Sri Lanka Journal of Economics, Statistics, and Information Management

Aims and Scope

Sri Lanka Journal of Economics, Statistics and Information Management is an international open-access, peer-reviewed and refereed journal which is published by the Department of Economics and Statistics, Faculty of Social Sciences and Languages, Sabaragamuwa University of Sri Lanka. The journal provides academics, researchers, and professionals with a platform to share the latest developments and advances in Economics, Statistics, and Information Management.

The journal attracts submissions from scholars focusing on theoretical, empirical, policy, and practitioner issues within the fields of Economics, Statistics, and Information Management. The journal's contents reflect its integrative approach including primary research articles, discussion of current issues, empirical studies, literature reviews, case studies, conceptual models, reports, and book reviews.

All articles in this journal are subject to a rigorous blind peer-review process initially and are then reviewed by the editorial committee before final acceptance for publication.

S L J E S I M

Sri Lanka Journal of Economics, Statistics and Information Management

Volume 03 *Issue 02* *December 2024*

PANEL OF REVIEWERS

Sri Lanka Journal of Economics, Statistics, and Information Management

EDITORIAL NOTE

The Sri Lanka Journal of Economics, Statistics, and Information Management (SLJESIM) is proud to announce the publication of its second issue of volume three. One of the key objectives of SLJESIM is to promote publication from different streams of research that help enrich future discourse on Economics, Statistics, and Information Management. As Journals are inevitable scientific communication channels for academic and research institutions, the SLJESIM is a double-blind peer-reviewed open access, published two times per year by the Department of Economics and Statistics, Faculty of Social Sciences and Languages, SUSL. The journal accommodates three types of papers; review papers, conceptual papers, and empirical papers that employ quantitative, qualitative, and /or mixed methods approaches. Review papers provide critical and concise yet comprehensive and contemporary reviews of a particular theme specific to Economics, Statistics, and Information Management.

This issue owes a great deal to many people. I acknowledge the service of the Text Editor who has so generously given his time and expertise for editing and proofreading. Most of all, thanks must be expressed to all the reviewers for their professionalism and attention to the success of the journal. On this momentous occasion, I would like to extend my sincere gratitude to all the authors for their valuable contributions through research articles. Best wishes and thank you in advance for your contribution to the journal.

Editor in Chief
Sri Lanka Journal of Economics Statistics and Information Management

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ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM

Volume 03 | Issue 02 | December 2024

FACTORS AFFECTING THE MIGRATION INTENTION OF UNIVERSITY LECTURERS IN SRI LANKA (WITH SPECIAL REFERENCE TO SABARAGAMUWA UNIVERSITY OF SRI LANKA)

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ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM
VOLUME 03 ISSUE 02
December 2024
sljesim@sab.ac.lk
www.sab.ac.lk/sljesim

Received: *04 October 2024* ***Revised:*** *11 November 2024* ***Accepted:*** *26 December 2024*

How to Cite this Article*, Gunarathna, A.M.I. & Kavishka, M.T.M. (2024). Factors affecting the migration intention of university lecturers in Sri Lanka (with special reference to Sabaragamuwa University of Sri Lanka), Sri Lanka Journal of Economics, Statistics and Information Management,* 3(2), 01-32

Abstract

University Lecturers migration is known as a type of Brain drain. It can be described as moving a country's most talented and educated lecturers to other countries. The migration of university lecturers in a country greatly impacts that country's higher education and hurts the economic growth of developing economies like Sri Lanka. The main objective of this paper is to explore the factors affecting the intention of university lecturers to migrate to Sri Lanka. Primary data collected through direct personal interviews and online questionnaires were used for the study considering the convenience of the respondents. Sabaragamuwa University was selected from other universities using the convenience selection method for this study's collected sample size of 117 lecturers. A stratified random sampling method was chosen to reach out to them. This was performed as a factor analysis considering the migration intention of university lecturers as the dependent variable for the structural equation model. The Factor analysis revealed the effectiveness of Socio-political push factors in terms of attitudes & perceived behavioral controls and Socio-political pull factors on the migration intention of university lecturers in terms of attitude, and subjective norms of the lecturers in a positive manner. The common impact can be seen in the case of Economic push factors regarding subjective norms. Economic pull factors positively influence the migration intention of university lecturers in terms of their perceived behavioral controls. To stop university lecturers' migration, it is necessary to apply policies to improve the quality of life of Sri Lankan university lecturers.

keywords*:* Brain Drain, Migration Intention, Push factors, Pull factors

INTRODUCTION

This study aims to examine the factors affecting the Migration intention of university lecturers in Sri Lanka. This is based on the concept of Brain drain in Sri Lanka. Migration refers to a permanent or temporary movement (Lee, 1966). 'Brain drain' or 'Human capital flight' is traditionally viewed as the phenomenon in which highly skilled people leave their home countries and migrate to the countries that offer them greater opportunities, living conditions, and lifestyles. Sri Lanka's ongoing economic crisis depicts the bitter lesson of economic mishandling to the world. Now Sri Lanka has been grappling with a significant brain drain, especially due to the weight of its ongoing economic crisis. The term "brain drain" refers to the emigration of highly skilled and educated individuals from one country to seek opportunities abroad. In the Sri Lankan context, during the economic crisis, several factors affect the brain drain in Sri Lanka. One of the primary drivers of the brain drain in Sri Lanka is the limited economic opportunities available within the country (Idrees, 2023). The country has been facing economic challenges, including high inflation rates, a depreciating currency, depletion of foreign reserves, and a debt crisis. The country is facing its worst economic crisis and the deepest recession (CBSL, 2023). For many professionals, the lack of well-paying jobs and career advancement prospects forces them to seek opportunities in more stable economies. Sri Lanka is currently facing political instability which has eroded confidence in the country's prospects.

Another main background problem for the migration intention of university lecturers are Sri Lankan government proposed a new income tax schedule in the most recent budget, raising the tax rate and lowering the tax-free income threshold. There was discussion about the proposed modifications, and many people thought the new rates were unduly onerous. In addition, these levies were perceived as terms put in place by the IMF in connection with their loan arrangement with Sri Lanka. Nonetheless, the government insisted that raising tax collections was necessary to resolve the debt crisis and enhance the nation's financial standing. That is the reason for the increase in current income tax rates. Amidst the international migration, the intention of Sri Lankan professionals started to increase. Current Sri Lankan government income tax increases and economic crisis are mainly affected by the brain drain in Sri Lanka. As per the official data published by the Sri Lanka Inland Revenue 2022/2023, the Government has proposed taxing incomes starting at 100,000 rupees (US$ 270) a month. With inflation running at 70 percent, this risks impoverishing the middle class. Discouraged by the economic situation, many Sri Lankan professionals plan to go abroad. Now in the Sri Lankan context, the brain drain value is 7.6 index points by 2023, and Sri Lanka is ranked 20th globally while holding the 9th place position in the South Asian region. According to the data university lecturers are in second place in the highest professional migration in Sri Lanka.

In 1963, the term "Brain drain" was used to define the severe migration of British scientists to the USA by the Royal Society. Then over time, this has introduced the emigration of highly skilled professionals from third-world countries (Brandi, 2004). At present, it gives the sense of the flow of human capital (educated professionals and skilled employees) from developing to developed countries (Rapoport, 2004).

This is also called Brain drain. The reduction of the standard of living, political corruption, financial and other employability issues including low rewards, poor working conditions, and job insecurity in the home country cause migration abroad (Panagiotakopoulos, 2020). Then most of the young population are tempted to migrate abroad considering it as an investment for their future. Brain drain creates serious consequences for both economies' origin & destination. The related studies have highly fascinated the relationship between foreign migration, the brain drain phenomenon, and the economic growth of a country (Skeldon, 2002); (Hoti, 2009). The combination of human capital, physical capital, and social capital is essential for the development of any country (Li, Y., Wang, X., Westlund, H., & Liu, Y., 2015). Therefore, with the absence of professionals, it is hard to Endeavour economic growth for a developing economy (Adeyemi, 2018).

University lecturers are an essential group of human capital, who have to be played a major role in economic development. The Federation of University Teachers' Associations (FUTA) reported that about 900 university lecturers left Sri Lanka in 2023, and more departures are anticipated in 2024, which is a worrying trend for the country's higher education system. That is mainly affecting the country's economic development due to the lack of human capital. Due to the alarming 50% lecturer vacancy rate that Sri Lankan universities are currently experiencing, this university lecturer migration presents a serious challenge. Brain drain or Human Capital migration is not a new phenomenon in the Sri Lankan economy. It happened in the past years; it is happening now and it is going to happen in the future as well. But the speciality is, at present, the impact of the income tax and economic crisis on it. Sri Lankan universities require approximately 13,000 academics to operate at optimal capacity, given the current university student population of around 155,000. However, with just 6,500 lecturers employed at public universities at present, according to figures from Sri Lanka's University Grants Commission, the vacancy rate is around 50%. Because there are a large number of university lecturers migrating to other countries (Alwis, 2024).

This university lecturer's migration can exacerbate the country's struggle to bridge the development gap with neighbouring nations. Brain drain can lead to a shortage of professionals in various fields, including healthcare and education, which are essential for the well-being and development of the population. In turn, this can result in reduced access to quality services and education, particularly in rural areas. The brain drain hurts economic development. So under the current situation, there can be an incline of brain drain expectations than the past experiences and it is a threat to the country's development process. Therefore, the economy needs to identify the nature of the brain drain of university lecturers within the country. This study aims to explore it and it will give a clear perception of today and the future brain drain risk. Therefore, to ensure Sri Lanka's future economic and social stability it is necessary to the implementation of comprehensive migration management procedure with the appropriate measures. This study is helpful for the implementation of policies that reduce the brain drain and improve the Sri Lanka higher education system.

Brain drain can be examined via Brain Drain Perspective and Expectations. Lee's migration theory is one of the popular theoretical frameworks that explain and make predictions regarding the perception of the brain drain based on pull-push (Lee, 1966). In the real world, the push and pull factors in terms of economic, political, cultural, environmental, etc.; causes motivate people either to move from one place to another or to leave their old place of residence. Therefore, this theory is the most suitable to explain the impact of the economic crisis on the migration of university lecturers.

Only limited research has analyzed migration based on university lecturers in Sri Lanka. Therefore, this study is implementing focuses on those gaps. Also in Sri Lanka, as a developing country, it can be identified as a huge weak point for its economy. This research paper can fill that gap to some extent. Here the dimensions of the research are created based on Lee's migration theory considered under a quantitative analysis. Furthermore, this study planned to use primary data, expecting considerably higher accuracy. Ultimately, this will be able to be used as a tool for a substantial basis for university lecturers' migration-related policy formulation, which has been a gap in the Sri Lankan economy.

Main Objective of this study is to explore the factors affecting the migration intention of university lecturers in Sri Lanka.

Specific Objectives are in,

- To examine the impact of the Economic push factors affecting the migration intention of university lecturers in Sri Lanka.
- To examine the impact of the Socio-Political push factors affecting the migration intention of university lecturers in Sri Lanka.
- To examine the impact of the Economic pull factors affecting the migration intention of university lecturers in Sri Lanka.
- To examine the impact of the Socio-Political pull factors affecting the migration intention of university lecturers in Sri Lanka.

LITERATURE REVIEW

2.1. Theoretical Literature

One such famous and oldest migration theory is the Neoclassical Economic theory which concerns wage differences between countries as the main reason for international labour migration. Because of that labourers are tempted to migrate from low-wage to high-wage countries (Massey D., Arango, Hugo, Kouaouci, Pellegrino, & Taylor, 1993). Over time, these models have become more sophisticated in terms of identifying structural drivers appreciably, from linear to large macroscopic push-pull models. Research relating to migration and brain drain has been extensively conducted by many developing and developed countries using economic and socio-political theories such as the neoclassical theory of migration, migration network theory, the new economics of labour migration theory and so on. In addition, to

explore relevant factors of a migration flow and to determine whether a particular migration flow is a temporal or existing phenomenon, we can use the Theoretical Framework of International Migration. This has developed based on various causalities derived from different international migration theories, including mainly the Neoclassical Economic theory, Dual Labor Market Theory, Relative Deprivation theory, World Systems theory and some others (Jennissen, 2007). The Transition systems theory offers a holistic view of an individual's migration decision compared to previous theories, which were presented by Kritz and Zlotnik (1992). This is mostly used for comparative research and can be used to analyze regional migrations. Network Theory is another important theoretical overview, which emphasizes that migrants are tempted to rely on existing networks. That means they look towards the paths of previous migrants of their origin countries. These networks have a considerable impact on migration decisions and can perpetuate brain drain patterns in a country (Massey D. S., Arango, Hugo, Kouaouci, Pellegrino, & Taylor, 1993). There are many migrations intentions-related studies demonstrating the application of network theory which highlights how social networks have shaped migration decisions in terms of information, social support, and so on (Granovetter, 1973; Massey D. S., Arango, Hugo, Kouaouci, Pellegrino, & Taylor, 1993; Fawcett, 1989; Besser & Flander, 2006).

Dual labour market theory is another major theory used to explain international migration behavior. This argues that pull factors in developed countries (receiving migrants) are the proximate cause of labour migration. Jauhar & Yusoff (2011) have studied the propensity to migrate by Malaysian professionals based on the push/pull model (Baruch, 1995). They have used Lewin's (1951) field theory to consider the various conflicting forces that influence the migration decision of these professionals. Lee's migration theory (Lee, 1966) is one of the most successful Micro-theories, that can be used to explain the migration of professionals i.e. brain drain phenomenon through the factors that affect it. This concerns the factors associated with the area of origin & destination, intervening obstacles, and personal factors that affect the migration decision. This study uses this theory to identify the factors affect that the migration intention of university lecturers in Sri Lanka.

If concerned about the push and pull factors used by the previous scholars, Martin and Zurcher (2008) argue that the migration decision can be mainly described under two categories, i.e. economic and non-economic. He has further explained it successfully using appropriate dimensions through the classification of demand-pull, supply-push and network/other factors. Nurse (2004) has pointed out, the economic decline, widespread inequality, high poverty, social displacement, crime and political instability in the country as the main drivers of migration. Moreover, barriers to intellectual property rights, limited career opportunities, poor job quality, and lack of medical or technological equipment are some of the push factors which inspired people to migrate (Beine, Docquier, & Rapoport, 2001; Fargues, 2011; Kuhn & McAusland, 2009). Tessema (2010) describes deteriorating economic conditions, corrupt political systems and social instability as the main factors causing human capital flight. In addition, Crime and violence are considered to be the ultimate influencing factors in migration decisions (Thomas-Hope, 2002). There can be large

wage disparities between countries for the same job and thus people migrate to countries with financial stability in search of a better quality of life and educational opportunities for the next generation (Carrington & Detragiache, 1999). Thus, the pull factor is primarily based on economic needs (Bach, 2003). In this study, the factors affecting the migration of professionals can be identified under two categories socio-political factors (Shumba & Mawere, 2012; Panagiotakopoulos, 2020; Tessema, 2010) and economic factors (Tessema, 2010). Then under each category Push/pull factors are considered separately as follows.

Economic Push factors- According to the Department of Immigration and Emigration, approximately more than 7 lakh passports have been issued in the first three quarters of 2022, which is an increase of 3 lakh compared to 2021. Also, it is reported that there will be approximately 2.4 lakh migrants for the first three quarters of 2022 (BBC News, 2022). In the face of such a situation, many commentators think that by amending the Internal Revenue Act No. 24 of 2017, giving an income tax to all those with a monthly income of Rs.100,000 or more is a strong threat to the country's human capital. According to previous scholars, it has cleared high-income earners sometimes migrate across borders to other countries to avoid paying taxes (Kleven, Landais, Munoz, & Stantcheva, 2020). Given the current economic crisis in Sri Lanka, this new income tax, which has been introduced targeting the educated professionals in the country, leads to a severe brain drain in now and upcoming years because the taxpayers do not get a proper benefit from the tax paid at least. Thus, in this study, this new income tax has been considered as an economic push factor.

Socio-Political Push Factors- The existing political climate within the country has a significant impact on the spread of the brain drain phenomenon (Castles & Miller, 1998; Bezuidenhout, Joubert, Hiemstra, & Struwig, 2009). Bezuidenhout et al (2009), considered the high crime rates and high prevalence of social diseases (HIV/AIDS) as some of the other socio-political push factors in their study. Generally, push factors come as negative aspects (e.g., political turmoil, poverty, lack of research facilities, job discrimination, etc.) and those lead to an outflow of skilled labour or professionals from the country (Adeyemi, Joel, Ebenezer, & Attah, 2018). Therefore, there is a positive relationship can be seen between the push factors and the human capital flight.

Economic Pull Factors- Better financial rewards, career development opportunities and resource availability are some economic pull factors, pointed out by Willis - Shattuck et al (2008). Shumba & Mawere (2012) have presented research and study opportunities in developed nations with attractive salaries as economic pull factors affect brain drain. Furthermore, Attractions to jobs, Labor demand, Improved education, Friendly working environment, better wages, and Improved standards of living are some of the other pull factors with an economic value (Azam, 2015). Based on this logic, migration can be predicted by examining the migration intention of the people. If concerned about the past scholars, there can be seen the usage of TRA to predict the migration intention of the people through their attitudes and subjective norms relating to migration (Pookulangara, Hawley, & Xiao, 2011; Jauhar, Ghani, & Islam, 2016; Moye, 2014). Brain drain perspective & expectations of professionals

are the dependent variable of this study and the study uses the Theory of Planned Behavior to evaluate it. Usually, this theory is also used to analyze respondents' intentions (Engle, Schlagel, Dimitriadi, Tatoglu, & Ljubica, 2015; Remhof, Gunkel, & Schlaegel, 2014). The Theory of Planned Behavior (TPB) is a theoretical framework that explains and makes predictions regarding human behavior based on attitudes and beliefs. Its core constructs for intentions are threefold such as Attitude toward the behavior, social norms and Degree of perceived behavioral control (Ajzen, 1991). In this research, the foreign migration intention of the university lecturers is examined through an assessment of the advantages and disadvantages, external opinions and expectations of migration with an evaluation of the feasibility as per the planned behaviour theory.

Socio-political pull factors are some positive aspects (e.g., better quality of life, modern education system, intellectual freedom, etc.) that attract many skilled and talented people to developed countries (Adeyemi, Joel, Ebenezer, & Attah, 2018). Therefore, a positive relationship can be identified between human capital flight and pull factors. Lowell & Findlay (2001) describe better wages and working conditions, better information and cheap transportation as some of the main factors that attract skilled professionals to developed countries. According to Feraru (Feraru, 2013), socialization opportunities and public recognition have greatly affected the human capital flight as socio-political Pull factors. Moreover, the migration policies in the host country are another dominant pull factor that causes the brain drain phenomenon (Phuyel, 2013).

2.2 Empirical Literature

Countries like Korea, Taiwan, and South East Asia, have converted the brain drain into an advantageous situation for their country because they have established policies enabling them to actively contribute to the economy after returning from abroad (Teng, 1994). Dhar & Samanta (2014) have demonstrated that remittances are the primary benefit of brain drain. The same spectrum presented by Zaidi et al (2014) and Sriskandarajah (2002) has also identified other positive points of migration analysis in the Sri Lankan context. Reduction of unemployment, improvement of living standards, and human capital development are the major components in that explanation. Even though these facts seem supportive of a country's economic development, Abdullah and Hossain (2014) have identified Brain drain as a severe problem for the development of Bangladesh.

The Republic of Macedonia stands out in terms of the direct effects of brain drain on their economy. According to Janeska and Lozanoska (2016), the decrease in human capital ultimately led to reduced economic growth and innovation opportunities in that country. Svazas and Liberyte (2019) have analyzed the socio-economic impact of brain drain. Changes in the labour market, worsening shortage of skilled workers, ageing population, inefficient use of funds invested in the education system, etc. are seen as obstacles to socio-economic development due to brain drain. Further confirming this, a study based in Nigeria, Ethiopia and Kenya (Adeyemi, Joel, Ebenezer, & Attah, 2018) revealed a close relationship between low economic growth

and brain drain. Dodani & LaPorte (2005) have pointed out that insufficient research funding, poor facilities, narrow career structures, low intellectual stimulation and violence in the motherland as some of the immediate reasons for that practice. Moreover, it has been proven that there is a close relationship between initial return intention and intentions to return, but that relationship weakens with the length of stay in a foreign country (Gungor & Tansel, 2008). Economic Instability is one of the major determinants that influence the intention to go abroad and ultimately causes brain drain problems (Carr, Inkson, & Thorn, 2005; Gungor & Tansel, 2008; Khoo, Hugo, & McDonald, 2011). Research done in Pakistan based on immigration consultancies (Sajjad, 2011), has revealed fewer opportunities for higher education, continuous political instability and job dissatisfaction as push factors for migration. Yanasmayan (2014) has also found the importance of personal and quality-of-life-related factors in migration decisions. During an economic crisis, the reduction of the rewards from work and quality of life are the ways that impact the household most (Grabova, Dosti, & Pojani, 2013). This tempted skilled workers to migrate and graduates are a major part of it (Carrington & Detragiache, 1998; Docquier & Marfouk, 2004). That means economic factors can be identified as a main migration driver (Gherheș, Dragomir, & Cernicova-Buca, 2020). The crisis has a significant impact on the migration intention of undergraduates in Portugal but the situation is extremely opposite in the Republic of Ireland (Cairns, 2017).

In Zimbabwe, the political climate, declining currency exchange regimes, collapse of funding, low remuneration and job satisfaction found as major push factors, while the attractive salaries and research & study opportunities as major pull factors that caused the exodus of professionals (Shumba & Mawere, 2012). Abdullah & Hossain (2014) have recognized factors that affect the migration of intellectuals under two categories, that is internal factors and external factors. In addition, Azam (2015) has expanded this set of factors by introducing factors such as scarcity of jobs, low wages, unfavourable working environment, poverty and other social conflicts as push factors that encourage workers to away from their origin. This study has been done relating to Sri Lanka, India, Pakistan and Bangladesh. Iredale's (2001) various theories and typologies can be used for further understanding of facts relating to the Brain drain. Accordingly, the Human Capital theory explains that educated professionals seek the formal employment and remuneration system best suited to their education level and training. An African-based study has revealed political instability and economic conditions in the home country as the proximate reasons for their migration intention. It stated that they identify business opportunities in the destination country as a pull factor for entrepreneurs considering the tough environment in those countries in terms of finding a job, seeking promotion and so on (Khosa & Kalitanyi, 2015). A scholar who intended to explore the foreign migration intention to pursue an overseas job, considering the university students and fresh graduates in Sri Lanka as the unit of analysis, has revealed that self-efficacy and attitudes as significant and subjective norms, perceived behavioural control, and resource facilitation condition as the insignificant dimension to study the actual behaviour (Weerasinghe & Kumar, 2014). According to Fernando (2015) who has done research based on the Knowledge

Services Industry in Sri Lanka, Post-war peace, Economic stability and Growth in the KSI in the home country affect reverse migration.

Research regarding the doctors‟ brain drain in Ghana has revealed that among the economic and socio-political pull & push factors, economic factors have the greatest impact (38.5%) on the migration decision. The impact of Socio-political pull & push factors on the migration decision is 30.7% (Amuakwa-Mensah & Nelson, 2014). An empirical analysis of the push factors of human capital flight in Nigeria has revealed that there is a significantly positive relationship between population growth rate and migration rate. As well as there is a negative significant relationship between life expectancy and migration. It ultimately pointed out the importance of human capital development through enhancing the life expectancy with reducing population at the same time, to reduce the migration rate in Nigeria (Popogbe & Adeosun, 2020). Furthermore, Haque & Kim (1995) have suggested that economies have to be subsidized education (subsidizing human capital accumulation) to achieve economic growth. As per their explanation Closed economies need to be subsidized for all levels of education and Open economies should be subsidized only for the lower levels.

2.3 Methodological Literature

Analyzing the migration intention of individuals or related studies essentially should be based on the primary data (Kazlauskienė & Rinkevičius, 2006) to obtain more reliable outcomes. Since primary data is first-hand data directly from migrants, it ensures high accuracy and relevance. Quantitative questionnaire, Qualitative Participatory Research Approach (PRA) and expert interviews with practitioners are the three methods used by Afifi et al. (2016) to collect the primary data required by his research objectives. But there are some limited usages of secondary data as well in a successful manner. Abdullah & Hossain (2014) have used both primary and secondary data for their study of exploring the causes that influence the migration of academics, doctors and engineers in Bangladesh. Its primary data was based on informal interviews with already migrated workers using a structured questionnaire. Also, the published information by the National and international organizations has been used as the secondary data in that study. However, almost all the research regarding migration intention used primary data for the study. Direct personal interviews (Güngör & Tansel, 2011) and internet surveys through an online questionnaire (Gherheș, Dragomir, & Cernicova-Buca, 2020; Gungor & Tansel, 2008) are the outstanding data collection methods can be seen there.

The problem of Brain drain can be explored qualitatively because this can address in-depth facts behind it. Considering this Khan (Khan, 2021) has done a qualitative study and it introduced four factors such as attractive salaries outside, short-term fixed contracts for early career researchers, unfair recruitment procedures, attractive migration policies and the indirect role of internationalization policies in promoting permanent mobility as the responsible factors of brain drain. Another qualitative research based on the brain drain of the teachers in South Africa has revealed that the failure to ensure the safety of school teachers is the newest factor influencing their migration (Mlambo & Adetiba, 2020).

A Pakistan-based quantitative brain drain survey used primary data collected by interviewing selected respondents through a systematic random sampling technique (Tahir, Kauser, & Tahir, 2011). Another quantitative study on the intellectual drain in Pakistan used 13 primary data and this used judgmental, purposive and random sampling (Sajjad, 2011). These quantitative methods allow researchers to analyze large data sets. Statistical techniques such as sampling and inferential statistics thereby enable the estimation of population parameters, and testing of hypotheses (Massey, et al., 1993). There can be seen young populations as a common group in each research taken into account and therefore even online surveys become more effective. If the sampling technique, the usage of the nonprobability sampling techniques in these kinds of research is relatively high, especially the snowball sampling technique (Theodoropoulos, Kyridis, Zagkos, & Konstantinidou, 2014; Ghasemi, Mehrabanpour, & Talebnia, 2022). In addition to that, there is considerable usage of the Convenience sampling technique as well (Bimal, Kaur, & Kaur, 2016).

