FACTORS AFFECTING THE SRI LANKAN IT PROFESSIONALS' MIGRATION

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Declaration

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Name of the supervisor: Ms. Vishaka Nanayakkara

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Abstract

Information Technology (IT) is a fast-moving industry which can nurture in any country. As the IT competency is globally accepted, can be taught and somewhat standardized, there seem to be more migration opportunities available for the IT professionals. In an era where Sri Lanka is with the ambition to make the IT/BPM industry as the top strategic industry of the country, it is challenging to lose the existing IT workforce as a consequence of migration. Therefore this research intended to investigate the factors affecting the migration decision of the Sri Lankan IT professionals.

As the first stage of the research, an extensive literature review was carried out to look through existing literature on migration and find out the universally identified factors that are affecting the decision to migrate. These factors were categorized as push and pull in the literature. Then conceptual framework was developed to visualize the literature review findings so as to have a better structuring of the research.

The next stage was to collect the data related to the influential factors for migration decision of Sri Lankan IT professionals who are already migrated. An online survey was used for this data collection. The survey was designed with reference to the conceptual framework. The snowball sampling was used to reach out to potential survey respondents.

The collected data was analyzed by utilizing the techniques of expert judgement and descriptive statistics. The Microsoft Excel and R software were used as the data analysis tools. As per the data analysis it was evident that pull factors are prominent compared to push factors in influencing the migration decision of Sri Lankan IT professionals. Finally, the initial conceptual framework was refined to reflect the data analysis outcomes.

This research is only providing a generalization of the factors that affect the migration decision of overall population of Sri Lankan IT professionals. There is more room for the research on specific sub-populations as future work.

Keywords: IT employee migration, Sri Lankan IT workforce, Migration

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Also I would like to thank all the researchers who shed some light in this research area so I could benefit in this research study.

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List of Abbreviations

BPM - Business Process Management

BPO - Business Process Outsourcing

ICT - Information and Communication Technology

IT - Information Technology

ITeS - Information Technology enabled Services

KPO - Knowledge Process Outsourcing

KSI - Knowledge Services Industry

QA - Quality Assurance

SD - Standard Deviation

SE - Standard Error

SES - Standard Error of Skewness

SLASSCOM - Sri Lanka Association of Software and Services Companies

1. INTRODUCTION

Information Technology (IT) and Business Process Management (BPM) have shown a great potential of driving the economic growth of Sri Lanka over the recent past. According to the statistics from Central Bank, it has recorded an export revenue of $850 million as of 2015 while becoming the fifth largest export revenue earner in the country. As stated by Sri Lanka Association of Software and Services Companies (SLAASCOM), the IT/BPM industry's vision for 2022 is to become the top strategic industry in Sri Lanka while leading the knowledge based economic growth. It aims to generate $5 billion revenue, enable 200,000 direct jobs and generate 1000 startups in the journey towards achieving the vision for 2022. But retaining the existing workforce is indicated as a challenge in achieving this vision, thus the initiative "Retention of workforce" is undertaken (SLAASCOM, 2016).

Moreover, as Sri Lanka is capitalizing on the value-addition over the cost reduction when providing IT services, it elevates the need to retain a talented workforce within country to meet the client demands. The employee migration is a major contributor in hindering the retention of workforce. How this research relates to overcoming this challenge is discussed in next sections.

1.1. Research Background and Motivation

IT is a fast-moving industry which can nurture in any country. As the IT competency is globally accepted, can be taught and somewhat standardized, there seem to be more migration opportunities available for the IT professionals.

When considering a small country like Sri Lanka, the impact of migration can be multi-directional. Moreover, migration directly impacts the achievement of IT/BPM industry vision for 2022 by taking the IT talent out of the country. Therefore this research is to investigate the factors that are affecting the migration decision of the Sri Lankan IT professionals.

The IT professionals in this research refers to the professionals working on IT firms, professionals working in the IT functional department of a non-IT firm, and academics in the IT stream. These professionals are considered as migrated if they are residing overseas more than a year, in the scope of this research.

1.2. Problem Statement

There is an increasing trend in the migration of Sri Lankan professionals (Central Bank of Sri Lanka, 2015). Based on their high skill levels, there are more opportunities offered to them from foreign countries. Although this is earning foreign currency for the country, nowadays there are professionals who migrates permanently who does not contribute to the foreign currency earnings for Sri Lanka. Also the migration leads to the flow of innovative ideas and skills to the foreign countries, rather than contributing to the development of Sri Lanka. Therefore there is a necessity to identify the factors that are affecting the Sri Lankan IT professionals' migration, so that relevant authorities can refer to them and take remedial actions to retain the IT talents within the country.

1.3. Research Objectives

The research intended to answer following research questions.

- What are the factors that make a Sri Lankan IT professional to migrate/intent to migrate?
- Is there a change in those factors within the past few years (e.g., during the war season and after the war)?
- What makes an IT professional attracted to Sri Lanka once again after migrating?

1.4. Overview of the Research Methodology

The population intended for the research were the Sri Lankan IT professionals who are already migrated. The Questionnaire method in Survey research was selected as the

research methodology. The questionnaire was developed referring to a conceptual framework implemented based on the literature review on employee migration. The questionnaire was distributed online to gather data and the sample was selected using the snowball sampling technique. The data was analyzed to identify the significant influential factors for Sri Lankan IT professionals' migration. The initial conceptual framework was refined to reflect the findings of the analysis.

1.5. Structure of the Thesis

This next chapters of the research is structured as,

1. Chapter 2: Literature Review

   This chapter summarizes the literature review done on the research area of migration, and identifies the gaps in the literature.

2. Chapter 3: Research Methodology

   This provides an overview of the research methodology followed along with the details on conceptual framework, population/sample size derivation and questionnaire design etc.

3. Chapter 4: Data Collection and Analysis

   This chapter first describes the data collection approach followed and the challenges faced during the data collection. Then it represents how the data was cleaned and transformed to feed into data analysis tools. Then it demonstrates the demographic distribution of the sample and some statistics with interest in determining the factors influencing migration decisions.

4. Chapter 5: Conclusion, Further Analysis, Limitations and Future Work

   Conclusion section describes how the results included in Chapter 4 used to refine the conceptual framework and attaining research objectives. The analysis done on the sub-samples presented in Further Analysis section. Then it elaborated on the limitations in this research study and proposed the future work on the same research area.

2. LITERATURE REVIEW

2.1. Introduction to Migration

The Oxford online defines the “migration” as “Movement of people to a new area or country in order to find work or better living conditions” (Oxford Online, n.d.). As Sri Lanka is a small country, the “migration” is considered as the movement of people to a new country, within this research.

Sriskandarajah proposed that there are two types of migration in Sri Lanka, namely labour migration and political migration. Labour migration is voluntary movement take place due to economic reasons while the political migration is forced movement which is driven by conflicts (Sriskandarajah, 2002).

2.2. Statistical Overview of Migration

There is an increasing trend in migration of Sri Lankan professionals, according to the report “Economic and Social Statistics of Sri Lanka 2014” by Central Bank of Sri Lanka. It has been 0.6% from the total migrants in 2005 and has increased up to 1.7% by 2013. The highest percentage of migrant professionals were in the age group of year 20-24 while the age group of year 25-29 placing second according to the statistics of year 2013 (Central Bank of Sri Lanka, 2014).

As per statistics extracted from World Bank, Sri Lanka has the highest rate of total and skilled emigration in the South Asian region. The Saudi Arabia, Kuwait, India, the United Arab Emirates, Canada, United Kingdom, Jordan, Qatar, Italy and Australia were reported as top destinations for Sri Lankan emigrants. The South Asian region has been growing in the aspect of its exports of both impersonal and personal services. The impersonal services enabled by Information Technology has been identified as a prospective driver for the development of the region. It recommends that the region has to provide opportunities for its people to acquire required skills to meet the demands of these services industry (Dhar & Samanta, 2014).

2.3. Impact of Migration

The migration claimed to have both positive and negative impact on the originating country of the migrants.

2.3.1. Positive Impact

Azam claims that there is a positive relationship between migrant workers' remittances and economic growth of a country, although brain drain is quite concerning (Azam, 2015). While remittances being the primary benefit of emigration for the region, additionally the South Asian diaspora has been contributing to the development of the region (Dhar & Samanta, 2014). Analyzing the Sri Lanka context, Skandarajah claims that migration leads to productive investments, human development, reduced unemployment and improved living standards (Sriskandarajah, 2002).

Zaidi et al. have also identified the remittances as a plus point for the migrant's home country. Also it shows that migrants can help the development of the home country by sharing their research skills, knowledge and experience by means of mutual collaborative research projects, formal training sessions and seminars with home country residents. However this research paper lacks sound evidence to support the concepts presented (Zaidi, Ahmed & Aslam, 2014).

2.3.2. Negative Impact

Abdullah and Hossain have identified the brain drain as a critical issue for the development of Bangladesh. The academics, doctors, engineers and agricultural researchers are the main occupations that contributes to extensive brain drain in Bangladesh. The main sufferings due to brain drain in Bangladesh include the lack of scholars within country, misuse of state fund, loss of credibility within healthcare sector and lack of homegrown talent (Abdullah & Hossain, 2014). Similarly the health professionals' migration identified as a deteriorating factor for health sector of Africa (Simplice, 2015). It has identified that brain drain is a severe consequence of migration for Jamaica (Parkins, 2010).

2.4. Factors Affecting the Decision on Migration

There are several factors that are affecting the decision on migration. As per literature, those factors vary across host countries and the sector the employee is working on.

The internal factors that leads to brain drain in Bangladesh include insufficient opportunity for research and higher study, difficulty in maintaining standard of living, political turmoil, discrimination and sheer insecurity. Moreover the external factors within other countries such as opportunity for career development, intellectual liberty, lucrative economic prospects and presence of enriched, scientific and cultural tradition pulls the Bangladeshis to those countries (Abdullah & Hossain, 2014).

As per the study done based on Bangladesh, India, Pakistan and Sri Lanka, the factors such as scarcity of jobs, favoritism in jobs, low wage, unfavorable working environment, poverty, civil conflict, social unrest, miserable economic circumstances, political and religious harassment pushing the workers away from their country. On the other hand, factors such as attractions for jobs, labor demand, improved education, health facilities, friendly working environment, better wages, improved standards of living, political and religious freedom are pulling them towards foreign countries (Azam, 2015).

The provision of world-class education, training opportunities and opportunities for career advancement has been identified as key factors for reducing the migration of a developing country. It is evident that considerable amount of migrants left for further education are not returning to their motherland after the completion of studies. The main reasons for that include the lack of research funding, poor facilities, limited career structures, poor intellectual stimulation, threats of violence, and lack of good education for their children in their motherland (Dodani & LaPorte, 2005).

Iredale has proposed theories and typologies for the migration of professionals in his research. The “Human capital theory” suggests that people seek for an employment and remuneration scheme that is more appropriate for their formal education and training. The “Neo-Marxist macro level approach”, suggests that migration decision impacted by the gender, race and class. The “Structuration approach” argues that both private and state organizations has the power to create employment opportunities and

setting the qualifications for employment which impact migration. According to the typologies proposed, the migration can be categorized by motivation, by nature and source of destination, by channel or mechanism, by length of stay and by mode of incorporation (Iredale, 2001).

It is found that the main reasons for migration of Africans are due to political instability and economic reasons of the mother country. The perception of business opportunities in destination South Africa has been also a reason for minority of African migrants. It also suggests that the discrimination and difficulty in finding a job inside the destination country, pulls the migrant to be an entrepreneur (Khosa & Kalitanyi, 2015).

A recent research on domestic workers from Vietnam to Taiwan states that most of the domestic workers have migrated to attain financial goals such as repaying the debt, facilitate the education of children/spouse, and provide other monetary support for family (Phuong & Venkatesh, 2015).

The discussion paper by Straubhaar has objectively analyzed the factors that attracts highly skilled professionals from developing countries to developed countries. It has shown that openness to innovation, strong links between research and industry, openness to foreigners, a flexible system, low taxes and natural elements, like clean air and water helps the developed countries in attracting highly skilled (Straubhaar, 2000).

It is found that the migration from Pakistan is positively influenced by the inflation, unemployment and declining wage rate within the country. The inflow of remittances from host countries was also an influential factor to increase migration rates (Ahmad et al., 2008).

Chowdhury conducted a research aimed at explaining the empirical observation that the relative migration of unskilled labour likely to occur from developing countries that are relatively unequal, while the relative migration of skilled labour likely to occur from developing countries that are relatively equal. Here the inequality means that there are more number of citizens possessing low wealth and the gap between skilled and unskilled labour wages differ significantly. The research concluded that highly unequal economy sustains unskilled labour migration only while highly equal

economy sustains skilled labour migration only. The conclusions said to be valid only if cost of education is lower than the cost of becoming an entrepreneur, and wealth follows the Pareto distribution (Chowdhury, 2008).

Zaidi et al. suggest that people migrate seeking an improved standard of living, improved quality of life, opportunities for higher education, better pay, accessibility to modern technology and unfavorable political conditions in the home country (Zaidi, Ahmed & Aslam, 2014).

Weerasinghe & Kumar have investigated the intention to pursue overseas jobs among university students and graduates in Sri Lanka. As per the results it was evident that self-efficacy and attitudes were significant in predicting the intention and actual behavior, while subjective norms, perceived behavioural control and resource facilitation condition become less significant (Weerasinghe & Kumar, 2014).

As per a study on Jamaicans, it has revealed that main reason for migration of Jamaica is crime and violence while skill-occupation mismatch becomes the second reason. The perception of better economic and social opportunities overseas also stimulates the migration rate in Jamaica (Parkins, 2010).

Shrestha has investigated the influential factors for reverse migration. The reverse migration consists of two components; one is the migration of people from a developed country to a less developed country, and the other is the return of the migrants who migrated from the less developed country to the developed. The research claims that Employment and high salary, Education and training, Exposure and experience, Safety and security, Modern facilities, Future of children, Discrimination-free treatment, and Family welfare back home attracts the traditional migration. On the other hand the reverse migration is attracted by Cheaper living cost, Identity and prestige, Back to nature, Values, Social contribution and satisfaction, Care and service, Adventure and challenge, Investment and high returns (Shrestha, 2011).

The Knowledge Services Industry (KSI) is a combination of IT services firms and IT enabled services firms (ITeS). The ITeS consists of Business Process Outsourcing (BPO), Knowledge Process Outsourcing (KPO) and IT training institutes. There has been a considerable growth in Information and Communication Technology (ICT)

services exports, employment opportunities and number of KSI business start-ups within Sri Lanka over the years. With that rapid growth it claims that there is more trend towards brain circulation over brain drain within KSI and discusses the factors that lead to return of KSI migrants. The post-war peace, economic stability and growth of the KSI has been influential in returning of skilled migrants in Sri Lanka. It is evident that skilled migrants have returned when the growth of KSI is clearly visible within the country. In case of returned entrepreneurs, their returning decision is mainly influenced by the growing investment opportunities in the global BPO/KPO industry while industry growth, professional opportunities, and premium wages were trivial for their decision (Fernando, 2015).

The summary of the literature survey findings on factors influencing migration are given in Table 2.1, Table 2.2 and Table 2.3.

Table 2. 1: Unfavourable Conditions in the Mother Country - Push Factors

Factors	**Reference**	**Occupations Considered**	**Country / Countries**
● Insufficient opportunity for research and higher study ● Difficulty in maintaining standard of living ● Political turmoil ● Discrimination and sheer insecurity	Abdullah & Hossain, 2014	Academics, doctors and engineers	Bangladesh
● Scarcity of jobs ● Favoritism in jobs ● Low wage ● Unfavorable working environment ● Poverty	Azam, 2015	Not specific	Bangladesh, India, Pakistan and Sri Lanka

• Civil conflict • Social unrest • Miserable economic circumstances • Political and religious harassment			
• Lack of research funding • Poor facilities • Limited career structures • Poor intellectual stimulation • Threats of violence • Lack of good education for children	Dodani & LaPorte, 2005	Health profession	Developing countries (mainly South Asia)
• Political instability • Economic reasons	Khosa & Kalitanyi, 2015	Entrepreneurs	African countries
• Repaying the debt • Facilitate the education of children / spouse • Provide other monetary support for family	Phuong & Venkatesh, 2015	Domestic workers	Vietnam
• Unfavorable political conditions in the home country	Zaidi, Ahmed & Aslam, 2014	Not specific	Not specific
• Inflation • Unemployment • Declining wage rate	Ahmad et al., 2008	Not specific	Pakistan

Table 2. 2: Favourable Conditions in the Migration Destination Country - Pull Factors

Factor	**Reference**	**Occupations Considered**	**Country / Countries**
● Opportunity for career development ● Intellectual liberty ● Lucrative economic prospects ● Presence of enriched, scientific and cultural tradition	Abdullah & Hossain, 2014	Academics, doctors and engineers	Bangladesh
● Attractions for jobs ● Labor demand ● Improved education, health facilities ● Friendly working environment ● Better wages ● Improved standards of living ● Political and religious freedom	Azam, 2015	Not specific	Bangladesh, India, Pakistan and Sri Lanka
● Employment and high salary ● Education and training ● Exposure and experience ● Safety and security ● Modern facilities ● Future of children ● Discrimination-free treatment ● Family welfare back home	Shrestha, 2011	Not specific	Not specific
● Job security ● Working conditions ● Economic considerations ● Political considerations ● Physical security	Simplice, 2015	Health profession	Africa

• Quality of life • Education			
• Openness to innovation • Strong links between research and industry • Openness to foreigners • Flexible system, low taxes • Natural elements, like clean air and water	Straubhaar, 2000	Not specific	Not specific
• Improved standard of living • Improved quality of life • Opportunities for higher education • Better pay • Accessibility to modern technology	Zaidi, Ahmed & Aslam, 2014	Not specific	Not specific
• Inflow of remittances	Ahmad et al., 2008	Not specific	Pakistan

Table 2. 3: Factors Influencing the Return Migration

Factor	**Reference**	**Occupations Considered**	**Country / Countries**
• Post-war peace • Economic stability • Growth of the Knowledge Services Industry	Fernando, 2015	Knowledge Services Industry	Sri Lanka
• Cheaper living cost • Identity and prestige • Back to nature • Values	Shrestha, 2011	Not specific	Not specific

● Social contribution and satisfaction ● Care and service ● Adventure and challenge ● Investment and high returns			

2.5. Research Data and Methodologies

It is beneficial to consider the data gathering techniques and methodologies which were used by each research in order to identify the shortcomings and strengths of each. By using those, a sound data collection technique and a methodology can be determined to conduct this research. The summary of the methodologies used in previous research are given in Table 2.4.

Table 2. 4: Summary of the Research Methodologies used in Research on Migration

Data Source / Data Gathering Technique	**Analysis Technique / Methodology**	**Reference**
Primary data - Informal conversations with the migrant workers by using a structured questionnaire Secondary data - National and international organizations, and material published by them and other		Abdullah & Hossain, 2014
Annual time series data on remittances over the period 1976-2012	Multivariable regression model	Azam, 2015

Survey		Fernando, 2015
Survey		Gunasekara, Rajendran, & Grant, 2015
Convenience sampling A self-administered questionnaire and an interview guide (questionnaire design was done using funnel technique)	Mixed methods approach	Khosa & Kalitanyi, 2015
Chain referral sampling (snowball) Interviews		Phuong & Venkatesh, 2015
Case studies		Samaratunge, Barrett & Rajapakse, 2015
	The quantile regression (QR) estimation technique	Simplice, 2015
Questionnaire Proportional quota sampling method and snowball sampling	Theory of Planned Behaviour (TPB) model	(Weerasinghe & Kumar, 2014)
Time series data from the year 1973 through the year 2005 from the Federal Bureau of Statistics, Islamabad	Augmented Dickey Fuller (ADF) unit root test Maximum likelihood estimation approach	Ahmad et al., 2008

and Bureau of Emigration and Overseas Employment, Islamabad	Ordinary least square method (OLS) Vector Error Correction Model (VECM)	

2.6. Migrants' Perception Change while in the Destination Country

The migrants' perception on the destination country may get changed along with the time they spend in the destination. Therefore it is worth to look at that aspect as well.

A research done on Sri Lankan and Indian skilled migrants in the Australian workplace claims that they were moderately satisfied with their jobs. They were more satisfied with the supervision, communication, co-workers and nature of work while showing low satisfaction in the areas of promotions, pay, operating conditions and fringe benefits. Also it was evident that age, gender, ethnicity, level of education, years since migration and English language skills are not contributing in determining the job satisfaction among them (Gunasekara, Rajendran, & Grant, 2015).

Another study on the behavior of Sri Lankan entrepreneurs in Australia claims that the lack of opportunities for career advancement in the host country pushes the migrants to become self-employed pursuing the other business opportunities available in the host country. However they should have a strong social, cultural and financial capital to become successful in self-employment as per evidence (Samaratunge, Barrett & Rajapakse, 2015).

Tharmaseelan et al. have evaluated the relationship between migration and career success with regard to sample of Sri Lankans migrated to New Zealand. They have considered four perspectives in the study, two considering the pre-migration behavior and two for the post-migration. Human capital and motivation were considered in pre-migration, and social integration and career self-management were considered for post-migration. Their findings has revealed that majority of the migrants have experienced a decrement in the career compared to the mother country. They suggests that it is because the governance of host country has been unable to utilize the migrants

in a way that is advantageous to both parties. But interestingly it states that most of the migrants are happy on their current living standard although in a lower position in career perspective (Tharmaseelan, Inkson & Carr, 2010).

2.7. Gap Analysis on Literature

There were no literature found on the migration of Sri Lankans in the IT sector. Moreover it is evident that the factors affecting the migration vary based on time and the industry, although within the same country. Therefore this research intend to fill in the niche of empirical evidence in determining the migration of Sri Lankan IT professionals.

3. RESEARCH METHODOLOGY

3.1. Introduction to the Research Methodology

The research methodology consisted of four sequential steps as illustrated in the Figure 3.1.

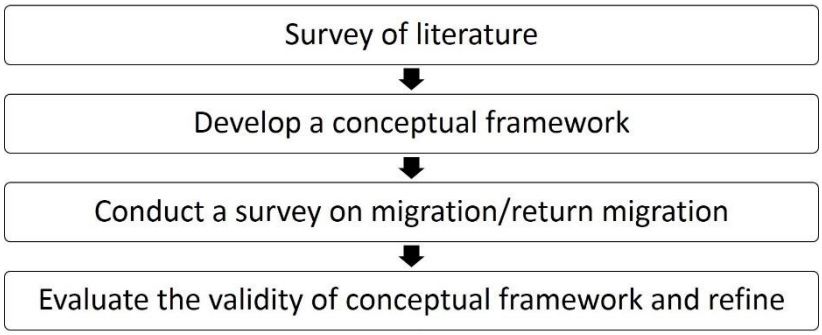

Figure 3. 1 Research Methodology

I. Survey of literature to find out the current trends and past research on the same area.

   As the first step of the research a literature review was carried out to find out the current trends and the past research of migration. The main focus was to locate the factors that are already identified as influential for migration. Here the literature review was not restricted to Sri Lanka or to IT profession with the intention to avoid missing important information. The literature review findings are summarized in Chapter 2.

