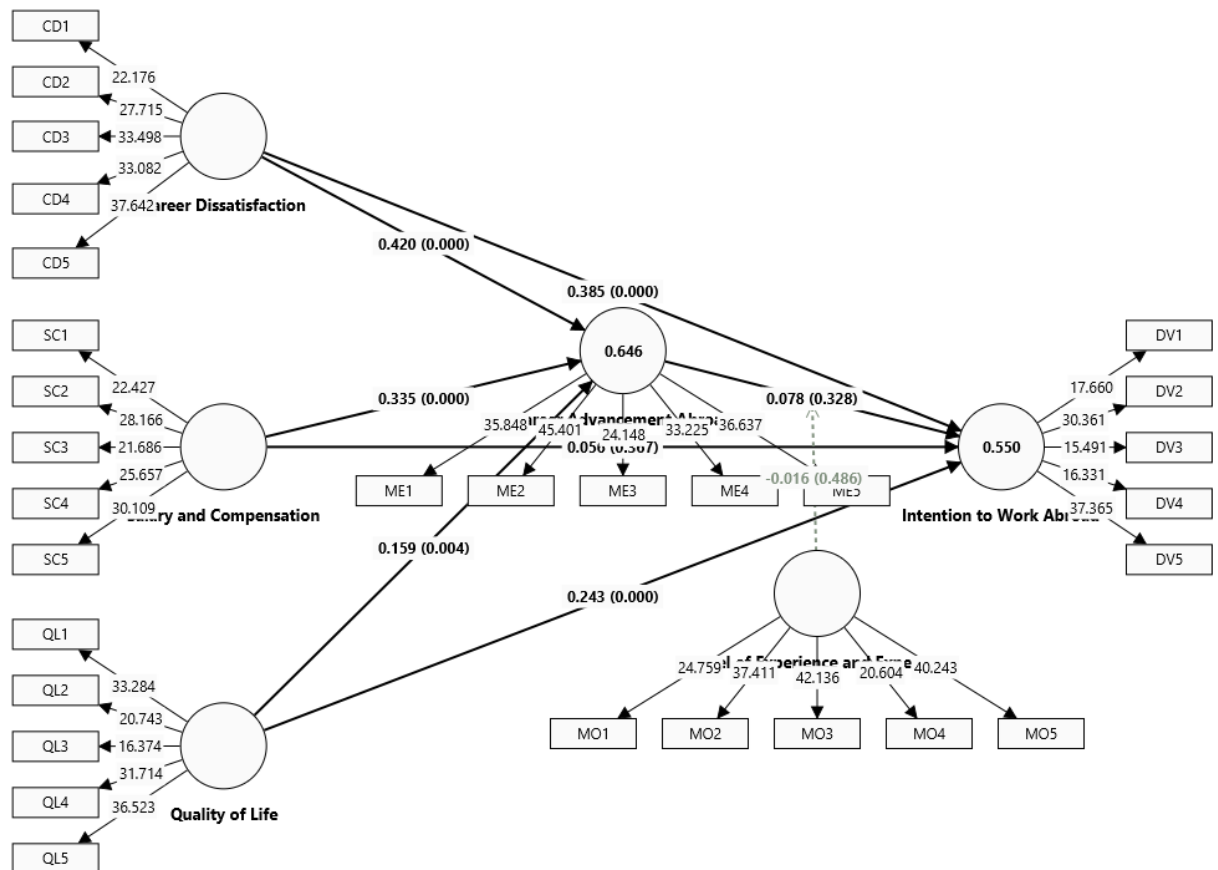
Source: SmartPLS 4

Figure 4.2. 2: Result of Bootstrapping and Path Coefficients

Source: SmartPLS 4

Figure 4.2.2 shows the results of bootstrapping and path coefficients. A strong association between CD and ME is highlighted in H_1, having 7.722 as the t-value, exceeding 1.96. Then, H_2 demonstrates a statistically significant relationship between SC and ME, indicated by 6.255 in t-value, exceeding 1.96 as well. H_3 shows that there is a strong association between QL and ME, as evidenced by a t-value of 2.846, which surpasses the criterion of 1.96. Looking at the H_4, it shows a substantial link between CD and DV, supported by 5.728 in its t-value, exceeding 1.96 that is favourable. Having 0.902 in its t-value, H_5 indicates a lack of statistical significance between SC and DV, falling below threshold of 1.96. However, H_6 indicates a substantial correlation between QL and DV, with a t-value of 4.139, which surpasses the threshold of 1.96. H_7 demonstrates a non-significant relationship between the moderator and the transition from the ME to the DV, as indicated by a t-value of 0.697, which falls below the critical threshold of 1.96.

Lastly, with a t-value of 0.979, which is below the required threshold of 1.96, H_8 suggests that there is no statistically significant link between ME and DV. To summarize, only the hypotheses H_5, H_7, and H_8 were determined to be statistically insignificant, whilst the remaining hypotheses exhibited significant connections.

	$\text{VAF} = \dfrac{\text{Specific Indirect Effect}}{\text{Total Effect}}$	Decision
CD	$\dfrac{0.033}{0.418} = 7.89\%$	No mediation
SC	$\dfrac{0.026}{0.082} = 31.71\%$	Partial mediation
QL	$\dfrac{0.012}{0.256} = 4.69\%$	No mediation

Table 4.2. 9: Variance Accounted For (VAF)

Source: SmartPLS 4

Table 4.2.9 shows the calculated outcomes of the Variance Accounted For (VAF). According to Hair et al. (2022), there is full mediation when the VAF value is more than 80%, partial mediation when it falls between 20% and 80%, and no mediation when it is less than 20%. VAF calculates the degree to which the variance of the dependent variable is explained by the mediation process, using the ratio of the indirect-to-total effect (Nitzl et al., 2016). As displayed in Table 4.9, the VAF for SC toward the DV is 31.71%, indicating a partial mediation effect. Additionally, the VAF values for CD and QL are 7.89% and 4.69%, respectively, indicating no mediation effect for these factors in this process.

4.3   Discussion of Results

4.3.1 CD and ME

Table 4.2.8 indicated a notable correlation between CD and ME. The p-value of 0.0000 is below the significance level $\alpha = 0.05$, demonstrating a significant connection between CD and ME at the $\alpha = 0.05$ significance level.

According to the study conducted by Khan (2021), job dissatisfaction has a significant positive impact on brain drain. This suggests that a rise in work unhappiness will result in a notable increase in employee morale as well. This relationship is supported by another study conducted by Kadel and Bhandari (2018) on the cross-sectional brain drain among nurses in Nepal, which found that push factors under CD, such as lack of career advancement, unsatisfactory living conditions, and poor working environment, have a significant and positive impact on the brain drain issue, leading to ME.

Apart from that, Luciana and Sofia (2023) found a similar result of a significant and positive relationship between CD and brain drain. CD leads to the willingness of individuals for a better career advancement. This supports the current result of a significant relationship between CD and ME.

In short, based on these results, the relationship between CD and ME is consistent with the past studies, supporting how CD significantly influences ME.

4.3.2 SC and ME

In analysing the data found in Table 4.2.8, it can be concluded that there is significant relationship emerged between SC, and ME. The 0.0000 in p-value, falls below $\alpha = 0.05$, strongly supports this conclusion.

The result is supported by Suraya (2022) which highlights factors contributing to low salaries in Malaysia leads to ME by Malaysian towards Singapore for higher SC. Moreover, particularly relevant to professionals considering ME, is the reluctance of Malaysian employers to pay higher salaries, leading to a mismatch between job scope and compensation. Rosli (2019) also points out that Malaysian employees receive lower compensation compared to benchmarks in advanced economies worldwide.

A cross-sectional study by Sohail and Habib (2016) on doctors' career intentions in Pakistan revealed that higher salaries abroad are a significant factor in increasing brain drain. Out of the 132 individuals who participated in the study, the aspect that worried them the most when contemplating working overseas, especially in wealthy nations such as the United Kingdom and the United States, was their wage. Similarly, Khan (2021) found that higher salaries and better compensation in foreign countries significantly impact brain drain in Europe, as professionals leave for better living standards.

In summary, the relationship between SC and ME is consistently supported by previous studies, clearly explaining why these factors significantly influence professionals' decisions to seek career opportunities abroad.

4.3.3 QL and ME

Analysing the data in Table 4.2.8 revealed an insight into the influence of QL, and ME, where having 0.004 in p-value that falls below α = 0.05 supported their significance in relationship.

Choong et al. (2013) discovered a significant correlation between QL and the phenomenon of brain drain. Safety and security issues are major concerns, with frequent reports of kidnappings and armed robberies in Malaysia prompting many to seek safer environments. This supports the significant relationship between QL and ME. As a result, countries like Australia, New Zealand, and Singapore, which prioritize social and ethnic harmony through stringent anti-discrimination laws, become preferred destinations for talented Malaysians. This finding aligns with Fong and Hassan (2017), who noted that the rising crime rate in Malaysia is pushing individuals to consider migrating to more secure countries.

Moreover, Ishak and Aziz (2014) highlighted the importance of favourable working conditions, for instance, achieving a good work-life balance, as key aspects of QL. The poor work-life balance experienced by professionals in Malaysia's construction sector significantly affects their QL, driving many to seek employment abroad. High-skilled workers often look for better career opportunities to utilize their expertise, while some prioritize a desirable lifestyle over a high salary, choosing countries that offer the lifestyle they seek. Research by Foo (2011), Chandar et al. (2015), and Hamid et al. (2022) further supports the notion that QL significantly impacts brain drain. According to these studies, respondents believe that working abroad offers not only better job opportunities but also a higher QL.