According to previous scholars, some researchers have used the mixed approach, combining both qualitative and quantitative approaches. For the exploration of the factors that impact the brain drain decision in Ghana, Mensah and Nelson (2014) have done both qualitative and quantitative analyses using primary data. This ultimately analyses the data via descriptive analysis and a logit regression model. Regression models can be used to predict migration flows based on historical data. This helps control for confounding factors or other variables that may affect migration outcomes. By using covariates in regression analysis, researchers can isolate the specific effects of predictors of interest, providing a more accurate understanding of relationships between variables and reducing spurious associations (Borjas, 1987; Longhi & Nijkamp, 2010). Regression analysis was the abundantly used statistical technique analyzed by previous scholars relating to foreign migration intention. Under that, the logistic regression (Santric-Milicevic, Terzic-Supic, Matejic, Vasic, & Ricketts III, 2014; Cairns, 2017; Gherheș, Dragomir, & CernicovaBuca, 2020; Weerasinghe & Kumar, 2014) was the main one. In addition to that, there can be some other analyzing techniques as well.

Through multivariate analysis, researchers can explore the complex relationships that influence migration patterns and this provides a platform for testing hypotheses related to various migration-related phenomena (Dustmann & Mestres, 2010; Fussell & Massey, 2004). Imran et al. (2011) used the Chi-square test to find out the association between migration intention and the various factors that impact it, based on the final-year medical students and the fresh graduates‟ survey, relating to their post-training plans. The research on Migration trends of pharmacy students in Pakistan has used Descriptive statistics, cross tabs and chi-square tests to determine the factors that cause the trend, and the reasons for the migration of pharmacy professionals (Naqvi, et al., 2017). An empirical analysis which explored the migration drivers of skilled professionals in Pakistan has employed the bipolar specification of the augmented gravity model for that study and principal component analysis has been used as its analyzing tool (Farooq & Ahmad, 2017). The augmented gravity model is an extension of the traditional gravity model with the ability to include additional variables to capture socio-economic, demographic and policy

factors that affect migration flows between countries or regions. This provides insight into the determinants of migration and the strength of their impact (Anderson & Van Wincoop, 2003). Kazlauskienė & Rinkevičius (2006) have pointed out the causes of brain drain in Lithuania through a factor analysis. Moreover, there can be seen the factor analysis with different stages. Samaraweera & Upekshani (2020) have used three-stage factor analysis including Exploratory Factor Analysis, Confirmatory Factor Analysis and Structural Equation Model to analyze the brain drain of medical professionals in Sri Lanka.

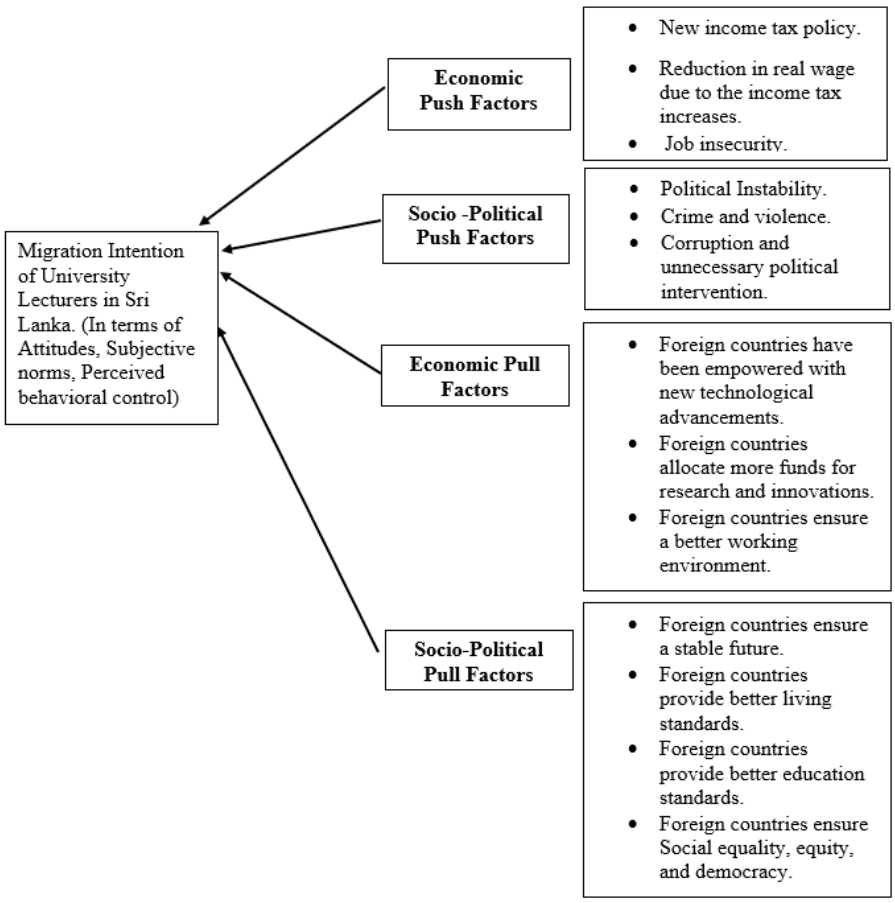
Literature Gap- Compared to other countries, Sri Lanka's attention to research and development is relatively low, so this is also valid in terms of brain drain. So far, there have been an insignificant number of studies on brain drain in Sri Lanka, but they were not conducted during an economic crisis. But at the international level, there can be seen some research regarding the brain drain related to the economic crisis. Therefore, this research is very unique compared to other studies because it examines university lecturers' brain drain phenomenon during the ongoing economic crisis in Sri Lanka. In Sri Lanka, there is a gap between the scholars who are currently conducting brain drain for other professionals and there is only limited research based on university lecturer's migration. Those who are conducting only the western province-based Universities. Accordingly, this study is conducted so that the Sabaragamuwa University lecturers are represented, and also Sabaragamuwa University all faculties' lecturers are represented as a sample. Also, in this study, the opinion of the University lecturers on the new tax policy imposed on Sri Lankan professionals will be examined. The other thing is that most of the tests conducted regarding brain drain are done based on the professionals related to the health professionals and engineers. In other words, there is a lack of studies that explore the brain drain phenomenon relating to university lecturers during the current economic crisis and income tax increases. Therefore, this research covers University lecturers to fill that gap. Most probably qualitative approach is used in the many research that investigate the causes of brain drain in the Sri Lankan context, but here I use the quantitative approach to fill the gap. Lee's migration theory usage is at a high level when it comes to the research done regarding the causes of brain drain so far. This research also uses Lee's migration theory, but the dimensions used are relatively uniform compared to another research. Because the dimensions that have been decided here are derived considering the economic crisis. Also, the impact of the new income tax policy on the migration intention of university lecturers is taken into account in this study.

METHODS

3.1. Conceptual Framework

In this study, the migration intention of university lecturers in Sri Lanka is the dependent variable and it is not concerned about the actual behaviour. The conceptual framework was developed based on the factors identified during the literature review as depicted in Figure 3.1. According to Lees' Migration theory, they were identified considering their push and pull effect.

Figure 3.1: Conceptual Framework of the Study



Source: Developed by author

3.2. Hypotheses Development

H1: Economic push factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka.-The economic push and pull factors also can be identified as a common factor that affects the migration intention of the people in many regions, especially Sri Lanka, Poland, Romania, the Republic of South Korea, Thailand and so on (Khalid & Urbański, 2021; Samaraweera & Upekshani, Doctors' Brain Drain in Sri Lanka, 2020; Zanabazar, Kho, & Jigjiddorj, 2021; Urbański, 2022). The first hypothesis is concerned with this factor.

H2: Socio-political push factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka study separately explored the political and social pull and push factors effect on migration in Poland and Romania. This has been derived from the empirical evidence to depict the statistical significance of both factors in terms of migration behaviours in Poland and only the political pull factors regarding migration in Romania (Urbański, 2022). This has been further proven via

the research that has been done based on Sri Lankan doctors by showing a positively significant relationship between the brain drain perspective and the socio-political pull factors (Samaraweera & Upekshani Doctors' Brain Drain in Sri Lanka, 2020).

H3: Economic pull factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka. -The economic pull factors also can be identified as a common factor that affects the migration intention of the people in many regions, especially in Sri Lanka (Doctors' Brain Drain in Sri Lanka, 2020).

H4: Socio-political pull factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka.-To develop the final hypothesis, it has taken into account several kinds of research which shown economic push factors as statistically significant in terms of affecting the migration of various countries (Zanabazar, Kho, & Jigjiddorj, 2021; Samaraweera & Upekshani, Doctors' Brain Drain in Sri Lanka, 2020).

3.3. Research Philosophy and Approach-

The hypotheses were developed based on the application of Lee's Migration theory. That means this research problem can justify its reality based on theories. Then the reality of this matter is objective. Therefore, here we used new empirical data to test the efficacy of those theories. So, this research will be performed according to the deductive approach through quantitative methods. Accordingly, the research philosophical approach of this study can be identified as Positivism.

3.4. Population, Sample & Sampling Technique

This research population is University lecturers in Sri Lanka with special reference to the Sabaragamuwa University of Sri Lanka. Therefore, the population of this study is 256 university lecturers representing eight faculties in the university.

Raosoft is one of the most popular tools developed by Professor Gary W. Oehlert (University of Minnesota). Considering its inherent characteristics, this has the minimum recommended sample size for various surveys. The peculiarity here is that there may not be specific research papers that specify the appropriate scenarios for using Raosoft as a sample size determinator. The population size of this study is 256 Sabaragamuwa University lecturers as found above. Here the 5% is considered as the margin of error that this research can tolerate. The minimum sample size recommended by Rasoft comes to 154 university lecturers. So, the collected sample size is 117 responses. Therefore, 117 responses were used to analyse data utilizing quantitative approaches. Green (1991) proposed that 50+8m (where m is the number of explanatory variables in the model) can be used to determine the sample size. Accordingly, this study consists of four independent variables and the sample size can be determined as 50+(8)(4) and it is 82. However, concluded that an approximately 117 sample size is sufficient.

Due to the absence of published data to use as a reference to investigate the migration intention among Sri Lankan university Lecturers, it is essential to focus on primary data for this study. It is hard to find every university lecture to collect data. This

reduces the ability to do a census study. Therefore, it is necessary to move to the probability sampling method to find a sample for the study. Accordingly, to reach out to potential respondents this research chose university faculties that represent strata-wise stratified random sampling techniques to select the sample units. There can be seen a considerable number of migration-related past studies adopted stratified random sampling techniques.

3.5. Data Collection Method & Data Analysis Methods

Data was collected through a questionnaire survey. Past quantitative research regarding migration intention has also reported better achievements through these techniques (questionnaire survey research). To collect data through the questionnaire the study expects to use direct personal observations through face-to-face discussion and the online Google form considering the convenience of the respondents. A structured questionnaire was designed with a five-point Likert scale. All the Likert scales in the questionnaire were employed from "Strongly Disagree" to "Strongly Agree" range.

The Smart PLS software is the main tool used to analyze this research. Because data was collected by using structured questions. Here the collected data under demographic, dependent and independent variables are analysed via descriptive analysis methods. Most probably this includes mean, frequency distributions and so on. This study has adopted the 3-stage factor analysis. Firstly, it uses Exploratory Factor Analysis (EFA) to identify the major factors that affect the migration intention of university lecturers in Sri Lanka. Then through the Confirmatory Factor Analysis (CFA), the research can ensure the accuracy of EFA. This also improves the validity of the proposed conceptual model. Then via the factors generated through the above analysis, the study was able to create a Structural Equation Model (SEM) to demonstrate the relationship among those factors.

RESULTS & DISCUSSION

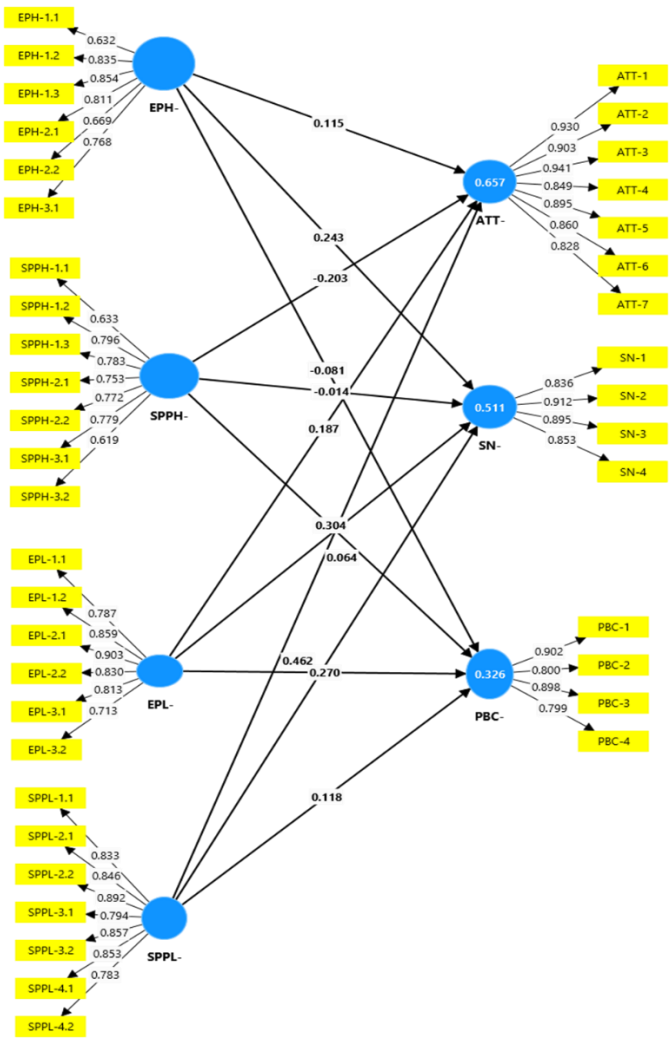
Here the collected data under demographic, dependent and independent variables are analysed by descriptive analysis methods. This included mean and frequency distributions. The analysis can be identified mainly under two types such as descriptive and inferential analysis. Descriptive analysis based on SPSS software and inferential analysis based on Smart PLS software. Under the inferential analysis first identified outer loadings.

4.1. Outer Loading Analysis

Descriptive analysis based on SPSS software and inferential analysis based on Smart PLS software. Under the inferential analysis first identified outer loadings. According to Memon and Rahman (2014), Independent manifest reliability explains the variance of the independent apparent related to the items of the dependent variable by calculating the normalized outer loadings of the exogenous constructs. Generally, Outer Loading Analysis (OLA) is defined as the most suitable solution for internal path model connections. It found the most reliable indicators for a model. This describes if the outer loading value of an item is more than 0.7, it is considered highly

satisfactory. Items were considered deemed acceptable when loading values ranged from 0.5 to 0.7. Also, if manifest items had outer loading values, those items should be removed from the study.

Figure 4.1. Diagram of Outer Loading Analysis (Graphical Output)



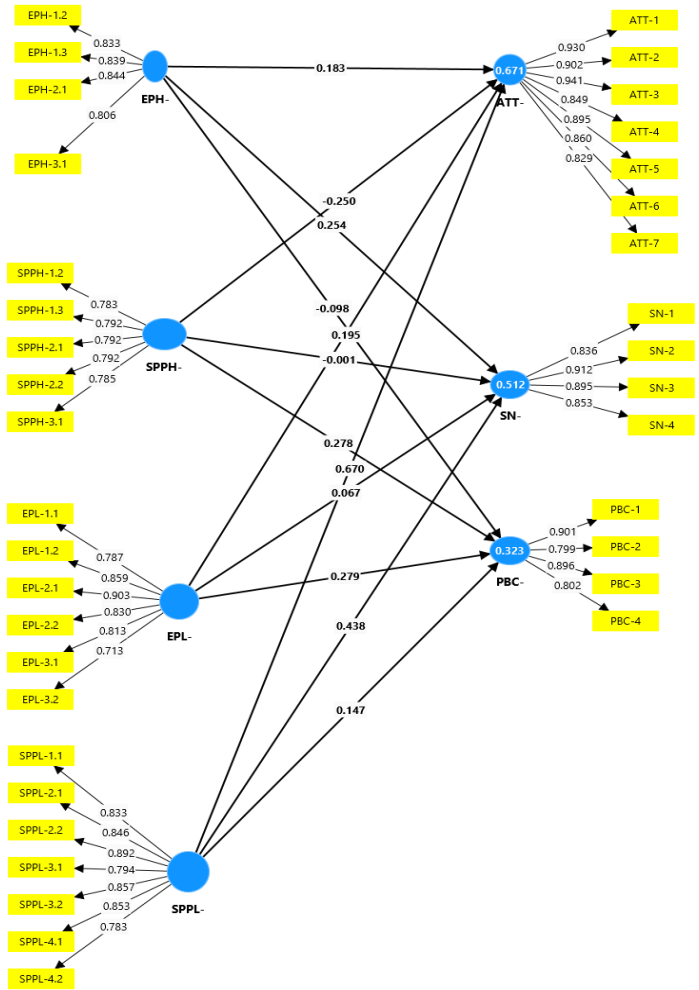
Source: Developed by author

The above figure shows the graphical representation of outer loadings analysis (Figure 4.1.). EPH is Economic push factors; SPPH is Socio-political push factors; SPPL is Socio-political pull factors; EPL is Economic pull factors, which affect the migration intention of University lecturers; ATT is Attitudes of university lecturer's to migrate abroad; SN is Subjective norms that impact the migration intention; PBC is Perceived behavioral controls existing on the migration intention.

As per the above output, it is clear that the majority of variables are in the range of greater than 0.7 demonstrating high satisfaction. There can be only four items under

the Economic Push factors and Socio-political push factors, their factor loadings are significantly lower than 0.7. They are EPH-1.1, EPH-2.2, SPPH-1.1 and SPPH-3.2 respectively. This situation was revealed when checking the discriminant validity as well. Therefore, these have to be removed for more accurate results. Then the graphical representation of the resulting model comes as follows and thus only 37 items forward of study. The following figure shows the Outer Loadings derived from the new factor model. Compared to the previous result this depicts higher validity and reliability than the previous one.

Figure 4.2: Graphical Representation of New Factor Model without Outer Loadings



Source: Developed by author

4.2 Reliability Analysis

The reliability test can be used to verify the stability and consistency of the items involved in a study. This study evaluated the reliability of each item by determining

the Cronbach's Alpha (CA), Average Variance Extracted (AVE), and Composite Reliability (CR) values for each factor.

4.2.1. Cronbach's Alpha (CA)

Table 4.1: Outcome of Cronbach's Alpha (CA)

	Cronbach's alpha
Economic Push Factors	0.85
Socio-Political Push Factors	0.85
Economic Pull Factors	0.901
Socio-Political Pull Factors	0.929
Attitude	0.955
Subjective Norms	0.897
Perceived Behavioral Control	0.873

Source: Developed by author

Attitude has the highest value of Cronbach's Alpha (0.955), followed by Socio-Political Pull Factors and Economic Pull Factors, with values of 0.929 and 0.901. In addition, Economic Push Factors and Socio-Political Push Factors with values of 0.85 are also considered acceptable. The Cronbach's alpha for the other two variables is also stated at a good level, and there is no variable counted as questionable under this indicator.

4.2.2. Composite Reliability (CR)

Table 4.2: Outcome for Composite Reliability (CR)

	Value of Composite reliability (rho_a)	Value of Composite reliability (rho_c)
Economic Push Factors	0.851	0.899
Socio-Political Push Factors	0.859	0.892
Economic Pull Factors	0.902	0.924
Socio-Political Pull Factors	0.93	0.943
Attitude	0.959	0.963
Subjective Norms	0.908	0.928
Perceived Behavioral Control	0.884	0.913

Source: Developed by author

According to Henseler et al. (2009), the composite reliability (CR) value of a variable greater than 0.7 is stated as reliable and satisfactory. With a score of 0.959 and 0.963

respectively for the Composite reliability (rho_a) and Composite reliability (rho_c), the variable "Attitude" obtains the greatest value. Apart from this, all the other variables are also regarded as satisfactory. Despite obtaining the lowest CR, "Economic Push Factors" was still able to reach an adequate level of composite reliability. Table 4.21 shows that the CR value of all the variables is greater than 0.7, this means that the model is quite accurate in determining the latent variable.

4.2.3. Average Variances Extracted (AVE)

Table 4.3: Result of Average Variance Extracted (AVE)

	Value of Average Variance Extracted
Economic Push Factors	0.69
Socio-Political Push Factors	0.622
Economic Pull Factors	0.672
Socio-Political Pull Factors	0.702
Attitude	0.788
Subjective Norms	0.765
Perceived Behavioral Control	0.724

Source: Developed by author

When the Average Variance Extracted (AVE) values are getting higher than 0.5, it represents more than half of the variation in the variable, which ensures adequate internal consistency (Hair, Ringle, Sarstedt, & silver, 2011). The AVE value which is less than 0.5 indicates greater inaccuracy variation than the variations given by the model. To obtain a high AVE value, the value of CR needs to be 0.6 or higher (Fornell & Larcker, Evaluating structural equation models with unobservable variables and measurement error, 1981).

Attitude has the greatest of Average Variance Extracted (AVE) values including all variables, with a score of 0.788. Whereas 'Socio-Political Push Factors' get the lowest AVE outcome (0.622) across all factors, it is followed by Economic Push Factors, with an AVE score of 0.69, Economic Pull Factors and Perceived Behavioral Control are 0.672 and 0.724 respectively. In this case, all the Values of Average variance extracted are higher than 0.5 and their CR scores are more than 0.7 as well. This depicts the adequate internal consistency of this framework.

4.2.4. Variance Inflation Factors (VIF)

Table 4.4: Outcome of Variance Inflation Factors (VIF)

Item	**VIF**	**Item**	**VIF**
EPH-1.2	2.02	ATT-1	8.048
EPH-1.3	2.088	ATT-2	5.246

EPH-2.1	2.128	ATT-3	8.59
EPH-3.1	1.861	ATT-4	3.114
SPPH-1.2	1.784	ATT-5	5.464
SPPH-1.3	2.208	ATT-6	3.774
SPPH-2.1	1.965	ATT-7	4.439
SPPH-2.2	1.808	SN-1	3.089
SPPH-3.1	2.416	SN-2	4.205
EPL-1.1	2.219	SN-3	2.906
EPL-1.2	2.822	SN-4	2.491
EPL-2.1	5.669	PBC-1	3.169
EPL-2.2	3.872	PBC-2	2.039
EPL-3.1	2.394	PBC-3	3.286
EPL-3.2	1.641	PBC-4	1.62
SPPL-1.1	7.504		
SPPL-2.1	2.761		
SPPL-2.2	8.525		
SPPL-3.1	3.964		
SPPL-3.2	4.61		
SPPL-4.1	2.98		
SPPL-4.2	2.377		

Source: Developed by author

Since all the VIF values except four Attitude indicators (ATT-1, ATT-2, ATT-3, ATT-5) one Economic Pull indicator (EPL-2.1), and two Socio Political indicators (SPPL-1.1, SPPL-2.2) are larger than 1 but less than 5, this depicts that the indicators are not closely correlated. It indicates the majority of parameters are moderately correlated and the appropriateness of the framework. But in terms of the ATT-1, ATT-2, ATT-3, ATT-5, EPL-2.1, SPPL-1.1, and SPPL-2.2 they are highly correlated and indicate the risk of multicollinearity issues.

4.3 Bootstrapping

With the establishment of the validity and reliability of the factor model, the study enables to estimation of the path model. In this study, the hypothesis has a direction and therefore the test type of the bootstrapping is considered as one tail. Here the Bias corrected and accelerated (BCA) bootstrap is considered as the confident interval method. Then with 5000 Bootstrap sub-samples and under 0.05 significant level, the study is estimating its path model and the following table shows the path coefficients of Bootstrapping.

Table 4.5: Path Coefficients of Bootstrapping (Direct Effect)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
EPH- -> ATT-	0.183	0.173	0.126	1.455	0.073
EPH- -> PBC-	-0.098	-0.111	0.152	0.649	0.258
EPH- -> SN-	0.254	0.242	0.123	2.057	0.02
EPL- -> ATT-	0.195	0.197	0.156	1.25	0.106
EPL- -> PBC-	0.279	0.283	0.207	1.348	0.039
EPL- -> SN-	0.067	0.08	0.163	0.412	0.34
SPPH- -> ATT-	-0.25	-0.242	0.109	2.294	0.011
SPPH- -> PBC-	0.278	0.287	0.141	1.978	0.024
SPPH- -> SN-	-0.001	0.004	0.116	0.011	0.496
SPPL- -> ATT-	0.67	0.665	0.143	4.678	0
SPPL- -> PBC-	0.147	0.136	0.207	0.711	0.239
SPPL- -> SN-	0.438	0.428	0.153	2.856	0.002

Source: Developed by author

In a one-tailed test under the 0.05 significant level, the threshold is 1.64, and accordingly, these path coefficients revealed the significance of the relations except six in situations. There are six insignificant relationship based on the P values. These are in,

- The relationship between the Economic Push Factors & Attitudes.
- The relationship between Economic Push Factors & Perceived Behavioral Control.
- The relationship between Economic Pull Factors & Attitudes.
- The relationship between Economic Pull Factors & Subjective Norms.
- The relationship between Socio Political Push Factors & Subjective Norms.
- The relationship of Socio-Political Pull Factors & Perceived Behavioral Control.

That means their T statistics are lower than 1.64 and because of that their P values have become higher than 0.05. Then based on these results, the study can depict its major findings.

4.4. Model Estimation

This study investigates the migration intention of university lecturers (perspective and expectations) in terms of their attitudes, subjective Norms, and perceived behavioral control. Thus finally it generated three unique Structural equation models for each considering socio-political and economic push and pull factors as exogenous variables. Following is the summary of each model and their goodness of fit (considering the R2 and adjusted R2 of each model).