II. Develop a conceptual framework based on the gathered literature and hypotheses derived from those.

   Through the literature review, various factors were identified as influential for migration. Also some hypothetical factors were formed based on the informal discussions with people already migrated or intended to migrate and/or related to migrants. A conceptual framework was developed to visualize these findings to structure the research better. The Section 3.2 illustrates this conceptual framework.

III. Conduct a survey on migration/return migration decisions of Sri Lankan IT professionals who already migrated.

A survey questionnaire was designed based on the conceptual framework. Then a pilot survey was carried out by gathering responses from 10 migrant Sri Lankan IT professionals. The survey questionnaire was refined based on the pilot survey and then distributed among the migrant Sri Lankan IT professionals. This was done online using the Google forms. The potential respondents were identified and contacted via chain referral sampling.

The derivation of the population and sample is described in Section 3.3. The base for selecting the questionnaire method and steps followed in questionnaire design is described in Section 3.4. The survey questionnaire is available in Appendix A.

IV. Evaluate the validity of conceptual framework and refine it based on the survey findings.

The survey responses were analyzed to filter out the influential factors for Sri Lankan IT professionals' migration. The previously formulated conceptual framework was validated against these survey findings, and a new conceptual framework was developed by refining it.

The Chapter 4 clarifies the data gathering and data analysis methodology and represent the results obtained from the data analysis. The Chapter 5 discusses the results based on researcher's view point and supportive literature, while representing the refined conceptual framework.

3.2. Conceptual Framework

A conceptual framework developed based on the factors identified during the literature review as depicted in Figure 3.2.

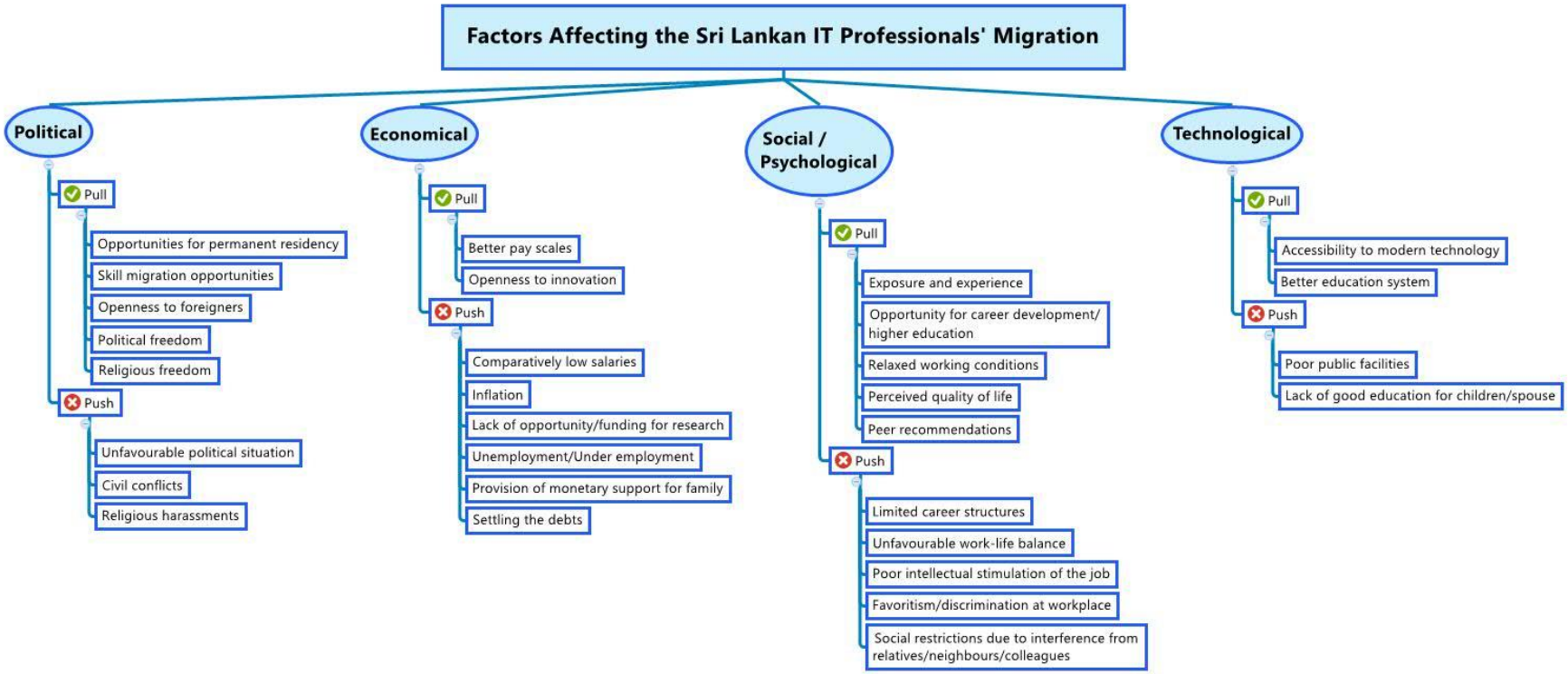

Figure 3. 2 Initial Conceptual Framework for Factors affecting the Migration of Sri Lankan IT Professionals

The factors gathered from the literature review were filtered out by merging similar factors into a single factor, and based on researcher's knowledge on the area of research. The final list of factors were categorized on two bases.

The first categorization was based on the popular macro-environment analysis framework, PEST. It refers to the categorization of factors into four categories namely Political, Economic, Social and Technological (Arline & Brooks, 2014). The category "Social" renamed to "Social/Psychological" due to the nature of research area. The factors related to political and legal environment of the country is considered under "Political" while the factors related to economic stability is categorized as "Economic". The cultural factors and the factors that have a psychological effect on the people considered as "Social/Psychological". The categorization of "Technological" applied to the technical aspects of the country having an effect on the citizens.

Then a sub-categorization done within each PEST category, based on the consequence of factors which described as Push and Pull in several literature sources. Push factors are the reasons which influences a person to leave the particular country/area that they are living in. Pull factors are the reasons in the new country/area which influences a person to choose that to live in (BBC, n.d.).

3.3. The Population and the Sample

There were no direct statistics available regarding the migrant Sri Lankan IT professionals. Therefore the population and the sample was derived as following.

3.3.1. Deriving the Population

The total employed workforce in all three sectors Agriculture, Industry and Services of Sri Lanka in year 2014 is reported as 8,423,994 while the total employed workforce in Services sector of Sri Lanka in year 2014 reported as 3,794,554 (Department of Census and Statistics of Sri Lanka, 2015). The ICT workforce of Sri Lanka in year 2014 is accounted as 82,854 (SLASSCOM, 2015).

Estimated stock of migrant Sri Lankan employees is reported to be 1,932,245 (Central Bank of Sri Lanka, 2015). The percentage of migrants as professionals out of the total migrants is equal to 1.8% (Central Bank of Sri Lanka, 2015). Therefore, the number of migrants as professionals out of the total migrants is around 34,780.

The ICT workforce as a percentage of the total workforce in all sectors is equal to 0.98%. The ICT workforce as a percentage of the total workforce in Services sector is equal to 2.18%.

If we assumed that the percentage of migrant ICT professionals from the total migrant professionals equals to the ICT workforce as a percentage of the total workforce in all sectors, then the number of migrants as ICT professionals out of the total migrants can be derived as 340.

If we assumed that the percentage of migrant ICT professionals from the total migrant professionals equals to the ICT workforce as a percentage of the total workforce in service sector, then the number of migrants as ICT professionals out of the total migrants can be derived as 758.

Based on above calculations the population for the research i.e. number of migrant Sri Lankan ICT professionals is between the range of 340 to 758.

These statistics and the derivations of the population are summarized in Table 3.1 for easy reference.

Table 3. 1 Statistics on the Migration and Deriving the Population

The total employed workforce in all 3 sectors (Agriculture, Industry & Service) of Sri Lanka in year 2014	= 8,423,994
The total employed workforce in Services sector of Sri Lanka in year 2014	= 3,794,554
The ICT workforce of Sri Lanka in year 2014	= 82,854

The ICT workforce as a % of the total workforce in all sectors	= (82,854/8,423,994) * 100 = 0.98%
The ICT workforce as a % of the total workforce in service sector	= (82,854/3,794,554) * 100 = 2.18%
Approximate total of Sri Lankan migrants overseas	= 1,932,245
The % of migrants as professionals out of the total migrants	= 1.8%
The no. of migrants as professionals out of the total migrants	= 1,932,245 * (1.8/100) = 34,780
The % of (migrant ICT professionals/total migrant professionals) = The ICT workforce as a % of the total workforce in all sectors = 0.98%	= Assumption 1
As per Assumption 1, The no. of migrants as ICT professionals out of the total migrants	= 34,780 * (0.98/100) = 340
The % of (migrant ICT professionals/total migrant professionals) = The ICT workforce as a % of the total workforce in service sector = 2.18%	= Assumption 2

As per Assumption 2, The no. of migrants as ICT professionals out of the total migrants	= 34,780 * (2.18/100) = 758

3.3.2. Deriving the Sample Size

The sample size was calculated using an online sample size calculator by taking the confidence as 95% and the confidence interval as 5%. For the given range of population, the sample size estimated to be between the range of 181 to 256.

3.3.3. Sampling Techniques Used

The Snowball sampling (i.e. Chain referral sampling) was used as the sampling technique in this research. Snowball sampling is where the research participants recruit other appropriate participants for the research study. This technique is recommended when the population is unknown or rare. (Fort Collins Science Center, 2016)

Therefore, this was used because there is no database available containing the contact details of the population.

3.4. Questionnaire Design

The research questionnaire was designed based on the factors identified in the conceptual framework. The questionnaire asked the respondents to rate each factor in a five-point Likert scale to reflect their personal judgement. Furthermore it included questions to collect demographic data on the respondent. Also some open-ended questions were added to gather additional factors that influenced the migration of the respondent, current perception on migration and their intentions to return.

A pilot survey carried out by collecting responses from ten migrant Sri Lankan IT professionals. The questionnaire was refined based on the pilot survey and distributed among the research sample. The final research questionnaire is available in the Appendix A.

3.5. Criteria for Selecting the Research Methodology

The Questionnaires in Survey Research method was selected for data gathering in this research considering below criteria.

- Accessibility of the population

  As the population considered in the research are in IT field, they are familiar with the online questionnaires. Therefore it is appropriate for them as no orientation is needed on the research tool.

- Research administration

  The time zone issues need to be considered when contacting the research sample as they are dispersed around the world. Therefore a self-administered questionnaire is more appropriate than interviews.

The mixed-method approach used in analyzing the data as questionnaire consisted of questions seeking both quantitative and qualitative data.

3.6. Data Gathering

Data gathering was done via an online survey using the Google forms. The survey was first distributed to the known potential research participants accessible via email, Facebook, LinkedIn and Skype. Then they were asked to distribute it among other potential research participants in their contact lists.

3.7. Mapping of Research Methodology with the Research Objectives

How the research methodology maps with the research objectives is discussed here by evaluating the ways that research questions will be answered.

- What are the factors that make a Sri Lankan IT professional to migrate/intent to migrate?

This research question will be answered by referring to respondents' rating on the each factor identified in conceptual framework. Also any significant factors mentioned as responses for open-ended questions will also be considered.

- Is there a change in those factors within the past few years (e.g., during the war season and after the war)?

  The questionnaire collected the data on respondents' year of migration along with their ratings on factors influenced the migration. Therefore it can determine if there is a variation of influential factors in different time periods.

- What makes an IT professional attracted to Sri Lanka once again after migrating?

  Respondents are requested to indicate their intention to return with an explanation using open-ended questions. Responses for these questions can be used to derive what makes them return.

The Table 3.2 indicates these research questions' mapping to the questions included in the questionnaire which is available in Appendix A.

Table 3. 2 Research Questions Mapping to Questions in Research Questionnaire

Research Question	**Mapping Question Numbers in Questionnaire (Appendix A)**
• What are the factors that make a Sri Lankan IT professional to migrate/intent to migrate?	17, 18, 19, 20
• Is there a change in those factors within the past few years (e.g., during the war season and after the war)?	8, 9, 17, 18, 19, 20
• What makes an IT professional attracted to Sri Lanka once again after migrating?	23, 24

4. DATA COLLECTION AND ANALYSIS

4.1. Data Collection Methodology and Challenges

The data collection was done via distributing the survey questionnaire online using the Google forms. The contact of participants was time consuming and indirect as there were no contact lists readily available of the migrant Sri Lankan IT professionals. Therefore the first stage was to directly contact researcher's immediate contacts who migrated, and then asking them to recruit another set of contacts as suggested in snowball sampling. The intention was to create a ripple effect of generating responses from multiple levels of contacts.

But that was not enough to reach the required data sample. Therefore as the second stage, researcher stressed more on data collection by searching for more networks. There she was able to find some Facebook groups which provided the interface to connect with potential survey respondents. Both personal messaging and public/mass posts on Facebook were used to request them to respond to survey.

In both stages, the researcher had to send multiple reminders to potential survey participants to respond, as response rate was low for single occurrence of request. This exercise yielded a total of 189 responses for the survey.

4.2. Data Analysis Tools and Techniques

The Expert Judgement and Descriptive Statistics are the data analysis techniques used in this research, while the "Microsoft Excel" and "R" software are used as the tools.

The Expert Judgement was used for data cleansing, data transformation and interpretation of the results. The data cleansing and transformation is described in Section 4.3 while Chapter 5 includes the interpretation of the results.

The Descriptive Statistics was used to visualize the distribution of the sample and extract the summary statistics related to factors affecting the migration. The visualization of the sample distribution and related discussion is included in Section

4.4. Other prominent statistics are discussed in Section 4.5, Section 4.6 and Chapter 5 while Appendix B contains the detailed view of all statistics collected.

4.3. Data Cleansing and Transformation

During the data cleansing, each response received was examined to assess the validity. This examination resulted removing 5 responses due to the duplicity and another 3 responses due to the non-conformance to the survey requirements. The valid response count reduced to 181 after this.

The data transformation process carried out to convert the responses into a format that is readable to the data analysis tool "R".

This data cleansing and transformation was done using Microsoft Excel software.

The considered factors were coded as in Table 4.1.

Table 4. 1 Coding of Factors considered as influential for Migration

Code	**Factor Name**
Push_1	Push - Civil conflicts
Push_2	Push - Unfavourable political situation
Push_3	Push - Religious harassments
Push_4	Push - Inflation
Push_5	Push - Unemployment / Under employment
Push_6	Push - Comparatively low salaries
Push_7	Push - Settling the debts
Push_8	Push - Provision of monetary support for family
Push_9	Push - Lack of opportunity / funding for research
Push_10	Push - Favoritism / discrimination at workplace
Push_11	Push - Poor intellectual stimulation of the job
Push_12	Push - Limited career structures
Push_13	Push - Unfavourable work-life balance
Push_14	Push - Social restrictions due to interference from relatives / neighbours / colleagues
Push_15	Push - Lack of good education for children / spouse

Push_16	Push - Poor public facilities
Pull_1	Pull - Political freedom
Pull_2	Pull - Religious freedom
Pull_3	Pull - Openness to foreigners
Pull_4	Pull - Skill migration opportunities
Pull_5	Pull - Opportunity for career development / higher education
Pull_6	Pull - Exposure and experience
Pull_7	Pull - Openness to innovation
Pull_8	Pull - Accessibility to modern technology
Pull_9	Pull - Relaxed working conditions
Pull_10	Pull - Peer recommendations
Pull_11	Pull - Better pay scales
Pull_12	Pull - Better education system
Pull_13	Pull - Perceived quality of life
Pull_14	Pull - Opportunities for permanent residency

4.4. Demographic Distribution of the Sample

This section discusses the distribution of the research sample for different demographics.

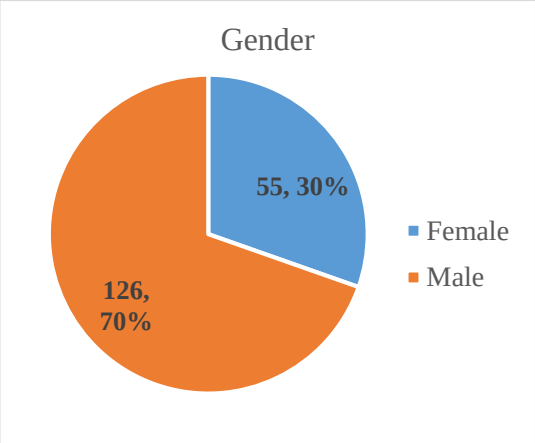

Figure 4. 1 Distribution by Gender

The sample consisted of 126 (70%) males and 55 (30%) females as depicted in Figure 4.1.

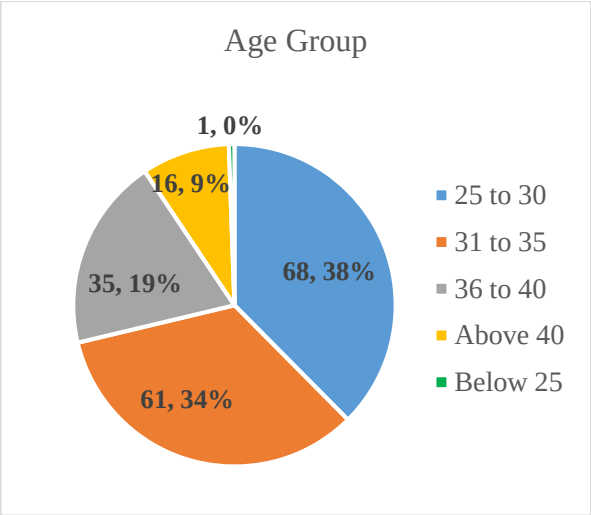

Figure 4. 2 Distribution by Age Group

Figure 4.2 shows the age group distribution of the sample. It contained only 1 (0.005%) respondent below 25 years of age, while the number of respondents in 25 to 30 years of age was 68 (38%). There were 61 (34%) respondents in 31 to 35 years of age, while 35 (19%) were in the 36 to 40 years of age. The respondents above 40 years of age was 16 (9%). From this distribution, it is evident that majority of the people who have obtained opportunity for migration are in matured age.

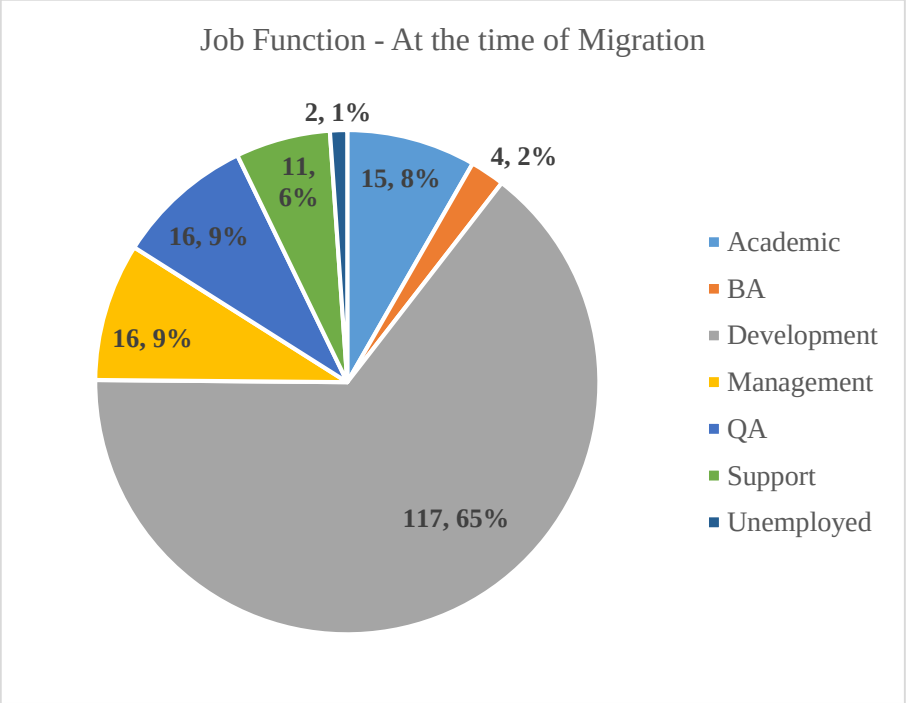

Figure 4. 3 Distribution by the Job Function at the time of Migration

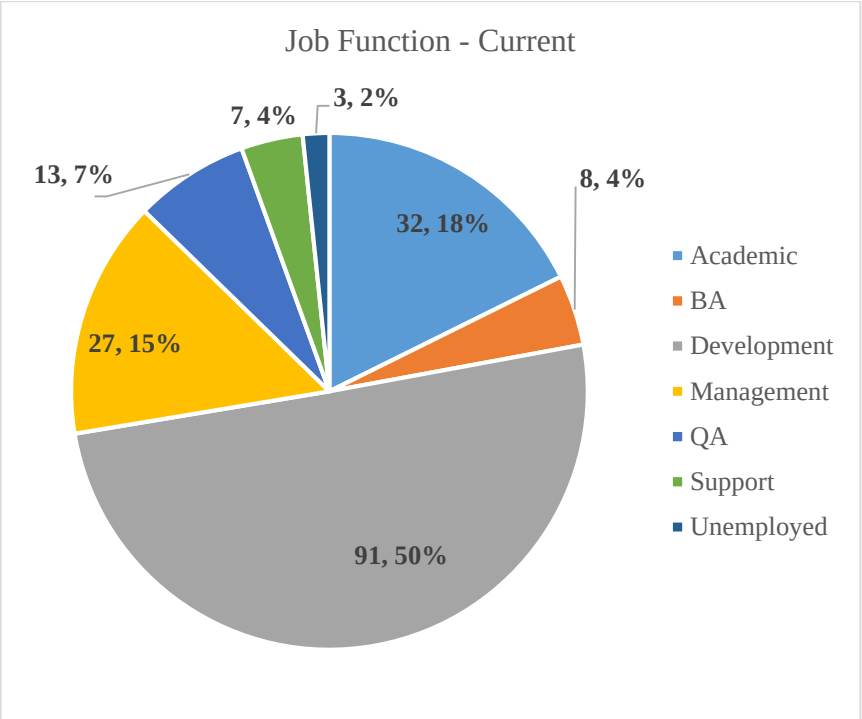

Figure 4. 4 Distribution by the Current Job Function

It is interesting to categorize the sample according to their job function at the time of migration and their current job function as given in Figure 4.3 and 4.4 respectively. The comparison of the job function statistics is given in Figure 4.5.

