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**ASSESSING THE IMPACT OF AMANAH IKHTIAR  
MALAYSIA'S MICROCREDIT PROGRAMME ON  
PARTICIPANTS' QUALITY OF LIFE**



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**UUM**  
**Universiti Utara Malaysia**

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MICROCREDIT PROGRAMME ON PARTICIPANTS' QUALITY OF LIFE**

**By**

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**UUM**  
**Universiti Utara Malaysia**

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**Kolej Perniagaan**  
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## ABSTRACT

Since the inception of the microcredit programmes, various studies have been carried out to assess their impacts. Earlier studies seemed to focus on the impact of microcredit on the participants' incomes, and consequently on poverty. However, recent impact studies of microcredit programmes have looked into the participants' well-being instead of their incomes to measure their quality of life. Thus, this study attempted to investigate the impact of *Amanah Ikhtiar Malaysia's* microcredit programme on the participants' quality of life using a more comprehensive measure. Different from earlier research, this study took on a different perspective by examining the aspects of personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour in assessing the impact *Amanah Ikhtiar Malaysia's* microcredit programme has on the participants' quality of life. In this study, the hypotheses were tested using a cross-sectional data of 638 participants of *Amanah Ikhtiar Malaysia (AIM)*. The findings of the study show that all the hypotheses are significant and supported, where there is a positive and significant influence between participants' personal attitude and entrepreneurial intention, participants' subjective norm and entrepreneurial intention, participants' perceived behavioural control and entrepreneurial intention, participants' perceived behavioural control and entrepreneurial behaviour, participants' entrepreneurial intention and entrepreneurial behaviour, and participants' entrepreneurial behaviour and participants' quality of life. In addition, there is a significant relationship in the mediating effect of entrepreneurial intention on participants' personal attitude and entrepreneurial behaviour, participants' subjective norm and entrepreneurial behaviour, and participants' perceived behavioural control and entrepreneurial behaviour. Similarly, there is a significant relationship between the mediating effect of entrepreneurial behaviour and participants' entrepreneurial intention and quality of life. This study contributes to the policy implications of *Amanah Ikhtiar Malaysia's* microcredit programme especially in improvement in training and guidance. Finally, the study also discusses the limitations of the study and the recommendations for future research.

**Keywords:** Amanah Ikhtiar Malaysia's microcredit programme, quality of life, entrepreneurial behaviour, Personal Wellbeing Index (PWI), Theory of Planned Behavior (TPB)

## ABSTRAK

Semenjak penubuhan program mikro Kredit, pelbagai kajian telah dijalankan untuk menilai kesan program tersebut. Kajian awal seolah-olah memberi tumpuan terhadap kesan mikro Kredit ke atas pendapatan peserta program mikro Kredit, dan seterusnya terhadap kemiskinan. Walau bagaimanapun, kajian terkini tentang kesan program mikro Kredit ke atas peserta lebih menjurus kepada kajian ke atas kesejahteraan peserta dan bukannya kesan ke atas pendapatan mereka dalam mengukur kualiti hidup mereka. Oleh itu, kajian ini bertujuan untuk mengkaji kesan program mikro Kredit Amanah Ikhtiar Malaysia ke atas kualiti hidup peserta dengan menggunakan ukuran yang lebih komprehensif. Berbeza dengan kajian sebelum ini, kajian ini mengambil perspektif dengan mengkaji aspek sikap peribadi, norma subjektif, tahap keupayaan, niat keusahawanan dan tingkah laku keusahawanan dalam menilai kesan program mikro Kredit Amanah Ikhtiar Malaysia terhadap kualiti hidup peserta. Dalam kajian ini, hipotesis kajian diuji dengan menggunakan data keratan rentas ke atas 638 orang peserta AIM. Dapatan kajian menunjukkan bahawa semua hipotesis adalah penting dan disokong, iaitu terdapat pengaruh yang positif dan signifikan antara sikap peribadi peserta dan niat keusahawanan, norma subjektif peserta dan niat keusahawanan, tahap keupayaan dan niat keusahawanan, tahap keupayaan dan tingkah laku keusahawanan, niat keusahawanan dan tingkah laku keusahawanan, serta tingkah laku keusahawanan dan kualiti hidup peserta. Di samping itu, terdapat hubungan yang signifikan antara pengantara niat keusahawanan, sikap peribadi dan tingkah laku keusahawanan, norma subjektif dan tingkah laku keusahawanan, serta tahap keupayaan dan tingkah laku keusahawanan. Selain itu, terdapat juga hubungan yang signifikan antara kesan pengantara tingkah laku keusahawanan dan niat keusahawanan peserta dan kualiti hidup. Kajian ini turut menyumbang kepada implikasi dasar program mikro Kredit Amanah Ikhtiar Malaysia terutamanya dalam meningkatkan latihan dan bimbingan yang disediakan. Akhir sekali, kajian ini juga membincangkan tentang batasan kajian dan cadangan penyelidikan pada masa hadapan.