Table 4.6: Summary of Structural Equation Models of the Study

Model	Endogenous Variable	Exogenous Variables	Coefficients of Exogenous	P values	R^2	Adjusted R^2

		Variables				
Attitude Model	Attitude	EPH	0.173	0.073	0.671	0.655
		SPPH	-0.242	0.011		
		EPL	0.197	0.106		
		SPPL	0.665	0		
Subjective Norms Model	Subjective Norms	EPH	0.242	0.02	0.512	0.489
		SPPH	0.004	0.496		
		EPL	0.08	0.34		
		SPPL	0.428	0.002		
Perceived Behavioral Control Model	Perceived Behavioral Control	EPH	-0.111	0.258	0.323	0.29
		SPPH	0.287	0.024		
		EPL	0.283	0.039		
		SPPL	0.136	0.239		

Source: Developed by author

The Attitude model was able to read 67.1% of the real migration intention attitude of the university lecturers which was derived based on considering socio-political and economic factors. According to the adjusted R^2, that is 65.5%, which revealed the high accuracy of the model forecasting. However, the lecturer's real expectations & perspectives are quite different in terms of the readings of the Subjective Norms (SN) and Perceived Behavioral Control (PBC) model as per their R^2 values. The SN model only provides 48.9% from the real lecturer's view and, it is 29% as reported by the PBC model. Even though the accuracy of the SN model is higher than the PBC model, relative to the Attitudes model both of them are unsuccessful. That means the structural equation model derived based on the attitudes is more applicable to real-world scenarios than the other two.

Attitude Model-This study explains the migration intention of university lecturers under the model of the attitude. In the Model, there can be seen the nature of the behavior of attitudes with four exogenous variables, that is Socio-political push factors (SPPH), Socio-political Pull factors (SPPL), Economic push factors (EPH), and Economic pull factors (EPL). Among them, except SPPH all the other two variables show a positive relationship with the migration intention attitudes. However, the positive relationship between the EPH & attitudes and EPL & attitudes is depicted as insignificant as per its P values. This situation is ensured by the other two models as well. The Attitude model was able to read 65.5% of the real migration intention attitude of the university lecturers which was derived based on considering socio-political and economic factors. That means the structural equation model derived based on the attitudes is more applicable to real-world scenarios

Subjective Norms -According to this model, all variables show a positive relationship with Subjective norms relating to migration intention. In addition to that,

the coefficients of SPPH and EPL can be identified as insignificant as per their P values. Because their P values are greater than 0.05. This model only provides 48.9% of the real migration intention of the university lecturers' view based on the adjusted R^2 value.

Perceived Behavioral Control Model -Based on the Perceived behavioral control model, its EPH shows a negative relationship with the dependent variable of Perceived behavioral control, and all other variables show a positive relationship. Here EPH and SSPL coefficients are statistically insignificant in this model. These coefficients' P values are greater than 0.05. This model only provides 29% from the real lecturer's view based on the adjusted R^2 value. The accuracy of the SN model is higher than the PBC model.

4.5 Discussion of Major Findings

Accordingly, the behavior of the dependent variable is studied primarily through four factors namely the Socio-Political Push Factors, Socio-Political Pull Factors, Economic Push Factors, and Economic Pull Factors. Also, the dependent variable; the Migration intention of university lecturers is considered under three aspects. That is, the validity of each hypothesis is tested here through Attitude, Subjective Norms, and Perceived Behavioral Controls for the migration intention of university lecturers. According to the responses received, the final result of the study is as follows.

Checking the Acceptance of Hypothesis Statements

Table 4.7: Checking the Acceptance of all Hypothesis Statements

Variables			P value (α: 0.05)	Remark
EPH	➡	ATT	0.073	Not Supported
EPH	➡	SN	0.02	Supported
EPH	➡	PBC	0.258	Not Supported
SPPH	➡	ATT	0.011	Supported
SPPH	➡	SN	0.496	Not Supported
SPPH	➡	PBC	0.024	Supported
EPL	➡	ATT	0.106	Not Supported
EPL	➡	SN	0.340	Not Supported
EPL	➡	PBC	0.039	Supported
SPPL	➡	ATT	0.000	Supported
SPPL	➡	SN	0.002	Supported
SPPL	➡	PBC	0.239	Not Supported

Source: Developed by author

H1: Economic Push factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka (relationship between economic push factors and the migration intention of university lecturers).

According to the responses received, this is well explained by the P value of 0.020 for the positive relationship between Economic Push factors and migration intention university lecturers' related subjective norms. Also, the standard deviation of this

relation is 0.123. Furthermore, this study explains that the positive relationship between the economic push factors and the migration intention of the university lecturers is not statistically significant in terms of attitudes.

And also negative relationship between the economic push factors and migration intention of the university lecturers is not statistically significant in terms of the Perceived behavioral control. Accordingly, the P value obtained for the positive relationship between the economic push factors and the migration intention of university lecturers-related attitudes is 0.073, where the standard deviation value is 0.126. The P value obtained for the negative relationship between the economic push factors and the migration intention of university lecturers related to perceived behavioral control is 0.258, where the standard deviation value is 0.152.

Thus job insecurity, real wage decline, and new tax policy are the factors underlying these results. That is, according to these factors, the risk of migration intention of university lecturers in terms of subjective norms is positive, and there is no positive relationship in terms of attitudes and Perceived behavioral control.

H2: Socio-political push factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka (relationship between socio-political push factors and the migration intention of university lecturers).

Based on the responses received, (Table 4.7) SPPH & attitudes and SPPH & perceived behavioral control factors have a clear positive impact on the migration intention of university lecturers.

According to the responses received, a P value of 0.011 has been obtained for the relationship between Socio-Political Push Factors and the university lecturer's migration intention attitude (Table 4.7) and the standard deviation value is 0.109. Accordingly, it has been statistically confirmed that Socio-Political Push Factors have a significant effect on university lecturers' migration attitudes. A similar result has been obtained for the positive relationship between Socio Political Push Factors and migration intention of university lecturers with Perceived Behavioral Controls, where the P value is 0.024. Accordingly, this can be identified as a statistically significant case. This confirms that Socio-Political Push Factors have a significant positive effect on University lecturers' migration intention under Perceived Behavioral Controls.

But the P value obtained for the positive relationship between Socio-Political Push Factors and migration intention of university lecturers' which arises as a result of subjective norms is 0.496. According to statistical theories, this can be identified as a statistically insignificant case and here the standard deviation is 0.116. Accordingly, there is no positive effect of Socio-Political Push Factors on University lecturers' migration intention through subjective norms.

Political instability, corruption, unnecessary political intervention, crime, and violence are the items here the study considered under the Socio-Political Push Factors. Finally, it has cleared that there is some positive influence which has happened by these factors on the migration intention of university lecturers, but it is only in terms of Attitudes and Perceived Behavioral Controls.

H3: Economic Pull factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka (relationship between economic pull factors and the migration intention of university lecturers).

The economic pull factors considered by this study were the new technological advancements, allocation of more funds for research and innovations, and better working environment in foreign countries. This expected a positive relationship between Economic pull factors and university lecturers' migration intention in terms of Perceived Behavioral Control.

According to the responses received, (Table 4.7) the significance of this hypothesis was confirmed through perceived behavioral controls and the corresponding P value was 0.039. However, it is pointed out that there is no positive effect of the considered economic pull factors on the brain drain intention of the university lecturers through attitudes and subjective norms. Accordingly, the P value obtained for the positive relationship between migration intention in terms of the attitudes & Economic Pull Factors is 0.106, and subjective norms & Economic Pull Factors are 0.340. Therefore, these do not support the hypothesis.

H4: Socio-political pull factors have a significantly positive effect on the migration intention of university lecturers in Sri Lanka (relationship between socio-political pull factors and the migration intention of university lecturers).

Ability to ensure a stable future, better living standards, better education standards, social equality, equity, and democracy are the major items that this study has convinced under the Socio-Political Pull Factors. Based on the responses received, these two factors have a clear positive impact on the migration intention of university lecturers.

According to the responses received, (Table 4.7) the significance of this hypothesis was confirmed through attitudes and subjective norms and the corresponding P values were 0.000 and 0.002 respectively. However, the hypothesis was not significant through perceived behavioral control the P value is 0.239.

Here, the components under the planned behavior theory were considered separately to capture the migration intention of the university lecturers for the socio-political push factors and socio-political pull factors. Because in here two terms are supported to the hypothesis.

Accordingly, SPPH factors "P" values of 0.011 and 0.024 have been obtained for the factors of attitudes, and perceived behavioral controls respectively. Also, SPPL factors "P" values of 0.000 and 0.002 have been obtained for the factors of attitudes and subjective norms respectively. All these values are statistically significant. Therefore, there is enough evidence to accept H2 and H4 under the α=0.05 significant level because there is a majority number of terms supporting the hypothesis.

CONCLUSION

The first objective was the examination of the Economic Push factors (EPH) affecting the university lecturers in terms of subjective norms relating to the migration decision of the university lecturers. Secondly, the study of the Socio-Political push factors (SPPH) related to the university lecturer's migration decision has proven its positive impact on the Brain drain in terms of each attitude and perceived behavioral controls. Thirdly, there is a positive impact of Economic Pull factors on the subjective norms relating to their intention. The situation is quite different when exploring the effect of Socio-Political Pull (S) factors on the migration intention of university lecturers in Sri Lanka. These factors have a positive influence on migration intention in terms of their attitudes and subjective norms. In summary, this research has accomplished all four specific objectives by collecting reliable and valid data.

The finding of the study shows the important role played by the socio-political and economic pull and push factors on respondents' intention to migrate. By changing the respondents' current positive attitude, subjective norms, and perceived behavioral control towards the migration to a negative one, their intention to migrate can be significantly lowered.

The existing macro policies are not only ineffective but also insufficient to tackle this Brain drain issue. The current economic situation of the country also has a considerable impact on this problem. The responses of this study further evidence that most of the university lecturers agree with migration intention to another country.

According to the key findings of the research, both Socio-political push and Socio-political pull factors have a higher positive impact to get the migration decision of university lecturers. That means within the country, university lecturers are not getting their expected living standards. Therefore, it is necessary to give attention to the Sri Lankan university lecturer's quality of life. Therefore, even though university lecturers have attitudes opposite to migration, the behavior of the relations may influence it adversely. Then the country should be a favorable place for university lecturers at least their working environment.

According to the responses received, the university lecturers believe that if they migrate abroad, they can have a better safety and security environment compared to Sri Lanka.

In addition to that university lecturers highly rely on the better quality of education their children can receive by migrating to foreign countries. Therefore, considerable attention should be given to the improvement of education quality and opportunity within the country. By properly regulating international schools, it is important to expand their educational opportunities and create opportunities for higher education in world-ranking universities within the country. According to Ramtohul (2016), to stem the brain drain, the improvement of the quality of education is more significant for developing countries. This will probably cause the university lecturers to feel that their children have a better future within the home country, and thus positive attitude towards migration becomes lower.

This study has some limitations. The first and most prominent limitation was the study's failure to assess the university lecturer's actual behavior. Also, this study only considers university lecturers' Brain drain.

This study is based on quantitative analysis and has followed various statistical analyses to generate its key findings. Compared with other scholars, it is clear that there is a lack of qualitative and mixed studies, so the adoption of qualitative and mixed methods is more appropriate and important for future studies.

In this study, only a limited number of items, mainly socio-political and economic factors, were used to study the migration expectation perspective of university lecturers. However, if the number of these items or factors were obtained from a wider range, this study could be conducted more widely, with the ability to obtain accurate results. Therefore, future studies would probably go beyond these factors and cover a wider range.

The probability sampling method of stratified random sampling has been adopted in this study for Sabaragamuwa University lecturer's faculty-wise. Here only the responses of 117 university lecturers are based on it, and it will be more effective if it is conducted in a future study based on a larger number of respondents.

In this study, only the willingness of university lecturers to go abroad was asked, and was not so asked about which type of countries they prefer to migrate for instance liberal capitalist, liberal socialist, etc. Therefore, there was no opportunity to study broader ideologies such as cognitive ideological dissonance and so on. This points the way for future studies and thus has the potential to explore new knowledge.

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DETERMINANTS OF GENDER-BASED OCCUPATIONAL SEGREGATION OF EMPLOYED INDIVIDUALS IN SRI LANKA

ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM
VOLUME 03 ISSUE 02
December 2024
sljesim@sab.ac.lk
www.sab.ac.lk/sljesim

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Received: *16 October 2024* ***Revised:*** *07 November 2024* ***Accepted:*** *26 December 2024*

How to Cite this Article: *Madushika, P.G.H and Samaraweera, G.R.S.R.C. (2024) determinants of gender-based occupational segregation of employed individuals in Sri Lanka, Journal of Economics, Statistics and Information Management,* 3(2), 33 - 53

Abstract

Occupational Segregation by gender refers to the under-representation or over-representation of one gender across different types of occupations. These kinds of labour market discriminations can harm individual earning potentials and a smooth labour market function. The main objective of the study is to identify the factors affecting the determination of Occupational Segregation among different genders. It studies how the age of individuals, ethnic diversity, different marital conditions; levels of education attained, vocational training gained, industrial and residential sectors of individuals determine their occupational segregation. The study uses the Labour Force Survey data of 2022 to gather data about 29,170 individuals and their occupational status. The Multinomial Logit Regression is used to measure the influence of each variable to determine the unequal representation across various occupations. The findings show that non-Sinhalese individuals, person who are in rural and estate sectors, belongings to the ever-married category under marital status, individuals who have attained tertiary education and vocational training, as well as people in the agricultural sector have a greater tendency to determine occupational segregation by gender, whereas age does not affect the determination of gender-based occupational segregation. Accordingly, it shows how individuals in different status under all selected variables determine their employability in 'jobs with male dominance' and 'jobs with female dominance' with reference to 'gender-mixed/non-segregated occupations'. The study suggests promoting gender equality in most occupations in the labour market of Sri Lanka by ensuring job security among the different genders.

keywords: Employed individuals, Gender based occupational segregation, Gender equality, Labour market discrimination

INTRODUCTION

Occupational Segregation by gender refers to the asymmetric gender distribution in specific types of jobs or different types of occupations. It is the most pervasive phenomenon in any labour market around the world. It is a widespread incident in every region, all economic development levels, all political systems, social and cultural environments (Anker, 1997). Workplace discrimination among different genders can result in unequal and less opportunities or lower pay for certain genders in different employment sectors, leading to gender based occupational segregation. Batool (2020) posited that discrimination is a social phenomenon and it makes a distinction toward people due to factors such as gender, ethnicity, religion, sexual orientation, and race.

Laborers are the key economic resources who contribute to the expansion of the economy. It is important to assess the efficiency and equity of labour market operations. Occupational discrimination is a problem that has existed more or less in any labour market since the distant past. Separation of men and women into different occupations (Anker et al., 2003), or unequal distribution of female and male workers across and within different jobs is the key reason for gender gaps in job quality, wage, and career trajectories. Segregation can be horizontal, concentrating on different sectors, industries, occupations; types of products and business sizes; as well as it can be vertical with disparities in different positions and different statuses, managerial responsibilities or disparities in promotion (Das & Kotikula, 2019).

Anker (1998) has described occupational segregation by sex as a longer-lasting aspect of labour markets around the world. Gunewardena (2006) & Gunewardena et al. (2008) explored the gender wage gaps as an impact of occupational segregation in the Sri Lankan context and still there are a lot of unsolved issues such as the high unemployment rate among women. Horizontal and vertical gender discrimination such as low income and glass ceiling and the minimal opportunities for advancement occupations (Asian Development Bank & Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 2015) can be seen in the Sri Lankan labour market. Although gender-based occupational segregation patterns vary from country to country, the issue of employment discrimination is a problem common to all countries of the world. Segregation appears in both developed and developing countries. Achieving higher growth or greater market integration does not imply the elimination of the county's gender-based employment segregation (Das & Kotikula, 2019).

It is necessary to examine the vertical and horizontal dimensions of segregation to understand how far this occupational segregation entails gender inequality (Jarman et al., 2012). The phenomena or the overall segregation is the result of two components, such as the horizontal and vertical segregation representing differences and inequalities separately (Blackburn et al., 2001).

According to the Department of Census and Statistics (2022), the 5,373,965 male-employed populations and the 2,773,766 female-employed populations highlight the striking features of underrepresentation of one party (female) and overrepresentation of another party (males) in Sri Lanka. A total of 4.9% of 'Managers', 'Senior Officials

and ‘Legislators’ are males compared to 2.7% of females; 17.8% of ‘Skilled Agricultural’, ‘Forestry’ and ‘Fishery workers are males compared to 12.8% of females,15.5% of ‘Craft and Related Trades workers’ are males compared to 12.2% of females; 11.6% of ‘Plant and Machine Operators’ and ‘Assemblers’ are male persons compared to 5.9% of females and 0.8% of ‘Armed Forces’ occupations are dominated by males with only 0.2% of females, while the occupations such as ‘Professionals’, ‘Technical & Associate Professionals’, ‘Clerks and Clerical support workers’ and ‘Elementary’ are dominated by females.

Studying the phenomena of gender-based occupational segregation focuses on how women's participation in male-dominated occupations and men's participation in female-dominated occupations have changed. Women are affected by problems such as ‘discrimination’, ‘harassment’, ‘glass ceilings’ and also ‘exclusion from informal networks’ when they move into male-dominated professions (Jacobs, 1993). Labour market segregation is an important factor that leads to women’s inequality in the labour market. The transformation and continuation of the asymmetrical gender relation in the family to the labour market can be seen through the labor market segregation by sex (Kreimer, 2004). Compared to women in other developing countries, Sri Lankan women have achieved relatively high status in terms of ‘civil rights’, ‘education’ and ‘employment’, but still women face discrimination in their careers (Harshani & Abhayaratne, n.d.).

LITRATURE REVIEW

2.1 Theoretical Literature

Neo-classical and human capital theories emphasize women’s lower level of human capital that they bring into the labour market. Education and experience in the labour market can affect women’s choice of occupation. Further, it stresses that due to the lower productivity (low education and labour market experience), they are receiving a lower pay, and not choosing or being offered work in certain occupations by emphasising that education and experience are important factors in determining occupational segregation (Anker, 1997, 1998).

Doeringer and Piore (2020) identified the two sectors in the labour market as the primary sector and secondary sector, better known as the dual labour market theory. Primary sector jobs have salient characteristics such as higher wages, good working environment, job stability, job security, equity and due process in the administration of work rules, and opportunities for advancement while secondary sector jobs have low pay, poor working conditions, harsh and arbitrary discipline and less chance to advance (Piore, 2018). These two sectors in the labour market function independently. The primary sector has some market power whereas the secondary sector faces huge competition. One segment of the labour market consists of female occupations and another segment consists of male occupations (Anker, 1997).

Based on the paradigm for the statistical discrimination theory, employers try to maximise their firms' profit by considering sex and skin colour as proxies when making decisions associated with recruitment (Phelps, 1972). It naturally falls into an imperfectly operating labour market due to the lack of information about the

characteristics of jobs and workers. Edmund Phelps suggests that employers think that employing women is more dangerous than men because they think women do not take their careers seriously, and they expect women to quit their jobs when they have children. Employers believe that women are less productive than men; in such a situation statistical discrimination against women may arise (Grybaitė, 2006). Due to the differences in productivity, experience and skills, there are distinct worker groups and these lead to high search costs related to promotion and recruitment. It is argued that in such situations it is rational for employers to discriminate against distinct groups of workers (especially women) to choose suitable workers. Further, it explains how one sex (male) can entirely dominate certain occupations even though women have greater education and abilities than men (Anker, 1997).

Barbara Bergmann, who developed the crowding model, says that women are crowded into a limited number of occupations and it leads to occupational segregation by sex and this kind of surplus supply of female labour can result in lower wages in certain occupations (Grybaitė, 2006). Occupational crowding measures the degree of underrepresentation and overrepresentation of subaltern groups in a job. The expected level of representation of a group is based on the level of education attained by most of the occupation's workers with a share of the group (Holder, 2018).

Gender essentialism refers to the distribution of gender roles and work task allocation (women for specialised tasks such as child rearing and domestic work). It explains that there are properties (biologically constructed or socially constructed) essential to women and to be a woman, any woman must fulfill those properties (Joyce & Walker, 2015). Gender essentialism is the reason for representing males in female-dominated occupations. In producing and reproducing occupational sex segregation, gender essentialism plays a significant role and this role can be considered as a critical process in reducing occupational sex segregation (Moskos, 2019).

The social role theory highlights social roles and interweaves role-related processes. It represents the perceptions of women's and men's social roles in the society in which they live. Due to the physical sex differences such as faster, larger and greater upper-body strength among men as well as gestating and nursing children among women, they were distributed into different social roles. In their day-to-day lives, people carry out these specialised gender roles as parents or employees (Eagly & Wood, 2012). Women require domestic, communal or subordinate behaviours to occupy than men, whereas men require resource acquisition, agentic or dominant behaviours to occupy than women. These gender roles promote the activities carried out by each sex adult. Women's roles such as caring and nurturing facilitate their caring and nurturing activities within the family and female-dominated occupations such as teacher, nurse and social worker (Eagly et al., 2000; Koenig & Eagly, 2014).

2.2 Empirical Literature

Irfan et al. (2013) analysed the gender segregation in occupations and its determinants in the Pakistan labour force concerning nine occupations; 'manager', 'professional', 'technical', 'clerks', 'service', 'skilled', 'craft', 'plant operator', 'elementary and armed forces' to check the index of segregation with training and education, age, gender and

province. Results revealed that gender segregation in every occupation, especially in the 'manager', 'skilled' and 'elementary' occupations. Further, it shows segregation decreased when the age of the respondents increased and due to the occupational choice, gender-based segregation increased as education and training increased.

Smyth & Steinmetz (2015) articulated the link between vocational education and training (VET) with gender-based occupational segregation by revealing the protective role of VET in reducing non-employment levels. Also, Hillmert (2015) studies the international variations and the role of education and training in shaping gender differences in career prospects in the labour market. It analyses the characteristics of education and training systems and occupational expectations which are specified by gender among secondary school students and occupational segregation in the labour market. Results show that there is a close relationship between features of the national vocational education and training (VET) systems and occupational gender segregation, while a weak relationship between national VET systems and gender segregation in occupational expectations. Torre (2019) examines structural and individual factors of gender segregation in blue-collar jobs and the results revealed that female representation in male blue-collar jobs does not differ with VET levels because VET systems have not integrated male occupations well. Further, it reveals that understanding the social mechanism behind high levels of segregation in blue-collar occupations requires detailed data regarding VET domains, sex composition in parental occupations, attitudes about gender roles and social networks in the workplace by showing existing social mechanisms that lead to having horizontal segregation in blue-collar sectors. It emphasises that policies should be created to address social mechanisms at both individual and structural levels.

Cotter et al. (2003) investigated gender segregation in occupations across different races; African Americans, whites, Hispanics and Asians. Findings show that both segregation effects (in female-dominate occupations and labour markets) contribute to earning differentials (especially among African American women) across racial/ethnic groups broadly. Mintz & Krymkowski (2010) study the differences in occupations entered by members of different racial/ethnic-feminine groups. Their findings revealed that white men and white women are gaining more advantages within their jobs. It is important to identify the patterns of each ethnic group in shaping occupational segregation because discrimination and bias based on ethnicity can harm the smooth functioning of the labour market.

Residential sectors such as urban and rural landscapes play an important role in accessing occupations, especially for women in the workforce. Parks (2004) studied the labour market segregation for immigrant women by considering residential segregation as an important determinant and it finds that in sustaining segregation in the labour market, residential segregation plays a vital role among immigrants and is a mediating factor in emerging gender. Burnell (1997) considered the role of urban spatial structure in shaping occupational segregation and argued the urban employment and residential locations of neoclassical economic models. Results show that occupational segregation is one of the manifestations of spatial limitations.

The job industry is a specific sector or field such as 'manufacturing', 'healthcare', 'education', 'technology', 'construction', 'transportation', etc. Each industry has its own unique set of roles and occupations, and the choice of selecting that particular industry between males and females may differ. Struthers (2016) studied the barriers that limit women's entry into male-dominated industries and the findings show that female participation in male-dominated industries such as 'automotive and engineering', 'construction', 'electrical technology' and 'telecommunications' in Australia is low. Minnotte et al. (2009) studied how industry and sex segregation in occupations are associated with the flexible policies and perspectives of the occupational consequences of using such policies. According to the findings, the adoption of flexible scheduling is predicted by an interaction between gender and the sex composition of the industry and organizational family support.

When it comes to gender-based occupational segregation, it is important to identify the individual's marital status in explaining labour market participation, work-family balance and occupational choice that influence labour market outcomes. Peterson (1989) has studied both individualist and structural explanations of the effects of marital and family status on women's wages and the findings suggest that the effect of family status is stronger when they are going to work in mixed and male-dominated occupations in large firms, rather than female-dominated occupations in small firms. Also, Philliber & Hiller (1983) discussed the challenges that spouses face in attaining occupations, changes in marriage, and the wife's work experience. Further, it was proved by Hook & Pettit (2015) by examining the effect of motherhood on occupational segregation. The results revealed that childless women have more chances to stay in the labour market than mothers who work in both over- represented and under-represented occupations.

2.3 Methodological Literature

Most of the occupational segregation studies have been done with the survey data as a secondary data collection method. Nationally representative samples can be seen with the survey data. There, Carazo (2020) and Elliott & Lindley (2008) used stratified sampling techniques to obtain samples from surveys. Apart from the secondary data collection method, Yunisvita & Muhyiddin (2020) used primary data to gather information from households concerning the occupational segregation in four rural areas in the South Sumatra province and Yogev (1981) gathered information from 106 faculty women at the Northwestern University about their marital relationship through the questionnaire to study the occupational influence on Marital Happiness, Marital Dynamics, Housework and Childcare among Professional Women. Tangchonlatip et al. (2006); Glass (1990); Petit (2007); and Huffman & Cohen (2004) have used a small number of samples relative to the other studies.

When it comes to the use of the index as their measurement tool, the index of dissimilarity (Id) is an important statistical measurement used to assess the segregation level between two distinct groups. Carazo (2020); Yunisvita & Muhyiddin (2020) have used the dissimilarity index as their main analysing tool. Sparreboom (2018) measured occupational segregation levels between full-time and part-time work groups using ID and tried to identify some determinants of this

segregation. Further, the regression analysis was used to identify determinants of segregation by hours of work. In addition, Sookram & Strobl (2009) focused on the role of educational choice in determining occupational gender segregation in Trinidad and Tobago by using the Trinidad and Tobago labour force survey data over the period 1991-2004 and used the Bloomberg gender equality index (BG index) to measure gender equality and diversity with the dissimilarity index.