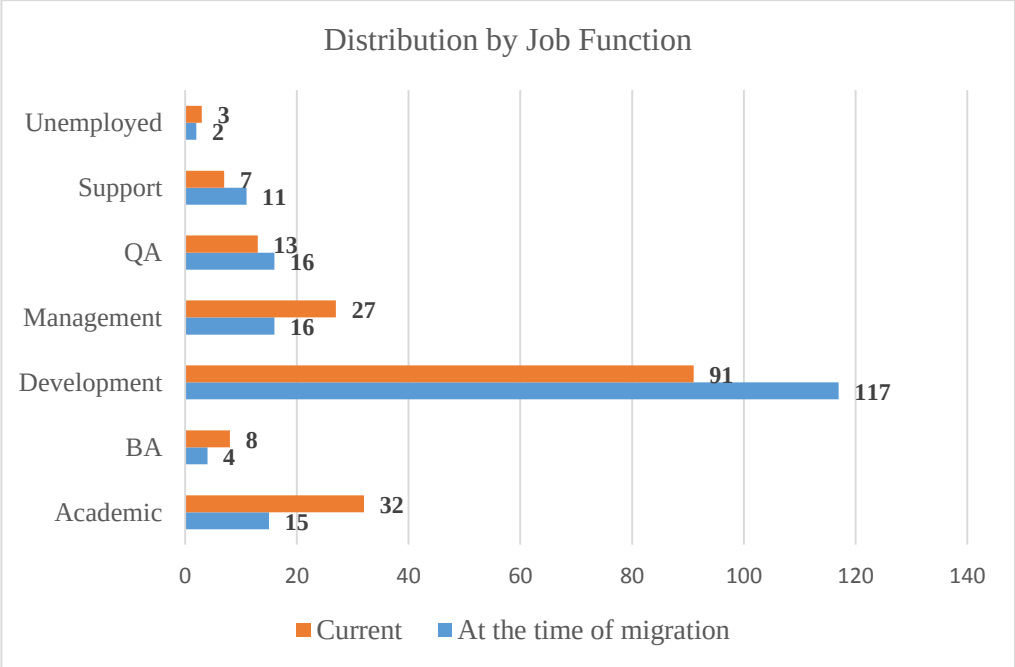

Figure 4. 5 Comparison of Current Job Function and the Job Function at Migration

The sample contained 150 (83%) married people, 27 (15%) unmarried people and 4 (2%) divorced. This is represented in Figure 4.6.

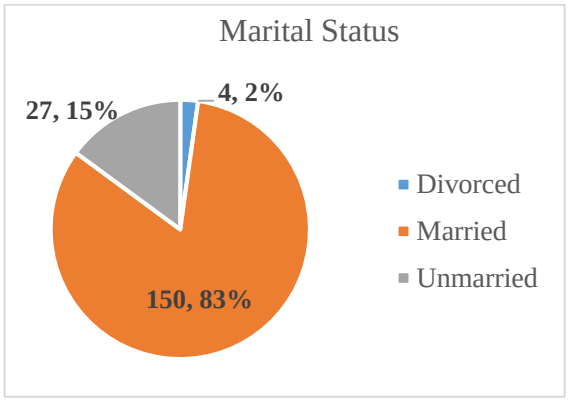

Figure 4. 6 Distribution by Marital Status

The details of the number of children collected for married and divorced people. There were 62 (40%) not having children, 55 (36%) having single child, 31 (20%) having two children and 6 (4%) having more than two children as shown in Figure 4.7.

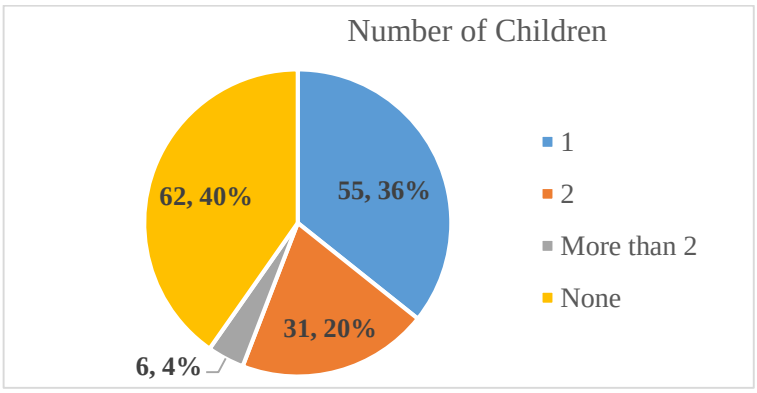

Figure 4. 7 Distribution by Number of Children

The respondents were asked to indicate the job of their spouse if they were married or divorced. There were 66 (43%) who indicated that their spouse is in IT sector, 59 (38%) in non-IT sectors, 11 (7%) in academic sector while 18 (12%) were unemployed. This is represented in Figure 4.8.

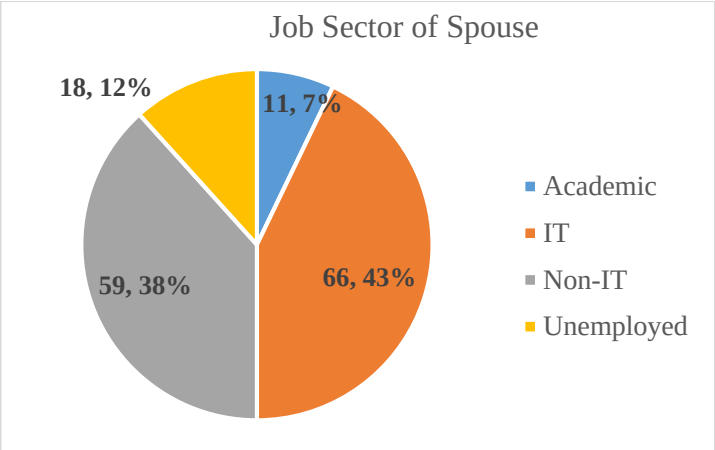

Figure 4. 8 Distribution by the Job Sector of Spouse

As there is a Sri Lankan perception that taking care of their parents as a responsibility of the children, the survey respondents were asked to indicate if their parents were alive at the time of their migration. There were 155 (86%) who indicated that both of the parents were alive, 21 (11%) indicated that one of the parents was alive while 5 (3%) reported that none of them were alive. This is depicted in Figure 4.9. If one consider only this aspect he can assume that people are migrating irrespective of taking care of their parents. But it will give the evidence to disprove that assumption in coming sections.

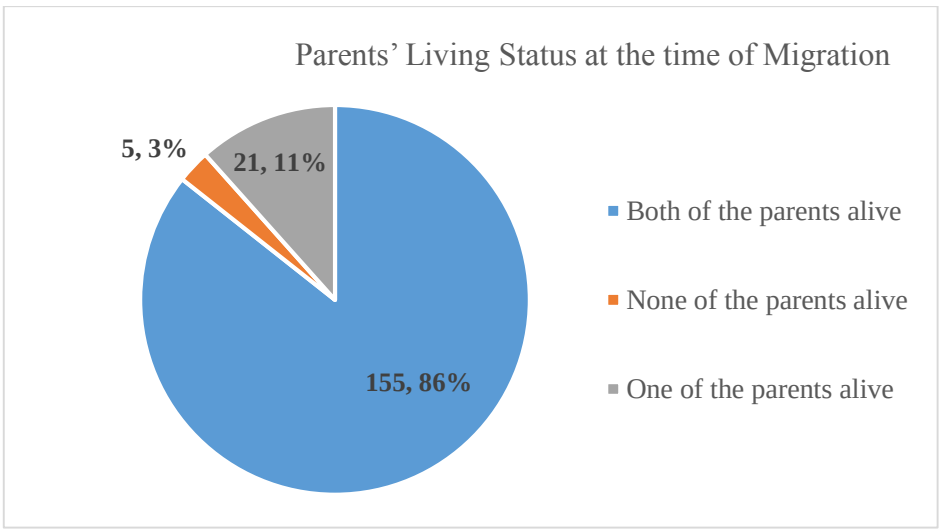

Figure 4. 9 Distribution by Parents' Living Status at the time of Migration

There were 15 (8%) people having no siblings, 72 (40%) having one sibling, 66 (36%) having two and 28 (16%) having more than two siblings as shown in Figure 4.10.

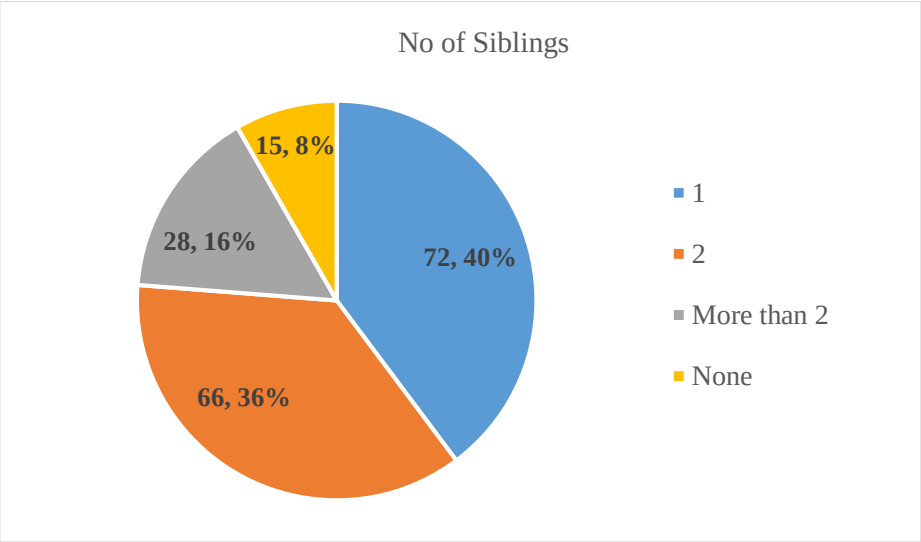

Figure 4. 10 Distribution by Number of Siblings

Figure 4.11 depicts the relationship of number of siblings and the parents' living status at the time of migration. There we can see that majority of the sample whose parents were alive had one or more siblings. That gives us some clue of that there should be a sibling who take care of the parents in Sri Lanka although the survey respondent is away.

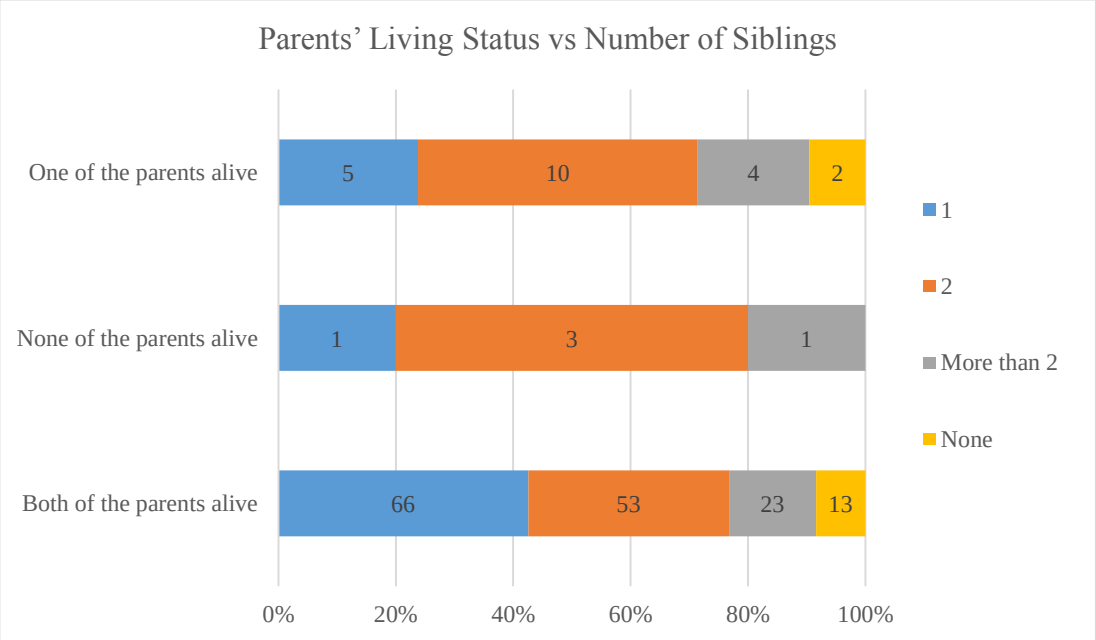

Figure 4. 11 Parents' Living Status vs Number of Siblings

The sample had people migrated in different time periods. There were 7 (4%) who migrated in 2000 or prior to that, 29 (16%) who migrated during 2001-2009, 68 (38%)

who migrated during 2010-2013 while there were 77 (42%) who migrated during 2014-2017. This is represented in Figure 4.12.

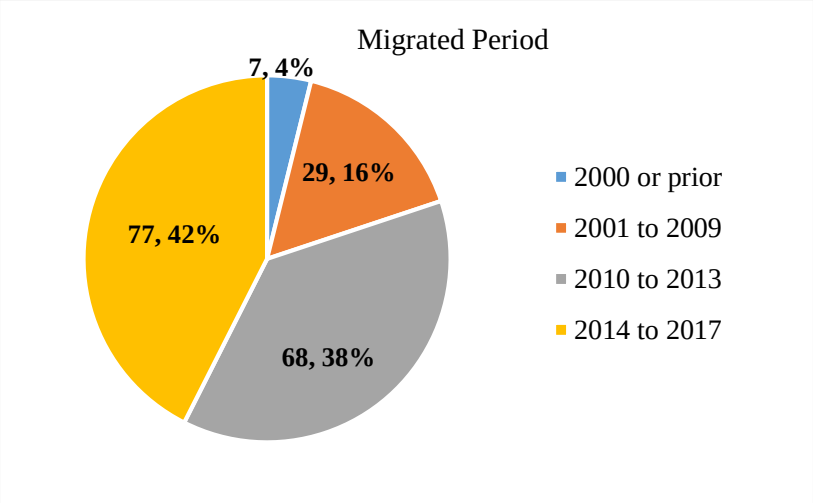

Figure 4. 12 Distribution by Migrated Period

The sample had people from diverse migration destination countries as depicted in Figure 4.13. The top five migration destinations for the sample in descending order is Australia with 67, Singapore with 32, United States of America with 24, Canada with 13, New Zealand and United Kingdom with 12.

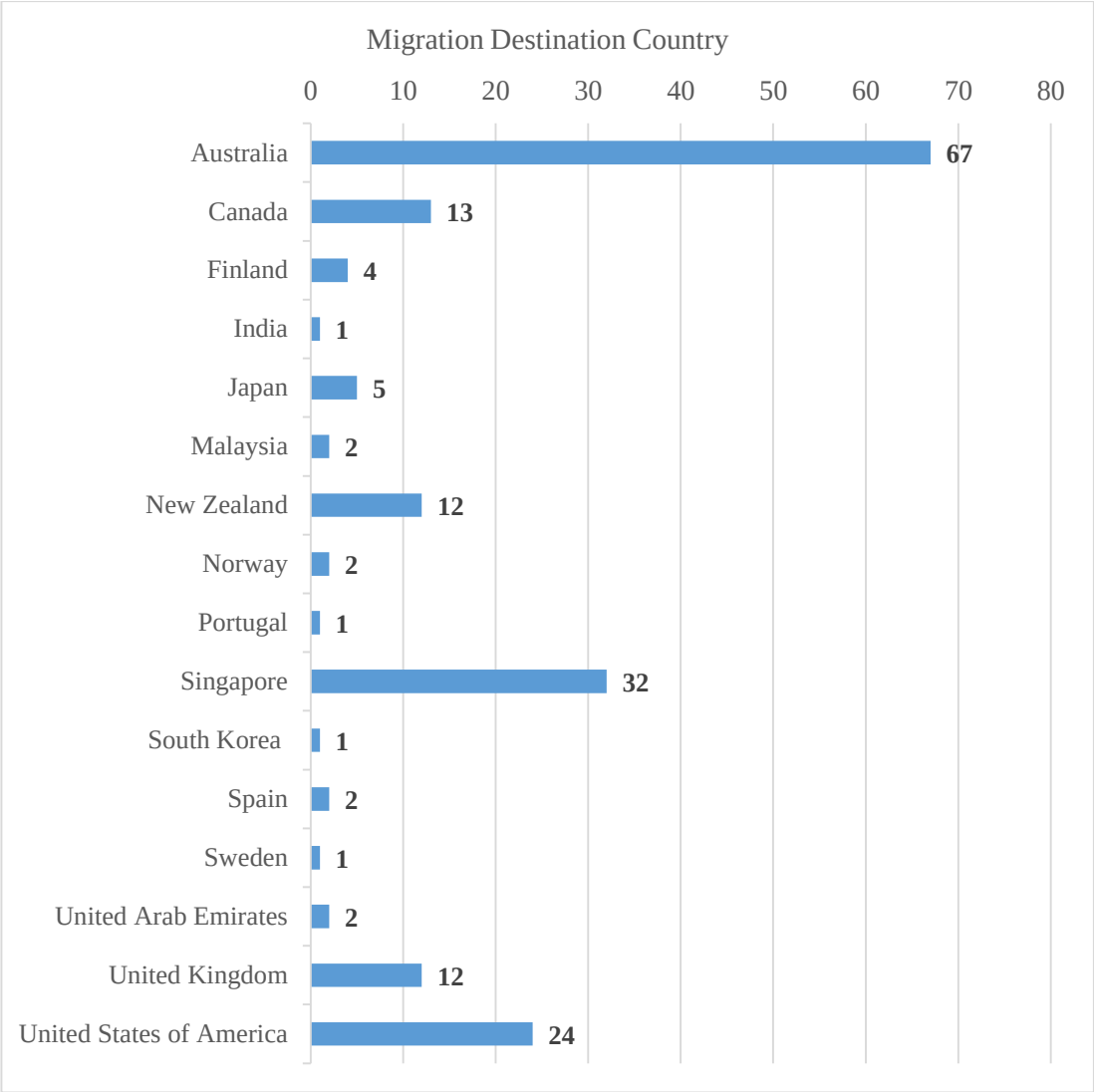

Figure 4. 13 Distribution by Migration Destination Country

It is worthy to look at how qualified the sample was at the time of their migration. Figure 4.14 shows the highest academic qualifications while Figure 4.15 shows if they had obtained any professional qualifications. The number of years of service in Sri Lanka is represented in Figure 4.16.

There were 4 (2%) people having Diploma/Higher Diploma, 132 (73%) having a Bachelor's degree, 37 (21%) having a Master's degree, and 8 (4%) having a PhD as their highest academic qualification at the time of migration.

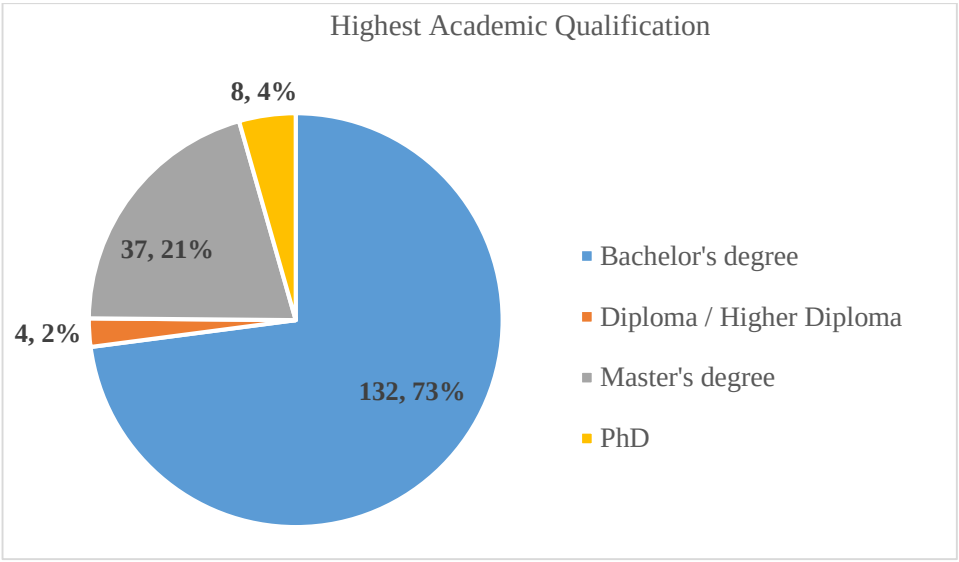

Figure 4. 14 Distribution by Highest Academic Qualification at Migration

There were 37 (20%) who had obtained additional professional qualifications while 144 (80%) having no additional professional qualifications.

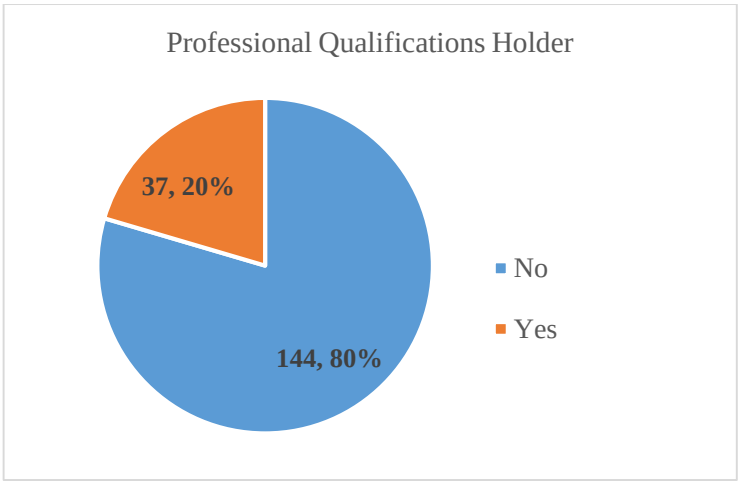

Figure 4. 15 Distribution by Professional Qualification Status at Migration

There were 22 (12%) of people with a work experience less than 1 year in Sri Lanka, 45 (25%) with 1-2 years of experience, 38 (21%) with 3-4 years of experience, 15 (8%) with 5 years and 61 (34%) with more than 5 years of experience.