**Kata kunci:** Program mikro Kredit Amanah Ikhtiar Malaysia, kualiti hidup, tingkah laku keusahawanan, Indeks Kesejahteraan Peribadi, Teori Tingkah Laku Terancang

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## LIST OF ABBREVIATIONS

NEP	New Economy Policy
NDP	New Development Policy
NVP	National Vision Policy
OPP2	Second Outline Perspective Plan
NEM	New Economic Model
ETP	Economic Transformation Programme
GTP	Government Transformation Programme
1MDB	1Malaysia Development Berhad
AIM	Amanah Ikhtiar Malaysia
MARA	Majlis Amanah Rakyat
TEKUN	Tabung Ekonomi Kumpulan Usahawan National
YBK	Yayasan Basmî Kemiskinan
LKIM	Lembaga Kemajuan Ikan Malaysia
PWI	Personal Wellbeing Index
MQLI	Malaysia Quality of Life Index
TPB	Theory of Planned Behavior
QOL	Quality of life
GDP	Gross Domestic Product
BCIC	Bumiputera Commercial and Industrial Community
FELDA	Federal Land Development Authority
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FAMA	Federal Agricultural Marketing Authority
RISDA	Rubber Industry Smallholders Development Authority
PPRT	Program Pembangunan Rakyat Termiskin
SPKR	Skim Pembangunan Kesejahteraan Rakyat
MARA	Majlis Amanah Rakyat

NSDC	National SME Development Council
BNM	Bank Negara Malaysia
YUM	Yayasan Usaha Maju
KKR	Koperasi Kredit Rakyat
CGC	Credit Guarantee Corporation Berhad
ComQol	Comprehensive Quality of Life Scale
SWB	Subjective Well-being
SOMED	Soweto Microenterprise Development
SAT	Sinapi Aba Trust
RDS	Rural Development Scheme
SHG	Self-help Group
ACSI	Amhara Credit & Saving Institution
NOA	Needs Opportunities Abilities Model
GDP	Gross Domestic Product
SPSS	Statistical Package for Social Sciences
PLS	Partial Least Square
SEM	Structural Equation Modelling
CR	Composite Reliability
AVE	Average Variance Extracted
VIF	Collinearity Assessment
$R^2$	Determination Coefficient ( $R^2$ )
$Q^2$	Predictive Relevance of the Model ( $Q^2$ )
$f^2$	Effect Size ( $f^2$ )
PPA	Participants' Personal Attitude
PSN	Participants' Subjective Norm

PPBC	Participants' Perceived Behavioural Control
PEI	Participants' Entrepreneurial Intention
PEB	Participants' Entrepreneurial Behaviour
BRAC	Bangladesh Rehabilitation Assistance Committee



**UUM**  
 Universiti Utara Malaysia

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 OVERVIEW OF THE CHAPTER**

This chapter provides an overview of the background, problem statement, research questions, research objectives, definition of key terms, significance and scope of this study. The chapter ends with a discussion on the organisation of the remaining chapters.

#### **1.2 BACKGROUND OF STUDY**

For more than five decades, Malaysia has gone through various economic cycles and successfully endured numerous obstacles to be one of the most outstanding economies in the East and Southeast region with remarkable economic growth performance and excellent achievement in poverty reduction. The success story of Malaysia is undoubtedly owed to the various policy interventions. Historically, about 50% of Malaysian society is poor. Due to this, the Malaysian Government introduced the New Economic Policy (NEP) in 1971 with the objective to reduce and eradicate poverty by restructuring the Malaysian society.