Agrawal & Agrawal (2015) analysed the patterns in occupational segregation for the rural and urban sectors using the Index of Dissimilarity and income inequalities by using the Gini and square root indices separately. Further, Sharma (2018) used the Dissimilarity Index (ID), Karmel and MacLachlan the IP index and Moir and Selby-Smith the WE index separately to analyse the gender occupational segregation for core and marginal workers in the rural and urban sectors in India. Here, especially, the IP and WE indices help to quantify income equalities across different groups; employee groups (core and marginal workers) and regional groups (rural and urban sectors). Guinea-Martín et al. (2015) tested occupational segregation by taking gender groups and ethnicity groups jointly by using a multigroup segregation index.

Petit (2007) tested the discrimination in accessing job interviews (hiring discrimination) by using the correspondence testing methodology (one of the famous methods for measuring discrimination between different groups) and considering the three pairs of candidates who are aged 25 (single, childless), 37 (single, childless) and 37 (married with three children) with the primary data collection in the French financial sector. Khan et al. (2023) analysed the spatial segregation patterns of local regions by using the local segregation method in Pakistan by taking the Labour force survey data from 2013 to 2018 and a sample of civilians who are in the 15-65 age limit and working full-time in different sectors. Stier & Yaish (2014) have examined occupational segregation and gender inequalities in employment quality with the 17,500 samples obtained from the internationally collaborative survey. Employment quality (dependent variable) and its 6 dimensions are measured by using factor analysis which helps to explain the correlation pattern among those dimensions and multivariate analyses is used to measure these variables simultaneously.

The usage of econometric models can be seen in the following studies. Glass (1990); Alonso-Villar et al. (2012); Sparreboom (2018) used regression analyses for their studies as a basic analysing tool. Tam (1997) says that all the sex composition effects among women and men can be explained through the specialised training they gain across occupations and industries, demographics and human capital variables by using the ordinary least square method. Elliott & Lindley (2008) show the differences in attaining occupations, earnings and occupational effects among non-white natives and non-white migrants with the pooled-cross section data of the National Statistics Quarterly Labour Force Survey and Multinomial Logit model, Ordinary least squares, Heckman method being used as analysing techniques.

METHODS

3.1 Research Method and Data Collection

The study follows the 'quantitative approach' because variables can be measured numerically. It is a kind of systematic empirical investigation and things related to the phenomena can be expressed in terms of quantity. This study uses ‘secondary data’ and utilises the existing datasets and records of the Department of Census and Statistics of Sri Lanka (Labour Force Survey Data of 2022) to conduct the quantitative research.

3.2 Data and Data transformation

This study is based on the data available from the Sri Lanka Labour Force Survey conducted by the Department of Census and Statistics in 2022. This survey includes 78,275 individual data. Then, 31,150 of the inactive population were dropped. From that the remaining number, 16,503 observations of people who are below the age of 15 were dropped because only the working-age population was considered. Then, 19 observations of people who have attained special education were dropped for calculation purposes. The number of working experiences is calculated using age and years of education following Samaraweera (2023). Since the study only considers the employed population, 1,433 observations of unemployed people were dropped. The sample covered 29,170 individual observations of employed people for the multinomial Logit analyses.

3.3 Occupational categorization

Concerning the 10 main occupational groups, the employees engaged in different occupations (4-digit occupational codes based on SLSCO 08) in Sri Lanka have been classified according to their sex composition in each occupation, which is the method previously used by Bächmann (2022); Anker (1998); Kraus and Yonay (2000); Lidwall (2021); Klimova (2012) and other scholars, to divide the occupational categories in their studies. In this study, if more than 60% of the total representation in each occupation is represented by men, then those occupations are identified as ‘male-dominated occupations’, and if there is more than 60% female representation, then those are identified as ‘female-dominated occupations’, and if the representation of one party is between 40%-60% in an occupation, these are also classified as ‘gender-integrated occupations’. Accordingly, out of the 29,170 individuals, 19,955 employees work in male-dominated occupations, 6,024 in female-dominated occupations and 3,191 in gender-integrated occupations.

3.4 Econometric model and model equations

Regression models are important analysing tools which explore the relationship between a dependent variable and one or more independent variables. It can be varied with particular research objectives and the type of variables used for the analysis. In this study, the main objective is to ‘Study the determinants of Gender-based Occupational segregation among employed individuals in Sri Lanka (Concerning

Level of Education, Vocational Training, Age, Ethnicity, Residential Sector, Industrial Sector and marital status)'.

This study uses the 'Multinomial Logistic Regression Model' to achieve the Objective of the research, because the dependent variable of the study has three categorical outcomes.

Yij = Gender-based occupational Segregation (j=1, 2 and 3)

Y=0 Gender-integrated Occupations

Y=1 Male-dominated Occupations

Y=2 Female-dominated Occupations

$$\boldsymbol{\pi ij} = \frac{\boldsymbol{e^{\alpha j+\beta jxi}}}{\boldsymbol{\sum_{j=1}^{3} e^{\alpha j+\beta jxi}}} \quad (\boldsymbol{eq.01})$$

Where;

i denotes individual worker and ***j*** denotes the 3 alternatives individual i chooses

β values represent the coefficients which show how each determinant influences the odds of belonging to each occupation category.

Xi represents the independent variables

$$\boldsymbol{\pi ij = Pr(Yij = 1)} \quad (\boldsymbol{eq.02})$$

Where.

πij denotes the probabilities that individual i chooses 0,1 or 2 respectively, that is alternatives of gender-integrated occupations, male-dominated occupations and female-dominated occupations respectively.

$$\boldsymbol{ln\left(\frac{\pi i1}{\pi i0}\right) = \alpha 1 + \beta 1 xi} \quad (\boldsymbol{eq.03})$$

$$\boldsymbol{ln\left(\frac{\pi i2}{\pi i0}\right) = \alpha 2 + \beta 2 xi} \quad (\boldsymbol{eq.04})$$

$$\boldsymbol{\pi io = 1 - \pi i1 - \pi i2} \quad (\boldsymbol{eq.05})$$

Where.

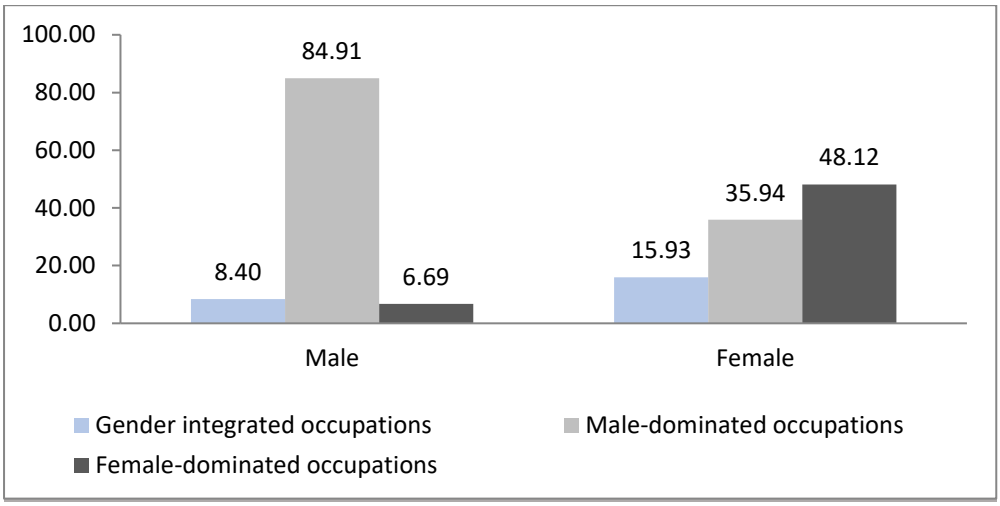
πi0= Probability of doing gender-integrated occupations
πi1= Probability of doing male-dominated occupations
πi2= Probability of doing female-dominated occupations

As an extension of the binary logistic regression, the multinomial logistic regression allows more than two categories of outcome variables (Kwak & Clayton-Matthews, 2002). It helps to predict the probability of being in each occupation type based on independent variables such as Level of Education, Vocational Training, Age, Ethnicity, Residential Sector, Industrial Sector and marital status. That means, it shows how each determinant influences the odds of belonging to each segregated occupation (male-dominated occupations and female-dominated occupations) with reference to the base category (gender-integrated occupations). The STATA software is used with the 'mlogit' command to obtain the output result.

RESULTS & DISCUSSION

This study seeks the factors associated with gender based occupation segregation in Sri Lanka. The 4 digit Occupations which are classified according to the Sri Lanka Standard Classification of Occupation (SLSCO 08) in the Sri Lankan Labour Force Survey-2022 are used to categorise three occupational categories of male-dominated occupations, female-dominated occupations and gender integrated (non-segregated) occupations based on the previous research studies to identify the gender-based occupational segregation.

Figure 1: Gender composition of three occupational categories



Source: Developed by Author using LFS, 2022

Figure 1 shows the gender composition of three occupational categories where more than 60% of the males are represented in male-dominated occupations but only 6.69% of males are in female-dominated occupations. It implies that men are still not interested in working in female-dominated occupations. Further, it confirms the male dominance in many occupations. There are 48.12% of females in female-dominated occupations whereas 35.94% of females are in male-dominated occupations, which is higher than the males who are in female-dominated occupations. It implies that there is a tendency for women's participation in male-dominated occupations to increase. A total of 8.40% and 15.93% of males and females are represented in gender-integrated occupations respectively.

Table 1 presents the descriptive statistics of selected variables for the study for three occupational segregation (for male, female and gender integrated occupations separately). There are differences in descriptive statistics for the three categories.

Table 1: Descriptive Statistics for the variables of Multinomial Logit Regression

Total observations per one occupational category	**Male-dominated Occupations**		
	19,955		
Variables	**Obs.**	**Mean/Proportion**	**Std.Dev.**
Age	19,955	45.0042	0.0975
Being a non-Sinhalese(d)	5,412	0.2712	0.0031
Being never married(d)	3,350	0.1679	0.0026
Being urban(d)	2,887	0.1447	0.0025
Being in an Estate(d)	775	0.0388	0.0014
Secondary Education(d)	12,615	0.6322	0.0034
Tertiary Education(d)	4,459	0.2235	0.0029
Have Training(d)	1,416	0.0710	0.0018
Being in a manufacturing sector(d)	4,742	0.2376	0.0030
Being in a service sector(d)	8,601	0.4310	0.0035
Total observations per one occupational category	**Gender-integrated occupations**		
	3,191		
Variables	**Obs.**	**Mean/Proportion**	**Std.Dev.**
Age	3,191	42.2285	0.2468
Being a non-Sinhalese(d)	773	0.2422	0.0076
Being never married(d)	761	0.2385	0.0075
Being urban(d)	633	0.1984	0.0071
Being in an Estate(d)	157	0.0492	0.0038
Secondary Education(d)	1,515	0.4748	0.0088
Tertiary Education(d)	1,376	0.4312	0.0088
Have Training(d)	364	0.1141	0.0056
Being in the manufacturing sector(d)	978	0.3065	0.0082
Being in a service sector(d)	1,804	0.5653	0.0088
Total observations per one occupational category	**Female-dominated occupations**		
	6,024		
Variables	**Obs.**	**Mean/Proportion**	**Std.Dev.**
Age	6,024	42.7522	0.1682
Being a non-Sinhalese(d)	1,748	0.2902	0.0058
Being never married(d)	1,059	0.1758	0.0049
Being urban(d)	996	0.1653	0.0048
Being in an Estate(d)	481	0.0798	0.0035

Secondary Education(d)	2,544	0.4223	0.0064
Tertiary Education(d)	2,858	0.4744	0.0064
Have Training(d)	764	0.1268	0.0043
Being in the manufacturing sector(d)	1,913	0.3176	0.0060
Being in a service sector(d)	3,038	0.5043	0.0064

Notes: (d) denotes dummy variables; proportions were calculated for all dummy variables. Mean/proportion represents the simple average of values in a given distribution.

*Standard deviation shows the way values are clustered around the mean***.**

Source: Developed by author, 2024

Table 2: Results of Multinomial Logistic Regression

Variables	**1**	**Male-dominated Occupations**	
	Coef. of Mlogit	**P>|z|**	**Coef. Of Marginal effect**
Age (continuous)	-0.0003	0.861	0.0002
Ethnicity			
Sinhalese (Ref.)			
Non-Sinhalese(d)	0.1599	0.001	-0.0013
Marital Status			
Ever married (Ref.)			
Never Married(d)	-0.2081	0.000	0.0180
Residential Sector			
Rural (Ref.)			
Urban(d)	-0.1372	0.007	-0.0006
Estate(d)	-1.0032	0.000	-0.2349
Level of Education			
No schooling and primary			
Education (Ref.)			
Secondary Education(d)	0.1120	0.114	0.0265
Tertiary Education(d)	-0.6920	0.000	-0.1835
Vocational Training			
No Vocational Training (Ref.)	-0.0131	0.843	-0.0247
Have Vocational Training(d)			
Industrial Sector			
Agricultural Sector (Ref.)			
Manufacturing Sector(d)	-1.1697	0.000	-0.2024
Services Sector(d)	-0.9982	0.000	-0.1355
Constant	2.9063	0.000	
Variables	**2**	**Female-dominated Occupations**	
	Coef. of Mlogit	**P>|z|**	**Coef. Of Marginal effect**
Age (continuous)	-0.0019	0.346	-0.0003
Ethnicity			
Sinhalese (Ref.)			
Non-Sinhalese(d)	0.2571	0.000	0.0191
Marital Status			

Ever married (Ref.)			
Never Married(d)	-0.4615	0.000	-0.0444
Residential Sector			
Rural (Ref.)			
Urban(d)	-0.2068	0.000	-0.0143
Estate(d)	0.2922	0.006	0.1730
Level of Education			
No schooling and primary Education (Ref.)			
Secondary Education(d)	-0.0343	0.675	-0.0196
Tertiary Education(d)	0.3695	0.000	0.1452
Vocational Training			
No Vocational Training (Ref.)			
Have Vocational Training(d)	0.1732	0.015	0.0283
Industrial Sector			
Agricultural Sector (Ref.)			
Manufacturing Sector(d)	-0.2187	0.003	0.1158
Services Sector(d)	-0.4785	0.000	0.0539
Constant	0.9150	0.000	
LR chi2(20) = 2840.96			
Prob > chi2 = 0.0000			
Pseudo R2 = 0.0588			

Notes: n=29,170
Source: Developed by the author, 2024

Base category: Employee being Sinhalese ever married and belongs to the rural sector and has No schooling and primary education, No Vocational training and not an employee of the agricultural sector.

The estimated Likelihood Ratio (LR) is highly statistically significant because its p-value is practically zero. This suggests that the overall model gives a good fit, which means when explaining the relationship between independent variables and dependent variables (occupational segregation) with multiple categories, the model performs well.

The log odds of a non-Sinhalese worker being in a male-dominated occupation and female-dominated occupation are higher than the gender-integrated occupation. The non-Sinhalese group in this study includes the ethnic groups of Tamils, Moors, Burghers and Malays. Apart from the majority Sinhalese people, these ethnic groups are considered as minority ethnic groups. The results suggest that ethnic minorities are in segregated occupations (especially in female-dominated occupations that have low incomes and low status). Calzavara et al. (1981) also explained the way the minority ethnic groups are drawn to segregated jobs with low income and low status compared to the other majority ethnic groups.

Regarding the effect of marital status on occupational segregation, according to the above points, a never-married worker reduces the log odds of having a male-dominated occupation and female-dominated occupation over a gender-integrated occupation. It implies that ‘ever-married’ workers occupy gender-segregated occupations. The ‘ever married’ group in this study includes the people who are

married, widowed, divorced and separated. Both ever-married men and women tend to have segregated jobs because they have some additional responsibilities aligned with their families. They have to earn more than before to bear the family expenses.

Married men act as the main breadwinners as well as the primary earners of their families. With that, they tend to work in male-dominated occupations with extra working hours and extra earnings. Female spouses also try to earn as secondary earners of their families with the current economic situation. Even if they are divorced, separated or widowed, they can have children and they have to spend time with them (especially for women) like married women. With that, they tend to work in female-dominated occupations with flexible work schedules. So they move to traditional female jobs. Proving it further, Philliber & Hiller (1983) explained the positive relationship between being a married woman and having a traditional female-type job. It implies that married women are more likely to go to a typical female occupation with a low income. In this way, Eagly & Wood (2012) explained through the social role theory that men and women have separate gender roles in their daily lives as parents and employees. According to those gender roles, the occupations they are involved in will change.

An urban employee decreases the logarithmic chance of doing a male-dominated occupation and female-dominated occupation over a gender-integrated occupation with reference to the base category as shown in Table 02. This means that an urban sector worker is more likely to go to a gender-integrated job than a gender-segregated job. Workers in the urban sector (especially women) do not have to accommodate flexible work schedules like women in the rural sector. In addition, an employee who is in the estate sector decreases the logarithmic chance of doing a male-dominated occupation while increasing the logarithmic chance of doing a female-dominated occupation over a gender-integrated occupation. In Sri Lanka, tea plucking is one of the female-dominated jobs in the estate sector. Tea plucking is the single-most important income activity in the plantation sector and 90% of the females are tea pluckers, whereas men in the estate sector do the maintenance jobs (Selvaratnam, 2000).

In determining occupational segregation, the level of education plays an important role. Employees who have tertiary education decrease the logarithmic chance of doing a male-dominated job with reference to ‘no schooling’ and ‘primary education’. However, employees who have tertiary education increase the logarithmic chance of doing a female-dominated job with reference to the base category and holding all other variables constant, which means if tertiary education increases by 1%, the probability of having a male-dominated occupation decreases by about 18.35% and having female-dominated occupation increases by about 14.52%. As education increases, segregation in male-dominated occupations decreases, and segregation in female-dominated occupations increases. In the Sri Lankan context, a large number of workers in professions such as nurses, midwives and the teaching professions belong to the female-dominated category and those professions require higher educational qualifications. Therefore, it is notable that women with higher educational qualifications, compared to those with lower levels of education, have a

greater impact on occupational segregation when choosing such jobs. Also, with higher female education in developing countries, sectoral segregation is high, especially in commercial or certain service sectors (especially in health, education and government services) (Borrowman & Klasen, 2019).

Table 02 points that an employee who has vocational training increases the log of odds of doing a female-dominated occupation over a non-segregated occupation reference to the base category, holding all other variables constant, which means if vocational training increases by 1%, the probability of having female-dominated occupation increases by about 2.83%. This implies the positive relationship between vocational training and occupational segregation. Irfan et al. (2013) further confirm it by showing the positive relationship between training and occupational segregation by analysing the determinants of occupational segregation. Female-dominated jobs such as 'beauticians', 'tailors', 'dressmakers', 'furriers', 'hatters' and 'early childcare' workers require at least one year of vocational training. As the number of people entering these jobs increases, there is a greater tendency for occupational segregation to increase.

In explaining the effect of the industrial sectors on occupational segregation, the results of Table 02 show that the manufacturing sector workers decrease the log of odds of doing a male-dominated occupation and female-dominated occupation over a non-segregated occupation. It implies that many people who work in the manufacturing sector prefer to work in gender-integrated occupations rather than segregated occupations. 'Production Clerks', 'Handicraft Workers in Textile, Leather, and Related Materials', 'Weaving and Knitting Machine Operators', 'Packing, Bottling and Labelling Machine Operators' are some of the examples of the manufacturing sector jobs and it doesn't seem to be a high male representation or high female representation. Normal repetitive daily tasks (less risk) like packaging, operating specific machines etc. are some of the characteristics of these kinds of manufacturing sector jobs.

Service sector workers decrease the logarithmic chance of doing a male-dominated occupation and female-dominated occupation over a non-segregated occupation with reference to the base category, holding all other variables constant. With the modernisation of today's world, the number of jobs in the services sector is increasing more than in the agricultural sector and the manufacturing sector. Therefore, both men and women are applying for these jobs. In Sri Lanka, there is no large gender gap between the male and female workers who work as 'Social Work and Counselling' 'Professionals', 'Insurance Representatives', 'Waiters', 'Cleaners' and 'Helpers in Offices, Hotels, and Other Establishments' in the services sector. On the other hand, the results suggest that when comparing the manufacturing sector and the service sector with the agricultural sector, it is clear that the workers in the agricultural sector have a greater tendency to go to a gender-segregated (especially male-dominated) job. 'Crop Farm Labourers', 'Garden and Horticultural labourers', 'Fishery and Aquaculture labourers', 'Field Crop Vegetable Growers', 'Tree and Shrub Crop Growers' 'Gardeners, Horticultural and Nursery Growers' are heavily male-dominated jobs in the agricultural sector in Sri Lanka.

CONCLUSION

The study concludes that gender-based occupational segregation is significantly affected by ethnicity, residential sector, marital status, level of education, vocational training and industrial sector, except the age of individuals, which means occupational segregation is positively and negatively affected by these factors by representing positive and negative coefficients less than 0.05 *p*-values. It emphasises the significant roles of each factor in explaining the patterns of gender-based occupational segregation. Age is insignificant with negative coefficients which are higher than 0.05 *p*-values.

Employees who represent minority ethnic groups are more likely to work in female-dominated occupations with low income and low social status. Especially women who represent the minority ethnic groups are discriminated against in choosing occupations other than men. Also, employees who belong to the group of "ever married" have a significant influence on determining gender-based occupational segregation relative to the "never married" workers. Especially, married men tend to work in male-dominated occupations with higher earnings and long working hours since they have to adapt to their expensive family lifestyle. Married women and other workers who represent widowed, separated and divorced status and who have children find traditional female-type occupations since they have to align with their children's responsibilities and the need to balance work life and housework. Married women and other widowed, separated and divorced women who have children try to mitigate negative spillover from work to family.

Despite having a high level of education and vocational training, many women prefer to work in female-dominated occupations with low incomes. It can be identified as a major reason for having greater gender-based occupational segregation in the labour market. There is a significant effect on the gender-based occupational segregation between the people who are in the estate sector and the rural sector. Especially in the estate sector the women representing female-dominated occupations, have limited access to many infrastructure facilities, with that they tend to continuously engage in typical female jobs with low income and low status. Also, the ease of reaching the workplace (time) and the number of hours they can work (especially for women) cause a greater impact on the gender-based occupational segregation of workers in the rural sector. However, estate sector workers are more likely to be engaged in female-dominated occupations (ex: tea plucking) that have lower social status, lower wages and longer working hours.

In addition, compared to the agricultural sector, it appears that there is no significant effect on gender-based occupational segregation from the manufacturing sector and the service sector. Today, with the modernisation of many economic activities, the number of jobs in the manufacturing and services sectors has increased; accordingly, people contribute to those industrial sectors without any special gender disparity.

Accordingly, the main objective of the study was to find the significant impact of ethnicity, residential sector and marital status, level of education, vocational training and industrial sector on gender-based occupational segregation. Individual-level

responsibilities, organisational-level and government-level policies should be implemented to promote gender equality in the labour market.

ACKNOWLEDGMENT

Authors wish to acknowledge Department of Census and Statistics in Sri Lanka for the provision of micro level secondary data of Sri Lanka Labour Force Survey (2022) for this study.

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QUARTERLY TRENDS IN SRI LANKAN UNEMPLOYMENT: A GENDER AND SECTORAL ANALYSIS

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ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM
VOLUME 03 ISSUE 02
December 2024
sljesim@sab.ac.lk
www.sab.ac.lk/sljesim

Received: *26 October 2024* ***Revised:*** *05 November 2024* ***Accepted:*** *26 December 2024*

How to Cite this Article: *Muthumalki, H.D., Wijesekara, N.M. and Chandani Wijebandara W.A. (2024). Quarterly trends in Sri Lankan unemployment: a gender and sectoral analysis, Sri Lanka Journal of Economics, Statistics, and Information Management*, 3(2), 54-72

Abstract

The unemployment rate serves as a critical indicator of labour market conditions, reflecting the balance between job supply and demand. This study investigates the quarterly variations in Sri Lanka's unemployment rate from 1990 to 2004 and from 2006 to 2022, focussing on gender and sector-specific trends. Using time series analysis techniques, including the ARIMA (1,1,1) model, the research identifies significant declines in unemployment over both periods and forecasts future rates for 2023 and 2024. The model selection was guided by the Akaike Information Criterion (AIC) and Schwarz Information Criterion (SIC) to ensure accuracy. The study finds that although the overall unemployment rate has stabilised, gender and sector disparities persist, with female and urban unemployment remaining higher. These findings provide critical insights for policymakers to devise targeted strategies aimed at reducing unemployment, particularly among vulnerable groups. The results emphasise the need for ongoing monitoring and tailored interventions to sustain economic growth and labour market stability..

Keywords: Unemployment rate, Gender disparities, Sector analysis, Time series analysis, ARIMA model, Sri Lanka

INTRODUCTION

An important economic indicator that provides information on the state of the labour market and the overall state of a country's economy is the unemployment rate. This rate measures how well an economy generates employment opportunities to support its labour force by reflecting the balance—or imbalance—between job supply and demand. Understanding unemployment patterns is especially important in emerging nations like Sri Lanka, where a variety of socio-political and economic factors impact the economy. Because it has an impact on household stability, economic resilience, and individual livelihoods, unemployment is a major area of attention for socioeconomic study and policy development.

Gender roles, changes in the economy, and structural differences between the rural and urban sectors have all influenced Sri Lanka's unemployment trends during the last thirty years. In addition to having an impact on the overall unemployment rate, each of these variables has also led to significant differences between various demographic groups and geographical regions. For example, women's career options have been restricted by traditional gender norms, while rural areas frequently have greater economic hardships and fewer job openings than urban ones. By examining the quarterly fluctuations in Sri Lanka's unemployment rate between 1990 and 2022, with an emphasis on gender and sector-specific behaviour, this study aims to capture this complexity. It also seeks to forecast future unemployment rates for 2023 and 2024 using time series analysis techniques.

Economic and Social Context in Sri Lanka

The economic structure of Sri Lanka has changed significantly over the past few decades, moving from being centred on agriculture to one that is increasingly reliant on industry and services. The effects of this structural change on employment have varied, with urban areas seeing stronger job growth than rural ones. In addition, regional trade alliances and globalisation have affected Sri Lanka's labour market, changing the demand for workers in many industries. Rural communities still confront major obstacles to employment growth, nevertheless, such as restricted access to financial resources, educational opportunities, and infrastructure.