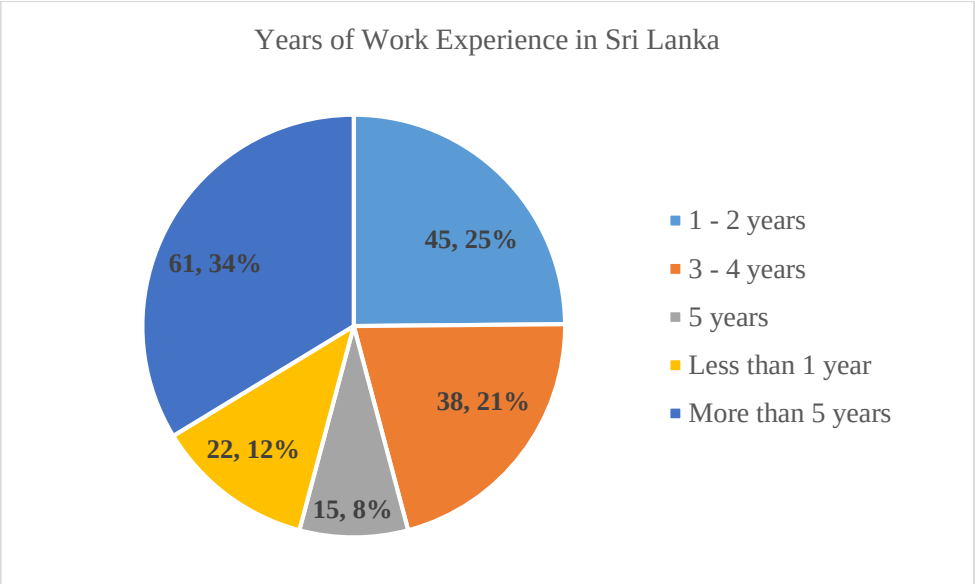

Figure 4. 16 Distribution by Years of Work Experience in Sri Lanka

There were 42 (28%) people who indicated that they had a job offer from the migration destination country before they migrate, while 107 (72%) migrated without a pre-offer of a job. The academics were removed from this categorization. This is shown in Figure 4.17.

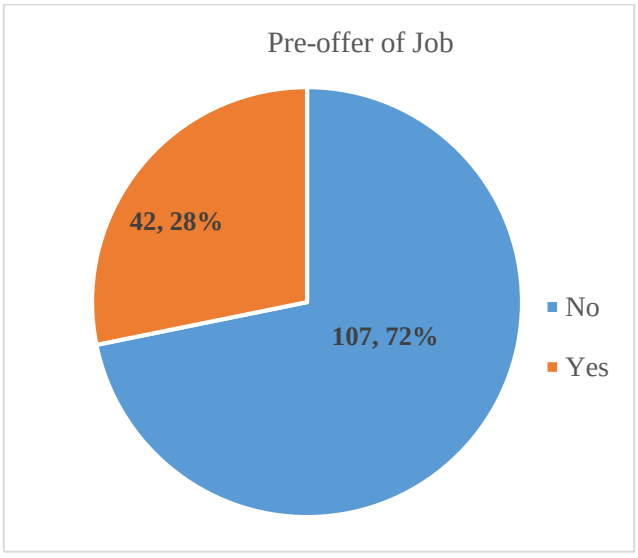

Figure 4. 17 Distribution by Pre-offer of a Job from Migration Destination Country

From the people who had no pre-offer of a job, 70 (68%) indicated that they got a job in less than 3 months, 23 (22%) took 3-6 months, 3 (3%) took 7 months to 1 year while 7 (7%) taking more than 1 year to find a job. This is shown in Figure 4.18.

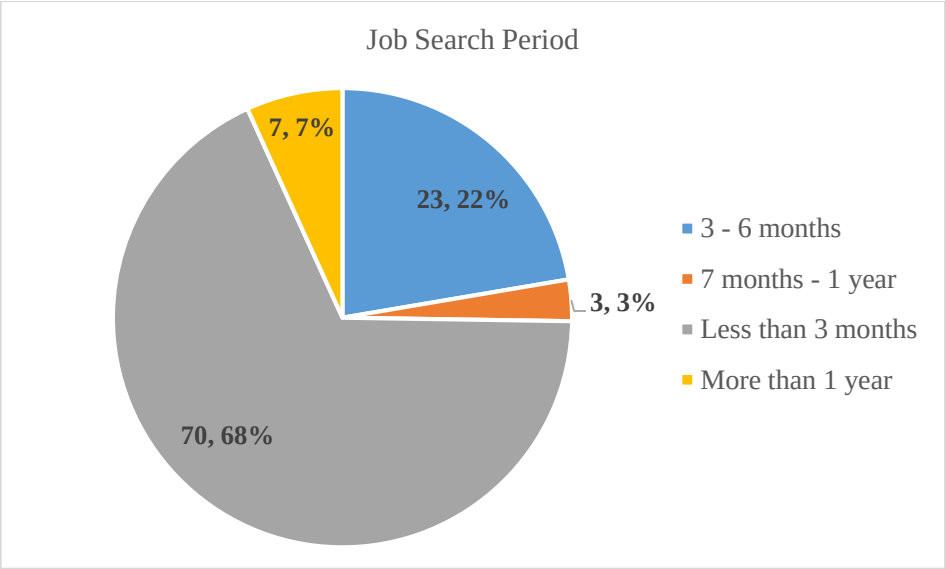

Figure 4. 18 Job Search Period in Migration Destination Country

The respondents were asked to indicate if they are happy with their decision to migrate. There were 105 (66%) who were happy, 4 (2%) unhappy while 51 (32%) were having mixed feelings. This is depicted in Figure 4.19.

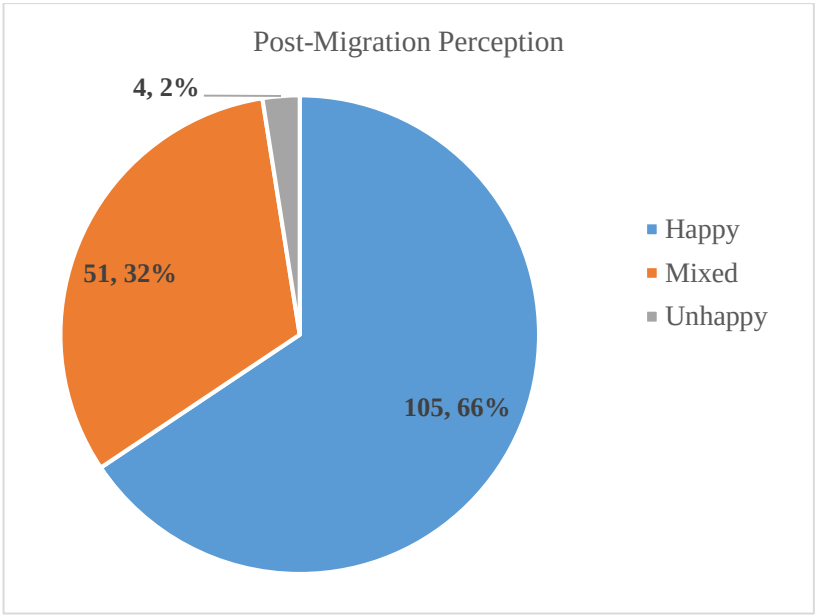

Figure 4. 19 Distribution by Post-Migration Perception

There were 86 (48%) people who said that they will return to Sri Lanka, 62 (34%) said they will not return while 33 (18%) said that they have not decided if they will return or not. This is shown in Figure 4.20.

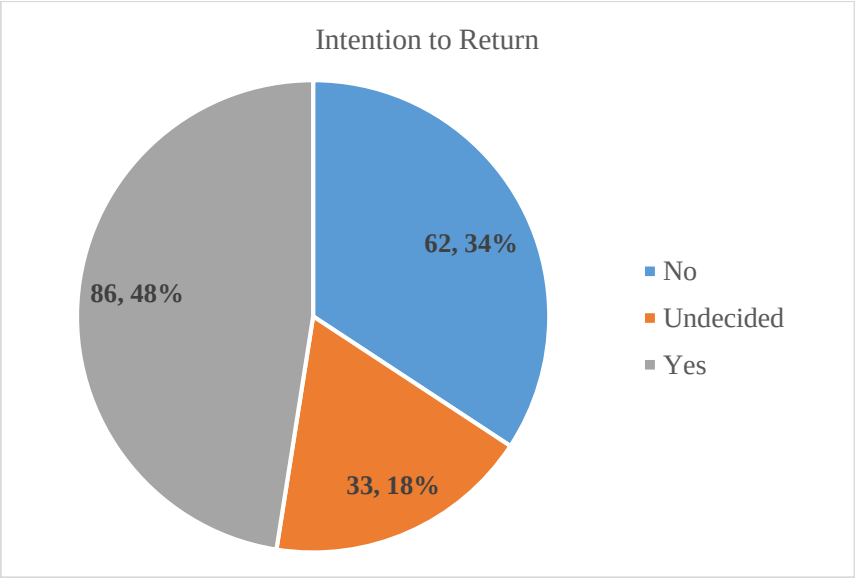

Figure 4. 20 Distribution by the Intention to Return

Figure 4.21 represents the post-migration perception against the intention to return for the sample. All people who were unhappy have said that they will return for sure. But there are considerable amount of people who wants to return although they are happy with their decision to migrate.

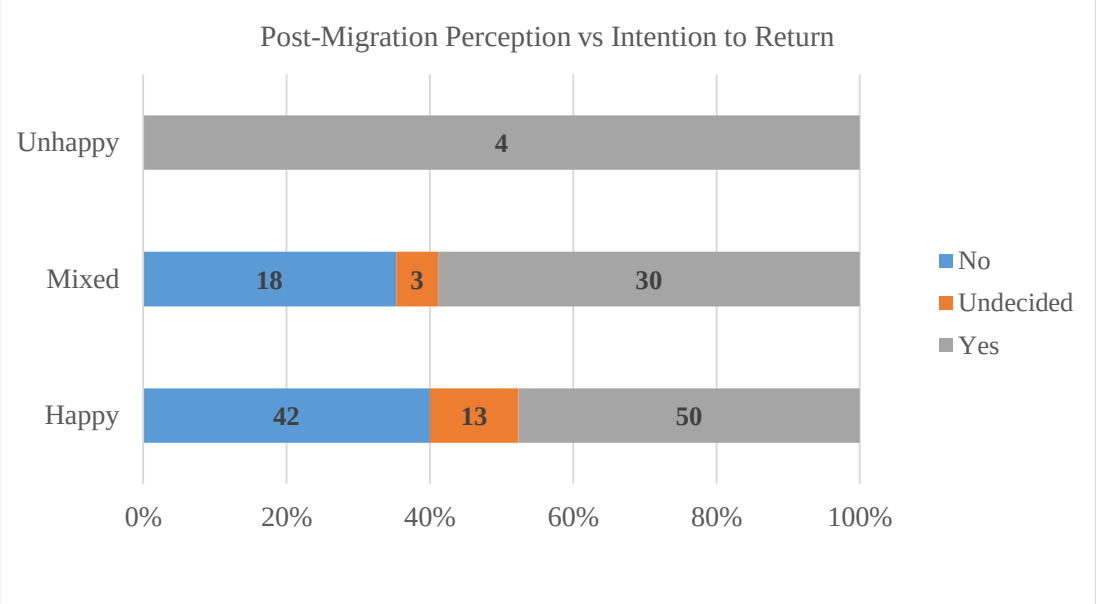

Figure 4. 21 Post-Migration Perception vs Intention to Return

4.5. Basic Statistics on Factors Influencing Migration and their Interpretation

The Table 4.2 represents a part of the basic statistics on the factors affecting the migration of Sri Lankan IT professionals. The whole set of statistics generated can be found in Table B.1 under Appendix B. These statistics were generated using R software.

The total sample was used in here to generate these statistics with the intention to generalize the findings for whole Sri Lankan IT migrant population. However, specialized analysis on selected sub groups will be discussed in Chapter 5.

For evaluating the validity of sample skewness, a test statistic was derived which is mentioned as "Test statistic of skewness" as given in Table 4.2. The test statistic of skewness is calculated by dividing the sample skewness by the standard error of skewness (SES). The calculation formulas are given below. The test statistic calculation was done using Excel software.

$$\text{Test statistic of skewness} = \text{Sample skewness} \,/\, \text{SES}$$

$$SES = \sqrt{\frac{6n(n-1)}{(n-2)(n+1)(n+3)}}$$

n = Sample size

If the test statistic of skewness is greater than 2, it is claimed that population is positively skewed. If it is between 2 and -2, it cannot confirm if the skewness is positive or negative. If it is lesser than -2, it is claimed that population is negatively skewed. (Browns, 2016)

Table 4. 2 Basic Statistics on the Distribution of Factors Affecting Migration

Factor	Mean	SD	Median	25th Percentile	75th Percentile	Skewness	Test statistic of skewness	Kurtosis	SE
Push - Civil conflicts	2.25	1.48	2	1	3	0.73	4.04	-0.92	0.11
Push - Unfavourable political situation	3.07	1.56	3	1	5	-0.11	-0.61	-1.48	0.12
Push - Religious harassments	1.62	1.17	1	1	2	1.77	9.80	1.96	0.09
Push - Inflation	2.84	1.43	3	1	4	0.02	0.11	-1.34	0.11
Push - Unemployment / Under employment	1.83	1.23	1	1	3	1.23	6.81	0.15	0.09
Push - Comparatively low salaries	3.06	1.55	3	1	5	-0.10	-0.55	-1.49	0.11
Push - Settling the debts	1.86	1.26	1	1	3	1.20	6.65	0.04	0.09
Push - Provision of monetary support for family	2.27	1.43	2	1	3	0.70	3.88	-0.93	0.11
Push - Lack of opportunity / funding for research	2.59	1.60	2	1	4	0.44	2.44	-1.39	0.12
Push - Favoritism / discrimination at workplace	2.15	1.37	2	1	3	0.93	5.15	-0.45	0.10
Push - Poor intellectual stimulation of the job	2.40	1.41	2	1	3	0.56	3.10	-1.02	0.10
Push - Limited career structures	2.60	1.47	3	1	4	0.32	1.77	-1.32	0.11
Push - Unfavourable work-life balance	3.02	1.49	3	1	4	-0.11	-0.61	-1.40	0.11
Push - Social restrictions due to interference from relatives / neighbours / colleagues	1.98	1.36	1	1	3	1.08	5.98	-0.20	0.10
Push - Lack of good education for children / spouse	2.38	1.6	2	1	4	0.63	3.49	-1.26	0.12
Push - Poor public facilities	3.27	1.56	4	2	5	-0.29	-1.61	-1.43	0.12
Pull - Political freedom	2.83	1.62	3	1	4	0.1	0.55	-1.58	0.12

Factor	Mean	SD	Median	25th Percentile	75th Percentile	Skewness	Test statistic of skewness	Kurtosis	SE
Pull - Religious freedom	2.81	1.64	3	1	5	0.14	0.78	-1.6	0.12
Pull - Openness to foreigners	3.59	1.46	4	3	5	-0.72	-3.99	-0.86	0.11
Pull - Skill migration opportunities	4.08	1.25	5	4	5	-1.35	-7.48	0.83	0.09
Pull - Opportunity for career development / higher education	4.06	1.2	4	4	5	-1.24	-6.87	0.55	0.09
Pull - Exposure and experience	4.03	1.19	4	3	5	-1.2	-6.65	0.57	0.09
Pull - Openness to innovation	3.57	1.38	4	3	5	-0.63	-3.49	-0.85	0.10
Pull - Accessibility to modern technology	3.87	1.29	4	3	5	-1.04	-5.76	0.02	0.10
Pull - Relaxed working conditions	3.65	1.34	4	3	5	-0.69	-3.82	-0.70	0.10
Pull - Peer recommendations	3.34	1.43	4	2	5	-0.42	-2.33	-1.14	0.11
Pull - Better pay scales	3.92	1.25	4	3	5	-1.08	-5.98	0.18	0.09
Pull - Better education system	3.85	1.24	4	3	5	-0.90	-4.98	-0.17	0.09
Pull - Perceived quality of life	4.34	1.01	5	4	5	-1.74	-9.64	2.63	0.08
Pull - Opportunities for permanent residency	3.71	1.47	4	3	5	-0.71	-3.93	-0.98	0.11

According to the statistics in Table 4.2, the identified factors can be categorized against their influence on migration as given in Table 4.3.

Table 4. 3 Categorization of Factors based on their Influence on Migration Decision

Category	High Influence	Medium Influence	Low Influence
Push	---	• Poor public facilities • Unfavourable political situation • Unfavourable work-life balance • Comparatively low salaries • Inflation • Limited career structures	• Lack of opportunity / funding for research • Poor intellectual stimulation of the job • Lack of good education for children / spouse • Provision of monetary support for family • Civil conflicts • Favoritism / discrimination at workplace • Social restrictions due to interference from relatives / neighbours / colleagues • Settling the debts • Unemployment / Under employment • Religious harassments
Pull	• Perceived quality of life • Skill migration opportunities	• Political freedom • Religious freedom	---

	• Opportunity for career development / higher education • Exposure and experience • Better pay scales • Accessibility to modern technology • Better education system • Openness to foreigners • Opportunities for permanent residency • Relaxed working conditions • Openness to innovation • Peer recommendations		

4.6. Correlations of the Factors

Also, it is beneficial to look at the relationship among the factors that influences the migration decision. Therefore a correlation analysis was done on the factors using the R software. The sub-section of correlation matrix is given in Table 4.4 extracting the most significant correlations i.e. correlation coefficient is equals to or greater than 0.5. The whole correlation matrix is given in Table B.2 and Table B.3 under Appendix B.

Table 4. 4 Sub-section of Correlation Matrix for Significant Correlation Coefficients

Factor	**Push_1**	**Push_2**	**Push_4**	**Push_6**	**Push_7**	**Push_10**	**Push_11**	**Push_15**	**Pull_1**	**Pull_5**	**Pull_6**	**Pull_7**	**Pull_9**	**Pull_13**

Push_2	0.65													
Push_3	0.50													
Push_4		0.54												
Push_6			0.52											
Push_8				0.51	0.60									
Push_11						0.65								
Push_12						0.60	0.75							
Push_16		0.53						0.53						
Pull_1	0.51	0.59												
Pull_2									0.74					
Pull_3									0.53					
Pull_6										0.66				
Pull_7										0.55	0.68			
Pull_8										0.65	0.74	0.73		
Pull_13													0.51	
Pull_14													0.54	0.54

As per Table 4.4, it is evident that following sets of factors are highly interrelated in influencing the decision of migration.

- Push - Civil conflicts, Push - Unfavourable political situation, Push - Religious harassments, Pull - Political freedom

  The people who indicated that civil conflicts in Sri Lanka were influential in their migration decision have been also influenced by the unfavourable political situation and religious harassments in Sri Lanka while attracted by the political freedom offered in their migration destination.

- Push - Unfavourable political situation, Push – Inflation, Push - Poor public facilities, Pull - Political freedom

  The people who indicated that unfavourable political situation in Sri Lanka was influential in their migration decision have been also influenced by the inflation and poor public facilities in Sri Lanka while attracted by the political freedom offered in their migration destination.

- Push – Inflation, Push - Comparatively low salaries

  Some people have migrated due to the fact that they cannot cope with the inflation of the country with their salaries.

- Push - Comparatively low salaries, Push - Provision of monetary support for family

  Some people have migrated because of that they are not in a position to provide an adequate monetary support for their families with their salaries.

- Push - Settling the debts, Push - Provision of monetary support for family

  The people who migrated with the aim to settle their debts also wanted to build the capacity to provide adequate monetary support for their families.

- Push - Favoritism/discrimination at workplace, Push - Poor intellectual stimulation of the job, Push - Limited career structures

  The people who indicated that favoritism/discrimination at the workplace influenced their migration were also frustrated by the poor intellectual stimulation of their job and limited career structures available in their job function.

- Push - Lack of good education for children/spouse, Push - Poor public facilities

The people who indicated that lack of good education for their children/spouse was influenced their migration were also frustrated by the poor public facilities available in Sri Lanka.

- Pull - Political freedom, Pull - Religious freedom, Pull - Openness to foreigners

  The people who migrated in the search of political and religious freedom have selected countries which were practicing equal treatments for foreigners.

- Pull - Opportunity for career development/higher education, Pull - Exposure and experience, Pull - Openness to innovation, Pull - Accessibility to modern technology

  The people attracted by the opportunities that were offered for career development/higher education have also considered the country's openness to innovation and accessibility to modern technology. They have also valued the exposure and experience that they can gain from the migration destination country.

- Pull - Relaxed working conditions, Pull - Perceived quality of life, Pull - Opportunities for permanent residency

  The people who indicated that relaxed working conditions of the migration destination influenced their migration have valued the quality of life perceived there and looked for becoming permanent residents.

5. CONCLUSION, FURTHER ANALYSIS, LIMITATIONS AND FUTURE WORK

5.1. Conclusion

As per the data analysis it is evident that pull factors are prominent compared to push factors in influencing the migration of Sri Lankan IT professionals. That means the Sri Lankan IT professionals are attracted by the fascinating and favorable factors in the choice of their migration destination country rather than pushed away by the detrimental factors in Sri Lanka. How the data analysis was used to refine the initial conceptual framework and how it contributed in achieving the research objectives are discussed in next sections while concluding this research.

5.1.1. Refined Conceptual Framework

There were no factors in the initial conceptual framework that could be rejected as per the survey results. Instead those factors were ranked based on their level of influence as High, Medium and Low when refining the conceptual framework. The categorization of PEST and Push/Pull were retained as proposed initially. There were no additional factors identified from the survey responses. The refined conceptual framework is given in Figure 5.1.

5.1.2. Attaining Research Objectives

How well the research objectives are met is discussed by presenting the answers for the research questions considered.

- What are the factors that make a Sri Lankan IT professional to migrate/intent to migrate?

  The refined conceptual framework given in Figure 5.1 answers this research question by summarizing the factors that are influencing Sri Lankan IT professionals' migration. It should be noted that this conceptual framework is a generalized version for the whole population and have not considered the sub-groups included in the sample.

- Is there a change in those factors within the past few years (e.g., during the war season and after the war)?

  A sub-group of the sample who migrated during the civil war period and the sub-group who migrated after the end of war was analyzed further in answering this question. The only interesting factor that was observed is the civil conflicts, which had a medium influence for the people who migrated during the war period and it was of low influence for the people who migrated after the end of the war. These statistics are included in Table B.4 and Table B.5 under Appendix B.

- What makes an IT professional attracted to Sri Lanka once again after migrating?

  The following were indicated by the survey respondents as the reasons if they are to come back to Sri Lanka in future.