In summary, these results underscore that QL and ME are consistent themes across multiple studies, explaining why these factors significantly influence individuals' decisions to pursue career opportunities abroad.

4.3.4 CD and DV

The examination of the data in Table 4.2.8 uncovered a noteworthy correlation between CD and DV within Malaysia's banking and finance industry. The p-value of 0.000, which is significantly lesser than the predetermined significance level α = 0.05, provides convincing evidence to indicate the presence of a meaningful association between CD and DV at α = 0.05.

Referring to Mobley's (1977) turnover research, which suggested that dissatisfaction leads to thoughts of quitting, evaluation of alternatives, intention to quit, and eventually, turnover. Similarly, in this context, attitudes influence intentions, which then lead to the behaviour of intending to work abroad.

Furthermore, this result supports the Chapter 2's hypothesis, where CD significantly impacts the DV. The correlation between CD and the DV is complex and influenced by various factors. According to Persellin (2019), excessive workload can lead to CD, resulting in stress, burnout, and increased dissatisfaction. However, a high workload does not necessarily cause dissatisfaction if an individual can control and manage it effectively (Klassen and Chui, 2010). Conversely, if someone feels they have little control over their workload and are constantly pressured to meet deadlines, it can lead to CD and a strong DV.

4.3.5 SC and DV

In Table 4.2.8, a statistically negligible correlation between the SC and DV is revealed. The p-value of 0.367 indicates that the link between SC and DV within Malaysia's banking and finance business is not statistically significant at the specified significance level of $\alpha = 0.05$.

Research indicates a positive correlation between higher SC and the DV. Individuals who experience salary increases during their time overseas are more likely to report a higher DV. SC satisfaction encompasses a general evaluation of employee contentment with pay level, benefits, raises, pay structure, and administration (Heneman & Schwab, 1985). Numerous studies have examined compensation satisfaction across various industries (De Gieter et al., 2006; Jung and Yoon, 2015).

Additionally, studies have found that employees in profit organizations report a lower DV compared to those in non-profit organizations, particularly regarding higher SC. This suggests that employees in profit organizations are less dissatisfied with their SC than those in non-profit organizations (Ahmat et al., 2019). It is important to recognize that employee SC are among the largest expenses in any service organization (Davidson et al., 2010), and employers' decisions about SC systems influence employees' DV. This is further supported by the study conducted by McAuliffe et al. (2016) among health professionals, where the research discovered that SC does not have significant relationship on DV. Therefore, employers should design compensation systems effectively, as compensation satisfaction impacts employee work behaviours (Jung and Yoon, 2015; Negash et al., 2014) and their DV.

4.3.6 QL and DV

Table 4.2.8 reveals a noteworthy correlation between QL and the DV among personnel in Malaysia's banking and finance industry. This conclusion is supported by 0.004 in the p-value, which is falls under significance level of $\alpha = 0.05$, providing substantial evidence of the existence a substantial correlation between the QL and DV, with a significance threshold of $\alpha = 0.05$.

QL encompasses employees' well-being and is measured by their satisfaction with their financial condition and family needs (Sirgy et al., 2001). Employers should acknowledge the significance of QL and should thus establish a minimum salary that is enough to meet living expenses. This would guarantee that employees have a satisfactory income to sustain a specific standard of living and minimize their financial vulnerability (Central Bank of Malaysia, 2016). The Malaysian government initially established the minimum wage slightly higher than the poverty threshold and subsequently raised it in 2018 to ensure that employees and their families could adequately fulfill their fundamental requirements. However, all states in Peninsular Malaysia received the same minimum wage rate, despite some states having a higher cost of living (e.g., Kuala Lumpur, Pulau Pinang) (Central Bank of Malaysia, 2016). The cost of living varies across households depending on demographic characteristics (e.g., number of household members) and area of residence (e.g., rural, urban) (Central Bank of Malaysia, 2016). Thus, Ling et al. (2014) proposed that Malaysian policymakers should take into account the cost of living in each state and the variations within sectors when determining the minimum wage rate. This is in light of the fact that the cost of living varies depending on the geographical region, and considering these factors will enhance the overall QL for the population.

4.3.7 MO

Given that the p-value (0.486) greater than the threshold of α = 0.05, we can conclude that the MO does not substantially affect the relationship between ME and the DV at the α = 0.05. This result contrasts with previous studies, which have generally indicated that experience and expertise play a significant moderating role between ME and the DV, particularly in Malaysia's banking and finance industry. Workers with experience are typically in high demand in the labour market (Salvisberg, 2010) due to their high productivity (Arrow, 1962) and low training costs (Thurow, 1975), especially those with advanced skills and prospects attached with different MO.

However, our results indicate that experience and expertise are insignificant in this model. This may be because experienced professionals in Malaysia's Banking and Finance Industry have achieved financial stability and security in their home country and do not find the financial incentives of working abroad compelling enough to outweigh the challenges and uncertainties of relocation. Therefore, their low DV is not related to their MO but rather to their desire to minimize uncertainty and seek different experiences.

4.3.8 ME and DV

Looking at the result in Table 4.2.8 reveals that the relationship between ME and the DV is not statistically significant. The p-value of 0.328 is significantly greater than the selected significance level of α = 0.05 for this investigation. This indicates that there is no compelling evidence to suggest that career advancement opportunities abroad significantly influence individuals' intentions to work abroad.

4.3.9 Mediation Effect

4.3.9.1 ME will Mediate The Relationship between CD and DV

	$VAF = \dfrac{Specific\ Indirect\ Effect}{Total\ Effect}$	Decision
CD	$\dfrac{0.033}{0.418} = 7.8947368\%$	No mediation effect

Table 4.3. 1: Variance Accounted For (VAF)

Source: SmartPLS 4

Based on the analysis of Variance Accounted For (VAF) via SmartPLS 4, Table 4.3.1 above is created. According to the thresholds provided by Hair et al. (2022), VAF below 20% indicates no mediation effect, between 20% and 80% indicates partial mediation, and full mediation for VAF more than 80%. Referring to the Table above, the analysis reveals that ME has no mediation effect on the relationship between CD and DV as the VAF calculated is found to be as low as 7.89%, where only 7.89% of the relationship between the relationship is explained by the mediator of ME. Therefore, H_1 mentioned in the model under Chapter 2 is insignificant.

This result reflects that the professionals in banking and finance industry do not emphasize and react on the mediator of ME when they are dissatisfied with their career, making them to have strong DV regardless of whether there are better career opportunities and advancement abroad. This strong direct path between CD and DV. To illustrate, individual in a toxic work environment might seek of employment opportunities abroad to avoid the negative work environment, prioritizing the environment due to dissatisfaction over the potential career growth abroad (Crossley et al., 2007). This may be seen by the findings of this study, which indicate that the direct relationship between the independent variable (CD) and the

dependent variable (DV) is more robust than the mediation effect, which accounts
for just 7.89% of the relationship.

4.3.9.2 ME will Mediate The Relationship between SC and DV

	VAF $= \dfrac{Specific\ Indirect\ Effect}{Total\ Effect}$	Decision
SC	$\dfrac{0.026}{0.082} = 31.707317\%$	Partial mediation effect

Table 4.3. 2: Variance Accounted For (VAF)

Source: SmartPLS 4

Looking at the Table 4.3.2, the analysis reveals that ME partially mediate on the
relationship between SC and DV as the VAF calculated is found to be 31.71%,
where 31.71% of the relationship between the relationship is explained by the
mediator of ME (Hair et al., 2022). Hence, H_2 from the model in Chapter 2 is
significant.

This result reflects that professional in the banking and finance industry may
emphasize and value the career advancement in the foreign countries, leading to
stronger DV. As better SC provided abroad often followed by better career prospects
and advancement, this may align with the banking and finance professionals in
having better personal career growth. This is further supported by the result
obtained where 31.71% of the relationship between SC and DV influenced by the
mediator. However, the partial mediation can be explained where despite of just SC
on the DV, there are other influence rather than just career advancement (Zhao et
al., 2010). For instance, an offer of attractive and better SC abroad towards a
banking and finance professional, followed by ME might increase the attractiveness,

yet not fully affecting the decision without considering other aspects. Looking at the results obtained from the SmartPLS 4, even though the mediation effect is just partially, yet it is still significant in explaining how the SC, and DV are related.

4.3.9.3 ME will Mediate The Relationship between QL and DV

	$VAF = \dfrac{Specific\ Indirect\ Effect}{Total\ Effect}$	Decision
QL	$\dfrac{0.012}{0.256} = 4.6875\%$	No mediation effect

Table 4.3. 3: Variance Accounted For (VAF)

Source: SmartPLS 4

Based on the Table 4.3.3, the analysis reveals that ME has no mediation effect on the relationship between QL and DV as the VAF calculated is found to be as lower than 20% where only 4.69% of the relationship between the relationship is explained by the mediator of ME (Hair et al., 2022). Hence, H_3 under the model in Chapter 2 is insignificant.

This result reflects that the banking and finance professional regardless of their status in the industry do not consider much of the ME when they intended to work abroad due to better QL abroad. This might be due to stronger direct relationship between the QL and DV that shadows their consideration on ME. To further illustrate, professionals that eager for better QL to achieve their lifestyle preferences such as work-life balance, standard of living, and so forth might be prioritized over the career advancement prospects (Lewis et al., 2007). This is further supported the direct influence of QL on DV obtained from the analysis. Apart from that, due to the limited sample size collected, the result might not be able to capture a comprehensive cultural attitude towards QL and DV where other factors such as

social and familial might force them to work abroad to provide better QL, rather than considering better career opportunities.