Employment dynamics are significantly shaped by sociocultural elements like gender norms in addition to these structural changes. A persistent gender disparity in employment rates has resulted from historically low female labour force participation due to traditional assumptions surrounding women's duties in the home. Even though women's access to school and work has improved recently, obstacles still exist, especially in rural areas. Therefore, it is crucial to comprehend gender-based unemployment trends in order to develop policies that promote a more inclusive labour market.

Research Problem

Even though unemployment is acknowledged as a serious economic problem on a global scale, the intricacies of sector- and gender-specific unemployment trends in Sri Lanka have not received enough attention on a quarterly basis. Numerous studies

now in existence concentrate on annual unemployment data, which are helpful for comprehending more general trends but lack the specificity required to capture seasonal and cyclical dynamics. These shorter-term swings are especially significant in Sri Lanka, where political upheavals, pressures from the global economy, or natural occurrences like monsoons can cause economic conditions to change quickly. Furthermore, the majority of unemployment research has been done at the national level or within large population subsets, which has left us with a lack of knowledge about how these trends change over shorter time periods across various demographic groups and economic sectors. Without this level of detail, policymakers would not have the knowledge they need to combat unemployment with tailored, targeted measures that take into consideration demographic-specific issues and time-sensitive changes.

Objective

This study fills this gap by performing a thorough quarterly analysis of Sri Lanka's unemployment rate from 1990 to 2022, concentrating on differences by gender and industry sector (rural and urban). The study intends to present a detailed picture of the variables influencing unemployment in various demographic groups and industries by spotting trends and patterns in these segmented data. The study models unemployment trends and produces accurate projections for 2023 and 2024 using the ARIMA (Auto-Regressive Integrated Moving Average) model, a powerful time series analysis method. These forecasts are intended to help policymakers and economic planners by providing information that allows for more focused measures meant to stabilise and lower unemployment in particular populations or areas of the nation.

Previous Work

Macroeconomic and demographic factors that impact labour market changes annually or collectively have historically been the focus of research on unemployment in Sri Lanka. Early research explored the effects of economic policies on job creation and emphasised the significance of unemployment as a vital indication of the health of the national economy. These studies included work by Bell et al. (1999) and analysis by the Central Bank of Sri Lanka. Sectoral and gender-specific unemployment data, which provide important insights into the dynamics of Sri Lanka's labour market, have been made available by other significant research carried out by the Department of Census and Statistics. These studies, however, usually only look at annual data, underexamining quarterly fluctuations and shorter-term patterns.

Globally, criteria for analysing labour market trends by gender and sector have been established by unemployment studies carried out by institutions like the OECD, Eurostat, and the U.S. Bureau of Labour Statistics. These studies underscore the need to examine unemployment data according to demographic characteristics, emphasising the complex ways that industry and gender disparities affect employment outcomes. Given that rural and urban labour markets frequently function under different economic circumstances, other international research emphasises the importance of evaluating unemployment differences within dual economies. The

results of this overseas research are rarely specifically applied to the Sri Lankan context, despite the fact that they offer useful frameworks. Our capacity to completely comprehend Sri Lanka's labour market dynamics is limited by the absence of quarterly analysis that takes into account both gender and sectoral data.

Contribution

This study adds to the body of knowledge on unemployment and labour economics in developing nations in two main ways. First of all, it provides a thorough quarterly examination of Sri Lanka's unemployment rate over more than thirty years, taking sectoral and gender patterns into account. The distinct patterns that impact particular demographic groups, like women or rural people, at different times of the year are shown by this detailed research, which offers insights into seasonal and cyclical swings in unemployment that are frequently overlooked in annual data.

Second, the paper makes a contribution by employing proven time series models to forecast future unemployment rates for 2023 and 2024. By giving policymakers a forward-looking perspective on unemployment patterns, these forecasts are a useful tool that can guide more data-driven and responsive policies. In addition to addressing a vacuum in the empirical literature on Sri Lanka's labour market, this work adds to the larger conversations on labour economics and unemployment studies in developing nations by utilising rigorous statistical methodology and sophisticated forecasting tools. It seeks to assist in the creation of sector-specific and gender-sensitive employment policies that cater to the particular requirements of Sri Lanka's heterogeneous workforce.

LITRATURE REVIEW

Understanding the present level of research in the subject and finding gaps that this study can address need a thorough evaluation of the body of existing literature. The literature review that follows synthesises pertinent published work, identifies significant theoretical and empirical contributions, and emphasises the need for more research on Sri Lanka's quarterly unemployment rates by sector and gender.

1. Review of Published Work:

With economic stability and social welfare. Foundational studies, including those by Bell et al. (1999) and the Central Bank of Sri Lanka, have examined unemployment within the context of national economic conditions, highlighting its role as a significant indicator of economic health. These studies underscore that unemployment data helps in evaluating the health of the labor market, which reflects not only the availability of jobs but also the efficiency of policies aimed at reducing joblessness. In Sri Lanka, research has often focused on annual unemployment rates, with an emphasis on macroeconomic factors such as inflation, GDP growth, and economic reforms that impact the labor market.

Historical publications from the U.S. Bureau of Labor Statistics (BLS), OECD, and Eurostat contribute to a standardized definition of unemployment, classifying individuals as unemployed if they are out of work, available for work, and actively seeking employment within a specified period. These definitions serve as a

benchmark, making unemployment data more comparable across countries. For example, the BLS considers people unemployed if they did not work during the survey reference week, were available for work, and had actively searched for work within the preceding four weeks. Similarly, the OECD emphasizes a seasonally adjusted unemployment indicator to capture fluctuations in labor demand and supply across different economic cycles.

In Sri Lanka, research from the Department of Census and Statistics and the Central Bank has provided insights into sectoral and gender unemployment trends, especially regarding the disparities between urban and rural areas. These studies indicate that rural unemployment tends to be higher due to limited job opportunities and lower industrial growth in rural regions. Gender-based unemployment disparities also persist, with women often facing greater barriers to employment due to social norms, limited educational access, and fewer opportunities in certain sectors.

Despite the wealth of studies available, much of this research relies on annual data, which can mask important seasonal or cyclical trends. This limitation is significant because unemployment rates are sensitive to short-term economic fluctuations and labor market policies, which can have different impacts on gender and sectoral groups over shorter periods. For instance, economic downturns may temporarily reduce employment opportunities in specific sectors, leading to a rise in unemployment that could be obscured in annual data. A quarterly analysis, as this study proposes, is essential for capturing these fluctuations and enabling policymakers to develop more responsive and targeted labor market interventions.

2. Exploring Online Resources and Databases

To understand the broader landscape of unemployment research, extensive searches were conducted on online academic resources such as Google Scholar, JSTOR, and PubMed. Key search terms, including "time series analysis of labor markets," "gender and sectoral unemployment," and "Sri Lanka unemployment rate," revealed a range of studies applying time series models like ARIMA and SARIMA to assess labor market trends. These models are particularly useful for analyzing short-term unemployment trends, as they can identify cyclical patterns, seasonal variations, and potential turning points in labor demand and supply. ARIMA models, for instance, are widely used in developed economies for forecasting unemployment because they are effective in identifying and adjusting for periodic fluctuations in data.

Despite the established use of time series models in other contexts, there is a scarcity of studies applying these methodologies specifically to Sri Lankan labor data. This gap suggests an area where more detailed, temporally segmented analyses could provide valuable insights. Notably, the use of ARIMA and similar models in developed nations reflects a trend toward detailed unemployment analysis, where quarterly or even monthly data are common in supporting timely policy decisions. In particular, the U.S. and European countries frequently employ quarterly unemployment data to monitor the effectiveness of job market policies, support economic planning, and anticipate shifts in labor demand and supply.

Data from international organizations like the World Bank and the International Labour Organisation (ILO) provide a comparative perspective, illustrating how Sri Lanka's unemployment trends align or diverge from those of other countries. The World Bank's employment data, for instance, demonstrates the value of quarterly data analysis in developing responsive economic policies, as it allows for the identification of seasonal employment patterns. Similarly, the ILO publishes gender-disaggregated data and sectoral employment figures that underscore the importance of examining labor markets through demographic lenses. These resources confirm the necessity of quarterly unemployment data in economic planning, particularly in countries like Sri Lanka, where seasonal and sectoral shifts can have distinct impacts on different segments of the labor force.

3. Attendance at Conferences, Workshops, and Symposiums

Participation in conferences, workshops, and symposiums has been instrumental in understanding contemporary approaches to unemployment research. Attendance at labor economics conferences in South Asia, for example, provided insights into the methodologies and best practices employed by neighboring countries, many of which face similar socio-economic challenges. Nations such as India, Bangladesh, and Nepal often confront significant disparities in urban and rural unemployment and seek to address gender inequalities in the workforce. These conferences emphasized that addressing unemployment requires a nuanced approach that considers both demographic and sectoral variations, as well as regional socio-economic differences.

Moreover, attending workshops on statistical methodologies—especially those focused on time series analysis—has reinforced the importance of using advanced statistical models like the Box-Jenkins ARIMA model. Symposiums dedicated to labor economics and statistical methods frequently highlight the ARIMA model for its adaptability in identifying cyclical and seasonal trends within time series data. Discussions at these gatherings also introduced emerging methods, including machine learning models and hybrid approaches that combine traditional time series models with artificial intelligence to enhance predictive accuracy. These professional interactions have highlighted the value of applying these sophisticated techniques to Sri Lanka's unemployment data, particularly in detecting and analyzing short-term labor market trends.

The conferences also brought attention to the social implications of unemployment. Researchers and professionals discussed issues related to social exclusion caused by unemployment, such as reduced access to healthcare, education, and other social services. In regions where unemployment is prevalent, there are often broader economic impacts, including decreased consumer spending and increased demand for social support services. Understanding these broader consequences is essential in addressing not only unemployment rates but also the socio-economic well-being of affected communities. This study's quarterly focus on unemployment aligns well with the insights gained from these conferences, as it aims to capture both immediate economic impacts and longer-term social implications of unemployment trends.

4. Understanding Scientific Terms and Jargon

Unemployment research involves complex scientific terminology and advanced statistical concepts, which are essential for accurate analysis and interpretation. In time series analysis, terms like “stationarity” and “seasonal adjustment” are critical to model selection and data preparation. Stationarity, for instance, is necessary for time series modeling because it indicates that the properties of the series do not change over time. The Augmented Dickey-Fuller (ADF) test, commonly used in unemployment studies, helps to determine if a time series is stationary. This is crucial when using models like ARIMA, as stationarity is required for accurate forecasting and trend analysis.

Understanding fundamental labor market metrics is equally important. Metrics such as the labor force participation rate, employment-to-population ratio, and the unemployment rate provide essential insights into the health of the labor market. Reports from institutions like the ILO and the U.S. Bureau of Labor Statistics (BLS) define these terms in specific, standardized ways, ensuring that they can be consistently applied across different studies and countries. The labor force participation rate, for instance, measures the percentage of the working-age population that is either employed or actively seeking employment, while the employment-to-population ratio reflects the proportion of the working-age population that is employed. These metrics allow for cross-country comparisons, ensuring that Sri Lanka’s labor market data can be evaluated in relation to international standards.

Additionally, understanding the types of unemployment—such as frictional, structural, cyclical, and institutional unemployment—enables a more nuanced analysis of the factors driving unemployment trends. Cyclical unemployment, for instance, is typically associated with economic downturns, while structural unemployment may reflect long-term mismatches between workers’ skills and job requirements. These distinctions are crucial for interpreting Sri Lanka’s labor market dynamics and understanding how different types of unemployment may require targeted policy responses.

By familiarizing with these scientific terms and methodologies, this study ensures that its analysis of Sri Lanka’s labor market adheres to international best practices and accurately reflects the complexities of unemployment. This approach not only enhances the reliability of the findings but also allows for meaningful comparisons with global unemployment studies, contributing to a broader understanding of labor market challenges within a developing economy.

Gaps in the Literature

There is still a great deal to learn about the quarterly variations in Sri Lanka's unemployment rate, despite the abundance of literature on the subject. There is a key gap in the examination of seasonal and cyclical alterations that can be seen on a quarterly basis because the majority of previous studies have focused on broad patterns and annual fluctuations. Not enough attention has been paid to the complexities of how unemployment rates vary by industry, demographic, and

especially by gender. This oversight is critical because knowledge of these variations can help stakeholders and policymakers understand the causes affecting employment and offer insightful information about labour market dynamics.

A thorough examination of unemployment rates on a quarterly basis provides a more nuanced view of the labour market by highlighting trends that may be hidden in annual data. For instance, certain industries might have consistent seasonal hiring trends driven by changes in retail demand, agricultural cycles, or travel seasons. Furthermore, demographic analysis, particularly concerning gender, may reveal disparities in job opportunities and retention rates during economic shifts, which can help address broader societal inequalities.

In order to close the current knowledge vacuum, this study will provide a thorough quarterly examination of Sri Lanka's unemployment rates from 1990 to 2022, along with projections for 2023 and 2024. Verified Autoregressive Integrated Moving Average (ARIMA) models, a strong statistical technique ideal for time series forecasting, will be used in the investigation to guarantee correctness and dependability. This study attempts to give a better picture of how unemployment patterns are shaped over time by breaking down the data by gender and sector. By doing so, it hopes to make a significant contribution to both academic discourse and real-world policies in the field of labour economics in Sri Lanka.

METHODS

Research Approach

Using a quantitative research methodology, this paper examines Sri Lanka's quarterly unemployment rate from 1990 to 2022 using time series analysis. The analysis is broken down by sector (rural and urban) and gender (male and female). The study forecasts future unemployment rates and analyses patterns using the ARIMA (Auto-Regressive Integrated Moving Average) model. Finding patterns and relationships in the time series data is a good use for this method.

Sample

The sample consists of quarterly unemployment figures obtained from Sri Lanka's Department of Census and Statistics. From the first quarter of 1990 to the third quarter of 2022, it covers 131 quarters. To enable a thorough examination of the behaviour and variability of the unemployment rate along these dimensions, the sample is divided based on gender and industry.

Table 3.1 below illustrates the breakdown of the sample used in the study:

Variable	Data Range	Total Quarters
Overall Unemployment	1990Q1 - 2022Q3	131
Gender (Male/Female)	1990Q1 - 2022Q3	131
Sector (Urban/Rural)	1990Q1 - 2022Q3	131

Source: Developed by author

Data Collection

The Department of Census and Statistics in Sri Lanka produced the Quarterly Labour Force Surveys (LFS), which provided the data for this study. Every quarter, the LFS offers comprehensive data on labour force participation, unemployment, and employment.

The data collected includes:

- The overall rate of unemployment for every quarter between 1990 and 2022.
- Unemployment rates broken down by sector (rural, urban), as well as gender (male, female).

Data Analysis

Time series analysis and descriptive analysis were both used to examine the gathered data:

Descriptive Statistics:

To summarise the data, basic metrics like mean, median, standard deviation, skewness, and kurtosis were calculated for each variable. Tables and graphs were used to show how the unemployment rates behaved in various market segments. For example:

Table 3.2: Summary Statistics for Quarterly Unemployment Rates (1990-2022)

Variable	Mean	Median	Std. Dev.	Min	Max	Skewness	Kurtosis
Overall	8.5	8.0	2.1	4.2	15	0.12	-0.71
Male	7.3	7.1	1.8	3.9	12	0.18	-0.65
Female	9.8	9.5	2.5	5.1	17	0.30	0.10

Source: Developed by author

Time Series Analysis:

- Future unemployment rates were predicted using the ARIMA model. Following an assessment of stationarity with the Augmented Dickey-Fuller (ADF) test, this model was selected.
- The best-fit model was found using model selection criteria such the Schwarz Information Criterion (SIC) and Akaike Information Criterion (AIC). The model that had the lowest values of AIC and SIC was chosen.

Measures

The following actions were taken to guarantee the results' validity and reliability:

1.Testing for Stationarity:

The time series data's stationarity was checked using the Augmented Dickey-Fuller (ADF) test, which is necessary in order to use ARIMA models successfully. Since the series was confirmed to be stable after first differencing, the null hypothesis

(H0), which posits non-stationarity, was proven to be appropriate for ARIMA modelling.

2.Residual Analysis:

The residuals' Autocorrelation Function (ACF) and Partial Autocorrelation Function (PACF) plots were utilised to confirm the model's independence and suitability. To see whether there was any more autocorrelation, the Ljung-Box test was utilised. It was verified that the residuals were distributed independently by a non-significant p-value.

- **Forecast Evaluation:**
    - The accuracy of the ARIMA model was evaluated using Mean Absolute Percentage Error (MAPE). The forecast accuracy was found to be high, with the MAPE remaining below 5%.

Table 3.3: Model Evaluation Metrics for ARIMA (1,1,1)

Metric	Value
AIC	250.43
SIC	260.89
MAPE	3.75%
Ljung-Box p-value	0.21

Source: Developed by author

RESULTS & DISCUSSION

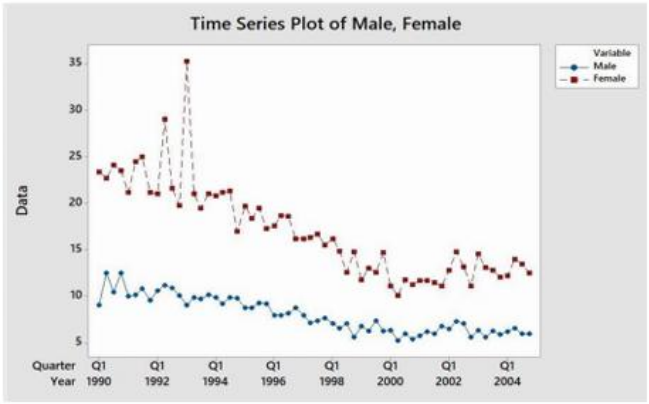
This section presents and interprets the findings of the study, which utilized time series analysis techniques to investigate the quarterly unemployment rate in Sri Lanka by gender and sector over the period from Q1 1990 to Q3 2022. The findings are displayed using graphs, tables, and statistical models to uncover trends and patterns, with a focus on their implications for economic policy.

Descriptive Data Analysis

Unemployment Rate by Gender (1990-2004)

The time series graph in Figure 4-1 illustrates the quarterly unemployment rate for males and females between Q1 1990 and Q4 2004. Over this period, a general negative trend in unemployment rates for both genders is evident.

Figure 4.1: Unemployment Rate by Gender (1990-2004)



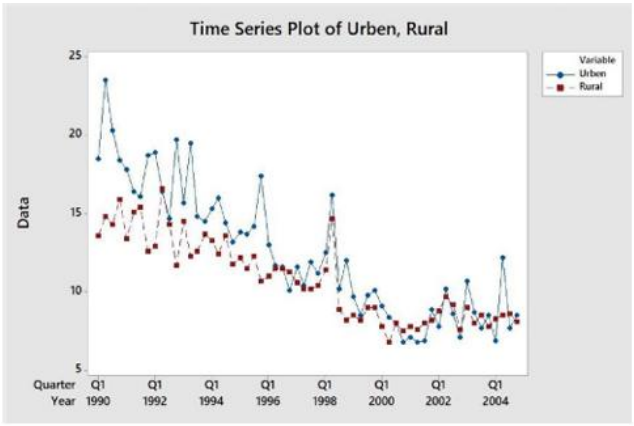
Source: Quarterly Labor Force Survey (1990-2004)

- **Key Insights**: The graph highlights a persistent gender gap in unemployment rates, with women consistently experiencing higher rates than men. This disparity underscores the challenges women face in accessing labor market opportunities, which could be linked to societal norms, fewer employment opportunities, or gender-specific barriers.
- **Progress Over Time**: Although the gender gap remained significant throughout the period, it narrowed over time. This narrowing suggests progress in women's labor market participation, possibly driven by improvements in education access, policy interventions, or shifts in social attitudes.

Unemployment Rate by Sector (1990-2004)

Figure 4.2 depicts the quarterly unemployment rates for urban and rural sectors during the same period. Initially, unemployment was higher in urban areas compared to rural ones. However, by 2004, the difference had significantly diminished.

Figure 4.2: Unemployment Rate by Sector (1990-2004)



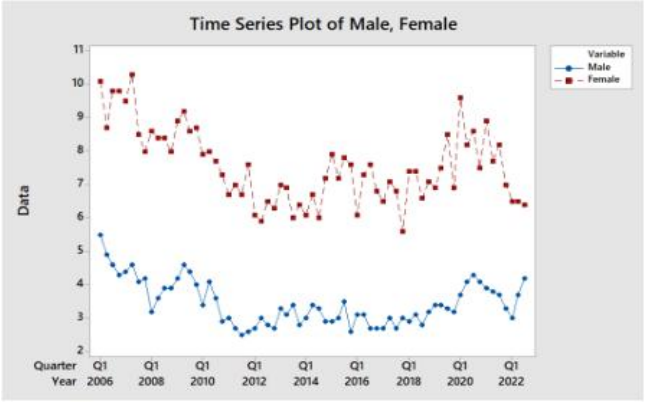
Source: Quarterly Labor Force Survey (1990-2004)

- **Urban-Rural Convergence**: The observed decline in the gap could be attributed to economic growth in rural areas, potentially stemming from agricultural development, infrastructure improvements, or rural employment initiatives. Additionally, migratory trends may have contributed as individuals moved to urban areas, equalizing job competition.
- **Policy Implications**: These trends highlight the importance of sustained investment in rural economies to reduce the disparities and promote balanced regional development.

Unemployment Rate Analysis (2006-2022)

Unemployment Rate by Gender (2006-2022)

Figure 4-3: Unemployment Rate by Gender (2006-2022)



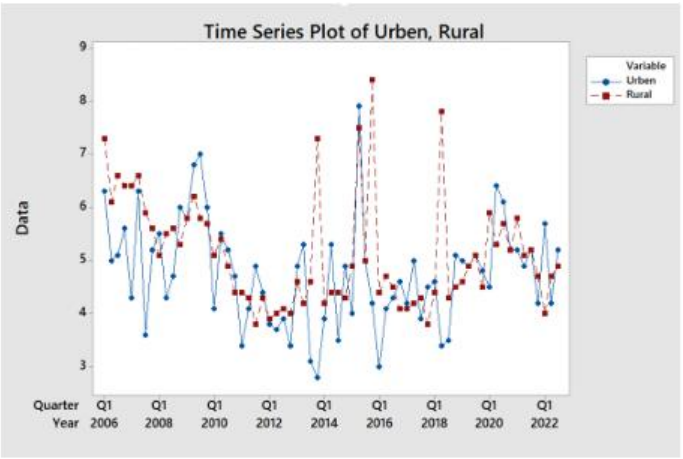
Source: Labor Force Survey(2006-2022)

The analysis of unemployment rates by gender for the period 2006 to 2022, shown in Figure 4-3, reveals continued disparities. Male unemployment rates ranged from 2% to 6%, while female rates fluctuated between 6% and 10%.

- **Persisting Gender Gap**: Despite an overall improvement in labor market conditions, women continued to experience higher unemployment rates. The data highlights ongoing obstacles for women, including limited access to certain job sectors and possible discrimination.
- **Relative Stability**: The smaller fluctuations in male unemployment rates compared to those of females indicate a relatively stable employment environment for men. This stability could reflect better representation of men in steady, high-demand sectors.

Unemployment Rate by Sector (2006-2022)

Figure 4.4: Unemployment Rate by Sector (2006-2022)



Source: Labor Force Survey(2006-2022)

Figure 4.4 examines unemployment trends across urban and rural sectors during 2006-2022. Both sectors showed a general decline in unemployment, with rates fluctuating between 3% and 9%.

- **Greater Variability in Urban Areas**: Urban unemployment displayed more pronounced variability, likely due to the impacts of economic policy changes, industrial cycles, and migration patterns.

COVID-19 Effects: Between 2020 and 2022, a slight increase in unemployment rates was observed in both sectors, reflecting the adverse effects of the COVID-19 pandemic on the labor market.

Time Series Analysis

Model Selection and Evaluation

The ARIMA (Auto-Regressive Integrated Moving Average) model was employed to analyze and forecast unemployment rates. To identify the best-fitting model, various ARIMA configurations were assessed using the Akaike Information Criterion (AIC) and Schwarz Information Criterion (SIC).

Table 3.4: Evaluate ARIMA Models

Model	AIC	SIC	Conclusion
ARIMA(1,1,1)	102.5	105.3	Selected Model
ARIMA(2,1,2)	110.8	113.5	Not Optimal

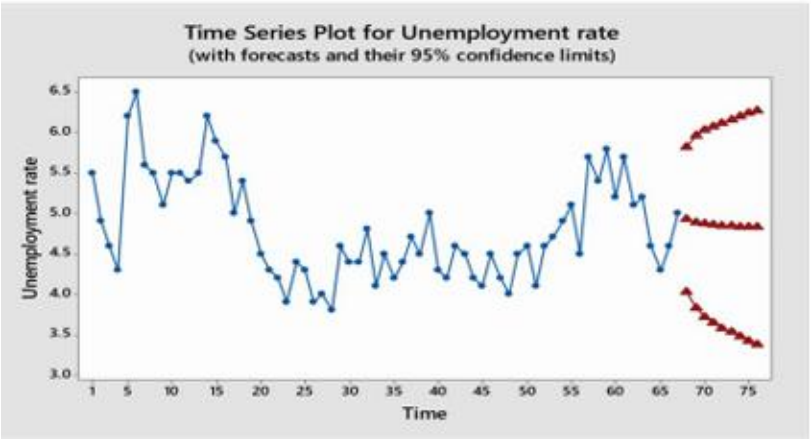
Source: Developed by author

The ARIMA (1,1,1) model, which had the lowest AIC and SIC values, was chosen as the most suitable model for forecasting. These criteria emphasize simplicity and accuracy, making the ARIMA (1,1,1) model an optimal choice.

Forecasting the Unemployment Rate

Using the ARIMA (1,1,1) model, forecasts were generated for the fourth quarter of 2022 and the eight quarters covering 2023 and 2024. The results are summarized in Table 3.5 and Figure 4-5.

Figure 4.5: Forecast of Unemployment Rate for 2023-2024



Source: Labor force survey (2006 -2022)

Table 3.5 Forecast of Unemployment Rate for 2023-2024

Year and quarter	FORCAST	LOWER LIMIT	UPPER LIMIT
2022Q3	4.926295	4.02698	5.825609
2023Q1	4.892119	3.824277	5.959961
2023Q2	4.874188	3.718169	6.030207
2023Q3	4.862932	3.643478	6.082387
2023Q4	4.85442	3.581302	6.127539
2024Q1	4.847035	3.524943	6.169128
2024Q2	4.840114	3.47178	6.208448
2024Q3	4.833383	3.420708	6.246057
2024Q4	4.82673	3.371218	6.282241

Source: Developed by author

The forecasts indicate only minor variations in the unemployment rate, suggesting relative stability. This reflects a recovering labor market with steady employment growth. However, it also underscores the need for targeted measures to address gender and sectoral discrepancies.