  - Family, friends and relatives
  - Retirement
  - Appropriate cultural background to raise children
  - Better political and governance system in the country
  - Structured development of infrastructure and public facilities of the country
  - Economic stability
  - Opportunity to start new business
  - Good career opportunities
  - Work life balance
  - The personal obligation to serve the mother country

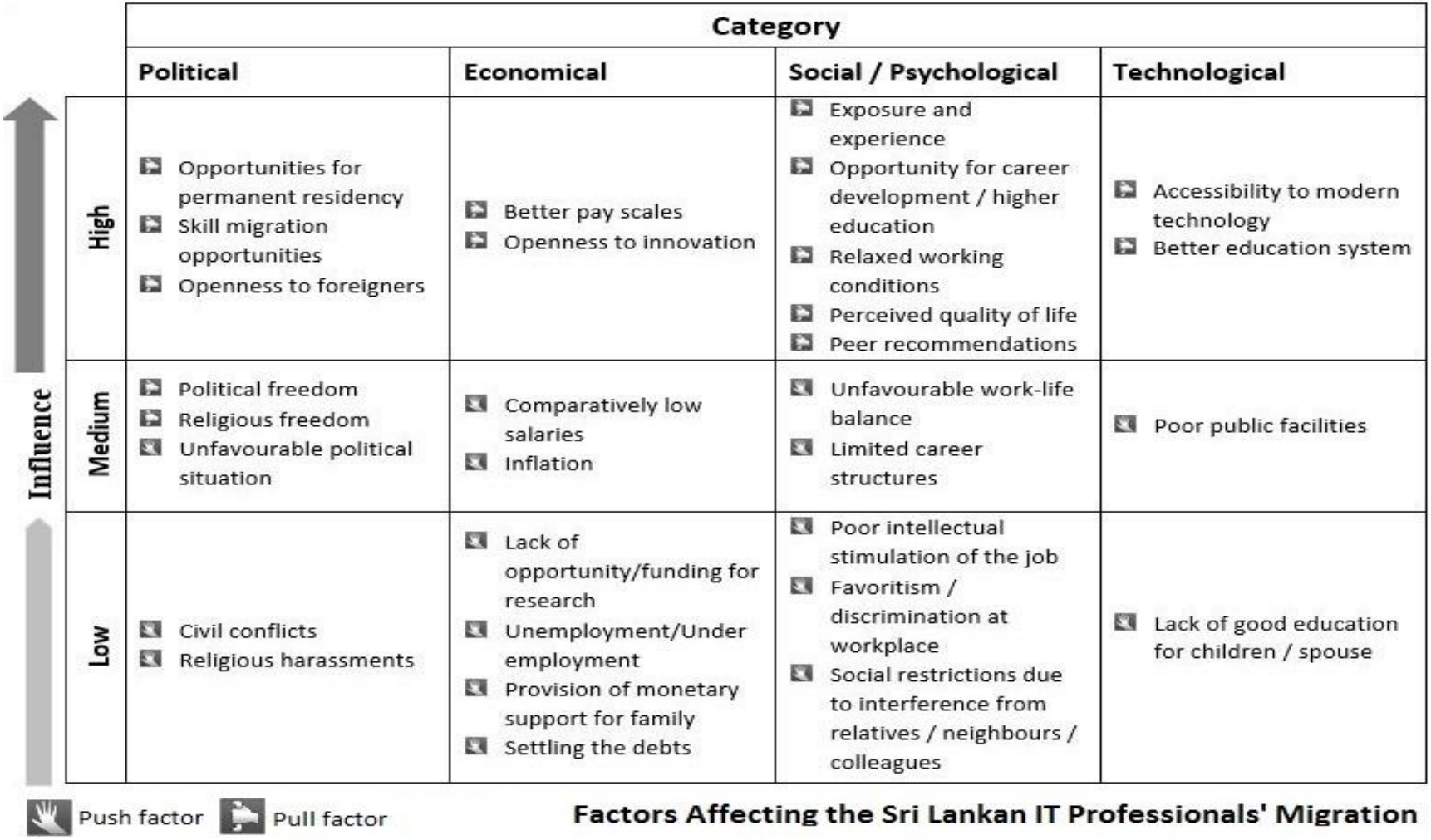

Figure 5. 1 Refined Conceptual Framework for Factors affecting Sri Lankan IT Professionals' Migration

5.2. Further Analysis

Further analysis was carried out on the aspects of Migration destination country, Gender, Age group and Job function to see if there are any interesting observations for specific sub groups of the sample. The sub groups were considered only if the considered sub group had at least 10 responses, to minimize the false positives. However these analysis results may be validated using a larger sample.

5.2.1. Migration Destination Country

The three countries Australia, Singapore and USA were considered in this analysis. The Table 5.1 compares the highest influential factors for migration with regard to these countries. The high influential factors for the particular country is indicated by "Yes", and "No" indicates if that factor is not high influential. The detailed statistics on the sub-groups by migration destination country are available in Table B.6 to Table B.8 under Appendix B.

Table 5. 1 High influence factors for migration by migration destination country

High Influence Factor	**Australia**	**Singapore**	**USA**
Pull - Openness to foreigners	Yes	Yes	No
Pull - Skill migration opportunities	Yes	Yes	Yes
Pull - Opportunity for career development / higher education	Yes	Yes	Yes
Pull - Exposure and experience	Yes	Yes	Yes
Pull - Openness to innovation	No	No	Yes
Pull - Accessibility to modern technology	Yes	Yes	Yes
Pull - Relaxed working conditions	Yes	No	No
Pull - Better pay scales	Yes	Yes	Yes
Pull - Better education system	Yes	No	Yes
Pull - Perceived quality of life	Yes	Yes	No
Pull - Opportunities for permanent residency	Yes	No	No

5.2.2. Gender

No significant differences were observed in the influential factors for migration as per the analysis done by gender. The detailed statistics on the sub-groups by gender are available in Table B.9 and Table B.10 under Appendix B.

5.2.3. Age Group

There were no significant differences in the influential factors for migration observed according to the analysis done by the age group. The detailed statistics on the sub-groups by age are available in Table B.11 to Table B.13 under Appendix B.

5.2.4. Job Function

The comparison of high influence factors according to the job function is represented in Table 5.2. The high influential factors for the particular job function is indicated by "Yes", and "No" indicates if that factor is not high influential. The detailed statistics on the sub-groups by job function are available in Table B.14 to Table B.19 under Appendix B.

Table 5. 2 High influence factors for migration by job function

High Influence Factor	**Academic**	**Non - Academic**	**Development**	**QA**	**Management**	**Support**
Push - Lack of opportunity / funding for research	Yes	No	No	No	No	No
Push - Poor public facilities	No	Yes	No	No	No	No
Pull - Openness to foreigners	No	Yes	Yes	No	Yes	No
Pull - Skill migration opportunities	Yes	Yes	Yes	No	Yes	No
Pull - Opportunity for career development / higher education	Yes	Yes	Yes	No	Yes	No
Pull - Exposure and experience	Yes	Yes	Yes	No	Yes	Yes

Pull - Openness to innovation	Yes	Yes	No	No	No	No
Pull - Accessibility to modern technology	Yes	Yes	Yes	No	Yes	No
Pull - Relaxed working conditions	No	Yes	Yes	No	Yes	No
Pull - Better pay scales	No	Yes	Yes	No	No	Yes
Pull - Better education system	Yes	Yes	Yes	No	No	No
Pull - Perceived quality of life	No	Yes	Yes	Yes	Yes	Yes
Pull - Opportunities for permanent residency	No	Yes	Yes	Yes	No	No

5.3. Limitations

- Approximations when deriving the research population and sample

  As there were no direct statistics available in defining the research population, an approximation is done as given in Section 3.3. The actual population statistics can be greater than this. However according to sample size table, a population of 50,000 will only require a sample size of 381 given the confidence 95% and confidence interval 5% (The research advisors, 2006). Therefore, although we assume this research population as 50,000 people, the current sample size of 181 will give only a confidence interval (margin of error) of 7.27%.

- Data collection biases

  As the snowball sampling was used in contacting potential survey participants, there can be biases in the sample collected. For an example there are more responses from Singapore, but comparatively less from Malaysia. Therefore, there can be some factors exaggerated based on the sample distribution.

5.4. Future Work

The Sri Lankan IT professionals' migration is a research area where there is still a gap. A future research will be prospective on following aspects building upon this research.

1. Variation of migration decision determinants based on the sub-populations of Sri Lankan migrant IT professionals
   e.g., Migration destination country, Employee job function, Age/Generation of the employee
2. Policy/Strategy formulation approach that Sri Lankan IT Industry/Academia could use to minimize the influence of the migration decision determinants identified by this research as well as in any future research

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Appendix A: Research Questionnaire

Survey on "Factors Affecting Migration of Sri Lankan IT Professionals"

I am Lasanthika Munasinghe, a student following the MBA in IT degree programme at University of Moratuwa. As a requirement for my research project, I am conducting this survey to identify the factors that affect the migration decision of Sri Lankan IT professionals.

Your candid response is the key to the success of this research. All your responses will be treated confidential. Thank you very much for your time.

If you have any questions about the survey, please email me at lasanthika.15@cse.mrt.ac.lk.

*Required

Demographic Information

Please provide me following information on yourself.

1. **Age** * *Mark only one oval.*

   ○ Below 25
   ○ 25 to 30
   ○ 31 to 35
   ○ 36 to 40
   ○ Above 40

2. **Gender** * *Mark only one oval.*

   ○ Male
   ○ Female

3. **Current designation** *

_____

4. **Marital status** * *Mark only one oval.*

- ○ Unmarried
- ○ Married
- ○ Divorced
- ○ Widowed

5. **If married, please specify the profession of your spouse.**

_____

6. **If married, please specify the number of children you have.**
Mark only one oval.

- ○ None
- ○ 1
- ○ 2
- ○ More than 2

7. **How many siblings that you have in your family?** * *Mark only one oval.*

- ○ None
- ○ 1
- ○ 2
- ○ More than 2

Information at the time of Migration

Please answer below questions with regard to the period of your migration.

8. **Year of migration** * *Mark only one oval.*

○ 2016	○ 2005	○ 1994
○ 2015	○ 2004	○ 1993
○ 2014	○ 2003	○ 1992
○ 2013	○ 2002	○ 1991
○ 2012	○ 2001	○ 1990
○ 2011	○ 2000	○ 1989
○ 2010	○ 1999	○ 1988
○ 2009	○ 1998	○ 1987
○ 2008	○ 1997	○ 1986
○ 2007	○ 1996	○ 1985
○ 2006	○ 1995	

9. **Month of migration** *Mark only one oval.*

○ January	○ May	○ September
○ February	○ June	○ October
○ March	○ July	○ November
○ April	○ August	○ December

10. **To where did you migrate?** * *Mark only one oval.*

○ Australia

○ Canada

○ New Zealand

○ Singapore

○ United Kingdom

- ○ United States of America
- ○ Other: _____

11. **Highest academic qualification at the time of migration** *

Mark only one oval.

- ○ Diploma / Higher Diploma
- ○ Bachelor's degree
- ○ Master's degree
- ○ PhD
- ○ Other: _____

12. **Highest professional qualification at the time of migration**

_____

13. **Designation at the time of migration** *

_____

14. **Number of years of service in Sri Lanka at the time of migration** *

Mark only one oval.

- ○ Less than 1 year
- ○ 1 - 2 years
- ○ 3 - 4 years
- ○ 5 years
- ○ More than 5 years

15. **In Sri Lanka, were you working for a company with an international presence?** * *Mark only one oval.*

- ○ Yes
- ○ No

16. **Were your parents alive at the time of migration?** *
Mark only one oval.

- ○ Yes, both of them were alive
- ○ Yes, one of them was alive
- ○ No, none of them was alive

Factors that influenced your Decision on Migration

Please use following scale for answering the multiple-choice questions in this section.

Scale:
1 – Not at all influential
2 – Slightly influential
3 – Somewhat influential
4 – Very influential
5 – Extremely influential

17. **Please specify to which extent the following factors influenced your decision of leaving Sri Lanka, with 1 being the least influential.** *
Mark only one oval per row.

Factor	**1**	**2**	**3**	**4**	**5**
Civil conflicts	○	○	○	○	○

Unfavourable political situation	○	○	○	○	○
Religious harassments	○	○	○	○	○
Inflation	○	○	○	○	○
Unemployment/Under-employment	○	○	○	○	○
Comparatively low salaries	○	○	○	○	○
Settling the debts	○	○	○	○	○
Provision of monetary support for family	○	○	○	○	○
Lack of opportunity/funding for research	○	○	○	○	○
Favoritism/discrimination at workplace	○	○	○	○	○
Poor intellectual stimulation of the job	○	○	○	○	○
Limited career structures	○	○	○	○	○
Unfavourable work-life balance	○	○	○	○	○
Social restrictions due to interference from relatives/neighbours/colleagues	○	○	○	○	○
Lack of good education for children/spouse	○	○	○	○	○
Poor public facilities	○	○	○	○	○

18. **In addition to above, were there any other factors applicable for your decision of leaving Sri Lanka? Please specify.**

_____

_____

_____

_____

19. **Please specify to which extent the following factors influenced your decision of selecting the country that you migrated to, with 1 being the least influential.** * *Mark only one oval per row.*

Factor	**1**	**2**	**3**	**4**	**5**

Political freedom	○	○	○	○	○
Religious freedom	○	○	○	○	○
Openness to foreigners	○	○	○	○	○
Skill migration opportunities	○	○	○	○	○
Opportunity for career development/higher education	○	○	○	○	○
Exposure and experience	○	○	○	○	○
Openness to innovation	○	○	○	○	○
Accessibility to modern technology	○	○	○	○	○
Relaxed working conditions	○	○	○	○	○
Peer recommendations	○	○	○	○	○
Better pay scales	○	○	○	○	○
Better education system	○	○	○	○	○
Perceived quality of life	○	○	○	○	○
Opportunities for permanent residency	○	○	○	○	○

20. **In addition to above, were there any other factors applicable for your decision of selecting the country that you migrated to? Please specify.**

_____

_____

_____

_____

Experience/Perception Changes after Migration

Please answer below questions with regard to your experience/feelings after the migration.

21. **Did you get a job offer in the migrated country before arriving there?** *

Mark only one oval.

- ○ Yes
- ○ No

22. **If not, how long you had to wait after migration to find a job that is relevant to your qualifications?**

Mark only one oval.

- ○ Less than 3 months
- ○ 3 - 6 months
- ○ 7 months - 1 year
- ○ More than 1 year

23. **How do you feel about your decision on migration now? i.e. Are you economically, physically and emotionally happy? Do you have any regrets?**

_____

_____

_____

_____

24. **If you have any idea of returning and settling in Sri Lanka in future, what makes you think to return OR what will make you think to return?**

_____

_____

_____

_____

25. **If you wish to participate in a follow-up survey, please specify your email address.**

_____

Appendix B: Generated Statistic Tables

Table B. 1 Basic Statistics on the Influential Factors for Migration using the entire Sample

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	IQR	Q0.25	Q0.75
Push_1	1	181	2.25	1.48	2	2.07	1.48	1	5	4	0.73	-0.92	0.11	2	1	3
Push_2	2	181	3.07	1.56	3	3.08	2.97	1	5	4	-0.11	-1.48	0.12	4	1	5
Push_3	3	181	1.62	1.17	1	1.34	0	1	5	4	1.77	1.96	0.09	1	1	2
Push_4	4	181	2.84	1.43	3	2.8	1.48	1	5	4	0.02	-1.34	0.11	3	1	4
Push_5	5	181	1.83	1.23	1	1.61	0	1	5	4	1.23	0.15	0.09	2	1	3
Push_6	6	181	3.06	1.55	3	3.08	2.97	1	5	4	-0.1	-1.49	0.11	4	1	5
Push_7	7	181	1.86	1.26	1	1.63	0	1	5	4	1.2	0.04	0.09	2	1	3
Push_8	8	181	2.27	1.43	2	2.08	1.48	1	5	4	0.7	-0.93	0.11	2	1	3
Push_9	9	181	2.59	1.6	2	2.48	1.48	1	5	4	0.44	-1.39	0.12	3	1	4
Push_10	10	181	2.15	1.37	2	1.94	1.48	1	5	4	0.93	-0.45	0.1	2	1	3
Push_11	11	181	2.4	1.41	2	2.26	1.48	1	5	4	0.56	-1.02	0.1	2	1	3
Push_12	12	181	2.6	1.47	3	2.5	2.97	1	5	4	0.32	-1.32	0.11	3	1	4
Push_13	13	181	3.02	1.49	3	3.02	1.48	1	5	4	-0.11	-1.4	0.11	3	1	4
Push_14	14	181	1.98	1.36	1	1.74	0	1	5	4	1.08	-0.2	0.1	2	1	3
Push_15	15	181	2.38	1.6	2	2.22	1.48	1	5	4	0.63	-1.26	0.12	3	1	4
Push_16	16	181	3.27	1.56	4	3.33	1.48	1	5	4	-0.29	-1.43	0.12	3	2	5
Pull_1	17	181	2.83	1.62	3	2.79	2.97	1	5	4	0.1	-1.58	0.12	3	1	4
Pull_2	18	181	2.81	1.64	3	2.76	2.97	1	5	4	0.14	-1.6	0.12	4	1	5
Pull_3	19	181	3.59	1.46	4	3.73	1.48	1	5	4	-0.72	-0.86	0.11	2	3	5
Pull_4	20	181	4.08	1.25	5	4.34	0	1	5	4	-1.35	0.83	0.09	1	4	5

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	IQR	Q0.25	Q0.75
Pull_5	21	181	4.06	1.2	4	4.28	1.48	1	5	4	-1.24	0.55	0.09	1	4	5
Pull_6	22	181	4.03	1.19	4	4.25	1.48	1	5	4	-1.2	0.57	0.09	2	3	5
Pull_7	23	181	3.57	1.38	4	3.71	1.48	1	5	4	-0.63	-0.85	0.1	2	3	5
Pull_8	24	181	3.87	1.29	4	4.09	1.48	1	5	4	-1.04	0.02	0.1	2	3	5
Pull_9	25	181	3.65	1.34	4	3.81	1.48	1	5	4	-0.69	-0.7	0.1	2	3	5
Pull_10	26	181	3.34	1.43	4	3.42	1.48	1	5	4	-0.42	-1.14	0.11	3	2	5
Pull_11	27	181	3.92	1.25	4	4.14	1.48	1	5	4	-1.08	0.18	0.09	2	3	5
Pull_12	28	181	3.85	1.24	4	4.03	1.48	1	5	4	-0.9	-0.17	0.09	2	3	5
Pull_13	29	181	4.34	1.01	5	4.55	0	1	5	4	-1.74	2.63	0.08	1	4	5
Pull_14	30	181	3.71	1.47	4	3.89	1.48	1	5	4	-0.71	-0.98	0.11	2	3	5

Table B. 2 Correlation Matrix of the Influential Factors for Migration using the entire Sample - Part 1

Factor	Push_1	Push_2	Push_3	Push_4	Push_5	Push_6	Push_7	Push_8	Push_9	Push_10	Push_11	Push_12	Push_13	Push_14	Push_15	Push_16
Push_1	1.00	0.65	0.50	0.36	0.31	0.16	0.08	0.15	0.12	0.25	0.13	0.15	0.18	0.26	0.25	0.28
Push_2	0.65	1.00	0.42	0.54	0.32	0.22	0.14	0.10	0.16	0.27	0.18	0.19	0.28	0.37	0.41	0.53
Push_3	0.50	0.42	1.00	0.24	0.24	0.01	0.18	0.14	0.14	0.27	0.19	0.12	0.21	0.30	0.28	0.31
Push_4	0.36	0.54	0.24	1.00	0.46	0.52	0.30	0.34	0.20	0.28	0.28	0.21	0.30	0.23	0.30	0.41
Push_5	0.31	0.32	0.24	0.46	1.00	0.46	0.25	0.25	0.31	0.30	0.33	0.36	0.17	0.16	0.23	0.24
Push_6	0.16	0.22	0.01	0.52	0.46	1.00	0.42	0.51	0.31	0.31	0.24	0.34	0.23	0.18	0.10	0.22
Push_7	0.08	0.14	0.18	0.30	0.25	0.42	1.00	0.60	0.21	0.27	0.15	0.13	0.08	0.28	0.13	0.09
Push_8	0.15	0.10	0.14	0.34	0.25	0.51	0.60	1.00	0.20	0.16	0.04	0.12	0.14	0.26	0.17	0.17
Push_9	0.12	0.16	0.14	0.20	0.31	0.31	0.21	0.20	1.00	0.25	0.37	0.49	0.17	0.17	0.06	0.08
Push_10	0.25	0.27	0.27	0.28	0.30	0.31	0.27	0.16	0.25	1.00	0.65	0.60	0.36	0.37	0.19	0.17
Push_11	0.13	0.18	0.19	0.28	0.33	0.24	0.15	0.04	0.37	0.65	1.00	0.75	0.37	0.34	0.14	0.15
Push_12	0.15	0.19	0.12	0.21	0.36	0.34	0.13	0.12	0.49	0.60	0.75	1.00	0.32	0.30	0.17	0.17
Push_13	0.18	0.28	0.21	0.30	0.17	0.23	0.08	0.14	0.17	0.36	0.37	0.32	1.00	0.43	0.35	0.49
Push_14	0.26	0.37	0.30	0.23	0.16	0.18	0.28	0.26	0.17	0.37	0.34	0.30	0.43	1.00	0.34	0.39
Push_15	0.25	0.41	0.28	0.30	0.23	0.10	0.13	0.17	0.06	0.19	0.14	0.17	0.35	0.34	1.00	0.53
Push_16	0.28	0.53	0.31	0.41	0.24	0.22	0.09	0.17	0.08	0.17	0.15	0.17	0.49	0.39	0.53	1.00
Pull_1	0.51	0.59	0.31	0.43	0.29	0.19	0.05	0.14	0.16	0.24	0.18	0.24	0.27	0.32	0.33	0.40
Pull_2	0.44	0.49	0.38	0.34	0.26	0.14	0.09	0.13	0.14	0.27	0.18	0.23	0.20	0.26	0.25	0.31
Pull_3	0.26	0.30	0.06	0.29	0.15	0.24	0.01	0.08	0.24	0.21	0.17	0.25	0.21	0.13	0.18	0.25
Pull_4	0.13	0.16	0.02	0.17	0.10	0.19	-0.01	-0.01	0.07	0.10	0.09	0.14	0.21	0.10	0.18	0.24
Pull_5	0.07	0.12	-0.03	0.16	0.20	0.28	-0.02	-0.04	0.41	0.15	0.20	0.34	0.21	-0.02	0.06	0.14