4.4   Conclusion

In short, this chapter describes the result of each variable, mediator and moderator effects on the dependent variable. The result obtained provides a clear picture on how the model explained the studied topic. In Chapter 5, the findings in this chapter will be further discussed and summarized.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0   Introduction

This chapter provides a comprehensive analysis of the data acquired in the preceding chapter. The discussion will be followed by an examination of the study's implications, limits, and recommendations for future researchers. Finally, the chapter concludes with a final summary of the study.

5.1   Summary of Research

This study investigates the determining factor of DV in Malaysia's banking and finance industry, a topic typically focused on specific industries such as healthcare and accounting. By concentrating on the banking and finance industry in Malaysia, instead of just broadening the scope of the research, the research offers significant understandings for local authorities, especially the Ministry of Human Resources and policymakers, to improve retention strategies.

Previous research has primarily focused on the direct relationships between independent and dependent variables. However, our study aims to provide a more comprehensive understanding by incorporating both a moderator and a mediator into the analysis. Specifically, we consider career advancement opportunities abroad as a mediating variable, which helps to explain how these opportunities influence the decision to work abroad. In addition, we include the MO as a moderating variable, which examines how these factors influence the strength and

direction of the relationship between the ME and the DV. By incorporating these additional variables, we aim to enhance the credibility and depth of our study, providing more nuanced insights into brain drain in Malaysia's banking and finance industry for local entities, policymakers and researchers.

The study employed a quantitative methodology, combined with the application of cross-sectional analysis, and analysing mainly from the primary data collected. The primary data was collected from 413 eligible respondents who are currently engaged in the banking and finance programme or industry in Malaysia and analysed using SmartPLS 4.

Main findings from the Smart PLS 4 analysis showed:

(i) CD, SC, and QL are significant to ME in Malaysia's banking and finance industry.

(ii) CD and QL are significant to the DV in Malaysia's banking and finance industry.

(iii) SC are not significant to the DV in Malaysia's banking and finance industry.

(iv) The relationship between ME and DV in Malaysia's banking and finance industry is not significant.

(v) The relationship between ME and DV in Malaysia's banking and finance industry is not significantly moderated by MO.

(vi) The relationship between CD as well as QL and DV in Malaysia's banking and finance industry are not mediated by ME.

(vii) The relationship between SC and DV in Malaysia's banking and finance industry are mediated by ME.

In conclusion, factors like CD and QL significantly influence the DV in Malaysia's banking and finance industry. However, contrary to expectations, SC and MO did not show a significant influence in the DV in Malaysia's banking and finance industry.

5.2   Implications of Study

5.2.1 Banking and Finance Sector

In Malaysia, the banking and finance sector is struggling with brain drain issues as many professionals prefer to seek employment abroad. Our study identified various outcomes that can help inform strategies for current employers and students in the relevant field. These insights can aid in mitigating brain drain and improving retention in the sector. First of all, from our studies CD significantly influences the DV. Employees often seek better career advancement opportunities abroad when dissatisfied with their current roles. According to Junaimah et al. (2009) and Anees et al. (2021), employees are motivated to seek employment abroad due to the absence of growth prospects and the presence of workplace stress. Luciana and Sofia (2023) also emphasize the importance of career satisfaction and its impact on brain drain. Banks and financial institutions should prioritize career development and job satisfaction. Providing clear career advancement paths, mentorship programs, and opportunities for skill development and upskilling to help reduce dissatisfaction among employees.

Moreover, the result of the study reflects that SC might not be relevant in impacting the DV among professional in Malaysia's banking and finance industry, especially when most of the respondents are those from students that planning to join the industry, this provides different perspective to future researcher where SC might not be always significant as stated in most of the past studies involving Fong and Hassan (2017) and Junaimah et al. (2009). In order for the banking and finance sector to retain these professionals, the authorities in the industry especially the

employers should not solely focus on SC only as it might be subjective based on the population involved, instead to have a comprehensive and effective strategy, focuses and plan should be customized on the targeted population as different needs are demanded.

Lastly, QL significantly impacts both ME and DV. Hamid et al. (2022) emphasizes that poor QL, including high crime rates and poor work-life balance, drives professionals to seek opportunities in countries with better living conditions. This is supported by Choong et al. (2013) and Ishak and Aziz (2014), who found that safety, security, and work-life balance are critical factors influencing the decision to work abroad. Banking and finance sector should improve employees' overall QL by enhance the working environment, promote a healthy work-life balance, and ensure a safe and supportive workplace culture. Initiatives could include wellness programs, mental health support, and creating a positive organizational culture. These measures can help retain employees by addressing their broader well-being concerns.

By addressing CD, offering competitive SC packages, and improving the QL, banks and financial institutions in Malaysia can better retain their talent and reduce the brain drain phenomenon.

5.2.2 Policymaker

Based on our studies, policymakers able to use the studies as references in mitigating brain drain issues from Malaysia, particularly in the banking and finance industry, by developing or modifying policies based on insights from our studies. These policies can help retain talent and address the factors that drive professionals to seek opportunities abroad.

CD significantly influences the DV, as employees often seek better career advancement opportunities abroad when dissatisfied with their current roles. Kadel and Bhandari (2018) found that CD, including the lack of career advancement and poor working conditions, significantly impacts brain drain. Policymakers should develop policies that encourage organizations to enhance career satisfaction. This can be achieved by creating incentives for companies to invest in employee development and career progression programs. Policies could include tax breaks or grants for companies that implement comprehensive career development programs.

Furthermore, the result of insignificance relationship between SC on DV introduces another perspective to the policymakers as well when developing strategy for talent retention. As mentioned previously in previous studies, most of the studies reviewed proposed that SC is significant most of the time, but when comes to retain of future professionals in the banking and finance sector, the policymaker should be aware of different needs of the populations, where Ahmat et al. (2019) pointed out that professionals under non-profit organizations have lower demand and expectations of SC when considering working abroad. By providing this different perspective result, the policymaker is able to revise their previous strategy and obtain a more holistic view on the effective strategy in overcoming the brain drain in banking and finance sector.

Lastly, QL significantly influences both ME and the DV. Foo (2011), Chandar et al. (2015), and Hamid et al. (2022) emphasize that a poor QL, including high crime rates and inadequate living conditions, drives brain drain. Policymakers should focus on creating safer and more livable environments by involve investments in healthcare, education, and public safety. Policies promoting social harmony, reducing crime rates, and improving living conditions can make the country more attractive to retain its talent. Additionally, initiatives to enhance work-life balance, such as flexible working hours and mental health support can help improve the overall QL for professionals.

By addressing CD, ensuring competitive SC packages, and improving the QL, policymakers can create an environment that retains talent and reduces the brain drain phenomenon in Malaysia.

5.3   Limitations

In this study, few limitations that may affect the result were identified. First and foremost, one of the limitations identified is inclusion of three independent variables which are CD, SC, and QL only due to time constraints. With only these three independent variables, the result obtained may not be able to exactly examine all possible determinants of DV in Malaysia banking and finance industry. For instance, Shariff et al. (2018) did a study on brain drain in Malaysia and examined the factors that influence perceived prospects. They discovered a strong and positive association between these factors. This issue may be further examined by looking at the R^2 result, which has a value of only 0.550. This value indicates that only 55.0% of the independent factors tested had a significant influence on the dependent variable. From this result, it can be concluded this study may omitted other significant determinants that could give relevant effect on DV among Malaysia banking and finance industry professionals.

Apart from that, the second limitation of the study is the unbalanced result of the demographic information which is known as sampling bias as well. As the method applied in the collection of the primary data was convenience sampling with the pre-requisite requirement of respondents must be either planning to join or already a professional in Malaysia banking and finance industry, yet due to the limitation of time frame, it leads to bias where most of the eligible respondents contributed to the survey were mostly from banking and finance students that are planning to join the industry in future, which is about 82.08%, while only the remaining 15.45% of

them are professionals that currently working in the industry. Despite of the sufficient sample size of 400 that could represent the whole population calculated from Taro Yamane formula, this bias in the sampling may still lead to inaccurate result of the study as there may be different perspective of professionals that worked in the industry compared to those students that just planned to do so. To further illustrate, the result of insignificant in the SC does not align with most of the previous studies examined, where it is observed that most of the previous studies focused on only those who are already worked in the industry studied.

5.4   Recommendations

In order to overcome the limitations of the study, there are few recommendations for future study to obtain better and more accurate result. First and foremost, the omitted independent variables that may significantly impact the intention of banking and finance professionals to work abroad should be studied holistically. These independent variables may include social network connections suggested by Tabor and Milfont (2011) where presence of family, friends, or professional network in their home country are found to significantly impact the DV. Another study conducted by van Dalen and Henkens (2007) discovered that political stability and safety that is omitted from the study is another significant independent variable that as well affecting the DV. By including these significant independent variables in future research, the DV can be explained more holistically, producing a higher R^2.

Furthermore, future researchers may try to utilize other sampling methods to acquire data when the time constraints are not an issue to overcome the issue of biased sample. It is suggested that probability sampling should be prioritize before non-probability sampling due to few reasons. One of the reasons is probability sampling methods rely on random selection, while non-probability sampling may

be subjective, resulting a biased result. According to a study conducted by Etikan et al. (2016), it is emphasized that the reason for probability sampling to be less biased is due to the random selection that ensure each member of the population is equally included, resulting in lower risk of selection bias. Therefore, future researchers are encouraged to ensure the unbiased selection of their sample via the application of probability sampling techniques such as simple random sampling, stratified sampling, systematic sampling, and cluster sampling.