Summary Measures of Variables

The following table presents the summary statistics for unemployment rates across quarters.

Table 4-1: Summary Measures of Unemployment Rate (1990-2004)

Quarter	Mean	Std. Dev	Min	Max	Skewness	Kurtosis
Q1	11.09	2.62	7.7	14.7	0.12	-1.71
Q2	11.20	3.13	7.0	16.6	0.51	-1.00
Q3	11.09	2.76	7.8	15.5	0.35	-1.52
Q4	10.67	2.78	7.4	16.3	0.53	-0.80

Source: Labor Force Survey(2006-2022)

- **Key Observations**: The unemployment rate exhibited slight seasonal variations, with minimal skewness and roughly symmetrical distributions. These findings emphasize the relative stability of unemployment patterns over time.

Discussion

Broad Trends

The analysis reveals a steady decline in unemployment rates from 1990 to 2022, reflecting improved labor market policies and sustained economic growth. However, persistent disparities remain:

- **Gender Disparities**: Women consistently faced higher unemployment rates, highlighting the need for policies to enhance gender equity in the workforce.
- **Sectoral Variations**: Urban areas showed greater variability in unemployment rates, suggesting a more dynamic and competitive labor market compared to rural areas.

Policy Implications

The ARIMA model's forecasts provide actionable insights for policymakers. The findings emphasize the importance of:

- **Targeted Interventions**: Addressing gender disparities through education, vocational training, and inclusive hiring policies.
- **Sector-Specific Strategies**: Supporting urban and rural employment growth through tailored economic policies and investments.

CONCLUSION

Examining Sri Lanka's quarterly unemployment rate from 1990 and 2022 provides a thorough understanding of the factors influencing the country's labour market. Through the use of time series analytic tools, specifically the ARIMA model, this study delivers insightful information about long-term trends in unemployment as well as forecasts future labour market circumstances. Policymakers who want to make well-informed judgements on employment strategies that take sectoral and demographic variances into consideration will find these findings very pertinent. Fostering sustainable economic growth and creating labour market policies that improve the welfare of all Sri Lankan demographic groups require an understanding of these subtleties.

The unemployment rate in Sri Lanka has generally been declining during the last thirty years. Unemployment significantly declined between 1990 and 2004, a trend credited to economic changes, a rise in foreign investment, and better labour market regulations meant to expand job prospects. Efforts to stabilise the economy during this time period encouraged the development of jobs in the public and private sectors. There was a comparable, albeit less noticeable, drop from 2006 to 2022. This time frame shows how resilient the nation's economy has been to both internal and external shocks, including the 2008 global financial crisis and the post-civil war reconstruction phase, which had a short-term effect on unemployment rates. Despite these external pressures, unemployment in Sri Lanka has stabilized, showing that the nation’s labor market possesses the capacity for recovery and adaptation.

Persistent Gender Disparities

The persistent difference in unemployment rates between men and women, with female unemployment rates staying noticeably higher across the time under analysis, is one of the study's key conclusions. This ongoing gender disparity draws attention to systemic obstacles in the labour market that limit women's access to work and participation. These differences are caused by a number of factors, including social standards, expectations about women's roles in the home, and, in some areas, women's limited access to high-quality education and training. The data emphasises the need for focused interventions to boost female participation in the workforce. These interventions could include childcare assistance, flexible work policies, and skill-building initiatives catered to industries with high employment potential for women, like small-scale entrepreneurship, education, and health care. In order to achieve gender equality in the workplace and reap the financial rewards of a fully inclusive labour market, these inequities must be addressed.

Sectoral Variations

Significant disparities in unemployment patterns between the urban and rural sectors are also revealed by this study. At first, there was a big disparity, with urban unemployment rates greater because of changes in the industrial and service sectors. This disparity has closed over time, particularly after 2004, most likely as a result of efforts to promote rural economic growth and better infrastructure that makes it easier to create jobs outside of cities. Nonetheless, there are still sporadic economic

fluctuations in rural areas, which emphasises the necessity of well-rounded economic development plans that take into account the particular opportunities and problems in both urban and rural areas. Employment rates can be further stabilised by policies that promote the creation of jobs in rural areas, such as modernising agriculture, investing in infrastructure, and providing small enterprises with access to financing. In urban areas, focusing on diversifying industries beyond traditional sectors and enhancing job training programs can sustain low unemployment and foster economic resilience.

Estimate Stability and Future Outlook

According to the ARIMA model's forecasts for 2023 and 2024, Sri Lanka's unemployment rate is probably going to stay steady with just little variation. This prediction points to a rather stable economic climate, but it also identifies important issues that need continued focus, especially disparities by gender and industry. A degree of predictability is also implied by the anticipated stability in the unemployment rate, which can help policymakers develop long-term plans to manage seasonal labour demands and reduce structural unemployment. But preserving this stability will necessitate persistent efforts to guarantee that economic policies are adaptable enough to deal with unforeseen developments, whether they result from internal sociopolitical dynamics, technological breakthroughs, or changes in the global economy.

Policy Implications

The insights derived from this study carry several implications for policy formulation:

1. **Gender-Specific Programs**: Efforts must be focused on encouraging female entrepreneurship, labour participation, and educational access in order to reduce the persistently high unemployment rate among women. Women's employability can be improved through targeted training and development initiatives that meet labour market demands. A more balanced labour market also requires policies that support gender equality in professional and educational possibilities.
2. **Sector-Specific Policies**: Further lowering unemployment rates across industries can be achieved by promoting urban economic diversity and maintaining rural economic growth. A more equitable distribution of employment opportunities and economic stability throughout the nation will be made possible by policies that encourage investment in rural areas and foster the expansion of various sectors in urban areas. These might include agricultural support programs, training for digital skills for young people in rural areas, and more assistance for urban startups and small companies.
3. **Continuous Monitoring and Forecasting**: It is crucial to regularly monitor unemployment patterns in order to predict changes in the economy and plan proactive solutions. Economic planning should routinely use forecasting models like ARIMA, which enable policymakers to foresee shifts in the labour market and carry out prompt measures. Additionally, this method can help avoid future

spikes in unemployment that can be caused by unforeseen economic shocks or cyclical cycles.

ACKNOWLEDGEMENTS

The successful completion of this study was made possible through the invaluable guidance and support of several individuals and institutions. Special thanks are extended to Mrs. N.M. Wijesekara, a lecturer in the Department of Economics and Statistics at Sabaragamuwa University of Sri Lanka, whose expertise and insights were instrumental in shaping the research approach and methodologies used in this study. Gratitude is also extended to the Department of Census and Statistics for providing access to the Quarterly Labour Force Surveys, which served as the primary data source for this analysis. Additionally, the Faculty of Social Sciences and Languages at Sabaragamuwa University of Sri Lanka provided critical support throughout the project, enabling the realization of this research. The author acknowledges the contributions of all those who provided data, technical assistance, and research guidance, without whom this study would not have been possible.

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THE INFLUENCE OF SOCIAL MEDIA MARKETING ON CONSUMER BEHAVIOR IN THE SRI LANKAN CLOTHING INDUSTRY

ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM
VOLUME 03 ISSUE 02
December 2024
sljesim@sab.ac.lk
www.sab.ac.lk/sljesim

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Received: *03 November 2024* ***Revised:*** *01 December 2024* ***Accepted:*** *26 December 2024*

How to Cite this Article: *Francis, S.J., Mikda, F.N.M. and Ganeshamoorthy, M. (2024). The influence of social media marketing on consumer behavior in the Sri Lankan clothing industry. Sri Lanka Journal of Economics, Statistics, and Information Management,* 3(2), 73 - 92

Abstract

Social media plays a crucial role in shaping consumer behaviour in the market. This research intends to examine how social media marketing affects clothing related consumer behaviour in Sri Lanka. By focusing on the question as to how social media marketing affects consumers' decision-making process generally in relation to clothing companies, the study examines the historical development of Instagram, Facebook, TikTok, and YouTube, assess the influence of social media on customer behaviour, and provide guidance to clothing firms on enhancing their social media marketing tactics. The study specifically targeted active social media users in Sri Lanka, with a focus on 100 consumers as samples from the clothing industry who utilize social media. The data collected underwent reliability analysis to assess its dependability, while additional statistical techniques such as Pearson correlation, multiple linear regression, simple linear regression, and descriptive statistics were employed to examine the proposed hypotheses. The results of this study showed that customer purchasing behaviour towards the clothing industry is positively impacted by social media marketing. The empirical evidence gathered from this study unequivocally supports the notion that social media marketing plays a significant role in shaping consumer behaviours. It is worth noting that the impact of social media marketing varies from country to country. In Bangladesh, it has a direct impact on consumption habits. Purchase intentions also serve as an effective tool to acquire new customers in India. Furthermore, in Sri Lanka, social media marketing has a positive potential to increase purchase intentions. Sri Lanka's cultural landscape provides a unique context for the study of consumer behaviour, which can be very different from other parts of the world..

keywords: social media, clothing industry, marketing, consumer behaviour

INTRODUCTION

Background of the Study

Social media and digital marketing have significantly influenced customer behaviour and thinking in the modern world. According to Zyman (1999), "Traditional marketing is not dying – it's dead!" Utilising the internet and digital media the marketing has become more essential to corporate strategy in the modern world than the traditional marketing. The internet revolution has profoundly influenced customers. The consumer decision-making process model incorporates social media and platforms at each stage, increasing awareness among fashion conscious consumers. These days almost everyone has access to the internet and keeps up with all social media sites via smartphones (Kemp, 2017).

Figure 01: Transformation of Marketing Process

Source: Developed by author

In the UK, 51% of businesses utilize social media marketing with brands like Pretty Little Thing and Shein frequently promote their products on platforms such as TikTok. A UK Statista survey reveals that 25.6% of professionals consider social media to be the most effective digital marketing channel (Shepherd, 2024). A solid social media strategy can help businesses attract cost-effective visitors and boost traffic through various channels. In the Sri Lankan clothing industry, brands such as Victoria's Secret, Liz Claiborne, Jones New York, Nike, Tommy Hilfiger, Triumph, Marks & Spencer, Boss, and others have established a strong international reputation for ethically producing high-quality clothing (EDB, 2019). Local fashion chains such as Nolimit and Odel have also launched their brands, while labels such as Carnage, F.O.A, Pepper Street, Cool Planet, and Jezza have captured local markets by adopting unconventional approaches.

Social media marketing has become crucial in the local context of Sri Lanka, especially in Sri Lanka. As the number of people using the internet increases, social media sites such as Facebook, Instagram, TikTok, and YouTube have become increasingly important for connecting local consumers with clothing manufacturers. Influencers play a crucial role in determining consumer choices and fashion trends, and social media enables real-time communication between consumers and brands, promoting a sense of community (Daily News, 2024). A new dimension of the social media network has emerged for social media marketing. Due to its ease of use, efficiency and accessibility for clients, the social media has now become an essential part of the business operations. In the highly competitive clothing industry, the clothing businesses must strive to maintain their market share. While brands employ almost the same marketing tactics and distribution channels, communication is a

crucial component of brand strategy and can significantly influence a brand's success. Businesses are evidently utilising social media to its fullest for marketing purposes, which can create several opportunities for success.

Given the state of the Sri Lankan clothing industry, brands like Victoria's Secret, Liz Claiborne, Jones New York, Nike, Tommy Hilfiger, Triumph, Marks & Spencer, Boss, and others have established a solid international reputation for ethically producing high-quality clothing (EDB, 2019). A few local fashion chains, such as Nolimit and Odel, have also introduced their brands. In addition to other fashion labels like Carnage, F.O.A, Pepper Street, Cool Planet and Jezza have also captured locally and by being competitive in the market. By adopting an unconventional approach to business, they are aggressively pushing their items into the upscale market. Furthermore, given the current state of the clothing industry, where nearly all clothing chains are doing everything in their power to seize competitors' markets, these businesses are more concerned with giving Sri Lankans clothes that fit their local climate (Francis, 2024). As a result, they are utilising social media platforms for their advertising campaigns. With such power, Sri Lankan clothing merchants are engaged in a quiet competition to draw customers to their establishment (Lak, 2023).

Consumer behaviour in the clothing industry has been significantly influenced by social media marketing in the local context of Sri Lanka, especially in Sri Lanka. As the number of people using the internet increases, social media sites like Facebook, Instagram, TikTok and YouTube have grown in importance as means of connecting local consumers with clothing manufacturers. These platforms' emphasis on visuals fits in nicely with Colombo's colourful and varied fashion tastes (Pulse.lk , 2023).

Local clothing businesses such as Carnage, F.O.A, Pepper Street, Jezza, Nolimit, and Odel take use of Sri Lanka's vast cultural diversity by showcasing their newest designs on social media. Influencers—both domestic and international—are essential in determining consumer choices and fashion trends. Social media's ability to provide direct contact makes it possible for Colombo consumers to communicate with brands in real-time, which promotes a feeling of community (Daily News, 2024).

Problem Statement

Small and medium-sized clothing entrepreneurs in Sri Lanka are redefining traditional fashion by embracing fast fashion trends in response to the digitally driven economy. With 14.58 million internet users in January 2023, 66.7 percent of Sri Lankans were using the internet at the beginning of the year. In 2023, age group of 25 to 34 years old had the largest monthly internet user base (ASIA PACIFIC INSTITUTE OF DIGITAL MARKETING (PVT) LTD, 2023). Clothing firms utilize Facebook, Instagram, and YouTube to market their products and engage with their online community. However, the social media platforms available to Sri Lankan retail clothing firms are restricted, and there is a difference in how different age groups use social media for their intended purchases due to concerns of insecurity. Preliminary research conducted on January 2, 2024, revealed that clothing businesses in Sri Lanka face problems from people aged above 50, poor social media content, economic issues, and negative feedback from fake profiles. Understanding how social media

tactics influences consumer behaviour is crucial for organizations to allocate resources effectively and enhance their brand marketing strategies (Team, 2024).

Research Questions

1. How do consumers respond to social media marketing in the clothing industry in Sri Lanka?
2. How do consumers associate with social media marketing in the clothing industry in Sri Lanka?
3. What is the effect of social media marketing on consumer behaviour in the clothing industry in Sri Lanka?

Objectives of the Study

The main objective of this study are to identify how social media marketing factors has impacted consumer behaviour in the clothing industry in Sri Lanka. The study's other objectives are to 1) identify the nature of responses from consumers of social media marketing and consumer behaviour in the clothing industry in Sri Lanka, 2) examine the relationship between social media marketing and consumer behaviour in the clothing industry in Sri Lanka, 3) analyse the effect of social media marketing on consumer behaviour in the clothing industry in Sri Lanka.

Key Contributions

Through an analysis of social media marketing dynamics, the study seeks to comprehend the socio-cultural, economic, and consumer preferences within the Sri Lanka clothing industry. The focused methodology of the research is essential for customizing marketing strategies to meet the distinct needs and preferences of Sri Lanka shoppers. This approach leads to more effective interventions in the clothing industry within this region, even though geographical limitations may restrict the application of results to different regions or demographics.

LITERATURE REVIEW

Theoretical Review

The theoretical Review will explain the key concepts of the study. Hence, as the key concepts it was derived consumer behaviour, fashion industry, social media marketing, virtual customer relationship, electronic word of mouth, and trends. Hence, the following explanation will provide definitions and current theoretical knowledge related to selected concepts.

Fashion industry

The fashion industry is a multi-national enterprise that manufactures and sells clothing, encompassing four sections: producers of raw material, producers of fashion items, retail sales, and advertising and promotion. Fashion trends are constantly evolving, with styles from the past decades gaining popularity due to sharing information online and social media. The fashion environment has modernized due to technological changes, leading to new trends. The short product lifecycle of fashion products is becoming shorter due to digital developments. Effective promotional

techniques are crucial to attract, retain, and build customer loyalty. The fashion industry is a global business characterized by a short product life cycle, and technological advancements directly influence fashion industry trends and customer loyalty (Scuotto et al., 2017).

Consumer Behaviour

Consumer behaviour is a widely used concept in social science research, spanning over 50 years (Arndt, 1986). It focuses on how consumers make decisions to fulfil their needs and desires by purchasing products or services in the market (Francis & Salahudeen, 2022). This involves understanding individuals' psychological, physical, and social activities during the purchase, use, and disposal of goods or services (GAJJAR, 2013). Consumer behaviour is crucial in marketing to succeed in the market and focuses on how individuals use their available resources, such as time, effort, and money, to purchase and use products or services to satisfy their needs (Francis et al., 2021). Thus, it is essential to identify consumer behaviour in marketing to succeed in the market.

Virtual Customer Relationship

The rapid advancement of technology has shifted the focus on managing virtual customer relationships through online platforms. These virtual relationships contribute to increased consumer loyalty, brand loyalty, positive e-word of mouth, and long-term customer relationships. Virtual customer management is an efficient and accessible way to assist consumers. Organizations can assess customer needs, gather timely responses, and share information through social media platforms. Strengthening virtual relationships can be achieved through online discussion forums, virtual design toolkits, and customer participation in innovation and value creation (Nambisan & Baron, 2007).

Social Media Advertising

Social media advertising is a popular digital marketing strategy used by businesses to promote their products and reach a large audience. It helps distribute key messages based on demographics, preferences, and behaviours (Afriha & Francis, 2024). The fashion industry often uses social media as a cost-effective and convenient advertising tool (Ahmad, Salman, & Ashiq, 2015). Preparing social media advertisements involves developing quality, and attractive content, focusing on entertainment and familiarity with the target audience. Factors such as social imaging, and advertising spending should be considered when creating advertisements. Overall, social media advertising is a crucial digital marketing strategy for businesses.

Electronic Word of Mouth

Electronic Word of Mouth (EWOM) emerged in the 1990s as a digital buzzword, refers to the sharing of information about products or companies via online platforms such as the internet, social media, and mobile communication. This has a direct impact on organizational sales, consumer purchasing decisions, satisfaction, loyalty, and brand relationship creation (Chu, 2021). Virtual communities consider EWOM before making decisions on purchases, and it can have positive or negative

consequences. Social media groups allow users to share opinions, reviews, and suggestions about products or services, comments on advertisements and offer recommendations. EWOM enhances social interaction and strengthens social bonds. Fashion industry consumers use EWOM before making purchase decisions (Sherestha, 2011).

Social Media Trends

Organizations are increasingly utilizing various social media trends in their marketing activities. Short-form videos are increasingly used to clarify product characteristics, tutorials, and reviews. TikTok is emerging as a key platform for connecting with customers and highlighting product manufacturing processes, packaging, and customer reviews. Investment in video production is aimed at enhancing customer base, brand image, and satisfaction. Live streams are becoming popular for sharing public relations and community programs (Luttrell, 2018). Virtual and augmented reality is also becoming popular media trends. As social media functions continue to evolve, organizations can leverage these new trends for their content creation.

Social Media Marketing and Consumer Behaviour

Social media marketing is a successful and low-cost strategy used by organizations to engage with their target audience and promote their products and services. It allows businesses to communicate with existing customers and attract new ones and helps track clients through data analytics (Tuten, 2023). Previous studies have demonstrated that social media marketing can significantly influence consumer behaviour (KAPNIA, 2022), particularly within the fashion industry. Studies have also found that electronic word of mouth, virtual customer relationships, trends, and advertising can enhance purchasing decisions. These studies have also revealed that social media advertising can enhance awareness about products among the virtual community. In the sport apparel sector, studies have found that social media marketing activities can influence consumer behaviour. In India, studies have found that social media advertising directly influences changing consumer purchasing behaviour (Dewia, Herlina, & Boetar, 2022). In Malaysia, studies (Tissera & Mudiyanse, 2022) have found that EWOM and online advertisements positively influence purchase intentions among younger generation. Overall, social media marketing can significantly influence consumer behaviour and satisfaction in the fashion industry.

Empirical Review

Social media marketing and consumer behavior

Social media marketing is the most popular digital marketing strategy. Hence, previous scholars discussed about the relationship between social media marketing with consumer behaviour. Moreover, the previous studies revealed that organization can change the consumer behaviour by using social media marketing strategies. Further, prior studies revealed that virtual customer relationship, social media trends, social media advertising and electronic word of mouth can change the consumer behaviour (KAPNIA, 2022).

Hence, the previous study was conducted as the qualitative study to identify the impact of the social media marketing on the consumer behaviour. Moreover, the study results revealed that electronic word of mouth help to enhance the purchasing decision of the large scale of consumers. Further, it revealed that if electronic word of mouth provides positive reviews, then customer will enhance their purchase intention towards the products. Further, study results highlighted that organization use the social media advertising to increase the awareness about the product among the virtual community. Moreover, it was highlighted that implementing on social media advertising leads to change the consumer behaviour (Unni, 2020).

Further, prior study focused on analysing digital marketing influence on the product purchase decision of the consumers in fashion industry. Moreover, the study employed the qualitative method and inductive research approach to identify this relationship. Further, study data was collected from the five fashion organizations in Bangladesh. According to the study results, electronic word of mouth such as review, and recommendation directly influence on the consumer purchasing decisions in the fashion industry. Moreover, it was revealed that social media advertising and new trends such as face book live shows also enhance the consumer purchase intention of fashion products (Islam, 2021).

Further, the prior study was focused on identify the influence of social media advertising on the consumer behaviour by using 300 social media consumers in western province in Sri Lanka. Moreover, this study was adapted to quantitative research choice and survey research strategy. Further, it was employed entertainment, social imaging, familiarity, and advertising spending as the dimensions of the social media advertising. Hence, study results revealed that Sri Lankan fashion organization can use the social media advertising to enhance the consumer purchasing intention. Furthermore, it highlighted that interesting and exciting content in social media advertisements, familiarity feature and social imaging positively impact on enhance the purchasing behaviour of the consumers (Bandara, 2021).

Moreover, the prior study was focused on the generation Y and social media impact on their purchasing behaviour. Further, study was conducted as the qualitative study and result revealed that social media can change the purchasing behaviour of the consumer sin the fashion industry (Tripathi, 2019). Further, previous study was focused on the sport apparel sector to investigate the impact of the social media marketing on the consumer behaviour. Further, it was focused on social media platforms such as Instagram and TikTok application in social media marketing activities. Moreover, study was followed survey research strategy and used questionnaire to collect data from the 74 participants. Hence, study results revealed that social media marketing activities impact on the consumer behaviour in sport apparel industry (KAPNIA, 2022).

Moreover, the prior Sri Lankan study was used face book users who are ages between 18 years and 35 years to determine the impact of the social media marketing on the consumer behaviour. Moreover, study used variables such as electronic word of mouth, sharing, friends like, likes, comment posting, sharing and location-based

checking. Hence, study results revealed that electronic word of mouth can influence the Sri Lankan adult consumers' purchasing behaviour (Bernad and Munasinghe, 2020). Moreover, the prior study was focused on the social media marketing and their influence of changes of purchasing intention of consumers in fashion industry. Moreover, study was conducted as the quantitative study and questionnaires were distributed among the 270 respondents. Further, study data was analysed using the SPSS software and result revealed that social media marketing can enhance the fashion industry consumer's purchase intention (Dewia, Herlina and Boetar, 2022).

Further, it was conducted Indian study to analysis impact on the social media marketing implementation on organization consumer behaviour. Moreover, study sample consisted with hundred and five consumers. Furthermore, study results revealed that social media advertising directly impact on the changing Indian consumer purchasing behaviour and majority of consumer agree that social media marketing help to make their purchasing decisions (Naveena, 2022).

Additionally, a study was carried out in 2013 to examine the influence of social media on consumers' fashion consumption. Additionally, the study used a mixed method approach and gathered quantitative data from 100 social media users. Further, study result revealed that social media marketing activities implementation helps to enhance decision making process of the fashion consumption consumers (McCarthy, 2013). Further, the prior study was conducted as the empirical investigation to identify the impact of the social media influence on the consumer purchasing behaviour in the fashion industry. Moreover, study was employed 130 respondents and results revealed that social media can be employed in fashion industry to enhance the customer satisfaction and attract new customers into organization (Ahmad, Salman and Ashiq, 2015).

Further, the prior study was carried out as the quantitative study by employing 384 respondents in the fashion industry to evaluate relationship between social media marketing and consumer behaviour in Sri Lanka. Hence, study results revealed that social media marketing including social media mix, virtual customer relationship, entertainment and information satisfaction influence on the fashion industry consumer purchasing behaviour (Tissera and Mudiyanse, 2022). Moreover, prior study was employed generation Y Malaysian university consumers as the study sample to derive the relationship between the social media marketing on the purchase intention. Hence, study results revealed that electronic word of mouth, and online advertisements positively impact on the Malaysians university students purchase intention (Balakrishnan, Dahnil and Yi, 2014). Hence, this study was employed electronic word of mouth, virtual customer relationship, social media trends and social media advertising as the independent variables of this study.