Factor	Push_1	Push_2	Push_3	Push_4	Push_5	Push_6	Push_7	Push_8	Push_9	Push_10	Push_11	Push_12	Push_13	Push_14	Push_15	Push_16
Pull_6	0.06	0.11	-0.01	0.26	0.21	0.29	0.04	0.04	0.26	0.12	0.21	0.36	0.14	0.04	0.12	0.21
Pull_7	0.14	0.21	0.16	0.24	0.18	0.17	0.08	0.08	0.37	0.14	0.27	0.37	0.13	0.10	0.13	0.19
Pull_8	0.10	0.19	0.05	0.27	0.17	0.24	0.00	0.09	0.21	0.15	0.24	0.40	0.14	0.01	0.21	0.26
Pull_9	0.20	0.25	0.06	0.11	0.02	0.03	-0.19	-0.07	0.09	0.16	0.11	0.20	0.41	0.13	0.23	0.37
Pull_10	-0.02	0.11	-0.05	0.22	0.12	0.18	0.10	0.10	0.07	0.07	0.10	0.13	0.17	0.13	0.14	0.22
Pull_11	0.11	0.12	-0.08	0.31	0.15	0.48	0.11	0.28	0.06	0.14	0.10	0.15	0.15	0.06	0.06	0.22
Pull_12	0.10	0.18	-0.01	0.14	0.08	0.02	-0.10	-0.06	0.11	0.05	0.04	0.08	0.23	-0.01	0.31	0.26
Pull_13	0.16	0.19	-0.02	0.17	0.08	0.14	-0.12	-0.02	-0.02	-0.02	-0.02	0.07	0.26	0.08	0.19	0.35
Pull_14	0.20	0.23	0.07	0.13	0.04	-0.05	-0.12	-0.08	0.01	0.02	0.04	0.06	0.22	0.17	0.34	0.32

Table B. 3 Correlation Matrix of the Influential Factors for Migration using the entire Sample - Part 2

Factor	Pull_1	Pull_2	Pull_3	Pull_4	Pull_5	Pull_6	Pull_7	Pull_8	Pull_9	Pull_10	Pull_11	Pull_12	Pull_13	Pull_14
Push_1	0.51	0.44	0.26	0.13	0.07	0.06	0.14	0.10	0.20	-0.02	0.11	0.10	0.16	0.20
Push_2	0.59	0.49	0.30	0.16	0.12	0.11	0.21	0.19	0.25	0.11	0.12	0.18	0.19	0.23
Push_3	0.31	0.38	0.06	0.02	-0.03	-0.01	0.16	0.05	0.06	-0.05	-0.08	-0.01	-0.02	0.07
Push_4	0.43	0.34	0.29	0.17	0.16	0.26	0.24	0.27	0.11	0.22	0.31	0.14	0.17	0.13
Push_5	0.29	0.26	0.15	0.10	0.20	0.21	0.18	0.17	0.02	0.12	0.15	0.08	0.08	0.04
Push_6	0.19	0.14	0.24	0.19	0.28	0.29	0.17	0.24	0.03	0.18	0.48	0.02	0.14	-0.05
Push_7	0.05	0.09	0.01	-0.01	-0.02	0.04	0.08	0.00	-0.19	0.10	0.11	-0.10	-0.12	-0.12
Push_8	0.14	0.13	0.08	-0.01	-0.04	0.04	0.08	0.09	-0.07	0.10	0.28	-0.06	-0.02	-0.08
Push_9	0.16	0.14	0.24	0.07	0.41	0.26	0.37	0.21	0.09	0.07	0.06	0.11	-0.02	0.01
Push_10	0.24	0.27	0.21	0.10	0.15	0.12	0.14	0.15	0.16	0.07	0.14	0.05	-0.02	0.02
Push_11	0.18	0.18	0.17	0.09	0.20	0.21	0.27	0.24	0.11	0.10	0.10	0.04	-0.02	0.04

Factor	Pull_1	Pull_2	Pull_3	Pull_4	Pull_5	Pull_6	Pull_7	Pull_8	Pull_9	Pull_10	Pull_11	Pull_12	Pull_13	Pull_14
Push_12	0.24	0.23	0.25	0.14	0.34	0.36	0.37	0.40	0.20	0.13	0.15	0.08	0.07	0.06
Push_13	0.27	0.20	0.21	0.21	0.21	0.14	0.13	0.14	0.41	0.17	0.15	0.23	0.26	0.22
Push_14	0.32	0.26	0.13	0.10	-0.02	0.04	0.10	0.01	0.13	0.13	0.06	-0.01	0.08	0.17
Push_15	0.33	0.25	0.18	0.18	0.06	0.12	0.13	0.21	0.23	0.14	0.06	0.31	0.19	0.34
Push_16	0.40	0.31	0.25	0.24	0.14	0.21	0.19	0.26	0.37	0.22	0.22	0.26	0.35	0.32
Pull_1	1.00	0.74	0.53	0.21	0.15	0.20	0.31	0.26	0.28	0.14	0.30	0.32	0.31	0.40
Pull_2	0.74	1.00	0.49	0.27	0.15	0.25	0.30	0.27	0.29	0.15	0.30	0.29	0.32	0.33
Pull_3	0.53	0.49	1.00	0.41	0.31	0.29	0.37	0.37	0.29	0.29	0.41	0.26	0.27	0.35
Pull_4	0.21	0.27	0.41	1.00	0.40	0.44	0.25	0.32	0.39	0.27	0.39	0.24	0.39	0.47
Pull_5	0.15	0.15	0.31	0.40	1.00	0.66	0.55	0.65	0.33	0.34	0.30	0.36	0.33	0.19
Pull_6	0.20	0.25	0.29	0.44	0.66	1.00	0.68	0.74	0.33	0.35	0.38	0.31	0.38	0.26
Pull_7	0.31	0.30	0.37	0.25	0.55	0.68	1.00	0.73	0.30	0.30	0.30	0.31	0.23	0.21
Pull_8	0.26	0.27	0.37	0.32	0.65	0.74	0.73	1.00	0.33	0.40	0.38	0.40	0.30	0.21
Pull_9	0.28	0.29	0.29	0.39	0.33	0.33	0.30	0.33	1.00	0.26	0.27	0.38	0.51	0.54
Pull_10	0.14	0.15	0.29	0.27	0.34	0.35	0.30	0.40	0.26	1.00	0.42	0.28	0.32	0.21
Pull_11	0.30	0.30	0.41	0.39	0.30	0.38	0.30	0.38	0.27	0.42	1.00	0.35	0.46	0.27
Pull_12	0.32	0.29	0.26	0.24	0.36	0.31	0.31	0.40	0.38	0.28	0.35	1.00	0.47	0.41
Pull_13	0.31	0.32	0.27	0.39	0.33	0.38	0.23	0.30	0.51	0.32	0.46	0.47	1.00	0.54
Pull_14	0.40	0.33	0.35	0.47	0.19	0.26	0.21	0.21	0.54	0.21	0.27	0.41	0.54	1.00

Table B. 4 Basic statistics for sub-sample of people who migrated during the War period

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	36	2.78	1.55	3	2.73	2.97	1	5	4	0.14	-1.53	0.26	0.36
Push_2	2	36	3.00	1.59	3	3.00	2.97	1	5	4	-0.08	-1.56	0.26	-0.20
Push_3	3	36	1.39	1.08	1	1.10	0.00	1	5	4	2.55	5.15	0.18	6.50
Push_4	4	36	2.44	1.36	2	2.40	1.48	1	5	4	0.18	-1.64	0.23	0.46
Push_5	5	36	1.83	1.30	1	1.63	0.00	1	5	4	1.21	-0.01	0.22	3.08
Push_6	6	36	2.72	1.52	3	2.67	2.22	1	5	4	0.18	-1.52	0.25	0.46
Push_7	7	36	1.61	1.13	1	1.40	0.00	1	5	4	1.59	1.19	0.19	4.05
Push_8	8	36	2.17	1.34	2	2.03	1.48	1	5	4	0.67	-1.02	0.22	1.71
Push_9	9	36	2.50	1.58	2	2.40	1.48	1	5	4	0.49	-1.36	0.26	1.25
Push_10	10	36	2.08	1.46	1	1.90	0.00	1	5	4	1.03	-0.46	0.24	2.62
Push_11	11	36	2.53	1.44	2.5	2.43	2.22	1	5	4	0.39	-1.23	0.24	0.99
Push_12	12	36	2.53	1.42	2.5	2.43	2.22	1	5	4	0.32	-1.32	0.24	0.82
Push_13	13	36	2.97	1.56	3	2.97	2.22	1	5	4	-0.04	-1.59	0.26	-0.10
Push_14	14	36	1.83	1.32	1	1.60	0.00	1	5	4	1.31	0.33	0.22	3.34
Push_15	15	36	1.97	1.36	1	1.77	0.00	1	5	4	1.23	0.14	0.23	3.13
Push_16	16	36	2.75	1.32	3	2.70	1.48	1	5	4	0.23	-1.02	0.22	0.59
Pull_1	17	36	2.58	1.71	2	2.50	1.48	1	5	4	0.38	-1.63	0.29	0.97
Pull_2	18	36	2.67	1.74	2.5	2.60	2.22	1	5	4	0.25	-1.75	0.29	0.64
Pull_3	19	36	3.25	1.59	4	3.30	1.48	1	5	4	-0.32	-1.52	0.27	-0.82
Pull_4	20	36	3.94	1.41	5	4.13	0.00	1	5	4	-1.09	-0.18	0.24	-2.78
Pull_5	21	36	4.14	1.25	5	4.37	0.00	1	5	4	-1.38	0.81	0.21	-3.52
Pull_6	22	36	3.94	1.33	4	4.13	1.48	1	5	4	-1.11	0.02	0.22	-2.83
Pull_7	23	36	3.67	1.43	4	3.80	1.48	1	5	4	-0.78	-0.71	0.24	-1.99

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_8	24	36	3.89	1.33	4	4.07	1.48	1	5	4	-1.02	-0.13	0.22	-2.60
Pull_9	25	36	3.81	1.21	4	3.97	1.48	1	5	4	-0.85	-0.11	0.20	-2.17
Pull_10	26	36	2.97	1.52	3	2.97	2.22	1	5	4	-0.14	-1.47	0.25	-0.36
Pull_11	27	36	3.53	1.32	4	3.63	1.48	1	5	4	-0.64	-0.64	0.22	-1.63
Pull_12	28	36	3.56	1.34	4	3.67	1.48	1	5	4	-0.70	-0.68	0.22	-1.78
Pull_13	29	36	4.33	0.89	5	4.47	0.00	1	5	4	-1.60	3.08	0.15	-4.08
Pull_14	30	36	3.83	1.25	4	3.97	1.48	1	5	4	-0.71	-0.69	0.21	-1.81

Table B. 5 Basic statistics for sub-sample of people who migrated after the end of War period

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	145	2.12	1.43	1	1.91	0.00	1	5	4	0.91	-0.60	0.12	4.52
Push_2	2	145	3.08	1.56	3	3.10	2.97	1	5	4	-0.11	-1.48	0.13	-0.55
Push_3	3	145	1.68	1.19	1	1.42	0.00	1	5	4	1.61	1.45	0.10	8.00
Push_4	4	145	2.94	1.44	3	2.92	1.48	1	5	4	-0.03	-1.30	0.12	-0.15
Push_5	5	145	1.83	1.22	1	1.62	0.00	1	5	4	1.22	0.15	0.10	6.06
Push_6	6	145	3.14	1.55	3	3.18	2.97	1	5	4	-0.17	-1.47	0.13	-0.84
Push_7	7	145	1.92	1.29	1	1.71	0.00	1	5	4	1.10	-0.19	0.11	5.46
Push_8	8	145	2.29	1.46	2	2.12	1.48	1	5	4	0.70	-0.96	0.12	3.48
Push_9	9	145	2.61	1.61	2	2.51	1.48	1	5	4	0.42	-1.42	0.13	2.09
Push_10	10	145	2.17	1.35	2	1.97	1.48	1	5	4	0.88	-0.49	0.11	4.37
Push_11	11	145	2.37	1.40	2	2.22	1.48	1	5	4	0.60	-0.98	0.12	2.98
Push_12	12	145	2.61	1.49	3	2.52	2.97	1	5	4	0.31	-1.35	0.12	1.54
Push_13	13	145	3.03	1.48	3	3.03	1.48	1	5	4	-0.12	-1.37	0.12	-0.60
Push_14	14	145	2.02	1.37	1	1.79	0.00	1	5	4	1.02	-0.34	0.11	5.07

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_15	15	145	2.48	1.64	2	2.35	1.48	1	5	4	0.49	-1.45	0.14	2.43
Push_16	16	145	3.39	1.59	4	3.49	1.48	1	5	4	-0.45	-1.38	0.13	-2.23
Pull_1	17	145	2.89	1.59	3	2.86	2.97	1	5	4	0.04	-1.55	0.13	0.20
Pull_2	18	145	2.84	1.62	3	2.80	2.97	1	5	4	0.12	-1.57	0.13	0.60
Pull_3	19	145	3.67	1.41	4	3.83	1.48	1	5	4	-0.83	-0.62	0.12	-4.12
Pull_4	20	145	4.12	1.20	5	4.37	0.00	1	5	4	-1.41	1.09	0.10	-7.00
Pull_5	21	145	4.03	1.19	4	4.24	1.48	1	5	4	-1.19	0.45	0.10	-5.91
Pull_6	22	145	4.05	1.16	4	4.26	1.48	1	5	4	-1.20	0.64	0.10	-5.96
Pull_7	23	145	3.54	1.37	4	3.68	1.48	1	5	4	-0.58	-0.92	0.11	-2.88
Pull_8	24	145	3.87	1.29	4	4.08	1.48	1	5	4	-1.04	0.02	0.11	-5.16
Pull_9	25	145	3.61	1.37	4	3.76	1.48	1	5	4	-0.64	-0.84	0.11	-3.18
Pull_10	26	145	3.43	1.39	4	3.53	1.48	1	5	4	-0.48	-1.06	0.12	-2.38
Pull_11	27	145	4.02	1.22	4	4.24	1.48	1	5	4	-1.21	0.52	0.10	-6.01
Pull_12	28	145	3.92	1.21	4	4.10	1.48	1	5	4	-0.94	-0.09	0.10	-4.67
Pull_13	29	145	4.34	1.04	5	4.56	0.00	1	5	4	-1.74	2.44	0.09	-8.64
Pull_14	30	145	3.68	1.52	4	3.85	1.48	1	5	4	-0.68	-1.10	0.13	-3.38

Table B. 6 Basic statistics for sub-sample of people who migrated to Australia

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	67	2.42	1.50	2	2.29	1.48	1	5	4	0.50	-1.21	0.18	1.71
Push_2	2	67	3.21	1.56	3	3.25	2.97	1	5	4	-0.30	-1.39	0.19	-1.02
Push_3	3	67	1.79	1.27	1	1.55	0.00	1	5	4	1.34	0.52	0.16	4.58
Push_4	4	67	2.78	1.45	3	2.73	1.48	1	5	4	0.12	-1.35	0.18	0.41
Push_5	5	67	1.93	1.27	1	1.76	0.00	1	5	4	0.92	-0.68	0.16	3.14
Push_6	6	67	2.69	1.55	3	2.62	2.97	1	5	4	0.21	-1.50	0.19	0.72
Push_7	7	67	1.58	1.13	1	1.35	0.00	1	5	4	1.72	1.58	0.14	5.87
Push_8	8	67	1.93	1.28	1	1.69	0.00	1	5	4	1.20	0.31	0.16	4.10
Push_9	9	67	2.61	1.67	2	2.53	1.48	1	5	4	0.40	-1.54	0.20	1.37
Push_10	10	67	2.31	1.52	2	2.16	1.48	1	5	4	0.62	-1.20	0.19	2.12
Push_11	11	67	2.61	1.49	3	2.53	2.97	1	5	4	0.29	-1.38	0.18	0.99
Push_12	12	67	2.82	1.49	3	2.78	1.48	1	5	4	0.06	-1.47	0.18	0.20
Push_13	13	67	3.28	1.51	4	3.35	1.48	1	5	4	-0.40	-1.31	0.18	-1.37
Push_14	14	67	2.25	1.46	1	2.09	0.00	1	5	4	0.66	-1.03	0.18	2.25
Push_15	15	67	2.58	1.72	2	2.49	1.48	1	5	4	0.39	-1.63	0.21	1.33
Push_16	16	67	3.48	1.59	4	3.58	1.48	1	5	4	-0.57	-1.25	0.19	-1.95
Pull_1	17	67	3.06	1.61	3	3.07	2.97	1	5	4	-0.12	-1.58	0.20	-0.41
Pull_2	18	67	2.87	1.64	3	2.84	2.97	1	5	4	0.11	-1.62	0.20	0.38
Pull_3	19	67	3.63	1.43	4	3.76	1.48	1	5	4	-0.77	-0.77	0.18	-2.63
Pull_4	20	67	4.27	1.15	5	4.53	0.00	1	5	4	-1.77	2.30	0.14	-6.04
Pull_5	21	67	4.07	1.22	5	4.27	0.00	1	5	4	-1.22	0.34	0.15	-4.17
Pull_6	22	67	3.99	1.25	4	4.18	1.48	1	5	4	-1.12	0.15	0.15	-3.82
Pull_7	23	67	3.39	1.31	4	3.47	1.48	1	5	4	-0.41	-0.97	0.16	-1.40

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_8	24	67	3.69	1.38	4	3.84	1.48	1	5	4	-0.82	-0.63	0.17	-2.80
Pull_9	25	67	4.06	1.17	4	4.25	1.48	1	5	4	-1.30	0.78	0.14	-4.44
Pull_10	26	67	3.24	1.47	4	3.29	1.48	1	5	4	-0.38	-1.32	0.18	-1.30
Pull_11	27	67	3.84	1.20	4	4.00	1.48	1	5	4	-0.93	0.00	0.15	-3.18
Pull_12	28	67	3.88	1.24	4	4.04	1.48	1	5	4	-0.86	-0.37	0.15	-2.94
Pull_13	29	67	4.49	0.91	5	4.69	0.00	1	5	4	-1.93	3.25	0.11	-6.59
Pull_14	30	67	4.37	1.14	5	4.62	0.00	1	5	4	-1.78	1.97	0.14	-6.08

Table B. 7 Basic statistics for sub-sample of people who migrated to Singapore

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	32	2.12	1.54	1	1.92	0.00	1	5	4	0.88	-0.84	0.27	2.12
Push_2	2	32	3.03	1.47	3	3.04	1.48	1	5	4	0.07	-1.43	0.26	0.17
Push_3	3	32	1.50	1.16	1	1.19	0.00	1	5	4	2.08	2.98	0.21	5.02
Push_4	4	32	2.94	1.48	3	2.92	1.48	1	5	4	-0.01	-1.47	0.26	-0.02
Push_5	5	32	1.75	1.22	1	1.50	0.00	1	5	4	1.50	1.05	0.22	3.62
Push_6	6	32	3.84	1.32	4	4.00	1.48	1	5	4	-0.78	-0.80	0.23	-1.88
Push_7	7	32	2.59	1.43	2.5	2.50	2.22	1	5	4	0.20	-1.49	0.25	0.48
Push_8	8	32	3.22	1.48	3	3.27	1.48	1	5	4	-0.31	-1.30	0.26	-0.75
Push_9	9	32	2.41	1.50	2	2.27	1.48	1	5	4	0.65	-1.00	0.27	1.57
Push_10	10	32	2.28	1.35	2	2.12	1.48	1	5	4	0.80	-0.54	0.24	1.93
Push_11	11	32	2.53	1.34	2	2.42	1.48	1	5	4	0.48	-0.96	0.24	1.16
Push_12	12	32	2.59	1.52	2	2.50	1.48	1	5	4	0.41	-1.34	0.27	0.99
Push_13	13	32	2.69	1.57	3	2.62	2.97	1	5	4	0.22	-1.55	0.28	0.53
Push_14	14	32	2.03	1.51	1	1.81	0.00	1	5	4	0.98	-0.73	0.27	2.36

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_15	15	32	1.84	1.37	1	1.58	0.00	1	5	4	1.29	0.16	0.24	3.11
Push_16	16	32	3.28	1.55	3	3.35	2.97	1	5	4	-0.21	-1.52	0.27	-0.51
Pull_1	17	32	2.47	1.59	2	2.35	1.48	1	5	4	0.41	-1.50	0.28	0.99
Pull_2	18	32	2.84	1.76	2.5	2.81	2.22	1	5	4	0.09	-1.84	0.31	0.22
Pull_3	19	32	3.81	1.28	4	4.00	1.48	1	5	4	-1.09	0.18	0.23	-2.63
Pull_4	20	32	4.09	1.09	4	4.27	1.48	1	5	4	-1.34	1.45	0.19	-3.23
Pull_5	21	32	3.88	1.24	4	4.08	1.48	1	5	4	-1.06	0.19	0.22	-2.56
Pull_6	22	32	4.06	1.13	4	4.23	1.48	1	5	4	-1.15	0.71	0.20	-2.77
Pull_7	23	32	3.47	1.44	4	3.58	1.48	1	5	4	-0.51	-1.12	0.25	-1.23
Pull_8	24	32	3.94	1.27	4	4.15	1.48	1	5	4	-0.99	0.00	0.22	-2.39
Pull_9	25	32	3.03	1.18	3	3.04	1.48	1	5	4	0.17	-0.76	0.21	0.41
Pull_10	26	32	3.69	1.42	4	3.85	1.48	1	5	4	-0.56	-1.18	0.25	-1.35
Pull_11	27	32	4.66	0.55	5	4.73	0.00	3	5	2	-1.19	0.36	0.10	-2.87
Pull_12	28	32	3.62	1.26	4	3.77	1.48	1	5	4	-0.60	-0.63	0.22	-1.45
Pull_13	29	32	4.22	1.01	4.5	4.38	0.74	1	5	4	-1.34	1.44	0.18	-3.23
Pull_14	30	32	2.75	1.37	3	2.69	1.48	1	5	4	0.15	-1.27	0.24	0.36

Table B. 8 Basic statistics for sub-sample of people who migrated to USA

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	24	2.42	1.56	2	2.30	1.48	1	5	4	0.58	-1.32	0.32	1.23
Push_2	2	24	2.96	1.68	3.5	2.95	2.22	1	5	4	-0.04	-1.79	0.34	-0.08
Push_3	3	24	1.83	1.34	1	1.60	0.00	1	5	4	1.33	0.28	0.27	2.82
Push_4	4	24	3.08	1.38	3	3.10	1.48	1	5	4	-0.24	-1.22	0.28	-0.51
Push_5	5	24	1.83	1.34	1	1.60	0.00	1	5	4	1.33	0.28	0.27	2.82