Last but not least, future researchers are encouraged to develop detailed and well-structured plans before conducting their research in order to overcome the challenge of time constraints. This may involve setting clear timelines, prioritizing task, allocating sufficient time for each phase of the study, and ensure buffer periods in case of any unexpected delays.

5.5 Conclusion

The DV among professionals in Malaysia banking and finance industry is shown to be either affected or no effect by the variables of CD, SC, and QL, with the mediator and moderator of ME and MO in this study. From the analysis of 413 eligible professionals and students under banking and finance industry in Malaysia, the results discovered the significant relationship of CD and QL on DV, and no partial mediation on both the variables mentioned. There is no notable correlation between SC and the intention of banking and finance professionals in Malaysia to seek employment elsewhere. In a nutshell, this research aims to be a valuable means for future studies on brain drain in the banking and finance industry in Malaysia, contributing to strategies that can help in overcoming this issue and foster a more robust financial sector for the country's future.

REFERENCES

Adeyemi, R. A., Joel, A., Ebenezer, J. T., & Attah, E, Y. (2018). The effect of brain drain on the economic development of developing countries: evidence from selected African countries. *Journal of Health and Social Issues (JOHESI)*. https://www.researchgate.net/publication/329814545_The_Effect_of_Brain_Drain_on_the_Economic_Development_of_Developing_Countries_Evidence_from_Selected_African_Countries

Adovor, E., Czaika, M., Docquier, F., & Moullan, Y. (2021). Medical brain drain: How many, where and why? *Journal of Health Economics*, *76*, 102409. https://doi.org/10.1016/j.jhealeco.2020.102409

Afthanorhan, A., Ghazali, P. L., & Rashid, N. (2021). Discriminant validity: A comparison of CBSEM and Consistent PLS using Fornell & Larcker and HTMT approaches - IOPscience. *Journal of Physics: Conference Series*, *1874*(1). https://doi.org/10.1088/1742-6596/1874/1/012085

Amora, J. T. (2021). Convergent validity assessment in PLS-SEM: A loadings-driven approach. *Data Analysis Perspectives Journal, 2*(3), 1-6. https://www.researchgate.net/publication/351984581_Convergent_validity_assessment_in_PLS-SEM_A_loadings-driven_approach

Andrade C. (2020). Sample size and its importance in research. *Indian Journal of Psychological Medicine*, *42*(1), 102–103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19

Anees, R. T., Heidler, P., Cavaliere, L. P. L., & Nordin, N. A. (2021). Brain drain in higher education. The impact of job stress and workload on turnover intention and the mediating role of job satisfaction at universities. *European Journal of Business and Management Research*, *6*(3), 1–8. https://doi.org/10.24018/ejbmr.2021.6.3.849

Apuke, O. D. (2017). Quantitative research methods a synopsis approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, *6*(11), 40–47. https://j.arabianjbmr.com/index.php/kcajbmr/article/view/1003

Arrow, K. J. (1962). The economic implications of learning by doing. *The Review of Economic Studies*, *29*(3), 155. https://doi.org/10.2307/2295952

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Bank Negara Malaysia. (2018). Bank Negara Malaysia annual report 2018.

https://www.bnm.gov.my/documents/20124/791626/ar2018_book.pdf

Barzegar, M., Afzal, E., Tabibi, S. J., Delgoshaei, B., & Koochakyazdi, S. (2012). Relationship between leadership behavior, quality of work life and human resources productivity: data from Iran. *International of Hospital Research, 1*(1), 1-14. https://ijhr.iums.ac.ir/article_3825.html

Basorudin, M., & Kusmaryo, R. D. H. (2018). Empirical study of capital flight in Indonesia 2009-2017 period. *Jurnal Pendidikan Ekonomi Dan Bisnis (JPEB), 6*(2), 127-145. https://doi.org/10.21009/JPEB.006.2.5

Beck, B. (2016). WWII brain drain: How foreign physicists impacted the war in America. http://large.stanford.edu/courses/2018/ph241/beck2/

Bhandari, P. (2023). *Correlational Research. When & how to use*. Scribbr. https://www.scribbr.com/methodology/correlational-research/#:~:text=What%20is%20correlational%20research%3F,experimental%20type%20of%20quantitative%20research.

Bhardwaj, B., & Sharma, D. (2023). Migration of skilled professionals across the border: Brain drain or brain gain? *European Management Journal*, *41*(6), 1021–1033. https://doi.org/10.1016/j.emj.2022.12.011

Bhat, A. (2019). *Data analysis in research: Types & methods*. Question Pro. https://www.questionpro.com/blog/data-analysis-in-research/

Birt, J. (2023). Salary vs. total compensation: what's the difference? Indeed. https://www.indeed.com/career-advice/pay-salary/salary-vs-total-compensation#:~:text=Total%20compensation%20is%20expressed%20in,in%20addition%20to%20your%20salary.

Boies, K., & Rothstein, M. G. (2002). Managers' interest in international assignments: the role of work and career satisfaction. *International Journal of Intercultural Relations*, *26*(3), 233–253. https://doi.org/10.1016/s0147-1767(02)00002-0

Bortolazzi, O., & Khan, N. (2023). From 'brain drain' to 'capital gain': Indian skilled migration to the UAE. *Gulf Studies*, 223–248. https://doi.org/10.1007/978-981-19-7796-1_14

Brain drain in Southeast Asia: the case of Malaysia and Indonesia. (2023). *Linkedin.* https://www.linkedin.com/pulse/brain-drain-southeast-asia-case-malaysia-indonesia-1c

Breinbauer, A. (2007). Brain drain - brain circulation or ... what else happens or should happen to the brains. *Der Donauraum*, 47(1–2), 89–124. https://doi.org/10.7767/dnrm.2007.47.12.89

Brockhaus, R. H. (1980). Risk taking propensity of entrepreneurs. Academy of Management Journal, 23(3), 509–520. https://doi.org/10.2307/255515

Çelik, B. (2017). The effects of working abroad on the development of teaching skills. *International Journal of Social Sciences & Educational Studies*, 4(3). https://doi.org/10.23918/ijsses.v4i3p212

Central Bank of Malaysia. (2016). Bank Negara Malaysia annual report 2015. Inflation and the cost of living. https://www.bnm.gov.my/documents/20124/829207/ar2015_book.pdf

Champa, H. (2023). Focus on rewarding local employees, employers in Malaysia told. *HRM Asia*. https://hrmasia.com/focus-on-rewarding-local-employees-employers-in-malaysia-told/

Chandar, H., Junaimah, J., & Ghani, A. B. A. (2015). Postgraduates' perception about the causes of brain drain among Malaysian professionals. *Problems and Perspectives in Management*, *13*(2), 365–370. https://www.businessperspectives.org/index.php/journals/problems-and-perspectives-in-management/issue-2-spec-issue/postgraduates-perception-about-the-causes-of-brain-drain-among-malaysian-professionals

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management* 41, 745–783. https://doi.org/10.1007/s10490-023-09871-y

Choong, Y. O., Keh, C. G., Tan, Y. T., Lim, Y. H., & Tho, M. S. (2013). Propensity to work abroad amongst generation Y working adults in Malaysia. *Proceeding of the International Conference on Social Science Research, World Conferences, Penang, Malaysia,* 695-705.

Conner, M., & Norman, P. (2022). Understanding the intention-behavior gap: The role of intention strength. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.923464

Crossley, C. D., Bennett, R. J., Jex, S. M., & Burnfield, J. L. (2007). Development of a global measure of job embeddedness and integration into a traditional model of voluntary turnover. *Journal of Applied Psychology*, *92*(4), 1031–1042. https://doi.org/10.1037/0021-9010.92.4.1031

Docquier, F. (2014). The brain drain from developing countries. *IZA World of Labor*. https://doi.org/10.15185/izawol.31

Docquier, F., & Rapoport, H. (2012a). Globalization, brain drain, and development. *Journal of Economic Literature*, 50(3), 681–730. https://doi.org/10.1257/jel.50.3.681

Docquier, F., & Rapoport, H. (2012b). Theory, evidence, and implications. *Brain Drain and Brain Gain*, 233–276. https://doi.org/10.1093/acprof:oso/9780199654826.003.0012

Dodani, S., & LaPorte R. E. (2005). Brain drain from developing countries: how can brain drain be converted into wisdom gain? *Journal of the Royal Society of Medicine,* 98(11), 487–491. https://doi.org/10.1177/014107680509801107

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.11

Fauzi, M. A. (2022). Partial least square structural equation modelling (PLS-SEM) in knowledge management studies: Knowledge sharing in virtual communities. Knowledge Management & E-Learning: An International Journal, 14(1), 103–124. https://doi.org/10.34105/j.kmel.2022.14.007

Fielding, S. (2022). *What is Maslow's hierarchy of needs still important? A deep dive into the research &* criticisms. Mindbodygreen. https://www.mindbodygreen.com/articles/maslows-hierarchy-of-needs-research

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behaviour: An introduction to theory and research. *Social Psychology*. https://people.umass.edu/aizen/f&a1975.html

FMT Reporters. (2023). Lack of meritocracy among top reasons why Malaysians migrate. *Free Malaysia Today*. https://www.freemalaysiatoday.com/category/nation/2023/02/21/lack-of-meritocracy-among-top-reasons-why-malaysians-migrate/

Fong, T., & Hassan, Z. (2017). Factors contributing brain drain in Malaysia. *International Journal of Education, Learning and Training*. https://ftms.edu.my/journals/pdf/IJELT/Nov2017/14-31.pdf

Foo, G. (2011). Quantifying the Malaysian brain drain and an investigation of its key determinants. *Malaysian Journal of Economic Studies, 48*(2), 93- 116. https://mjes.um.edu.my/index.php/MJES/article/view/2846

Freund, K. S., & Lous, J. (2012). The effect of preventive consultations on young adults with psychosocial problems: a randomized trial. *Health Education Research*, *27*(5), 927–945. https://doi.org/10.1093/her/cys048

Gaiduk, R., Gaiduk, J., & Fields, D. (2009). Limiting the brain drain: Determinants of employee organizational attachment in Lithuania. *Baltic Journal of Management*, *4*(2), 149-168. https://doi.org/10.1108/17465260910958782

Gattino, S., Piccoli, N. D., Fassio, O., & Rollero, C. (2013). Quality of life and sense of community. A study on health and place of residence. *Journal of Community Psychology, 41*(7), 811-826. https://www.researchgate.net/publication/260172064_Quality_of_life_and _sense_of_community_A_study_on_health_and_place_of_residence

Ghazali, M. S., Kusairee, M. A. Z. A., Tan, P. L., Yasin, N. H. M., & Yasoa, M. R. (2015). Intention to migrate: underlying factors affecting Malaysian brain drain. *In The 4th International Seminar on Entrepreneurship and Business (ISEB 2015)* (pp. 637-647).