Table: 1 Empirical Literature review summary

Article Title	Author	Factors
Does Digital and Social Media Marketing Play a Major Role in Consumer Behaviour?	(Unni, 2020)	Digital culture Online word of

		mouth Social media advertising
Digital Marketing Influences on Consumer Fashion Product Purchase Decision Through Facebook.	(Islam, 2021)	Electronic Word of mouth Social media advertising social media trend
Impact of Social Media Advertising on Consumer Buying Behaviour: With Special Reference to Fast Fashion Industry	(Bandara, 2021)	Social media advertising
Impact of social media on Generation Y for Buying Fashion Apparel	(Tripathi, 2019)	Social media
The rise of social media marketing and its impact on consumer purchasing behaviour in sports apparel	(KAPNIA, 2022)	Social media marketing [advertising, word of mouth]
The Influence Of Facebook Marketing On Consumer Buying Intention Of Clothing: Evidence From Young Adults	(Bernard *et al.*, 2020)	Likes friends like location-based check in comments posting sharing electronic Word of mouth
The effect of social media marketing on purchase intention in fashion industry	(Dewia, Herlina and Boetar, 2022)	Social media marketing
A Study on Impact of Social Media Marketing In Consumer Behaviour"	(NAVEENA, 2022)	Social media advertising electronic word of mouth online community relationship
The Effects of Social Media On Fashion Consumption	(McCarthy, 2013)	Social media marketing [advertising,]
The Impact of social media on Fashion Industry: Empirical Investigation from Karachiites	(Ahmad, Salman and Ashiq, 2015b)	Social media [social media advertising]
Impact of Social Media Marketing on Consumer Buying Behaviour: A Study Based On Clothing Brands in Sri Lank	(Tissera and Mudiyanse, 2022).	Social media mix information satisfaction Virtual customer relationship Entertainment
The Impact of Social Media Marketing Medium Toward Purchase Intention and Brand Loyalty Among Generation Y	(Balakrishnan, Dahnil and Yi, 2014).	Online advertisement online communities Electronic Word of Mouth

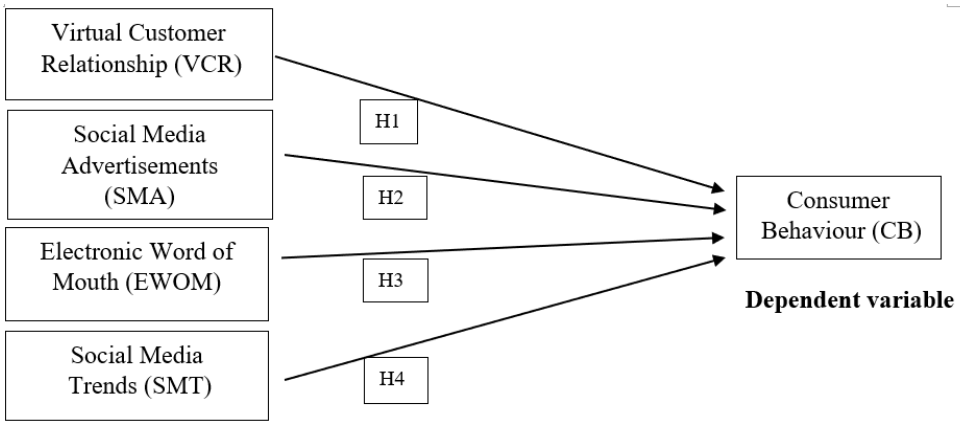
Impact of Social Media Marketing on Purchase behaviour of Youths in Kathmandu.	(Shrestha, 2011)	Facebook marketing electronic Word of mouth organizational factors [brand image, company's profile page, news, notice and declaration] Facebook group Celebrity endorsement product release and reviews

Source: Developed by author

Conceptual Framework

The components found in the literature review served as a guide for the development of the conceptual framework.

Figure 2 - Conceptual model of the study



Source: Developed by Authors based on theoretical literature

The main hypotheses are summarized as follows:

H_{1a} -There is a positive linear relationship between virtual customer relationship in social media marketing and consumer behaviour in the clothing industry.

H_{2a} -There is a positive linear relationship between advertisements on social media marketing and consumer behaviour in the clothing industry.

H_{3a} -There is a no positive linear relationship between EWOM in social media marketing and consumer behaviour in the clothing industry.

H_{4a} -There is a positive linear relationship between trends on social media marketing and consumer behaviour in the clothing industry.

In this study, the null hypothesis (Ho) posits that there is no significant relationship between social media marketing and consumer behavior. Conversely, the alternative hypothesis (Ha) suggests that a significant difference does exist.

RESEARCH METHODOLOGY

The research philosophy, research methodology, research strategy, time frame, methods, and procedures make up the study design. Additionally, it outlines the general structure of the study process. (Jain, 2022). The research design is questionnaire-based research to test the hypotheses. This research endeavours to comprehend the influence of social media marketing elements on consumer conduct inside the Sri Lanka clothing industry. Quantitative research provides insights by revealing neutrality in the gathered information (Danthanarayana et al., 2024). The personal characteristics of social media marketing that influence consumer behaviour in clothing industry are identified through a descriptive research approach.

The study's target group was defined as consumers who use social media, and this was then sub-divided to include just those who use one of the social media platforms listed in the questionnaire (YouTube, Facebook, TikTok, and Instagram). Additionally, since the study focussed on consumer behaviour in Sri Lanka, the target group consisted of Sri Lanka residents under the age of 40. The apparel industry was also limited to individuals who made purchases from the retailers listed in the questionnaire (Carnage, F.O.A, Odel, Jezza, Cool planet and Nolimit). The sampling approach employed in this thesis is the probability sampling method. Random samples of Sri Lanka residents were selected, and these individuals were subsequently provided the prerequisite questionnaire. Furthermore, a cluster sample strategy was employed within the wider probability sampling framework for this study due to the limited number of options—specifically, six garment brands and four social media platforms - available among residents of Sri Lanka. Therefore, the sampling technique that the researcher has used in this study is a random cluster sampling technique. Samples were chosen at random, on the specific characteristics required for the study.

The term "survey" refers to a research method that uses questionnaires to collect data. The temporal horizon of the study may be cross-sectional or one-shot, meaning that data were only gathered once. (Lee, 2003). Cluster sampling was employed to gather data from a sample of 100 consumers, all part of the study's target audience - clothing customers and active social media users residing in Sri Lanka. Since most statisticians including James Cridland (2023). Agree that a sample size of at least 100 is necessary to provide any form of meaningful result, the sample size was set accordingly

The questionnaires served as the main source of data for this study. Consequently, the target respondents received them both offline and online with online distribution carried out via WhatsApp. The researcher created a QR code for accessing the questionnaire which was then shared with the six clothing stores listed. The questionnaire consisted of 25 mandatory questions, divided into 8 sub sections. The first two questions in the 1st section served as criteria to ensure that respondents met the target group requirements before proceeding with the rest of the questionnaire.

The first question asked the respondents whether the respondent resides in Sri Lanka and the second asked whether they are an active user of social media. If these two criteria don't meet, then the google form ends and the respondent would submit the form as this is a purposive sampling and in case if it had gone out of the target population by sharing to friends of friends which was to reduce the tendency to collect inaccurate data.

Statistical Packages for Social Sciences (SPSS) is the analytic programme that was used to analyse the acquired data as the study was more quantitative in nature (Francis and Ganeshamoorthy, 2017). All variables deemed reliable for the purposes of this study when the data were first subjected to a reliability analysis using Cronbach Alpha. Descriptive statistics were also applied to the data to determine the mean value and assess whether the responses supported the hypotheses were agreeable. Multiple regression analysis was utilised to determine the impact of the variables, while Pearson's correlation analysis was employed to assess the relationship between two variables as the researcher has used interval scale for the questionnaire (Francis and Amirthalingam, 2020).

RESULTS AND DISCUSSION

Descriptive Statistics

Table 02: Results of Descriptive Statistics

Descriptive Statistics						
Measures		**VCR**	**SMA**	**EWOM**	**SMT**	**CB**
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		4.2725	4.3575	4.4325	4.3567	4.4967
Std. Deviation		.73777	.70465	.53637	.64311	.66582
Skewness		-.995	-1.163	-1.087	-1.462	-1.696
Std. Error of Skewness		.241	.241	.241	.241	.241
Kurtosis		-.164	.279	.889	2.573	2.790
Std. Error of Kurtosis		.478	.478	.478	.478	.478

Source: survey data, 2024

The table above represents the descriptive statistics. In comparison to standard deviation, the researcher analysed the variability in consumer responses. The highest standard deviation is observed in the virtual customer relationship with a value of 0.7377. Therefore, responses to virtual customer relationships show greater variability, compared to the other variables. The lowest standard deviation, which is 0.536, is associated with EWOM. Consequently, responses to EWOM exhibit less variability compared to other items. Social media advertisements, social media trends and consumer behaviour have standard deviations in the range of 0.7 to 0.6, which indicated a moderate level of variability, suggesting that consumer responses to these items are more consistent compared to EWOM.

Reliability Analysis

Table 03 : Results of Reliability Analysis

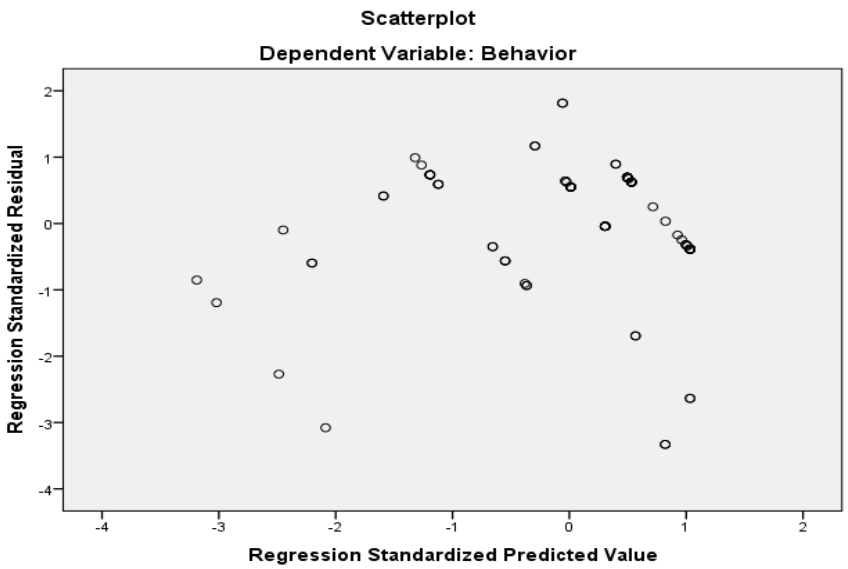
Variable	Cronbach's Alpha	No. of items	Status
Virtual Customer Relationship (VCR)	0.782	4	Good
Social Media Advertisements (SMA)	0.876	4	Good
Electronic Word of Mouth (EWOM)	0.785	4	Good
Social Media Trends (SMT)	0.754	3	Good
Consumer Behaviour (CB)	0.828	3	Good
All variables	0.950	18	Excellent

Source: survey data,2024

The researcher conducted a reliability analysis on interval scale items, including virtual customer relationships, social media advertisement, EWOM, social media trends, and consumer behaviour. The results demonstrated high internal consistency among the variables, with Cronbach's Alpha values exceeding 0.7. VCR, the first independent variable, had a reliability of 0.782, while SMA, the second variable, had a reliability of 0.876, and EWOM and SMT, the third and fourth variables, had reliabilities of 0.754, and 0.828 respectively. After addressing the objectives, the researcher operationalized the variables, confirming their high internal consistency and reliability. The Cronbach's Alpha value for all variables is 0.950 which indicates that overall, all the variables have an internal consistency and are reliable.

Homoscedasticity

Figure 3 - Homoscedasticity



Source: SPSS-26

In the scatter plot, the researcher presented standardized residuals against the standardized predicted values. The scatter plot illustrates the residual behaviour of

consumers. The residuals are randomly distributed with no systematic pattern observed. This means that there is no funnel shape, indicating regression model does not have heteroscedasticity problem. This suggests that the model is effective.

Pearson's Correlation Coefficient Analysis

Table 04 : Results of Pearson's Correlation Coefficient Analysis

Pearson Correlations

		VCR	SMA	EWOM	SMT	CB
VCR	Pearson Correlation	1	.782**	.727**	.655**	.716**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	100	100	100	100	100
	Pearson Correlation	.782**	1	.905**	.786**	.843**
SMA	Sig. (2-tailed)	.000		.000	.000	.000
	N	100	100	100	100	100
EWOM	Pearson Correlation	.727**	.905**	1	.737**	.774**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	100	100	100	100	100
SMT	Pearson Correlation	.655**	.786**	.737**	1	.853**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	100	100	100	100	100
CB	Pearson Correlation	.716**	.843**	.774**	.853**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	100	100	100	100	100

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

Source: Compiled by Authors based on survey data, 2024

The correlation analysis reveals a highly significant positive relationship between virtual customer relationships and consumer behaviour. The probability of adding social media content to consumer behaviour is also high, with a coefficient of correlation of 0.843. The probability of EWOM also shows a high positive relationship with consumer behaviour, with a coefficient of correlation of 0.774. The P value of the relationship between trend and consumer behaviour is also high, with a coefficient of correlation of 0.853. Overall, the study indicates a strong positive relationship between social media marketing factors and consumer behaviour.

Multiple Linear Regression Model

Table 05: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.900[a]	.809	.801	.29666	1.598

a. Predictors: (Constant), (VCR), (SMA), (EWOM), (SMT)

b. Dependent Variable: (CA)

Source: Compiled by Authors based on survey data, 2024

The model summary shows a coefficient of determination of 0.809, explaining 80.9% of consumer behaviour, with an adjusted coefficient of determination of 0.801. This indicates that the model is well-fitted and there are no unnecessary independent variables. The multiple correlation of 0.900 indicates a strong correlation between social media marketing factors, including virtual customer relationships, ads, EWOM, and trends. The Durbin-Watsons statistics of 1.598 indicates that the residuals are independent, confirming the model's validity.

Table 06: ANOVA results for the regression model

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.527	4	8.882	100.919	.000[b]
	Residual	8.361	95	.088		
	Total	43.888	99			

a. Dependent Variable: (CA)

b. Predictors: (Constant), (VCR), (SMA), (EWOM),(SMT)

Source: Compiled by Authors based on survey data, 2024

In the regression ANOVA, the probability associated with the F statistics is 0.000. This is highly significant, indicating that the model is jointly significant. Therefore, all the independent factors of social media marketing jointly influence consumer behaviour. This means that virtual customer relationship, ads, EWOM and trends jointly influence on consumer behaviour.

Table 07: Coefficients for the regression model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.375	.276		1.362	.177		
	VCR	.085	.065	.094	1.298	.197	.382	2.615
	SMA	.380	.117	.402	3.246	.002	.131	7.657
	EWOM	-.024	.131	-.020	-.186	.853	.179	5.582
	SMT	.508	.076	.490	6.706	.000	.375	2.665

a. Dependent Variable: (CA)

Source: Compiled by Authors based on survey data, 2024

According to the study, the equation can be rewritten as:

$$CA = \beta_0 + \beta_1 VCR + \beta_2 SMA + \beta_3 EWOM + \beta_4 SMT + \varepsilon \quad .(01)$$

$$CA = 0.375 + 0.085 VCR + 0.380 SMA - 0.024 EWOM + 0.508 SMT \quad (02)$$

According to the individual coefficients, probability for ads is 0.002 which is highly significant. Individual beta value is 0.380, indicating that ads have a high significant positive effect on consumer behaviour. The P value of trend is also highly significant at 0.000 and the individual beta value is 0.508. This indicates that trend also has a high significant positive effect on consumer behaviour.

The other two factors are individually insignificant with a P value of 0.197 for virtual customer relationship and a P value of 0.853 for EWOM. Therefore, while these two variables do not individually affect the consumer behaviour, they influence jointly on consumer behaviour. According to standardized coefficient of beta, most influencing factor is e trends, with a standardized beta coefficient of 0.490. The second most influential factor is ads with a standardized coefficient of 0.402. According to the collinearity statistics, all the VIF values are less than 10, indicating that the independent variables are not perfectly correlated. This indicates that the beta values accurately represent the corresponding effect of the variables. This means that there is no multicollineraity problem validity of the model.

Table 08: Validity Test

Social media		**Standardized Residual**
Virtual	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	100
Ad	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	100
EWOM	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	100
Trend	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	100

Source: Compiled by Authors based on survey data, 2024

According to the relationship between social media marketing factors and standardized residuals all the p values are perfectly significant, with a value of 1.00. This means that the independent variables are not correlated with the residuals, indicating that the model is highly valid. This means that all the variables have a positive linear correlation with the dependent variable consumer behaviour. Therefore, all the H_n hypotheses are accepted, and all the H_o hypotheses are rejected, according to the findings. The models are thus considered highly valid.

Hypothesis Summary

The main objective of this study was **"To identify how social media marketing factors has impacted consumer behaviour in the clothing industry in Sri Lanka."**

This objective was dissected into 3 sub objectives and all of which were addressed. This study has therefore addressed all the objectives and research questions using the techniques mentioned above. It has also tested the hypothesis using these techniques to determine if all the alternative hypotheses are accepted and the null hypothesis rejected.

Table 09: Hypothesis summary

Hypothesis	Relationship	Status	Justification
H1	Positive significant	Accepted	R= 0.76 R square= 0.512 P- value = 0.000 Coefficient= 0.484
H2	Positive significant	Accepted	R=0.843 R square=0.711 P- value =0.000 Coefficient=0.597
H3	Positive significant	Accepted	R=0.774 R square=0.599 P- value =0.000 Coefficient=0.720
H4	Positive significant	Accepted	R=0.853 R square=0.728 P- value =0.000 Coefficient=0.883

Source: Compiled by Authors based on survey data, 2024

The results show that each of the four hypotheses has a positive and significant impact on the variables of social media marketing and consumer behaviour. The null hypothesis is rejected, while the alternative hypothesis, which confirms the validity of variables is accepted. All the independent variables have a collective impact on the dependent variable.

CONCLUSION AND RECOMMENDATIONS

To sum up, this study set out to assess the influence of social media advertising on consumer behavior, specifically focusing on the clothing industry. Both descriptive and inferential statistics were used to analyze the gathered data. Consequently, the results of the regression analysis demonstrate that the independent variables have a significant impact on the dependent variable. The study's four hypotheses were all accepted as the variables—VCR, trends, EWOM, and Ads were found to have a substantial positive significant influence on the dependent variable, and consumer behaviour. The study's implications offer apparel retailers and marketers with valuable insights. Similarly, this research serves as a valuable literature source for researchers in the future.

Culture has the potential to influence the fashion business. Accordingly, cross-cultural factors should be a primary focus of future research. This research solely focuses on the general changes in customer behaviour resulting from the social media marketing. Therefore, it is imperative that researchers in the future quantify the influence of every aspect of the behavioural process. Moreover, the study collected data through a survey, which may have limitations such as unclear questions that could lead to decline to answer. In order to better discover underlying emotional factors, it might be wise for future research to alter the questions. From the standpoint of the study, the quantitative component was mostly looked at. To provide far more reliable data, a combination of qualitative and quantitative methods should be used. Furthermore, additional research is required to apply the findings to other contexts because the study's measurement of social media marketing's impact on customer behavior is limited to the fashion industry. The study's 100-person sample size may limit the validity of its findings for a broad population, and its geographic focus on Sri Lanka further hinders extrapolation. Further research is therefore required for far more dependable outcomes, and other investigations are required to generalize the findings.

In addition, this study employs a cluster sampling approach, focusing on a specific number of clothing retailers and social media platforms. This approach may introduce biases and does not include the individuals that uses other social media platforms, which could influence their behaviour.

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THE IMPACT OF INTERPERSONAL TRUST ON TRANSACTION COSTS AND BUSINESS PERFORMANCE AMONG RETAIL TRADERS IN GAMPAHA DISTRICT OF SRI LANKA

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ISSN: 2772 128X (Online)
ISSN: 2792 1492 (Print)
SLJESIM
VOLUME 03 ISSUE 02
December 2024
sljesim@sab.ac.lk
www.sab.ac.lk/sljesim

Received: *18 November 2023* ***Revised:*** *26 November 2024* ***Accepted:*** *26 December 2024*

How to Cite this Article*. Anjalika, W.P.W. and Priyanath, H.M.S (2024). The impact of interpersonal trust on transaction costs and business performance among retail traders in Gampaha district of Sri Lanka, Sri Lanka Journal of Economics, Statistics, and Information Management,* 3(2), 93 -112

Abstract

Scholars revealed that interpersonal trust among exchange partners mitigates transaction costs and thereby enhances the greatest level of business performance. However, the lack of empirical evidence specifically in the Sri Lankan context highlights a major gap in the existing literature. In this study, 225 retail traders in the Gampaha district of Sri Lanka are specifically investigated to examine how interpersonal trust affects transaction costs and business success. Retail traders were interviewed personally using a pre-tested structured questionnaire for gathering primary data.The Partial Least Square Structural Equation Model (PLS-SEM) was used to analyze data. The findings revealed a negative relationship between transaction cost and interpersonal trust, while a significant positive relationship between company performance and interpersonal trust. Additionally, the results found that transaction costs have a negative correlation with business performance and mediate the relationship between business performance and interpersonal trust. Thus, this study provides insight on how interpersonal trust enhances business performance and minimizes transaction costs.By quantitatively evaluating this interdisciplinary framework, it blends sociological concept of inter-personal trust with economics and marketing management, making a significant contribution to the theoretical and empirical literature. The study emphasizes how crucial it is for retail traders to build trusting relationships with exchange partners because doing so would effectively reduce transaction costs and improve business performance.

keywords: Business Performance, Interpersonal Trust, Relational Contract, Retail Traders, Transaction Cost

INTRODUCTION

Retail trading is one of the most significant service activities that attempts to sell goods and services to customers developing close relationships with customers by satisfying their utility (Rudrabasavaraj, 2010). Retail traders deliberately work to develop sustainable exchange relationships with customers using different strategies since they understand that these relationships increase customer loyalty and thereby generate steady sales revenue (Rokkan, Heide & Wathne, 2003). According to McNeil (1983), the informal transaction relationship between retail traders and customers is governed by relational contacts based on relational norms and interpersonal trust. The relational contracts embodied with inter-personal and inter-organizational relational networks facilitate the mutual benefits to exchange partners (Putnam, 1995). The majority of retailers in the market depend entirely on relational contracts with the exchange partners, to keep the performance of the business activities at a highly satisfactory level (Smith & Doe, 2023). The current context in the market recognizes interpersonal trust as a widely acknowledged aspect (Zanini & Migueles, 2018) to reach a relational contract and upgrade the Business Performance (BP) keeping long-term orientations (Martin & Sohi, 1993) between exchange partners while mitigating opportunistic behaviors (Morgan & Hunt, 1994) and mitigate transaction cost as well (Williamson, 1981). Interpersonal trust can improve business performance by fostering collaboration and problem resolution, improving understanding, planning, and communication (Priyanath & Premaratne, 2017). Moreover, interpersonal trust helps diminish transaction costs by avoiding the need for legal action or agreements to protect businesses from opportunism (Macneil, 1983).

In the global context, studies have shown that relational contracts can positively affect BP. For example, a study by Wang et al. (2018) in China found that relational contracts can improve the performance of buyer-supplier relationships by reducing Transaction Costs (TC) and promoting cooperation. Similarly, a study by Jafari et al. (2020) in Iran found that relational contracts can enhance the performance of the construction industry by improving communication, reducing opportunistic behavior, and promoting collaboration. However, previous studies have explored the use of relational contracts in the Sri Lankan context. For instance, Priyanath and Premaratne (2017) investigated the impact of relational contracts on BP in Sri Lankan small enterprises. Their study found that relational contracts significantly influence BP by promoting trust, collaboration, and communication among partners. Further Jayathilaka and Priyanath (2021) observed the relational contract on asset specificity and BP considering small enterprises. Moreover, Priyanath et al. (2016a) studied the effect of relational norms on mitigating TC focusing on smallholder vegetable farmers. Another research done by Gamage and Priyanath (2018) observed the interpersonal trust on opportunism and BP regarding gem dealers in Sri Lanka. Although previous studies have explored the impact of relational contracts on supply chain performance and BP in various contexts, the specific direct and indirect effects of inter-persona trust on TC and BP of retail traders in Sri Lanka have not been extensively investigated. Further, Large-scale companies invest in technology and embrace the technological transformation to the business successes. However, as

small-scale businesses, retailers do not have the capacity for the investment. In this context, interpersonal trust is beneficial for the retailers to enhance the success of the business and minimize the cost of transactions. The current study aims to address this contextual literature gap by exploring the effect of interpersonal trust on TC and BP of retail traders in Sri Lanka. Further, the study assesses how TC is mediated in the relationship between interpersonal trust and BP.

THEORETICAL BACKGROUND

This study establishes a strong foundation for examining the designated research problem by critically assessing the use of relational contract theory in comprehending interpersonal trust, utilizing TC theory to clarify transaction prices, and evaluating corporate performance indicators.

Inter-personal trust: There are many different ways in which academic literature describes interpersonal trust, which is a crucial component of relational contact. It is defined as "one party's confidence in the reliability of their exchange partner" by Morgan and Hunt (1994). On the other hand, Zaheer et al. (1998) expound on this idea, characterizing it as the expectation that an actor will consistently perform their duties, display consistent behavior, and uphold equity, particularly in circumstances where opportunism is likely to occur. Mayer et al. (1995) defined interpersonal trust as a party's readiness to be open to the acts of another in the hopes that the latter would carry out a certain task that is significant to the trustor. According to Ganesan (1994), trust is a three-dimensional construct that consists of ability, benevolence (the behavioral component), and credibility. The concept of interpersonal trust pertains to an entrepreneur's belief that an exchange member is reputable (reliable, adaptable, equitable, and unlikely to intentionally harm a connection) and consistently demonstrates this by their actions (charity). Thus, kindness is evaluated using creditability which is assessed using three components: predictability, reliability, and fairness. These components have all been confirmed by Manolova et al. (2007); Zaheer et al. (1998).

Ability is a crucial component of interpersonal trust, emphasizing the need for competence in developing trust. According to Mayer et al. (1995), ability is the collection of aptitudes, proficiencies, and traits that provide a person the capacity to exert influence in a certain field. The idea stresses that a party's capabilities are essential for the establishment and maintenance of trust, stating that trust is based in part on one's belief in one's talents and abilities in a relevant field. Aligning their interests with the objective of having a good impact on other organizations is how benevolent organizations set themselves apart (Johnson & Smith, 2022). Known as benevolent, these organizations aim to expand their goals beyond personal gain to encompass the well-being of others (Adams, 2021). It's interesting to note that opportunism is a key component of an indirect theory of organizational benevolence. A high degree of opportunism has the opposite effect on compassion in situations where it is important, which lowers trust levels (Brown, 2020). Credibility is observed in the confidence and trustworthiness among their exchange partners. Credibility represents to what extent, exchange partners are keeping their promises honestly towards each other when they are doing transactions (Poon, Albaum, & Yin, 2017).

Further, Rempel, Holmes, and Zanna (1985) stated that credibility protects the solid connection among business partners dealing with specific characteristics.