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_6	6	24	3.21	1.50	3.5	3.25	2.22	1	5	4	-0.27	-1.45	0.31	-0.57
Push_7	7	24	1.71	1.16	1	1.50	0.00	1	5	4	1.51	1.12	0.24	3.20
Push_8	8	24	2.25	1.42	2	2.10	1.48	1	5	4	0.79	-0.80	0.29	1.67
Push_9	9	24	3.38	1.74	4	3.45	1.48	1	5	4	-0.32	-1.73	0.36	-0.68
Push_10	10	24	2.21	1.41	2	2.05	1.48	1	5	4	0.89	-0.65	0.29	1.88
Push_11	11	24	2.83	1.69	2.5	2.80	2.22	1	5	4	0.20	-1.71	0.34	0.42
Push_12	12	24	3.04	1.46	3	3.05	1.48	1	5	4	-0.15	-1.32	0.30	-0.32
Push_13	13	24	3.17	1.49	3	3.20	1.48	1	5	4	-0.05	-1.51	0.30	-0.11
Push_14	14	24	1.96	1.49	1	1.75	0.00	1	5	4	1.13	-0.41	0.30	2.39
Push_15	15	24	2.50	1.41	2	2.40	1.48	1	5	4	0.53	-1.19	0.29	1.12
Push_16	16	24	2.96	1.63	2.5	2.95	2.22	1	5	4	0.12	-1.70	0.33	0.25
Pull_1	17	24	3.04	1.60	3	3.05	2.97	1	5	4	0.00	-1.64	0.33	0.00
Pull_2	18	24	3.12	1.65	3	3.15	2.97	1	5	4	-0.13	-1.63	0.34	-0.28
Pull_3	19	24	3.62	1.53	4	3.75	1.48	1	5	4	-0.65	-1.16	0.31	-1.38
Pull_4	20	24	4.17	1.27	5	4.40	0.00	1	5	4	-1.39	0.69	0.26	-2.94
Pull_5	21	24	4.46	0.98	5	4.65	0.00	1	5	4	-2.03	4.03	0.20	-4.30
Pull_6	22	24	4.38	1.10	5	4.60	0.00	1	5	4	-1.69	1.95	0.22	-3.58
Pull_7	23	24	4.29	1.27	5	4.55	0.00	1	5	4	-1.64	1.34	0.26	-3.47
Pull_8	24	24	4.50	0.93	5	4.70	0.00	1	5	4	-2.31	5.62	0.19	-4.89
Pull_9	25	24	3.71	1.43	4	3.85	1.48	1	5	4	-0.70	-0.93	0.29	-1.48
Pull_10	26	24	3.29	1.43	3.5	3.35	2.22	1	5	4	-0.32	-1.29	0.29	-0.68
Pull_11	27	24	4.00	1.35	5	4.20	0.00	1	5	4	-1.01	-0.38	0.28	-2.14
Pull_12	28	24	4.17	1.13	5	4.35	0.00	1	5	4	-1.18	0.49	0.23	-2.50
Pull_13	29	24	4.38	0.82	5	4.45	0.00	3	5	2	-0.73	-1.18	0.17	-1.55
Pull_14	30	24	3.29	1.46	3	3.35	1.48	1	5	4	-0.09	-1.48	0.30	-0.19

Table B. 9 Basic statistics for sub-sample of Males

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	126	2.21	1.48	1	2.03	0.00	1	5	4	0.80	-0.85	0.13	3.71
Push_2	2	126	3.06	1.57	3	3.08	2.97	1	5	4	-0.12	-1.50	0.14	-0.56
Push_3	3	126	1.58	1.14	1	1.31	0.00	1	5	4	1.86	2.31	0.10	8.62
Push_4	4	126	2.87	1.40	3	2.83	1.48	1	5	4	-0.04	-1.32	0.12	-0.19
Push_5	5	126	1.79	1.20	1	1.56	0.00	1	5	4	1.37	0.62	0.11	6.35
Push_6	6	126	3.13	1.56	3	3.17	2.97	1	5	4	-0.17	-1.50	0.14	-0.79
Push_7	7	126	1.88	1.29	1	1.67	0.00	1	5	4	1.16	-0.08	0.11	5.38
Push_8	8	126	2.36	1.46	2	2.21	1.48	1	5	4	0.59	-1.11	0.13	2.74
Push_9	9	126	2.56	1.59	2	2.45	1.48	1	5	4	0.49	-1.33	0.14	2.27
Push_10	10	126	2.11	1.37	2	1.90	1.48	1	5	4	1.01	-0.32	0.12	4.68
Push_11	11	126	2.39	1.38	2	2.25	1.48	1	5	4	0.56	-1.02	0.12	2.60
Push_12	12	126	2.50	1.42	2	2.38	1.48	1	5	4	0.37	-1.27	0.13	1.72
Push_13	13	126	3.06	1.47	3	3.07	1.48	1	5	4	-0.14	-1.37	0.13	-0.65
Push_14	14	126	1.87	1.32	1	1.61	0.00	1	5	4	1.31	0.40	0.12	6.07
Push_15	15	126	2.39	1.60	2	2.25	1.48	1	5	4	0.61	-1.29	0.14	2.83
Push_16	16	126	3.26	1.56	3	3.32	2.97	1	5	4	-0.27	-1.44	0.14	-1.25
Pull_1	17	126	2.67	1.56	3	2.60	2.97	1	5	4	0.23	-1.48	0.14	1.07
Pull_2	18	126	2.71	1.61	3	2.64	2.97	1	5	4	0.24	-1.52	0.14	1.11
Pull_3	19	126	3.52	1.45	4	3.65	1.48	1	5	4	-0.65	-0.94	0.13	-3.01
Pull_4	20	126	4.00	1.31	5	4.24	0.00	1	5	4	-1.22	0.32	0.12	-5.66
Pull_5	21	126	4.01	1.22	4	4.22	1.48	1	5	4	-1.15	0.35	0.11	-5.33
Pull_6	22	126	3.96	1.25	4	4.18	1.48	1	5	4	-1.11	0.21	0.11	-5.15

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_7	23	126	3.51	1.44	4	3.63	1.48	1	5	4	-0.57	-1.02	0.13	-2.64
Pull_8	24	126	3.86	1.28	4	4.06	1.48	1	5	4	-1.02	0.03	0.11	-4.73
Pull_9	25	126	3.52	1.31	4	3.65	1.48	1	5	4	-0.55	-0.79	0.12	-2.55
Pull_10	26	126	3.27	1.42	4	3.33	1.48	1	5	4	-0.36	-1.20	0.13	-1.67
Pull_11	27	126	3.82	1.30	4	4.01	1.48	1	5	4	-0.95	-0.23	0.12	-4.40
Pull_12	28	126	3.77	1.27	4	3.93	1.48	1	5	4	-0.77	-0.50	0.11	-3.57
Pull_13	29	126	4.24	1.05	5	4.43	0.00	1	5	4	-1.46	1.57	0.09	-6.77
Pull_14	30	126	3.55	1.47	4	3.68	1.48	1	5	4	-0.49	-1.21	0.13	-2.27

Table B. 10 Basic statistics for sub-sample of Females

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	55	2.35	1.47	2	2.20	1.48	1	5	4	0.57	-1.14	0.20	1.77
Push_2	2	55	3.07	1.55	3	3.09	2.97	1	5	4	-0.09	-1.49	0.21	-0.28
Push_3	3	55	1.73	1.24	1	1.47	0.00	1	5	4	1.55	1.15	0.17	4.82
Push_4	4	55	2.78	1.52	3	2.73	2.97	1	5	4	0.15	-1.43	0.21	0.47
Push_5	5	55	1.93	1.30	1	1.76	0.00	1	5	4	0.92	-0.72	0.18	2.86
Push_6	6	55	2.89	1.52	3	2.87	2.97	1	5	4	0.06	-1.45	0.21	0.19
Push_7	7	55	1.80	1.21	1	1.60	0.00	1	5	4	1.25	0.20	0.16	3.89
Push_8	8	55	2.05	1.35	1	1.84	0.00	1	5	4	0.96	-0.41	0.18	2.98
Push_9	9	55	2.65	1.62	2	2.58	1.48	1	5	4	0.30	-1.56	0.22	0.93
Push_10	10	55	2.24	1.39	2	2.07	1.48	1	5	4	0.73	-0.79	0.19	2.27
Push_11	11	55	2.44	1.49	2	2.31	1.48	1	5	4	0.54	-1.12	0.20	1.68
Push_12	12	55	2.82	1.58	3	2.78	2.97	1	5	4	0.16	-1.51	0.21	0.50
Push_13	13	55	2.93	1.55	3	2.91	2.97	1	5	4	-0.03	-1.51	0.21	-0.09

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_14	14	55	2.24	1.43	2	2.07	1.48	1	5	4	0.64	-1.09	0.19	1.99
Push_15	15	55	2.35	1.60	1	2.20	0.00	1	5	4	0.63	-1.27	0.22	1.96
Push_16	16	55	3.27	1.57	4	3.33	1.48	1	5	4	-0.33	-1.46	0.21	-1.03
Pull_1	17	55	3.18	1.70	3	3.22	2.97	1	5	4	-0.21	-1.67	0.23	-0.65
Pull_2	18	55	3.04	1.71	3	3.04	2.97	1	5	4	-0.08	-1.72	0.23	-0.25
Pull_3	19	55	3.73	1.48	4	3.89	1.48	1	5	4	-0.87	-0.68	0.20	-2.70
Pull_4	20	55	4.27	1.06	5	4.47	0.00	1	5	4	-1.64	2.31	0.14	-5.10
Pull_5	21	55	4.16	1.17	5	4.38	0.00	1	5	4	-1.41	1.00	0.16	-4.38
Pull_6	22	55	4.18	1.04	4	4.36	1.48	1	5	4	-1.33	1.32	0.14	-4.13
Pull_7	23	55	3.71	1.24	4	3.84	1.48	1	5	4	-0.70	-0.56	0.17	-2.18
Pull_8	24	55	3.91	1.34	4	4.11	1.48	1	5	4	-1.07	-0.10	0.18	-3.33
Pull_9	25	55	3.95	1.37	5	4.16	0.00	1	5	4	-1.06	-0.21	0.18	-3.29
Pull_10	26	55	3.49	1.44	4	3.60	1.48	1	5	4	-0.55	-1.04	0.19	-1.71
Pull_11	27	55	4.16	1.08	5	4.33	0.00	1	5	4	-1.35	1.37	0.15	-4.20
Pull_12	28	55	4.04	1.15	4	4.22	1.48	1	5	4	-1.20	0.84	0.16	-3.73
Pull_13	29	55	4.58	0.88	5	4.78	0.00	1	5	4	-2.68	7.66	0.12	-8.33
Pull_14	30	55	4.09	1.42	5	4.33	0.00	1	5	4	-1.31	0.18	0.19	-4.07

Table B. 11 Basic statistics for sub-sample of people who are below the Age of 31 years

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	69	1.93	1.39	1	1.70	0.00	1	5	4	1.17	-0.09	0.17	4.05
Push_2	2	69	2.78	1.56	3	2.74	2.97	1	5	4	0.13	-1.52	0.19	0.45
Push_3	3	69	1.71	1.24	1	1.46	0.00	1	5	4	1.56	1.18	0.15	5.40
Push_4	4	69	2.83	1.56	3	2.79	2.97	1	5	4	0.08	-1.49	0.19	0.28
Push_5	5	69	1.90	1.29	1	1.70	0.00	1	5	4	1.13	-0.10	0.15	3.91
Push_6	6	69	3.25	1.54	3	3.30	2.97	1	5	4	-0.29	-1.39	0.19	-1.00
Push_7	7	69	2.03	1.40	1	1.82	0.00	1	5	4	1.02	-0.43	0.17	3.53
Push_8	8	69	2.39	1.50	2	2.26	1.48	1	5	4	0.54	-1.19	0.18	1.87
Push_9	9	69	2.88	1.63	3	2.86	2.97	1	5	4	0.14	-1.59	0.20	0.48
Push_10	10	69	2.22	1.28	2	2.07	1.48	1	5	4	0.71	-0.65	0.15	2.46
Push_11	11	69	2.54	1.51	2	2.44	1.48	1	5	4	0.45	-1.27	0.18	1.56
Push_12	12	69	2.80	1.47	3	2.75	1.48	1	5	4	0.18	-1.36	0.18	0.62
Push_13	13	69	2.75	1.45	3	2.70	1.48	1	5	4	0.14	-1.33	0.17	0.48
Push_14	14	69	1.91	1.34	1	1.68	0.00	1	5	4	1.18	0.01	0.16	4.09
Push_15	15	69	2.10	1.52	1	1.91	0.00	1	5	4	0.95	-0.71	0.18	3.29
Push_16	16	69	3.01	1.64	3	3.02	2.97	1	5	4	-0.08	-1.65	0.20	-0.28
Pull_1	17	69	2.70	1.57	3	2.63	2.97	1	5	4	0.28	-1.43	0.19	0.97
Pull_2	18	69	2.84	1.61	3	2.81	2.97	1	5	4	0.15	-1.54	0.19	0.52
Pull_3	19	69	3.81	1.31	4	3.98	1.48	1	5	4	-0.86	-0.37	0.16	-2.98
Pull_4	20	69	4.04	1.30	5	4.26	0.00	1	5	4	-1.27	0.43	0.16	-4.40
Pull_5	21	69	4.19	1.20	5	4.40	0.00	1	5	4	-1.41	0.83	0.14	-4.88
Pull_6	22	69	4.04	1.25	5	4.25	0.00	1	5	4	-1.14	0.17	0.15	-3.95
Pull_7	23	69	3.71	1.37	4	3.86	1.48	1	5	4	-0.69	-0.85	0.17	-2.39

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_8	24	69	3.97	1.34	4	4.18	1.48	1	5	4	-1.18	0.15	0.16	-4.09
Pull_9	25	69	3.52	1.31	4	3.63	1.48	1	5	4	-0.58	-0.79	0.16	-2.01
Pull_10	26	69	3.54	1.35	4	3.65	1.48	1	5	4	-0.56	-0.91	0.16	-1.94
Pull_11	27	69	4.00	1.31	5	4.21	0.00	1	5	4	-1.09	-0.03	0.16	-3.78
Pull_12	28	69	3.90	1.30	4	4.09	1.48	1	5	4	-0.93	-0.28	0.16	-3.22
Pull_13	29	69	4.23	1.13	5	4.44	0.00	1	5	4	-1.49	1.48	0.14	-5.16
Pull_14	30	69	3.29	1.58	3	3.35	2.97	1	5	4	-0.23	-1.54	0.19	-0.80

Table B. 32 Basic statistics for sub-sample of people who are in the Age of 31-35 years

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	61	2.13	1.37	1	1.92	0.00	1	5	4	0.83	-0.63	0.18	2.71
Push_2	2	61	3.10	1.54	3	3.12	2.97	1	5	4	-0.03	-1.50	0.20	-0.10
Push_3	3	61	1.59	1.15	1	1.33	0.00	1	5	4	1.74	1.86	0.15	5.68
Push_4	4	61	2.79	1.34	3	2.73	1.48	1	5	4	0.06	-1.22	0.17	0.20
Push_5	5	61	1.70	1.10	1	1.49	0.00	1	5	4	1.33	0.47	0.14	4.34
Push_6	6	61	3.03	1.60	3	3.04	2.97	1	5	4	-0.03	-1.57	0.21	-0.10
Push_7	7	61	1.85	1.21	1	1.67	0.00	1	5	4	1.00	-0.53	0.15	3.27
Push_8	8	61	2.21	1.38	2	2.02	1.48	1	5	4	0.78	-0.76	0.18	2.55
Push_9	9	61	2.61	1.60	2	2.51	1.48	1	5	4	0.41	-1.43	0.21	1.34
Push_10	10	61	2.23	1.53	2	2.04	1.48	1	5	4	0.90	-0.78	0.20	2.94
Push_11	11	61	2.28	1.31	2	2.12	1.48	1	5	4	0.68	-0.74	0.17	2.22
Push_12	12	61	2.48	1.50	2	2.35	1.48	1	5	4	0.40	-1.38	0.19	1.31
Push_13	13	61	3.08	1.50	3	3.10	1.48	1	5	4	-0.20	-1.44	0.19	-0.65
Push_14	14	61	2.05	1.40	1	1.82	0.00	1	5	4	0.96	-0.51	0.18	3.13

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_15	15	61	2.34	1.62	1	2.18	0.00	1	5	4	0.62	-1.33	0.21	2.02
Push_16	16	61	3.44	1.43	4	3.55	1.48	1	5	4	-0.42	-1.17	0.18	-1.37
Pull_1	17	61	2.80	1.62	3	2.76	2.97	1	5	4	0.08	-1.64	0.21	0.26
Pull_2	18	61	2.66	1.62	3	2.57	2.97	1	5	4	0.23	-1.60	0.21	0.75
Pull_3	19	61	3.33	1.62	4	3.41	1.48	1	5	4	-0.46	-1.42	0.21	-1.50
Pull_4	20	61	3.90	1.35	4	4.12	1.48	1	5	4	-1.10	0.03	0.17	-3.59
Pull_5	21	61	4.02	1.09	4	4.20	1.48	1	5	4	-1.18	0.85	0.14	-3.85
Pull_6	22	61	4.07	1.08	4	4.24	1.48	1	5	4	-1.23	1.04	0.14	-4.02
Pull_7	23	61	3.46	1.36	4	3.57	1.48	1	5	4	-0.54	-0.99	0.17	-1.76
Pull_8	24	61	3.82	1.26	4	4.02	1.48	1	5	4	-1.00	0.00	0.16	-3.27
Pull_9	25	61	3.57	1.41	4	3.71	1.48	1	5	4	-0.50	-1.11	0.18	-1.63
Pull_10	26	61	3.34	1.45	4	3.43	1.48	1	5	4	-0.41	-1.20	0.19	-1.34
Pull_11	27	61	3.95	1.22	4	4.16	1.48	1	5	4	-1.11	0.35	0.16	-3.62
Pull_12	28	61	3.90	1.19	4	4.08	1.48	1	5	4	-0.97	0.05	0.15	-3.17
Pull_13	29	61	4.44	0.89	5	4.63	0.00	1	5	4	-1.81	3.22	0.11	-5.91
Pull_14	30	61	3.85	1.45	5	4.06	0.00	1	5	4	-0.85	-0.78	0.19	-2.78

Table B. 13 Basic statistics for sub-sample of people who are above the Age of 35 years

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	51	2.84	1.57	3	2.80	2.97	1	5	4	0.13	-1.51	0.22	0.39
Push_2	2	51	3.41	1.54	4	3.51	1.48	1	5	4	-0.53	-1.19	0.22	-1.59
Push_3	3	51	1.55	1.12	1	1.27	0.00	1	5	4	2.02	3.04	0.16	6.06
Push_4	4	51	2.92	1.38	3	2.90	1.48	1	5	4	-0.13	-1.38	0.19	-0.39
Push_5	5	51	1.88	1.32	1	1.66	0.00	1	5	4	1.13	-0.23	0.19	3.39

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_6	6	51	2.84	1.49	3	2.80	1.48	1	5	4	0.05	-1.54	0.21	0.15
Push_7	7	51	1.63	1.09	1	1.39	0.00	1	5	4	1.56	1.15	0.15	4.68
Push_8	8	51	2.16	1.42	1	1.95	0.00	1	5	4	0.80	-0.85	0.20	2.40
Push_9	9	51	2.16	1.47	1	1.95	0.00	1	5	4	0.91	-0.71	0.21	2.73
Push_10	10	51	1.96	1.30	1	1.73	0.00	1	5	4	1.10	-0.03	0.18	3.30
Push_11	11	51	2.37	1.40	2	2.22	1.48	1	5	4	0.49	-1.14	0.20	1.47
Push_12	12	51	2.47	1.45	2	2.34	1.48	1	5	4	0.41	-1.28	0.20	1.23
Push_13	13	51	3.29	1.51	4	3.37	1.48	1	5	4	-0.36	-1.34	0.21	-1.08
Push_14	14	51	2.00	1.37	1	1.76	0.00	1	5	4	1.05	-0.28	0.19	3.15
Push_15	15	51	2.78	1.63	2	2.73	1.48	1	5	4	0.23	-1.60	0.23	0.69
Push_16	16	51	3.39	1.56	4	3.49	1.48	1	5	4	-0.37	-1.43	0.22	-1.11
Pull_1	17	51	3.04	1.70	3	3.05	2.97	1	5	4	-0.11	-1.69	0.24	-0.33
Pull_2	18	51	2.94	1.73	3	2.93	2.97	1	5	4	0.02	-1.74	0.24	0.06
Pull_3	19	51	3.59	1.42	4	3.73	1.48	1	5	4	-0.75	-0.81	0.20	-2.25
Pull_4	20	51	4.35	1.00	5	4.54	0.00	1	5	4	-1.68	2.60	0.14	-5.04
Pull_5	21	51	3.92	1.32	4	4.15	1.48	1	5	4	-1.02	-0.18	0.19	-3.06
Pull_6	22	51	3.96	1.26	4	4.20	1.48	1	5	4	-1.15	0.32	0.18	-3.45
Pull_7	23	51	3.51	1.42	4	3.63	1.48	1	5	4	-0.64	-0.86	0.20	-1.92
Pull_8	24	51	3.80	1.28	4	4.00	1.48	1	5	4	-0.87	-0.26	0.18	-2.61
Pull_9	25	51	3.92	1.26	4	4.15	1.48	1	5	4	-1.08	0.20	0.18	-3.24
Pull_10	26	51	3.06	1.49	3	3.07	1.48	1	5	4	-0.21	-1.43	0.21	-0.63
Pull_11	27	51	3.78	1.22	4	3.98	1.48	1	5	4	-1.01	0.16	0.17	-3.03
Pull_12	28	51	3.73	1.23	4	3.88	1.48	1	5	4	-0.73	-0.43	0.17	-2.19
Pull_13	29	51	4.37	1.00	5	4.59	0.00	1	5	4	-1.84	3.09	0.14	-5.52
Pull_14	30	51	4.12	1.19	5	4.34	0.00	1	5	4	-1.26	0.56	0.17	-3.78