Giannoccolo, P. (2009). The brain drain: A survey of the literature. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1374329

Gomes, V. (2023). *MRANTI: Time to address brain drain and tech talent gap*. The Edge Malaysia. https://theedgemalaysia.com/node/692303

Greece, R. (2016). Brain Drain Special: The push and pull Factors. Written by David Kazamias - Reload Greece. Reload Greece. https://www.reloadgreece.com/brain-drain-special-the-push-and-pull-factors-written-by-david-kazamias/

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on Partial Least squares Structural Equation Modeling (PLS-SEM). *ResearchGate*. https://www.researchgate.net/publication/354331182_A_Primer_on_Partial_Least_Squares_Structural_Equation_Modeling_PLS-SEM

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science, 40(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Hamid, M. R. A., Sami, W., & Sidek, M. H. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series, 890*, 012163. https://doi.org/10.1088/1742-6596/890/1/012163

Hamid, N. H. A, Ali, H., & Chia, J. H. (2022). Determinants affecting brain drain among generation Y in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 12*(4), 195-205. https://doi.org/10.6007/ijarbss/v12-i4/12920

Hashish, E. A., & Ashour, H. (2020). Determinants and mitigating factors of the brain drain among Egyptian nurses: a mixed-methods study. *Journal of Research in Nursing,* 25(8): 699-719. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7932471/

Hays. (2024). *The 2024 Hays Asia salary guide*. https://image.email.hays.com/lib/fe4315707564057c751c71/m/1/5dd3e86f-30a4-41e1-a69e-09493664e109.pdf

Heneman, H. G., & Schwab, D. P. (1985). Pay satisfaction: its multidimensional nature and measurement*. *International Journal of Psychology*, *20*(1), 129–141. https://doi.org/10.1080/00207598508247727

Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Henwood, B. F., Derejko, K. S., Couture, J., & Padgett, D. K. (2014). Maslow and mental health recovery: A comparative study of homeless programs for adults with serious mental illness. *Administration and Policy in Mental Health*, *42*(2), 220–228. https://doi.org/10.1007/s10488-014-0542-8

Hulland, J. (1999). Use of Partial Least Squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, *20*(2), 195-204. https://www.jstor.org/stable/3094025

Ilasco, I. (2021). Effects of brain drain. *Developmentaid*. https://www.developmentaid.org/news-stream/post/100000/brain-drain-in-developing-countries

Ishak, N., & Abdul Aziz, A. R. (2014). Malaysian construction professionals: Why are they leaving? Procs 30th Annual ARCOM Conference, 269-277. https://www.researchgate.net/publication/269702965_MALAYSIAN_CONSTRUCTION_PROFESSIONALS_WHY_ARE_THEY_LEAVING

Ismail, M., Umar, B. N., Kamaruddin, N. A. Y., & Malik, A. (2022). Reverse brain drain: Career aspirations of Malaysian repatriates. Universiti Putra Malaysia Institutional Repository. http://psasir.upm.edu.my/id/eprint/52880/

Israel, G. D. (1922). Determining sample size. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS. https://www.tarleton.edu/academicassessment/wp-content/uploads/sites/119/2022/05/Samplesize.pdf

Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: The scientific merits of homogeneous convenience samples. *National Library of Medicine. Monographs of the Society for Research in Child Development, 82*(2), 13–30. https://doi.org/10.1111/mono.12296

Jeffreys, A. (2024). Britain and decolonisation in South East and South Asia, 1945-1948. *Imperial War Museums*. https://www.iwm.org.uk/history/britain-and-decolonisation-in-south-east-and-south-asia-1945-1948#:~:text=Decolonisation%20in%20South%20East%20and,British%20Empire%20in%20the%20region.

Junaimah, J., & Yusliza, M.Y. (2011). Brain drain: propensity to leave by Malaysian professionals. International Journal of Innovation, Management and Technology. https://www.ijimt.org/papers/116-M491.pdf

Junaimah, J., Yusliza, M. Y., & Khoo, M. Y. (2009). Factors that drive brain drain of accountants in Malaysia. *Research Gate*. https://www.researchgate.net/publication/280561447_Factors_that_Drive_Brain_Drain_of_Accountants_in_Malaysia

Justin, I.G. (2024). Malaysian government study warns of "brain drain", finds 3 in 4 Malaysians living, working in Singapore skilled or semi-skilled. *CNA*. https://www.channelnewsasia.com/singapore/malaysia-government-study-brain-drain-working-living-singapore-skilled-salary-4140731

Kadel, M., & Bhandari, M. (2018). Factors intended to brain drain among nurses working at private hospitals of Biratnagar, Nepal. *A Multidisciplinary Journal of Science, Technology and Mathematics, ISSN 2091-0762* (Print), 2382-5340 (Online). https://www.researchgate.net/publication/329128818_Factors_intended_to_brain_drain_among_nurses_working_at_private_hospitals_of_Biratnagar_Nepal

Kaplan, D., & Höppli, T. (2017). The South African brain drain: An empirical assessment. *Development Southern Africa*, 34(5), 497–514. https://doi.org/10.1080/0376835x.2017.1351870

Kementerian Kewangan Malaysia. (2023). Economic outlook 2024. *Belanjawan mof gov.* https://www.parlimen.gov.my/ipms/eps/2023-10-13/CMD31.2023ENG.pdf

Khan, J. (2021). European academic brain drain: A meta-synthesis. *European Journal of Education*, *56*(2), 265–278. https://doi.org/10.1111/ejed.12449

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, *102*(3), 741–756. https://doi.org/10.1037/a0019237

Kock, N. (2014). Advanced mediating effects tests, multi-group analyses, and measurement model assessments in PLS-based SEM. *International Journal of E-Collaboration (IJeC), 10*(1), 1–13. https://doi.org/10.4018/ijec.2014010101

Kone, Z. L., & Özden, Ç. (2017). Brain drain, gain and circulation. *Handbook of Globalisation and Development.* https://doi.org/10.4337/9781783478651.00029

Kveder, A., & Galico, A. (2008). Guidelines for cleaning and harmonization of generation and gender survey data. *Generations and Gender Programme.* https://www.ggp-i.org/sites/default/files/questionnaires/GGP_2008_DCHGuide_1.pdf

Lee, K. S., Lee, W. S., Teng, K. M., Wong, S. F., & Yee, C. C. (2014). *The factors that cause brain drain among Malaysian in workplace*. UTAR Institutional Repository. http://eprints.utar.edu.my/1593/1/BA-2014-1207613.pdf

Leong, C. H., & Soon, D. (2012). A study on emigration attitudes of young Singaporeans. *IPS Working Papers*, (19), 1-109. https://www.researchgate.net/publication/254412766_A_Study_on_Emigration_Attitudes_of_Young_Singaporeans_2010

Leong, S. H. (2010). Malaysiakini: How many M'sians are there in Singapore? Malaysiakini. https://leongszehian.com/?p=4438

Lewis, S., Gambles, R., & Rapoport, R. (2007). The constraints of a 'work–life balance' approach: an international perspective. *International Journal of Human Resource Management*, *18*(3), 360–373. https://doi.org/10.1080/09585190601165577

Lowell, Briant Lindsay & Findlay, Allan. (2001). Migration of highly skilled persons from developing countries: impact and policy responses. *International Migration Papers*. https://www.researchgate.net/publication/237112464_Migration_of_highly_skilled_persons_from_developing_countries_impact_and_policy_responses

Lu, J. L. (2014). Analysis of brain drain in the Philippines: the case of professionals. *International Journal of Sociology Study* Volume 2, 2014. https://www.academia.edu/download/48231235/IJSS7683_2_0_93_99.pdf

Luciana, M. E., & Sofía, S. (2023). Brain drain and job dissatisfaction. Evidence from a developing country. *UDELAR*. https://www.colibri.udelar.edu.uy/jspui/handle/20.500.12008/41951

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*. https://archive.org/details/Maslow_A_H_-_A_Theory_of_Human_Motivation/page/n9/mode/2up

McAuliffe, E., Galligan, M., Revill, P., Kamwendo, F., Sidat, M., Masanja, H., De Pinho, H., & Araujo, E. (2016). Factors influencing job preferences of health workers providing obstetric care: results from discrete choice experiments in Malawi, Mozambique and Tanzania. Globalization and Health, 12(1). https://doi.org/10.1186/s12992-016-0222-4