Transaction Cost: Coase (1937) established the notion of TC, which he defined as the expenses incurred in applying the price mechanism. Coase's theory (1937) which holds that businesses form to reduce these transaction costs is fundamental to our understanding of why they exist and how they are organized. Williamson (1981) describes TC as the out-of-pocket charges associated with conducting a business transaction. This covers the price of obtaining data, negotiating and upholding contracts, and handling transaction-related concerns. Coase (1937) explained the importance of the market accomplishing specific activities for both consumers and producers. Therefore, transaction costs are the combination of searching and information costs, bargaining costs, and monitoring enforcement costs of performing a transaction. Different economists variously divided this TC on their identification. ‘’Ex-ante and Ex-post’’ are the most common way to separate it (Williamson,1985). Ex ante cost includes both, negotiation cost and the cost of forming a contract which means this cost happens before coming to fulfillment of the actual transaction (Hobbs., 1996). Meanwhile, monitoring and cost of enforcing an agreement include ex-post cost (Hobbs., 1996). According to Williamson (1985) enforcing cost furnishes safeguards on agreements made by producers and consumers. Williamson, (1985) introduced major four types of TC, 1) search costs, 2) negotiation costs, 3) monitoring costs, and 4) enforcement costs. Searching cost helps to identify the best trading partner among potential trading partners gathering details related to the transaction (Williamson., 1985). As trading partners, consumers and producers come to a written agreement by creating a document after finishing the negotiation on the transaction and this is called the cost of contracting (Dyer, 1997). Monitoring costs raised by every party associated with the transaction to certify the agreement is in line with a set of rules and regulations determined by them previously (Dyer, 1997). If some partner violates rules and regulations another partner has an opportunity to take action against it through bargaining called enforcement cost (Hennart & Verbeke, 2022).

Business Performance: According to Kaplan and Norton (1992), BP is a multidimensional concept that is judged by customer satisfaction, internal processes, learning and growth perspectives, and financial outcomes. According to Richard et al. (2009), an organization's capacity to accomplish its goals successfully and economically is referred to as its BP. They put forth a thorough analysis that takes into account market performance, shareholder return, and financial performance. They emphasize the significance of taking into account a wide range of indicators, including both short and long-term results, to effectively evaluate a BP. Performance is defined as a collection of multidimensional constructs that is comprised of the functions of contract formation, planning, supervision, and assistance (Kramer et al., 1986). Better-performing companies derive profits, gain surplus internally, and contribute to the growth rate surviving in the market externally (Rizal, Kholid & Suhadak, 2017). For different decades, BP was described by scholars from different viewpoints. However, Anderson, Oliver & Keltner (2012) pointed out the significance of the usage of financial and non-financial criteria as indicators to

measure this concept. The short-period progress of the entire business is estimated through financial criteria while non-monetary long-period growth is calculated using financial criteria (Moers, 2000). Financial performance. However, financial performance directly implies what we gain in terms of money and assets (Carton & Hofer, 2006). Non-financial performance reacts to mutual understanding, trust, and satisfaction in the contract (Boniface, Gyau, & Stringer, 2012) many studies such as (Kraus et al., 2012; Runyan, Droge & Swinney, 2008) have used indexes of perceived performance to estimate performances in the organizations. Organizational performance grows with the increase in the amount of the output of a company under certain inputs. While relationship satisfaction, the number of buyers and sellers, and the firm's goodwill are used to measure non-financial performance in the retail sectors, this study aims to utilize increasing the firm's profit and retailers' assets as indicators to evaluate financial performance.

2.1 Hypotheses

Inter-personal Trust and Business Performance: Strong contact from person to person enables an opportunity for sharing information (Nielson, 1998) and ultimately decreases the perceived risk while improving the consistency and reliability of the business environment (Almenti, 2013). Business parties make valid decisions regarding whom to trust based on the evidence and other information (Offe, 1999). According to Svensson (2004), trust is an emotional feeling that develops interpersonal faith and is built with strengths and influence on business relations. Moreover, trust creates a link among exchange parties to a proper business relationship while leading to solid communication between people (Morgan & Hunt, 1994). More reliable information is available for decision-making activities when parties share information through a great level of trust (Johnston et al., 2004) and may help enhance to business environment of retail traders. Johnston et al. (2004) identified the worth of trustworthiness as a crucial cooperative aspect of the expanded business activities and their performances with their empirical study. Therefore, the study assumes that;

H1: Interpersonal trust has a positive impact on the business performance of retail traders in Sri Lanka.

Inter-personal Trust and Transaction Cost: In many organizational and entrepreneurial literature, the term trust has been identified as a significant component of reducing TC occurring between exchange parties. Hence the risk of uncertainty, conflict, and opportunistic behavior that resulting more efficient long-term governance (Morgan, Anokhin, & Wincent, 2016). Interdependency among business partners depends on mainly both trust and the cost of a transaction which leads to expanded organizational performance (Lado et al., 2008). Trust among the exchange partners enables them to maintain cooperative relationships. In this scenario, high trust among partners generates productive and fertile agreement by mitigating contract costs (Zaheer et al., 1998). Interpersonal trust has the desirable ability to continue smooth agreement among exchange parties avoiding violation (Gulati, 1995) a solving unexpected circumstance (Priyanath & Premarathne, 2017; Zaheer et al., 1998), and mitigate opportunism (Gulati, 1995). Interpersonal trust exchanges

more reliable information with business partners to make proper business decisions at low cost (Bromiley & Cummings, 1995) and less time-consuming (Dyer, 1997). Business parties are less motivated to rely on elaborate protections for monitoring and enforcing agreements under low-trust situations (Dyer, 1997). Therefore, the study assumes that;

H2: Interpersonal trust has a negative impact on the transaction cost of retail traders in Sri Lanka.

Transaction Cost and Business Performance: Coase (1937) stated the TC theory suggests that people begin the production of a particular firm when external parties share incomplete information while within the firms it is rich with information that parties rich with information can cheat on the party that has less information and make profits. In addition to that Coase (1937) expressed that, firms or institutions can avoid some of the TC through a price mechanism system. Performances of the business extensively depend on the main characteristics of the TC. Mostly, small firms incur high search costs to find support from skilled staff, buyers sellers, and other partners to find reliable transactions, reducing the risk of exchanges (Carmel, 2005) to enhance the performance of the organization. Accordingly, Carmel (2005) identified the negative relationship between search costs and the performance of the business. Dyer and Chu (1997) stated the importance of the lowest searching cost for an effective performance of business. Parties engage in transaction activities with each other with a lack of confidence, and performance in any organization is get to down (Dyer, 1997). However, the success of the organization retains the extent of the exchange parties' confidence (Kaufmann & Stern, 1992). Organizations incur costs to monitor their exchange partners to diminish unethical practices which can bring negative results towards business to keep their wellness (Nooteboom, 1993). Therefore, the study predicts that;

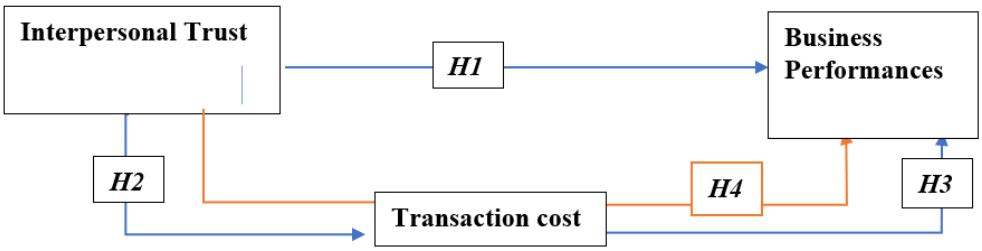
H3; Transaction cost has a negative impact on the business performance of retail traders.

The mediating role of Inter-personal trust: Higher levels of interpersonal trust between business partners create strong commitment and cooperation in sustaining a long-term relationship (Dant & Schul, 1992), which leads to the development of relational norms that improve the mindset between exchange partners (Rokkan et al., 2003). This creates a positive atmosphere that can help mitigate the effects of opportunistic behaviors and uncertainty among actors that arise due to information asymmetry (Heide & Jhon, 1992), reducing TC (Heide & John, 1992). Reducing TC through higher levels of interpersonal trust can result in better business performance. Lower monitoring costs and enforcement costs, as a result of having fewer disputes and disagreements, encourage partners to rely on informal, honest agreements rather than costly legal procedures (Kaufmann & Stern, 1988). This enables exchange partners to make specific adjustments to their agreements in uncertain situations, which ultimately reduces the enforcement costs as a dimension of transaction costs (Heide & John, 1992). Therefore, the study hypothesizes that;

H4: Transaction cost has a mediating role in the relationship between interpersonal trust and the business performance of retail traders.

Figure.1 illustrates the direct and indirect relationships between variables. Relational contract grows under the continuation of interaction between buyers and sellers to upgrade self-enforcing protection among each other (Heide & John, 1992). Interpersonal trust is a significant phenomenon to promotes an informal interaction between buyers and sellers (Baker, Gibbons & Murphy, 2002). An important market accomplishment with bilateral exchanges incorporates the transaction cost and transaction cost threats to the market exchange in the various systems (Bolino et al., 2002). A robust network within exchange parties principally buyers and sellers may help markets as well as economies to achieve a better performance. Accordingly, the mutual relationship among buyers and sellers diminishes the cost of transactions and further strengthens the performance of business (Das & Teng, 1998). Thus, these effects have been prominent in enhancing the performance of business entities while leading entire economies to success.

Figure 1: Conceptual Framework of the study



Source: Developed by author, 2023.

METHODOLOGY

The research approach of this study is deductive and explanatory, and the philosophy is positivism, because, all variables; interpersonal trust, BP, and TC are developed based on existing theories including relational contact, TC, and the concept of BP. Therefore, the methodology selected for the study was quantitative. The survey strategy was selected to collect primary data from retail traders in Sri Lanka. The study uses a multistage cluster sampling technique to select the sample. Gampaha district out of 25 districts was selected using simple random sampling. All retailers of the one selected town of all secretariat divisions in the Gampaha district were selected for the sample. Thus, retailers were selected from thirteen towns of all secretariat divisions of the Gampaha district. The sample size was determined using the 'Inverse Square Root Method' method (Kock & Hadaya, 2018). The formula gives a 225-sample size that is sufficient for the analyzing technique of the study which is Partial Least Squire Structural Equation Modelling (PLS-SEM). Since there was no systematic sample frame, the study selected a convenient sample to conduct the survey. While convenience sampling was used, efforts were made to ensure proportional representation from each divisional secretariat to better approximate the population. 225 retail traders were selected covering all divisional secretariats'

divisions in the Gampaha district and data were collected using a structured questionnaire having face-to-face interviews with respondents.

Interpersonal trust is measured using three dimensions such as credibility, benevolence, and ability. The credibility was measured using seven items adopted by Dyer (1997); Gulati (1995); and Zaheer et al. (1998). Ability was measured with the support of four items developed by Mayer, Davis, and Schoorman (1995). The TC was measured using four dimensions; searching costs, negotiation costs, monitoring costs, and enforcement costs adopted by Kim & Choi (1994); Moers (2000), and Sako (1992). BP was assessed using six items adopted by Clemons and Row (1992); Gulati (1995): and Lado et al., (2008). All the items used to measure each variable are given in Table 1. The PLS-SEM was employed to examine the hypothetical relationships. The validity and reliability of each variable were evaluated first and then the structural model was evaluated using multi-collinearity problems, path coefficient and their significance, R-squire, effect size (f2), and predictive relevance. The SmartPLS (version 4) was employed to analyze the data.

RESULT AND DISCUSSION

Based on the 255 retailers in the Gampaha district, the majority of the retailers belong to the age 30-49 category. In addition, 85% of the total sample were male retailers and 166 respondents were married. Further, this study found that there were a lot of retailers with adequate quality educational qualifications as 98 of the respondents had completed the advanced level and other 102 respondents had the ordinary level qualification with technical/vocational education. Out of the sample, the highest number of respondents (78) were retailers selling food and beverage products with grocery items. The next largest group was retailers selling motor vehicles and parts, which indicates 39 respondents. There were also 34 respondents each of whom retailers were selling books, cosmetics, personal care, clothing and accessories, and those selling electronics and appliances. 21 respondents were retailers selling building materials and garden equipment, and 18 were retailers selling pharmaceuticals and health products. Moreover, respondents, 15% (39) of retailers have experience of 0-5 years. 35% (89) of the respondents have experience between 5-10 years and 27% (68) of the respondents have experience between 10-15 years.23% (59) of the respondents have more than 15 years of experience. The highest number of respondents (117) were independent retailers. This was followed by 72 respondents who reported being part of a family business, 54 respondents who reported running a home-based business, and 12 respondents who reported being subcontractors.

4.1 Reliability and validity of constructs

Reliability and validity of indicators of questionnaire items tested by the first order analysis. According to Table 1, the third two columns represent indicator reliability and the fourth two columns represent internal consistency reliability. If the value of outer loading is 0.7 or higher, it is suggested that all constructs of the questionnaire of the independent variables and mediator variables have established indicator reliability. Table 1 shows, that outer loading for all measuring items is above 0.7

pointing out that overall constructs under first-order analysis have indicator reliability and none of the items were omitted from the model. On the other hand, T-Statistics values of the constructs show very high values (all are above 1.96) which means constructs are completely significant at a 95% significance level. Since, both the tests conclude that the model has higher reliability in constructs.

Table 1: Reliability and validity of constructs of first-order analysis

		Loading	t-statistics	Composite reliability	Cronbach's alpha	AVE
1.	**Inter-personal trust**					
1.1	**Credibility**			**0.991**	**0.989**	**0.939**
	I feel that exchange partners are honest	0.963	187.89			
	I am confident that the promises that my beloved business partner will give	0.974	269.66			
	Exchange partners act fairly in all transaction	0.974	247.91			
	That businessman deliberately will not hurt me	0.965	191.79			
	There is very little risk that I will not be able to provide arrears to me from that partner.	0.976	300.50			
	I feel that exchange partners are trustworthy	0.965	207.56			
	Exchange partners do not break promises	0.966	197.33			
1.2	**Benevolence**			**0.986**	**0.982**	**0.948**
	My exchange partners will always make decisions, concerning my well-being too.	0.974	331.53			
	My beloved business partner always helps me in any trouble	0.973	325.57			
	Exchange partners always help me on every possible occasion he can.	0.979	402.12			
	Exchange partners would like to continue the business relationship with me	0.968	266.25			
1.3	**Ability**			**0.980**	**0.973**	**0.926**

	My exchange partners are very smart at any business matters	0.960	192.03			
	Exchange partners can verify my needs from action	0.956	142.97			
	I have confidence in his talents/abilities.	0.970	270.75			
	Exchange partners would like to give me the best of their knowledge for my good.	0.963	204.30			
2.	**Transaction cost**					
2.1	**Searching cost**			**0.971**	**0.956**	**0.919**
	We have to pay to look for new suppliers and customers.	0.941	92.917			
	The cost of labor is involved in managing advertising efforts.	0.976	344.88			
	Travel expenses are incurred to manage advertising operations.	0.958	154.87			
2.2	**Negotiation cost**			**0.982**	**0.973**	**0.948**
	Labor costs are associated with managing legal issues and bargaining with the exchange.	0.968	187.26			
	Travel expenses are incurred when handling legal concerns.	0.978	380.55			
	Dealing with legal issues and conducting exchange negotiations have a communication cost.	0.975	260.95			
2.3	**Monitoring cost**			**0.986**	**0.981**	**0.946**
	Monitoring transaction operations, regardless of whether they are carried out in accordance with the agreements, comes at a cost.	0.968	193.42			
	Whether transaction actions are carried out in accordance with the agreements or not, there is	0.983	435.52			

	a personnel cost associated with monitoring them.					
	To keep an eye on transaction operations and make sure they are carried out in accordance with the agreements, there is a traveling expense.	0.976	420.71			
	Monitoring transaction operations to ensure they are carried out in accordance with agreements incurs communication costs.	0.962	183.19			
2.4	**Enforcement cost**			**0.984**	**0.979**	**0.940**
	Resolving transaction complaints is not free.	0.957	154.18			
	Resolving disputes pertaining to transactions incurs personnel costs.	0.976	290.00			
	In order to settle transaction issues, there is a traveling expense.	0.974	276.28			
	Resolving transaction disputes involves communication costs.	0.971	220.88			

Source: Survey data, 2023.

The results indicate that the constructs of all questionnaire items establish reliability because the Composite Reliability (CR) and Cronbach's alpha (CA) values are higher than 0.7 for every item. Table 1 further represents that AVE measures of the indicators represent values greater than 0.7, confirming the first-order model's convergent validity. Table 2 represents the discriminant validity of the constructs of first-order analysis. The diagonal value represents the square root of AVE for each first-order construct. Non-bold figures represent the other correlation values of the constructs. The square root of AVE is higher than the correlational values and the results confirmed the discriminant validity of all constructs of independent variables under the first-order model.

Table 2: Discriminant validity of constructs of first-order analysis

Variable		AVE	1	2	3	4	5	6	7
1.	**Enforcement cost**	0.948	**0.974**						
2.	**Monitoring Cost**	0.946	0.960	**0.973**					
3.	**Negotiation Cost**	0.948	0.900	0.914	**0.973**				
4.	**Searching Cost**	0.919	0.816	0.834	0.851	**0.959**			

5.	**Ability**	0.926	-0.802	-0.804	-0.783	-0.788	**0.962**		
6.	**Benevolence**	0.948	-0.781	-0.782	-0.774	-0.746	0.936	**0.974**	
7.	**Credibility**	0.939	-0.798	-0.791	-0.790	-0.767	0.937	0.946	**0.969**

Source: Survey data, 2023.

Second-order analysis also underlies the same tests completed under the first-order analysis. According to Table 3, the outer loading values of each indicator are above 0.7. This represents that, all generated outer loading values confirmed the indicator reliability in second-order analysis. Further, this table shows that values of the t-stat of all constructs are higher than 1.96. These t-stat values reflect relatively larger values and complete significance at a 95% significance level. Therefore, this study confirmed the indicator reliability of constructs of the questionnaire under second-order analysis. All values of CA and CR of this study were greater than 0.9 showing a greater internal consistency in the final model representing a higher association between indicators with their variables of the model.

Table 3: Reliability and validity of constructs of second-order analysis

		Loadings	**t-statistic**	**Composite reliability**	**Cronbach's alpha**	**AVE**
1	**Inter-personal trust**			**0.986**	**0.979**	**0.960**
	Credibility	0.981	291.74			
	Benevolence	0.980	309.18			
	Ability	0.978	260.97			
2.	**Transaction cost**			**0.976**	**0.967**	**0.910**
	Searching costs	0.957	72.68			
	Negotiating costs	0.976	160.29			
	Monitoring costs	0.974	236.66			
	Enforcement costs	0.971	177.26			
3.	**Business Performance**			**0.981**	**0.977**	**0.879**
	I can earn an income that is enough for my better living and success from this business.	0.899	39.13			
	I have the ability to buy high price commodity	0.903	68.99			
	made it possible to earn more profits/profits.	0.946	116.15			
	There are some important buyers and sellers around me.	0.956	165.62			
	Due to business activities, my land/buildings/vehicle ownership has increased.	0.937	96.71			
	My reputation has increased with this business.	0.963	175.21			
	From this point onwards, I am pleased with the position in my business.	0.959	105.18			

Source: Survey data, 2023.

Table 4 represents the discriminant validity of the constructs of second-order analysis and it represents higher AVE values for the variables which are greater than 0.7 representing the convergent validity of all constructs of the second-order analysis.

Table 4: Discriminant validity of constructs of second-order analysis

	BP	**IPT**	**TC**
BP	**0.938**		
IPT	0.937	**0.980**	
TC	-0.834	-0.839	**0.954**

Source: Survey data, 2023.

Table 5 shows that there is no multicollinearity in a model since the tolerance value of the model is greater than 0.2 and the VIF value is lower than 5.

Table 5: Multicollinearity test of the inner model

	BP		**TC**	
	Tolerance	**VIF**	**Tolerance**	**VIF**
Inter-personal trust	0.4541	2.202	0.2643	3.783
Transaction cost	0.2729	3.664		

Source: Survey data, 2023

The current study is concerned with four (4) hypotheses. Among them, the first three (3) hypotheses investigate the direct significance of the hypothesized relationship between independent, dependent, and mediating variables. Table 6 represents the hypothesized relationship.

Table 6: Path coefficient and t-statistic among constructs (Direct relationship)

Hypothesis	**Relationship**	**Path coefficient**	**t-statistic**	**P values**	**Decision**
H1	Interpersonal Trust and Business Performance	0.708	10.691	0.000	Accepted
H2	Interpersonal Trust and Transaction Costs	-0.338	2.901	0.004	Accepted
H3	Transaction Costs and Business Performance	-0.109	2.723	0.006	Accepted

Source: Survey data, 2023.

Moreover, the adjusted R^2 value for the BP of this study is 70.3%. This value concludes that a 70.3% variation of the BP is clearly explained by the independent variable of relational contract. Further, the study represents 62.5% of the adjusted R^2 value for transaction costs. That means a 62.5% variation in transaction cost is clearly explained by the independent variables of the study. Accordingly, this study concludes that the model is substantial. Further, this study discovered a large effect size (f^2) with BP over the value of 0.427. In addition, a small effect size is indicated between interpersonal trust and transaction cost with a value of 0.036.

The fourth hypothesis of this study represents the indirect relationship between independent, mediate, and dependent variables showing the mediate role of transaction cost. Table 7 represents the indirect effect of TC .

Table 7: Path coefficient and t-statistic among constructs (Indirect relationship)

Hypothesis	Relationship	Path coefficient	t-statistic	P value	Decision
H4	IPT -> TC -> BP	0.137	2.081	0.038	**Partial Mediation**

Source: Survey data, (2023)

DISCUSSION

Table 6 shows that there is a strong positive relationship between interpersonal trust and BP of the retail traders. This indicates path coefficient value (β) +0.708. This is realized that retail traders are vastly dependent on the business trust with their exchange partners and business transactions are based on the word of confidence. Moreover, this hypothesis stated that the BP of retail traders increases by 0.708 when increasing the level of trust among retail partners by one unit. Almenti (2013) and Choi, Souiden, & Skandrani (2012) confirmed the positive impact of interpersonal trust on profitability and productivity in business companies. Further, Sako (1992) emphasized that a higher level of trust between exchange partners promotes organizational competition and thus promotes achieving profits. Thus, the result of this study accepts the *H1* hypothesis.

Table 6 further represents the negative relationship between interpersonal trust and TC of retail traders showing -0.338 value of path coefficient (β). Accordingly, this β value elaborates, that the cost of transaction decreases when the interpersonal trust among business partners increases. Accordingly, inter-personal trust developed among the retail business partners can decrease the searching cost of new parties, and the monitoring and enforcement cost of transaction activities together. This hypothesis is supported by Priyanath & Premarathne (2017), who justified how transaction costs decrease with an increase in interpersonal trust. Furthermore, this relationship is verified by Ozkan-Tektas (2014). Trust is increasing the freedom of association, enhancing contract enforcement, facilitating inter-personal understanding, and strengthening the flexible rules of the exchange partners, which automatically decreases the TC. The interpersonal belief among exchange partners avoids opportunistic behaviors among partners, minimizing TC (Gamage & Priyanath, 2019).

Moreover, Table 6 further explains that the path coefficient value (β value) between TC and BP is -0.109. This denotes a negative impact between TC and BP. This further explains when the BP decreases as TC increases. Various scholars recognize transaction cost as a factor that provides bigger negative impacts on BP. Financial and non-financial performance of the business collapse on the other side whenever TC increases. Exchange parties can reduce the cost of the exchange with fair rules and standards they follow towards exchange partners over honest understanding,

flexibility in decision-making, and sensitive attention towards other partners when partners fall into business trouble, which improves the effectiveness of the market (Chou & Ramser, 2021; Paulin et al., 1997). Corruption in transactions and transparency in exchange promote bad experiences for the organization (Ofori & Sackey, 2010). Irrelevant and excessive transaction costs negatively promote a systematic organizational culture and generate bad business decisions (Masten, 1993).

Table 7 represents the mediating effect of TC in the relationship between interpersonal trust and BP of retailed traders. This can be further explained as when interpersonal trust increases, BP increases by 0.137 units due to the mediating role of TC. However, strong relationships among the parties are important to minimize this TC for businesses (Rus & Iglic, 2005). On the other hand, Rus and Iglic (2005) explained the possibility of a strong relationship to achieve a higher rate of profit. The interpersonal trust provides a safeguard against the extensive range of opportunism and opportunistic behavior among exchange partners, and thus, the loose cost of negotiating, monitoring contracts, and providing precise safeguards decreases the cost associated with complex bonding in an economical manner with greater effectiveness towards the organization (Chiles & McMackin, 1996). Accordingly, the empirical literature supports the *H4* hypothesis in this study.

CONCLUSION

The study investigated how interpersonal trust affects the TC, and BP of retail traders in the Gampaha districts, Sri Lanka. Four hypotheses were tested to understand the impact of interpersonal trust on TC and BP. Hypothesis 1 observed the positive relationship between interpersonal trust and BP, and the second hypothesis observed a negative impact of interpersonal trust and TC. The current study confirmed those relationships. Moreover, hypothesis 3 demonstrated the negative influence of TC on the BP of retail traders, and the results confirmed this hypothesis as well. Hypothesis four was formulated to test the mediate effect of TC on the relationship between interpersonal trust and the BP of retail traders. The results proved the mediating effect of TC on the relationship between interpersonal trust and BP.

The study developed a conceptual framework that combined the theories of relational contract theory and TC theory, and it was empirically evaluated in the context of Sri Lanka. Accordingly, this study supports the theoretical literature by testing a new theoretical framework developed using an interdisciplinary method. Additionally, the study evaluated how transaction cost mediated the association between BP and interpersonal trust. Finally, study contributes empirical evidence of retail traders to the literature by addressing a research gap in Sri Lanka.

This study suggests that retail traders should concentrate more on gaining interpersonal trust with their trading partners while applying a variety of strategies to achieve so. Through informal commercial alliances, retailers can interact with one another. Further, it is suggested that the importance of organizing and participating in the relevant exhibition and awareness campaign is to promote relationships and form informal technological partnerships to promote relationships established on

trust.Thus, policymakers can leverage the study's findings, which indicate that enhancing interpersonal trust can elevate retail traders' BP by minimizing transaction costs.This finding further indicates that the advantages of interpersonal trust are significantly affected by ability, compassion, and credibility. Therefore, the study recommends retail traders to give more attention and use different strategies to improve interpersonal trust with their exchange partners and finally recommends retail traders to use IT to build up sustained relationships with exchange partners for regular transactions expecting to minimize TC.

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