Table B. 14 Basic statistics for sub-sample of job function - Academic

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	32	2.09	1.55	1	1.88	0.00	1	5	4	0.95	-0.78	0.27	2.29
Push_2	2	32	2.53	1.59	2.5	2.42	2.22	1	5	4	0.39	-1.45	0.28	0.94
Push_3	3	32	1.72	1.22	1	1.46	0.00	1	5	4	1.45	0.87	0.22	3.50
Push_4	4	32	2.25	1.41	1.5	2.08	0.74	1	5	4	0.56	-1.11	0.25	1.35
Push_5	5	32	1.62	1.13	1	1.38	0.00	1	5	4	1.52	1.07	0.20	3.67
Push_6	6	32	2.53	1.37	3	2.42	1.48	1	5	4	0.34	-1.04	0.24	0.82
Push_7	7	32	1.50	1.02	1	1.27	0.00	1	5	4	1.97	3.04	0.18	4.75
Push_8	8	32	1.84	1.32	1	1.58	0.00	1	5	4	1.33	0.44	0.23	3.21
Push_9	9	32	4.03	1.53	5	4.27	0.00	1	5	4	-1.14	-0.40	0.27	-2.75
Push_10	10	32	2.03	1.38	1	1.81	0.00	1	5	4	1.02	-0.41	0.24	2.46
Push_11	11	32	2.91	1.57	3	2.88	2.97	1	5	4	0.00	-1.59	0.28	0.00
Push_12	12	32	3.03	1.49	3	3.04	1.48	1	5	4	-0.16	-1.49	0.26	-0.39
Push_13	13	32	2.97	1.40	3	2.96	1.48	1	5	4	-0.22	-1.37	0.25	-0.53
Push_14	14	32	2.03	1.45	1	1.81	0.00	1	5	4	1.06	-0.41	0.26	2.56
Push_15	15	32	2.03	1.51	1	1.81	0.00	1	5	4	0.98	-0.73	0.27	2.36
Push_16	16	32	2.66	1.47	3	2.58	2.22	1	5	4	0.11	-1.47	0.26	0.27
Pull_1	17	32	2.28	1.42	2	2.12	1.48	1	5	4	0.69	-0.88	0.25	1.66
Pull_2	18	32	2.62	1.54	3	2.54	2.97	1	5	4	0.31	-1.41	0.27	0.75
Pull_3	19	32	3.44	1.44	3	3.54	2.22	1	5	4	-0.39	-1.15	0.25	-0.94
Pull_4	20	32	3.91	1.35	4.5	4.12	0.74	1	5	4	-0.90	-0.50	0.24	-2.17
Pull_5	21	32	4.62	0.91	5	4.85	0.00	1	5	4	-2.75	7.23	0.16	-6.64
Pull_6	22	32	4.25	1.16	5	4.50	0.00	1	5	4	-1.55	1.46	0.21	-3.74

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_7	23	32	4.03	1.23	4.5	4.23	0.74	1	5	4	-1.06	0.03	0.22	-2.56
Pull_8	24	32	4.25	1.02	5	4.42	0.00	1	5	4	-1.39	1.47	0.18	-3.35
Pull_9	25	32	3.69	1.15	4	3.81	1.48	1	5	4	-0.76	-0.23	0.20	-1.83
Pull_10	26	32	3.56	1.39	4	3.69	1.48	1	5	4	-0.75	-0.77	0.25	-1.81
Pull_11	27	32	3.41	1.41	4	3.50	1.48	1	5	4	-0.45	-1.12	0.25	-1.09
Pull_12	28	32	3.94	1.22	4	4.12	1.48	1	5	4	-0.93	-0.15	0.22	-2.24
Pull_13	29	32	4.25	0.88	4.5	4.35	0.74	2	5	3	-0.76	-0.63	0.16	-1.83
Pull_14	30	32	3.50	1.44	4	3.62	1.48	1	5	4	-0.44	-1.26	0.25	-1.06

Table B. 15 Basic statistics for sub-sample of job function - Non-Academic (i.e. All excluding Academics)

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	149	2.29	1.46	2	2.12	1.48	1	5	4	0.68	-0.97	0.12	3.42
Push_2	2	149	3.18	1.53	3	3.22	2.97	1	5	4	-0.21	-1.42	0.13	-1.06
Push_3	3	149	1.60	1.16	1	1.33	0.00	1	5	4	1.83	2.18	0.10	9.21
Push_4	4	149	2.97	1.41	3	2.96	1.48	1	5	4	-0.08	-1.29	0.12	-0.40
Push_5	5	149	1.87	1.25	1	1.67	0.00	1	5	4	1.16	-0.03	0.10	5.84
Push_6	6	149	3.17	1.56	3	3.21	2.97	1	5	4	-0.21	-1.50	0.13	-1.06
Push_7	7	149	1.93	1.30	1	1.74	0.00	1	5	4	1.06	-0.30	0.11	5.33
Push_8	8	149	2.36	1.44	2	2.21	1.48	1	5	4	0.59	-1.08	0.12	2.97
Push_9	9	149	2.28	1.44	2	2.11	1.48	1	5	4	0.75	-0.82	0.12	3.77
Push_10	10	149	2.17	1.37	2	1.98	1.48	1	5	4	0.90	-0.49	0.11	4.53
Push_11	11	149	2.30	1.35	2	2.13	1.48	1	5	4	0.68	-0.79	0.11	3.42
Push_12	12	149	2.50	1.46	2	2.39	1.48	1	5	4	0.43	-1.22	0.12	2.16
Push_13	13	149	3.03	1.52	3	3.03	1.48	1	5	4	-0.09	-1.43	0.12	-0.45

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_14	14	149	1.97	1.35	1	1.74	0.00	1	5	4	1.07	-0.20	0.11	5.39
Push_15	15	149	2.45	1.61	2	2.32	1.48	1	5	4	0.55	-1.35	0.13	2.77
Push_16	16	149	3.40	1.55	4	3.49	1.48	1	5	4	-0.40	-1.37	0.13	-2.01
Pull_1	17	149	2.95	1.64	3	2.93	2.97	1	5	4	-0.02	-1.61	0.13	-0.10
Pull_2	18	149	2.85	1.66	3	2.81	2.97	1	5	4	0.10	-1.64	0.14	0.50
Pull_3	19	149	3.62	1.46	4	3.76	1.48	1	5	4	-0.79	-0.79	0.12	-3.98
Pull_4	20	149	4.12	1.22	5	4.38	0.00	1	5	4	-1.46	1.20	0.10	-7.35
Pull_5	21	149	3.93	1.22	4	4.12	1.48	1	5	4	-1.06	0.15	0.10	-5.33
Pull_6	22	149	3.98	1.20	4	4.18	1.48	1	5	4	-1.13	0.41	0.10	-5.69
Pull_7	23	149	3.47	1.39	4	3.58	1.48	1	5	4	-0.54	-0.98	0.11	-2.72
Pull_8	24	149	3.79	1.33	4	3.98	1.48	1	5	4	-0.95	-0.25	0.11	-4.78
Pull_9	25	149	3.64	1.38	4	3.79	1.48	1	5	4	-0.66	-0.81	0.11	-3.32
Pull_10	26	149	3.29	1.43	4	3.36	1.48	1	5	4	-0.35	-1.21	0.12	-1.76
Pull_11	27	149	4.03	1.19	4	4.25	1.48	1	5	4	-1.24	0.71	0.10	-6.24
Pull_12	28	149	3.83	1.25	4	4.01	1.48	1	5	4	-0.88	-0.22	0.10	-4.43
Pull_13	29	149	4.36	1.04	5	4.59	0.00	1	5	4	-1.86	2.97	0.09	-9.36
Pull_14	30	149	3.76	1.48	4	3.93	1.48	1	5	4	-0.77	-0.92	0.12	-3.88

Table B. 16 Basic statistics for sub-sample of job function - Development

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	97	2.15	1.51	1	1.96	0.00	1	5	4	0.87	-0.81	0.15	3.55
Push_2	2	97	3.13	1.59	3	3.16	2.97	1	5	4	-0.17	-1.51	0.16	-0.69
Push_3	3	97	1.56	1.16	1	1.27	0.00	1	5	4	1.97	2.58	0.12	8.04
Push_4	4	97	2.93	1.46	3	2.91	1.48	1	5	4	-0.02	-1.38	0.15	-0.08
Push_5	5	97	1.77	1.18	1	1.56	0.00	1	5	4	1.35	0.62	0.12	5.51
Push_6	6	97	3.27	1.60	4	3.33	1.48	1	5	4	-0.29	-1.53	0.16	-1.18
Push_7	7	97	2.04	1.36	1	1.86	0.00	1	5	4	0.88	-0.74	0.14	3.59
Push_8	8	97	2.45	1.50	2	2.33	1.48	1	5	4	0.53	-1.22	0.15	2.16
Push_9	9	97	2.35	1.49	2	2.20	1.48	1	5	4	0.66	-1.04	0.15	2.69
Push_10	10	97	2.18	1.36	2	1.99	1.48	1	5	4	0.86	-0.55	0.14	3.51
Push_11	11	97	2.18	1.35	2	1.99	1.48	1	5	4	0.88	-0.50	0.14	3.59
Push_12	12	97	2.45	1.49	2	2.33	1.48	1	5	4	0.52	-1.17	0.15	2.12
Push_13	13	97	2.97	1.52	3	2.96	1.48	1	5	4	-0.02	-1.45	0.15	-0.08
Push_14	14	97	1.92	1.32	1	1.68	0.00	1	5	4	1.17	0.04	0.13	4.78
Push_15	15	97	2.13	1.49	1	1.94	0.00	1	5	4	0.89	-0.76	0.15	3.63
Push_16	16	97	3.34	1.62	4	3.42	1.48	1	5	4	-0.36	-1.50	0.16	-1.47
Pull_1	17	97	2.73	1.64	3	2.67	2.97	1	5	4	0.19	-1.62	0.17	0.78
Pull_2	18	97	2.69	1.67	3	2.62	2.97	1	5	4	0.26	-1.62	0.17	1.06
Pull_3	19	97	3.57	1.49	4	3.70	1.48	1	5	4	-0.73	-0.93	0.15	-2.98
Pull_4	20	97	4.13	1.19	5	4.37	0.00	1	5	4	-1.44	1.28	0.12	-5.88
Pull_5	21	97	4.00	1.20	4	4.19	1.48	1	5	4	-1.08	0.20	0.12	-4.41
Pull_6	22	97	3.94	1.22	4	4.14	1.48	1	5	4	-1.07	0.25	0.12	-4.37
Pull_7	23	97	3.38	1.43	4	3.47	1.48	1	5	4	-0.43	-1.16	0.15	-1.76

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_8	24	97	3.78	1.31	4	3.96	1.48	1	5	4	-0.90	-0.25	0.13	-3.67
Pull_9	25	97	3.67	1.29	4	3.81	1.48	1	5	4	-0.62	-0.75	0.13	-2.53
Pull_10	26	97	3.25	1.50	3	3.30	1.48	1	5	4	-0.24	-1.38	0.15	-0.98
Pull_11	27	97	4.07	1.20	4	4.29	1.48	1	5	4	-1.28	0.71	0.12	-5.23
Pull_12	28	97	3.79	1.20	4	3.95	1.48	1	5	4	-0.86	-0.12	0.12	-3.51
Pull_13	29	97	4.31	1.02	5	4.51	0.00	1	5	4	-1.67	2.42	0.10	-6.82
Pull_14	30	97	3.52	1.55	4	3.63	1.48	1	5	4	-0.50	-1.32	0.16	-2.04

Table B. 17 Basic statistics for sub-sample of job function - QA

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	15	2.60	1.50	3	2.54	2.97	1	5	4	0.41	-1.26	0.39	0.71
Push_2	2	15	3.27	1.53	3	3.31	1.48	1	5	4	-0.09	-1.69	0.40	-0.16
Push_3	3	15	1.67	1.18	1	1.46	0.00	1	5	4	1.60	1.61	0.30	2.76
Push_4	4	15	3.13	1.19	3	3.15	1.48	1	5	4	0.00	-1.19	0.31	0.00
Push_5	5	15	2.00	1.25	1	1.92	0.00	1	4	3	0.61	-1.43	0.32	1.05
Push_6	6	15	3.20	1.47	3	3.23	1.48	1	5	4	-0.20	-1.37	0.38	-0.34
Push_7	7	15	1.80	0.94	2	1.69	1.48	1	4	3	0.84	-0.41	0.24	1.45
Push_8	8	15	2.33	1.23	3	2.31	1.48	1	4	3	0.04	-1.76	0.32	0.07
Push_9	9	15	1.87	1.30	1	1.69	0.00	1	5	4	1.13	-0.09	0.34	1.95
Push_10	10	15	2.33	1.35	2	2.23	1.48	1	5	4	0.74	-0.60	0.35	1.28
Push_11	11	15	2.27	1.22	2	2.15	1.48	1	5	4	0.62	-0.65	0.32	1.07
Push_12	12	15	2.53	1.46	2	2.46	1.48	1	5	4	0.39	-1.35	0.38	0.67
Push_13	13	15	2.87	1.64	3	2.85	2.97	1	5	4	0.11	-1.66	0.42	0.19
Push_14	14	15	1.93	1.10	1	1.85	0.00	1	4	3	0.42	-1.60	0.28	0.72

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_15	15	15	3.60	1.59	4	3.69	1.48	1	5	4	-0.66	-1.28	0.41	-1.14
Push_16	16	15	3.53	1.64	4	3.62	1.48	1	5	4	-0.55	-1.51	0.42	-0.95
Pull_1	17	15	3.00	1.46	3	3.00	1.48	1	5	4	-0.13	-1.34	0.38	-0.22
Pull_2	18	15	3.00	1.51	3	3.00	1.48	1	5	4	-0.12	-1.52	0.39	-0.21
Pull_3	19	15	3.33	1.72	4	3.38	1.48	1	5	4	-0.33	-1.71	0.44	-0.57
Pull_4	20	15	3.87	1.60	5	4.00	0.00	1	5	4	-0.98	-0.79	0.41	-1.69
Pull_5	21	15	3.73	1.44	4	3.85	1.48	1	5	4	-0.78	-0.87	0.37	-1.34
Pull_6	22	15	3.87	1.25	4	4.00	1.48	1	5	4	-0.80	-0.48	0.32	-1.38
Pull_7	23	15	3.40	1.50	4	3.46	1.48	1	5	4	-0.29	-1.55	0.39	-0.50
Pull_8	24	15	3.87	1.46	4	4.00	1.48	1	5	4	-0.95	-0.65	0.38	-1.64
Pull_9	25	15	3.47	1.88	5	3.54	0.00	1	5	4	-0.46	-1.79	0.49	-0.79
Pull_10	26	15	3.60	1.40	4	3.69	1.48	1	5	4	-0.62	-0.98	0.36	-1.07
Pull_11	27	15	3.87	1.41	4	4.00	1.48	1	5	4	-0.93	-0.48	0.36	-1.60
Pull_12	28	15	4.00	1.41	5	4.15	0.00	1	5	4	-1.13	-0.13	0.37	-1.95
Pull_13	29	15	4.40	1.24	5	4.62	0.00	1	5	4	-1.77	1.71	0.32	-3.05
Pull_14	30	15	4.20	1.52	5	4.38	0.00	1	5	4	-1.34	-0.04	0.39	-2.31

Table B. 18 Basic statistics for sub-sample of job function - Management

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	16	2.25	1.13	2.5	2.21	1.48	1	4	3	0.07	-1.62	0.28	0.12
Push_2	2	16	3.00	1.32	3	3.00	1.48	1	5	4	-0.16	-1.21	0.33	-0.28
Push_3	3	16	1.56	0.81	1	1.50	0.00	1	3	2	0.86	-1.02	0.20	1.52
Push_4	4	16	2.94	1.34	3	2.93	1.48	1	5	4	-0.36	-1.39	0.34	-0.64
Push_5	5	16	1.62	1.09	1	1.50	0.00	1	4	3	1.30	0.08	0.27	2.30

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_6	6	16	2.38	1.15	2	2.36	1.48	1	4	3	0.29	-1.46	0.29	0.51
Push_7	7	16	1.31	0.70	1	1.21	0.00	1	3	2	1.71	1.21	0.18	3.03
Push_8	8	16	1.69	1.20	1	1.50	0.00	1	5	4	1.45	1.03	0.30	2.57
Push_9	9	16	1.81	1.17	1	1.64	0.00	1	5	4	1.28	0.81	0.29	2.27
Push_10	10	16	1.50	0.73	1	1.43	0.00	1	3	2	0.96	-0.58	0.18	1.70
Push_11	11	16	2.31	1.14	3	2.29	1.48	1	4	3	-0.07	-1.68	0.28	-0.12
Push_12	12	16	2.00	1.15	1.5	1.93	0.74	1	4	3	0.49	-1.45	0.29	0.87
Push_13	13	16	3.00	1.46	3	3.00	1.48	1	5	4	-0.12	-1.41	0.37	-0.21
Push_14	14	16	2.06	1.53	1	1.93	0.00	1	5	4	0.85	-0.95	0.38	1.51
Push_15	15	16	3.06	1.73	2.5	3.07	2.22	1	5	4	0.06	-1.87	0.43	0.11
Push_16	16	16	3.88	1.36	4.5	4.00	0.74	1	5	4	-0.68	-1.03	0.34	-1.21
Pull_1	17	16	3.06	1.61	3	3.07	2.97	1	5	4	-0.18	-1.62	0.40	-0.32
Pull_2	18	16	3.06	1.65	3.5	3.07	2.22	1	5	4	-0.18	-1.73	0.41	-0.32
Pull_3	19	16	3.69	1.20	4	3.79	0.00	1	5	4	-1.19	0.48	0.30	-2.11
Pull_4	20	16	4.00	1.32	4	4.14	1.48	1	5	4	-1.31	0.54	0.33	-2.32
Pull_5	21	16	3.69	1.01	4	3.79	0.00	1	5	4	-1.20	0.94	0.25	-2.13
Pull_6	22	16	4.00	1.15	4	4.14	1.48	1	5	4	-1.22	0.66	0.29	-2.16
Pull_7	23	16	3.69	1.25	4	3.79	1.48	1	5	4	-0.98	-0.01	0.31	-1.74
Pull_8	24	16	3.69	1.25	4	3.79	0.00	1	5	4	-1.17	0.11	0.31	-2.07
Pull_9	25	16	3.94	1.06	4	4.07	1.48	1	5	4	-1.14	1.08	0.27	-2.02
Pull_10	26	16	3.56	1.15	4	3.64	1.48	1	5	4	-0.63	-0.58	0.29	-1.12
Pull_11	27	16	3.81	1.11	4	3.93	0.74	1	5	4	-1.03	0.40	0.28	-1.83
Pull_12	28	16	3.94	1.29	4.5	4.07	0.74	1	5	4	-0.77	-0.70	0.32	-1.36
Pull_13	29	16	4.38	1.09	5	4.57	0.00	1	5	4	-1.88	3.02	0.27	-3.33
Pull_14	30	16	4.31	1.01	5	4.43	0.00	2	5	3	-0.96	-0.65	0.25	-1.70

Table B. 19 Basic statistics for sub-sample of job function - Support

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Push_1	1	11	2.64	1.36	3	2.56	1.48	1	5	4	0.17	-1.41	0.41	0.26
Push_2	2	11	3.18	1.40	3	3.22	1.48	1	5	4	-0.29	-1.34	0.42	-0.44
Push_3	3	11	1.91	1.64	1	1.67	0.00	1	5	4	1.12	-0.62	0.49	1.70
Push_4	4	11	3.00	1.41	3	3.00	1.48	1	5	4	0.00	-1.45	0.43	0.00
Push_5	5	11	2.00	1.41	1	1.78	0.00	1	5	4	0.96	-0.64	0.43	1.45
Push_6	6	11	3.45	1.63	4	3.56	1.48	1	5	4	-0.68	-1.39	0.49	-1.03
Push_7	7	11	2.27	1.68	1	2.11	0.00	1	5	4	0.65	-1.45	0.51	0.98
Push_8	8	11	3.00	1.48	3	3.00	1.48	1	5	4	0.00	-1.69	0.45	0.00
Push_9	9	11	1.91	0.83	2	1.89	1.48	1	3	2	0.14	-1.67	0.25	0.21
Push_10	10	11	2.55	1.69	2	2.44	1.48	1	5	4	0.55	-1.55	0.51	0.83
Push_11	11	11	2.36	1.43	2	2.22	1.48	1	5	4	0.53	-1.35	0.43	0.80
Push_12	12	11	2.82	1.40	3	2.78	1.48	1	5	4	-0.11	-1.54	0.42	-0.17
Push_13	13	11	3.36	1.29	4	3.44	1.48	1	5	4	-0.37	-1.23	0.39	-0.56
Push_14	14	11	1.82	1.25	1	1.56	0.00	1	5	4	1.42	0.98	0.38	2.15
Push_15	15	11	2.82	1.66	2	2.78	1.48	1	5	4	0.26	-1.76	0.50	0.39
Push_16	16	11	3.18	1.25	3	3.22	1.48	1	5	4	-0.03	-1.17	0.38	-0.05
Pull_1	17	11	3.45	1.69	4	3.56	1.48	1	5	4	-0.55	-1.55	0.51	-0.83
Pull_2	18	11	2.82	1.72	3	2.78	2.97	1	5	4	0.15	-1.82	0.52	0.23
Pull_3	19	11	3.64	1.36	4	3.78	1.48	1	5	4	-0.48	-1.15	0.41	-0.73
Pull_4	20	11	4.00	1.26	4	4.22	1.48	1	5	4	-1.08	0.12	0.38	-1.63
Pull_5	21	11	3.73	1.49	4	3.89	1.48	1	5	4	-0.90	-0.76	0.45	-1.36
Pull_6	22	11	4.18	1.25	5	4.44	0.00	1	5	4	-1.42	0.98	0.38	-2.15

Factor	vars	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se	Test statistic of skew.
Pull_7	23	11	3.45	1.44	4	3.56	1.48	1	5	4	-0.56	-1.09	0.43	-0.85
Pull_8	24	11	3.91	1.30	4	4.11	1.48	1	5	4	-0.84	-0.43	0.39	-1.27
Pull_9	25	11	3.36	1.57	3	3.44	2.97	1	5	4	-0.27	-1.57	0.47	-0.41
Pull_10	26	11	3.18	1.33	4	3.22	1.48	1	5	4	-0.53	-1.23	0.40	-0.80
Pull_11	27	11	4.18	1.25	5	4.44	0.00	1	5	4	-1.42	0.98	0.38	-2.15
Pull_12	28	11	3.73	1.42	4	3.89	1.48	1	5	4	-0.52	-1.25	0.43	-0.79
Pull_13	29	11	4.36	1.29	5	4.67	0.00	1	5	4	-1.65	1.41	0.39	-2.50
Pull_14	30	11	4.00	1.34	5	4.22	0.00	1	5	4	-0.90	-0.47	0.40	-1.36