McCombes, S. (2023). *What is a research design. Types, guide & examples*. Scribbr. https://www.scribbr.com/methodology/research-design/

Milićević, M. Š., Matejić, B., Terzic-Supic, Z., Vasić, V., Babić, U., & Vuković, V. (2015). Determinants of intention to work abroad of college and specialist nursing graduates in Serbia. *Nurse Education Today*, *35*(4), 590–596. https://doi.org/10.1016/j.nedt.2014.12.022

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, *62*(2), 237–240. https://doi.org/10.1037/0021-9010.62.2.237

Najib, M., Abdullah, S., Narresh, S., & Juni, M. H. (2019). Brain-drain phenomenon among healthcare workers. *International Journal of Public Health and Clinical Sciences*, 6(3). https://doi.org/10.32827/ijphcs.6.3.90

Nguyễn, Q. A., Hens, L., MacAlister, C., Johnson, L. W., Lebel, B., Tan, S. B., Nguyen, H. M., & Lebel, L. (2018). Theory of reasoned action as a framework for communicating climate risk: a case study of schoolchildren in the Mekong Delta in Vietnam. *Sustainability*, *10*(6), 2019. https://doi.org/10.3390/su10062019

Nickerson, C. (2023). *Convergent validity: Definition and examples*. Simply Psychology. https://www.simplypsychology.org/convergent-validity-definition-and-examples.html

Nikolopoulou, K. (2022). *What is convenience sampling? Definition & examples*. Scribbr. https://www.scribbr.com/methodology/convenience-sampling/

Nitzl, C., Roldan, J. L., & Cepeda, G. (2016). Mediation analysis in Partial Least Squares Path Modeling: Helping researchers discuss more sophisticated models. *Industrial Management & Data Systems*, *116*(9), 1849–1864. https://doi.org/10.1108/IMDS-07-2015-0302

Norazhar, D. (2023). Malaysia's brain drain significantly higher than global average, says minister Sivakumar. *The Malaysian Reserve*. https://themalaysianreserve.com/2023/03/07/malaysias-brain-drain-significantly-higher-than-global-average-says-minister-sivakumar/

Nordin, R. (2023). Five new initiatives to attract more youths to pursue higher education, says minister. *The Star*. https://www.thestar.com.my/news/nation/2023/05/28/five-new-initiatives-to-attract-more-youths-to-pursue-higher-education-says-minister

OECD. (2004). Internationalization of higher education: policy brief. https://www.oecd.org/education/innovation-education/33734276.pdf

Oludayo, O. A., Akanbi, C. O., Obot, B. M., Popoola, S. I., & Atayero, A. A. (2018). Influence of talent retention strategy on employees′ attitude to work: Analysis of survey data. *Data in Brief*, *20*, 698–705. https://doi.org/10.1016/j.dib.2018.08.103

Oswald-Egg, M. E., & Renold, U. (2021). No experience, no employment: The effect of vocational education and training work experience on labour market outcomes after higher education. *Economics of Education Review*, *80*, 102065. https://doi.org/10.1016/j.econedurev.2020.102065

Pelz, P. B. (2011). *Chapter 6 measurement of constructs*. Research Methods for the Social Sciences. https://courses.lumenlearning.com/suny-hccc-research-methods/chapter/chapter-6-measurement-of-constructs/

Persellin, J. S., Schmidt, J. J., Vandervelde, S. D., & Wilkins, M. S. (2019). Auditor perceptions of audit workloads, audit quality, and job satisfaction. *Accounting Horizons*, *33*(4), 95–117. https://doi.org/10.2308/acch-52488

Purwanto, A. (2021). Partial Least Squares Structural Squation Modeling (PLS-SEM) analysis for social and management research: A literature review. *Journal of Industrial Engineering & Management Research,2*(4). https://ssrn.com/abstract=3982764

PwC. (2022). *What Malaysians think about work today*. https://www.pwc.com/my/en/publications/2022/pwc-workforce-hopes-and-fears-survey-2022.html

Radonjić, O., & Bobić, M. (2020). Brain drain losses – a case study of Serbia. *International Migration*, 59(1), 5–20. https://doi.org/10.1111/imig.12710

Rahim, M. A., & Magner, N. R. (1995). Confirmatory factor analysis of the styles of handling interpersonal conflict: First-order factor model and its invariance across groups. *Journal of Applied Psychology, 80*(1), 122–132. https://doi.org/10.1037/0021-9010.80.1.122

Randstad. (2022). *74% of Malaysians want to work for employers that offer attractive salaries and benefits: Employer brand research 2022.* Randstad Malaysia. https://www.randstad.com.my/hr-trends/employer-brand/2022-malaysia-country-report/

Revicki, D. (2014). Internal consistency reliability. In *Springer eBooks* (pp. 3305–3306). https://doi.org/10.1007/978-94-007-0753-5_1494

Rizvi, F. (2005). Rethinking "Brain drain" in the era of globalisation. *Asia Pacific Journal of Education*, *25*(2), 175–192. https://doi.org/10.1080/02188790500337965

Roudgar, I. (2014). The global brain drain: Theory and evidence. *LAP Lambert Academic Publishing*. https://www.researchgate.net/publication/281287268_The_Global_Brain_drain_Theory_and_Evidence

Rukmana, D. (2014). Sample frame. In *Springer eBooks* (pp. 5640–5641). https://doi.org/10.1007/978-94-007-0753-5_2551

Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill building approach sixth edition (6th ed.). John Wiley & Sons.

Sekaran, U., & Bougie, R. (2019). Research methods for business: A skill-building approach (8th ed.). John Wiley & Sons, Inc.

Shanmugam, M. (2023). Alternative Views: strong Singapore dollar causing permanent brain drain from Malaysia. *The Edge Malaysia*. https://theedgemalaysia.com/node/688063

Shariff, N., Krishnaswamy, J., Abdullah, D., & Ang, W.C. (2018). The influence of new economic model on intention to work abroad: an empirical study to address brain drain issue in Malaysia. *Journal of Sustainability Science and Management Special Issue*. https://jssm.umt.edu.my/wp-content/uploads/sites/51/2018/07/bab-7.pdf

Sharma, B. (2016). A focus on reliability in developmental research through Cronbach's Alpha among medical, dental and paramedical professionals. *Asian Pacific Journal of Health Sciences, 3*(4), 271-278. https://www.researchgate.net/publication/313089730_A_focus_on_reliability_in_developmental_research_through_Cronbach's_Alpha_among_medical_dental_and_paramedical_professionals

Sloman, K. N. (2010). Research trends in descriptive analysis. *The Behavior Analyst Today, 11*(1), 20–35. https://doi.org/10.1037/h0100686

Sideridis, G., Saddaawi, A., & Al-Harbi, K. (2018). Internal consistency reliability in measurement: Aggregate and multilevel approaches. *Journal of Modern Applied Statistical Methods, 17*(1). https://doi.org/10.22237/jmasm/1530027194

Simplilearn. (2023). *What is data collection: methods, types, tools*. Simplilearn. https://www.simplilearn.com/what-is-data-collection-article

Sirgy, M. J., Efraty, D., Siegel, P., & Lee, D. J. (2001). A new measure of quality of work life based on need satisfaction and spill over theories. *Social Indicators Research*, *55*(3), 241–302. https://doi.org/10.1023/a:1010986923468

Sohail, I., & Habib, M. (2016). Brain drain: doctors' career intentions and associated factors, a questionnaire survey in Pakistan. *J Postgrad Med Inst 2016* 30(2): 189-93. https://jpmi.org.pk/index.php/jpmi/article/download/1909/1710

Stewart, L. (2024). *Primary data: Definition, examples & collection methods*. ATLAS.ti. https://atlasti.com/research-hub/primary-data#introduction

Suraya. (2022). 5 reasons why Malaysians are underpaid. *Ringgit Oh Ringgit*. https://ringgitohringgit.com/commentary/5-reasons-why-malaysians-are-underpaid/

Syptak, J. M., Marsland, D. W., & Ulmer, D. (1999). *Job satisfaction: Putting theory into practice*. AAFP. https://www.aafp.org/pubs/fpm/issues/1999/1000/p26.html#:~:text=Frederick%20Herzberg%20theorized%20that%20employee,more%20productive%2C%20creative%20and%20committed.

Tabor, A. S., & Milfont, T. L. (2011). Migration change model: Exploring the process of migration on a psychological level. *International Journal of Intercultural Relations*, *35*(6), 818–832. https://doi.org/10.1016/j.ijintrel.2010.11.013

Tansel, A. & Gungor, N. D. (2003). Brain drain from Turkey: Survey evidence of student non return. *Career Development International 8*(0307). https://www.researchgate.net/publication/46453288_Brain_Drain_from_Turkey_Survey_Evidence_of_Student_Non-Return#fullTextFileContent

The Association of Bank in Malaysia (2024). https://www.abm.org.my/

The brain drain phenomena. (2020). Malaysia Population Research Hub. https://mprh.lppkn.gov.my/the-brain-drain-phenomena/

The Malaysian Reserve. (2021). 72% Malaysian workers consider to work abroad. *The Malaysian Reserve*. https://themalaysianreserve.com/2021/11/17/72-malaysian-workers-consider-to-work-abroad/

Torbat, A. E. (2002). The brain drain from Iran to the United States. *Middle East Journal*. https://www.jstor.org/stable/4329755

Tremblay, K. (2004). Academic mobility and immigration. *Journal of Studies in International Education*. https://journals.sagepub.com/doi/10.1177/1028315305277618

Trizano-Hermosilla, I., & Alvarado, J. M. (2016). Best alternatives to Cronbach's alpha reliability in realistic conditions: congeneric and asymmetrical measurements. *Frontiers in Psychology*, *7*. https://doi.org/10.3389/fpsyg.2016.00769

Tyson, A.D. & Jeram, D. & Sivapragasam, V. & Azlan, H.N.. (2011). Ethnicity, education and the economics of brain drain in Malaysia: Youth perspectives. *Malaysian Journal of Economic Studies. 48*(2), 175-184. https://mjes.um.edu.my/index.php/MJES/article/view/2850/1025

Ullah, A. A. (2018). Skill drain from ASEAN countries: can sending countries afford? *International Journal of Development Issues*, 17(2), 205–219. https://doi.org/10.1108/ijdi-12-2017-0210

Vakili, S., & Mobini, M. (2023). An overview of brain drain, causes, and policy issues in Iran. *Medical Education Bulletin*. https://doi.org/10.22034/MEB.2023.404566.1078

van Dalen, H.P. & Henkens, K. (2007). Longing for the good life: understanding emigration from a high-income country. *Population and Development Review*, *33*(1), 37-66. https://www.jstor.org/sTable/25434584

Viechtbauer, W., Smits, L., Kotz, D., Budé, L., Spigt, M., Serroyen, J., & Crutzen, R. (2015). A simple formula for the calculation of sample size in pilot studies. Journal of Clinical Epidemiology, 68(11), 1375–1379. https://doi.org/10.1016/j.jclinepi.2015.04.014

Vorobyova, K. (2021). The impact of individual work practices, social environment, managerial skills on workers' productivity: Mediating role of international work experience. *International Journal of Pharmaceutical Research, 13*(02). https://doi.org/10.31838/ijpr/2021.13.02.438

Wahab, M.A. (2014). The occurrence of brain drain in Malaysia: perceptions on to work or not to work overseas in the future. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* *5*(5):480-489. https://journals.co.za/doi/abs/10.10520/EJC163072

Wang, B., Khalid, S., & Mahmood, H. (2023). R&D spending and economic policy uncertainty in Asian countries: an advanced panel data estimation study. *Journal of the Knowledge Economy*, 1–20. https://doi.org/10.1007/s13132-023-01285-x

Weerasinghe, C. A. & Kumar, S. (2014). Intention to pursue overseas jobs among university students and graduates: A case study from University of Peraeiyani, Sri Lanka. *Tropical Agricultural Research*, *26*(1), 94-108. https://www.researchgate.net/publication/284217873_Intention_to_pursue _overseas_jobs_among_university_students_and_graduates_a_case_study _from_University_of_Peradeniya_Sri_Lanka

Willie, M. M. (2023). Distinguishing between population and target population: A mini review. *Surgery Research Journal* *3*(2):1-2. https://www.researchgate.net/publication/372078996_Distinguishing_Bet ween_Population_and_Target_Population_A_Mini_Review

Yeap, A. (2024). The big read: Malaysia's brain drain to Singapore – winners and losers in the long run not so clear-cut. *CNA*. https://www.channelnewsasia.com/singapore/big-read-malaysia-brain-drain-singapore-winners-losers-long-run-not-clear-4165636

Yeow, J. A., Ng, P. K., Chin, T. S., & Boo, S. S. Y. (2013). Brain drain in Malaysia: undergraduate students perception. *ResearchGate*. https://www.researchgate.net/publication/239950378_Brain_Drain_in_Mal aysia_Undergraduate_Students_Perception

Young, J. (2023). Brain drain: definition, causes, effects, and examples. *Investopedia*. https://www.investopedia.com/terms/b/brain_drain.asp

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 37*(2), 197-206. https://www.researchgate.net/publication/228424966_Reconsidering_Baron_and_Kenny_Myths_and_truths_about_mediation_analysis

Zimmerman, W. (2014). Open borders, nonalignment, and the political evolution of Yugoslavia. https://doi.org/10.2307/j.ctt7zv4k9

APPENDICES

Appendix 1. 1: Ethical Approval for Research Project

UNIVERSITI TUNKU ABDUL RAHMAN
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

Re: U/SERC/78-302/2024

7 June 2024

Mr Chong Tun Pin
Head, Department of Banking and Risk Management
Faculty of Business and Finance
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar, Perak.

Dear Mr Chong,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of Business Administration (Honours) Banking and Finance programme enrolled in course UBFZ3026. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	Brain Drain in Malaysia's Banking and Finance Industry: Causes, Impacts, and Strategies for Talent Retention	1. Jackie Yew Zhi Dar 2. Kaushan a/l Sundarial 3. Shirley Yong Li Yung 4. Terence Lim Run Ce 5. Wai Ru En	Prof Dr Abdelhak Senadjki	7 June 2024 - 6 June 2025

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign
the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

c.c   Dean, Faculty of Business and Finance
         Director, Institute of Postgraduate Studies and Research

Appendix 3. 1: Survey questionnaire

Brain Drain in Malaysia's Banking and Finance Industry: Causes, Impacts, and Strategies for Talent Retention

Dear respondent,

With esteemed regards from Universiti Tunku Abdul Rahman (UTAR), welcome to the online questionnaire on the research topic of "Brain Drain in Malaysia's Banking and Finance Industry: Causes, Impacts, and Strategies for Talent Retention".

This survey is conducted by the Bachelor of Business Administration (Honours) Banking and Finance students from Universiti Tunku Abdul Rahman (UTAR) under the supervision of Prof. Dr Abdelhak Senadjki, the Professor of Economics at the Faculty of Business and Finance at Universiti Tunku Abdul Rahman (UTAR).

The purpose of this online questionnaire is to conduct research on the factors contributing to the intention of Banking and Finance industry professionals in Malaysia to work abroad. Please answer all questions to the best of your knowledge. There are no right or wrong responses to any of these statements. All responses are collected for academic research purposes and will be kept **strictly confidential**.

Instructions:

1. This online questionnaire comprises **SEVEN (7)** sections. Please answer **ALL** questions in **ALL** sections.
2. The online questionnaire will only take approximately **5 to 10 minutes** to complete.
3. The contents and responses of the questionnaire will be kept **strictly confidential**.

Thank you for your participation. The involvement and participation in this online questionnaire means a lot to the research and is greatly appreciated.

* Indicates required question

Personal Data Protection Statement:

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage, and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to: -

- For assessment of any application to UTAR
- For processing any benefits and services
- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan.

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security, and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form, you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at:

- carolwai0921@1utar.my

- jackieyew2001@1utar.my
- jeremy211121@1utar.my
- shirleyyly@1utar.my
- terencelim0205@1utar.my

1. **Acknowledgement of Notice:** *

   Mark only one oval.

   ( ) I have been notified and that I hereby understood, consented and agreed per UTAR above notice.

   ( ) I disagree, my personal data will not be processed.
   *Skip to section 9 (**END OF THE ONLINE QUESTIONNAIRE**)*

2. **Your industry involved:** *

   Mark only one oval.

   ( ) I am currently serving as a professional under Banking and Finance industry.

   ( ) I am from Banking and Finance related programme/industry and planning to serve as a professional in the industry.

   ( ) I am not serving and not planning to serve as a professional under Banking and Finance industry. (END OF THE QUESTIONNAIRE)
   *Skip to section 9 (**END OF THE ONLINE QUESTIONNAIRE**)*

   Section A: Demographic information

   In Section A, some personal details of respondent will be collected to have better understanding on their background. Please only choose **ONE (1)** answer for each of the question.

3. Gender: *

   Mark only one oval.

   ( ) Male

   ( ) Female

4. Age: *

Mark only one oval.

- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70

5. Highest education level: *

Mark only one oval.

- High school or below
- A-level / Foundation / Diploma
- Bachelor's degree
- Postgraduate education
- Professional certificate

6. Current working status: *

Mark only one oval.

- Student
- Part-time
- Full-time
- Self-employed
- Retired
- Unemployed

Section B: Dependent variable - Intention to work abroad

In the following section, you must indicate how much you agree with each statement. Please choose the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

7. I am willing to work abroad if there is a job opportunity. *

    Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

8. I will consider living in foreign country. *

    Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

9. I believe that oversea employer will treat me with equality. *

    Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

10. If all things are being equal between Malaysia and abroad, I will choose to work oversea. *

Mark only one oval.

	1	2	3	4	5	
Stron	◯	◯	◯	◯	◯	Strongly Agree

11. I am expected to do an overseas job in the near future. *

Mark only one oval.

	1	2	3	4	5	
Stron	◯	◯	◯	◯	◯	Strongly Agree

Section C: Independent variable - Career dissatisfaction

In the following section, you must indicate how much you agree with each statement. Please choose the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

12. I believe that my job requirement is clearer if I am working abroad. *

Mark only one oval.

	1	2	3	4	5	
Stron	◯	◯	◯	◯	◯	Strongly Agree

13. I believe that working abroad will have greater opportunity for further development in   *
    area of specialty.

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

14. I believe that working abroad have greater opportunity to advance in professions. *

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

15. I believe that my skills and expertise will be put in their best use when working abroad. *

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

16. I believe that I will be more satisfied with the support that I receive for career   *
    advancement in overseas.

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

Section D: Independent variable - Salary and compensation

In the following section, you must indicate how much you agree with each statement. Please choose the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

17.   I believe that I will receive a higher job pay if I work abroad. *

Mark only one oval.

	1	2	3	4	5	
Stroi	◯	◯	◯	◯	◯	Strongly Agree

18.   I believe that my job pay will match the work I do if I work abroad. *

Mark only one oval.

	1	2	3	4	5	
Stroi	◯	◯	◯	◯	◯	Strongly Agree

19.   I think that the salary level offered in Malaysia is too low. *

Mark only one oval.

	1	2	3	4	5	
Stroi	◯	◯	◯	◯	◯	Strongly Agree

20. I think that salary level offered in Malaysia is unequal to my profession. *

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

21. I believe that my work will be valued more if I work abroad. *

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

Section E: Independent variable - Quality of life

In the following section, you must indicate how much you agree with each statement. Please choose the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

22. I believe that standards of living are better abroad. *

Mark only one oval.

	1	2	3	4	5	
Stroı	◯	◯	◯	◯	◯	Strongly Agree

23.   I am dissatisfied with the local area as a place to live. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly Agree

24.   I feel unsecured in my local living place. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly Agree

25.   I believe that overseas provide opportunities to improve standard of living. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly Agree

26.   I believe that working abroad able to lead to an enjoyable life. *

Mark only one oval.

	1	2	3	4	5	
Stro	◯	◯	◯	◯	◯	Strongly Agree

Section F: Mediator - Career advancement abroad

In the following section, you must indicate how much you agree with each statement. Please choose the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

27.   I believe that I can have better career development by working abroad. *

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

28.   I believe that I can have greater chance to achieve my career success by working abroad. *

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

29.   I believe that I am able to learn new knowledge in the relating field if I work abroad. *

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

30.   I believe that I will achieve faster promotions and advancements in my career if I work   *
       abroad.

       Mark only one oval.

                  1   2   3   4   5

       Stron ◯ ◯ ◯ ◯ ◯ Strongly Agree

31.   I believe that the industry standards and practices abroad are more advanced and   *
       beneficial for my career.

       Mark only one oval.

                  1   2   3   4   5

       Stron ◯ ◯ ◯ ◯ ◯ Strongly Agree

Section G: Moderator - Level of experience and expertise

In the following section, you must indicate how much you agree with each statement. Please choose
the best answer based on the scale of 1 to 5.

WHERE:
(1) = "Strongly Disagree"
(2) = "Disagree"
(3) = "Neutral"
(4) = "Agree"
(5) = "Strongly Agree"

32.   I believe that I can increase my working experience and expertise if I work abroad. *

       Mark only one oval.

                  1   2   3   4   5

       Stron ◯ ◯ ◯ ◯ ◯ Strongly Agree

33.   I believe that I can enhance my skills if I work abroad. *

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

34.   I believe that working abroad will provide me more professional development in the   *
relating field.

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

35.   I believe that my level of experience and expertise gives me a competitive advantage in   *
securing job opportunities abroad.

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

36.   I believe that there are more and better professional development programs abroad that   *
match my level of experience and expertise.

Mark only one oval.

	1	2	3	4	5	
Stror	◯	◯	◯	◯	◯	Strongly Agree

END OF THE ONLINE QUESTIONNAIRE

Thank you for your participation. The involvement and participation in this online questionnaire means
a lot to the research and is greatly appreciated.

Appendix 3. 2: Result of Cronbach's Alpha

Variables	Cronbach's Alpha	Sum of Items
Intention to Work Abroad	0.750	5
Career Dissatisfaction	0.843	5
Salary and Compensation	0.747	5
Quality of Life	0.799	5
Mediator: Career Advancement Abroad	0.801	5
Moderator: Level of Experience and Expertise	0.863	5

Appendix 3. 3: Measurement of Cronbach's Alpha

Coefficient of Cronbach's Alpha	Reliability Level
$\alpha \geq 0.90$	Excellent
$0.90 > \alpha \geq 0.80$	Good
$0.80 > \alpha \geq 0.70$	Acceptable
$0.70 > \alpha \geq 0.60$	Questionable
$0.60 > \alpha \geq 0.50$	Poor
$0.50 > \alpha$	Unacceptable

(Sharma, 2016)

Appendix 3. 4: Nominal scale question

Gender:
O   Male
O   Female

Appendix 3. 5: Ordinal scale question

Age:

O   21 - 30

O   31 - 40

O   41 - 50

O   51 - 60

O   61 - 70

Appendix 3. 6: Likert scale

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Intention to work abroad			
1. If a job opportunity for you is available there, will you be willing to go?	1. I am willing to work abroad if there is a job opportunity.	Lee et al. (2014)	Adapted
2. I will consider living in another country.	2. I will consider living in foreign country.	Lee et al. (2014)	Adopted
3. I believe Singaporean employer will treat me with equality.	3. I believe that oversea employer will treat me with equality.	Lim et al. (2016)	Adapted
4. Between Malaysia and Singapore, if all things being equal, I will still choose to work in Singapore.	4. If all things are being equal between Malaysia and abroad, I will choose to work oversea.	Lim et al. (2016)	Adapted
5. I expected to do an overseas job in the near future (soon after graduation).	5. I am expected to do an overseas job in the near future.	Weerasinghe & Kumar (2014)	Adopted

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Career dissatisfaction			
1. My job requirement is clear.	1. I believe that my job requirement is clearer if I am working abroad.	Lee et al. (2014)	Adapted
2. Greater opportunity for further development in area of specialty.	2. I believe that working abroad will have greater opportunity for further development in area of specialty.	Tansel & Gungor (2003)	Adapted
3. Greater opportunity to advance in professions.	3. I believe that working abroad have greater opportunity to advance in professions.	Tansel & Gungor (2003)	Adapted
4. I felt that my skills and expertise are put in their best use.	4. I believe that my skills and expertise will be put in their best use when working abroad.	Barzegar et al. (2012)	Adapted
5. I believe that I will be more	–	–	Developed

satisfied with the support that I receive for career advancement in overseas.			

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Salary and compensation			
1. If I work overseas, I would receive a higher job pay.	1. I believe that I will receive a higher job pay if I work abroad.	Gaiduk et al. (2009)	Adopted
2. My job pay matches the work that I do.	2. I believe that my job pay will match the work I do if I work abroad.	Gaiduk et al. (2009)	Adapted
3. Salary level offered is still low in Malaysia.	3. I think that the salary level offered in Malaysia is too low.	Wahab (2014)	Adapted
4. Salary level offered is unequal to our profession.	4. I think that salary level offered in Malaysia is	Wahab (2014)	Adapted

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
unequal to my profession.			
5. I feel that my work is being valued.	5. I believe that my work will be valued more if I work abroad.	Gaiduk et al. (2009)	Adapted

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Quality of life			
1. I believe that standards of living are better abroad.	1. I believe that standards of living are better abroad.	Junaimah & Yusliza (2011)	Adopted
2. How satisfied or dissatisfied are you with your local area as a place to live?	2. I am dissatisfied with the local area as a place to live.	Tansel & Gungor (2003)	Adapted
3. I feel unsecured in my living place.	3. I feel unsecured in my local living place.	Tansel & Gungor (2003)	Adapted
4. Opportunities to improve standard of living.	4. I believe that overseas provide opportunities to improve standard of living.	Leong & Soon (2012)	Adapted

5. Able to lead an enjoyable life	5. I believe that working abroad able to lead to an enjoyable life.	Leong & Soon (2012)	Adapted

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Mediator: Career Advancement Abroad			
1. My long term career development can be achieved by working in Singapore.	1. I believe that I can have better career development by working abroad.	Lim et al., 2016	Adapted
2. I have a greater chance to achieve my career goal or success if I work in Singapore.	2. I believe that I can have greater chance to achieve my career success by working abroad.	Lim et al., 2016	Adapted
3. I believe that I am able to learn new knowledge in the relating field if I work abroad.	–	–	Developed
4. I believe that I will achieve faster	–	–	Developed

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
promotions and advancements in my career if I work abroad.			
5. I believe that the industry standards and practices abroad are more advanced and beneficial for my career.	–	–	Developed

Item	Modification	Author/Resource	Adopted/ Adapted/ Developed from Study
Moderator: Level of Experience and Expertise			
1. I can increase my expertise if I work in Singapore.	1. I believe that I can increase my working experience and expertise if I work abroad.	Lim et al., 2016	Adapted
2. I can enhance my skills if I work in Singapore.	2. I believe that I can enhance my skills if I work abroad.	Lim et al., 2016	Adapted
3. I believe that working abroad	–	–	Developed

will provide me more professional development in the relating field.			
4. I believe that my level of experience and expertise gives me a competitive advantage in securing job opportunities abroad.	–	–	Developed
5. I believe that there are more and better professional development programs abroad that match my level of experience and expertise.	–	–	Developed

Appendix 3. 7: Data coding

Question no.	Label	Coding
Q1	Gender	"Male" = 1 "Female" = 2
Q2	Age	"21-30" = 1 "31-40" = 2 "41-50" = 3 "51-60" = 4 "61-70" = 5
Q3	Highest education level	"High school or below" = 1 "A-level / Foundation / Diploma" = 2 "Bachelor's degree" = 3 "Postgraduate education" = 4 "Professional certificate" =5
Q4	Current working status	"Student" = 1 "Part-time" = 2 "Full-time" = 3 "Self-employed" = 4 "Retired" =5 "Unemployed" =6

Appendix 3. 8: Data coding for Likert scale

Likert scale	Code
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

Appendix 3. 9: Cronbach's Alpha Rule of Thumb

Cronbach's Alpha	Level of Reliability
$\alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Fair
$0.7 \leq \alpha < 0.8$	Good
$0.8 \leq \alpha \leq 0.95$	Excellent