And, two decades later, the Malaysian government under the Second Outline Perspective Plan (OPP2) launched the National Development Policy (NDP) to cover the period of 1991 to 2000. The purpose of the new plan was to accelerate the poverty eradication process and society restructuring as to correct the social and economic imbalances

(Economic Planning Unit, 1991). It can be seen that, there were tremendous socially and economic developments since the commencement of the NEP and NDP. In conjunction to this, during the NDP period, various programmes were introduced and this includes loan schemes for poor society (modelled based on the Grameen Bank).

Later, Vision 2020 complements the NEP and NDP initiatives as it provides the long-term objectives of becoming a fully developed nation by the year 2020. On March 30 2010, the Malaysian government introduced the New Economic Model (NEM) to move from an ethnic-based affirmative action policy to a more market-based policy. There are three main principles guiding the NEM – high-income, sustainability, and inclusiveness. In essence, the goal of NEM is to transform Malaysia into a high-income country. In order to achieve this vision, the Malaysian government developed a framework comprising four pillars i.e. the Economic Transformation Programme (ETP), the Government Transformation Programme (GTP), 1Malaysia Development Berhad (1MDB), and the 10th Malaysia Plan 2011-2015. The timely implementation of these pillars is the key success of the economic growth. In fact, it is the focal point for a country to be globally competitive.

In addition to the abovementioned Malaysian development plans, the private sector and non-governmental organisations are working together to address the poverty issue in Malaysia. The voluntary involvement by these parties complements the government's efforts to provide small business loans to the poor and help readdress the poverty issue. In this sense, *Amanah Ikhtiar Malaysia (AIM)* is the most active non-government agencies to tackle the issue. AIM was established on 17<sup>th</sup> September 1987 with the objective to bring down the number of those unfortunate families in Malaysia through

the provision of microcredit financing to fund income-generating activities. Some other known establishments looking into the economic advancement of the poor populace include *Majlis Amanah Rakyat (MARA)*, *Tabung Ekonomi Kumpulan Usahawan Nasional (TEKUN)*, *Yayasan Basmi Kemiskinan (YBK)*, *Agrobank*, and *Lembaga Kemajuan Ikan Malaysia (LKIM)*.

In essence, a microcredit programme is not new. Since its introduction, many developing countries have adopted microcredit programme as a mechanism to improve the living condition of the poor. There are immense literatures discussing the potential of microcredit programmes in enhancing the living standard of the poor society. Thus far, there are abundance of studies which indicated the positive difference brought by the credits offered through microcredit programmes such as improved living conditions, education, health, savings and income. Henceforth, microcredit programmes are still relevant in to some extent to combat poverty. However, the impact of microcredit programmes varies across demographics, groups, and nations.

In support of this, Ghalib, Malki, and Imai (2011) discovered that microcredit programmes possess the potentials to alleviate poverty. Other studies also showed that the participants of microcredit programmes had performed well economically than those who did not participate in the programmes. For example, a study by Tilakaratna and Wickramasinghe (2005) found that compared to non-participants, microcredit enabled the participants to improve the assets, expenditure, and income of their households. Other relevant studies on microcredit focusing on Malaysia include Md Saad and Duasa (2009) and Ismail (2001) who examined the effectiveness of AIM's microcredit

programme in reducing poverty. Their studies found that the microcredit programmes managed to tackle the poverty issue among the poor.

Aside from the fact, it is believed that the microcredit programmes are capable to improve the quality of life among the poor. A study by Ghalib et al. (2011) indicated that some studies in Pakistan have shown that microcredit programmes have brought significant impacts towards the life quality. From Ghalib et al.'s findings, it is induced that out of four dimensions "human resources, dwelling-related indicators, food security and vulnerability and ownership of household assets", ownership of household assets tends to be a superior indicator of economic wellbeing. The study also revealed that borrowers allocate most of the fund they obtained on healthcare than the non-borrowers. It also appears that adult literacy is slightly better among borrowers than non-borrowers. For dwelling-related indicators, the study found an improvement in living conditions of the borrowers rather than non-borrowers. Overall, the study revealed that microcredit programmes positively affected the welfare of the participating households.

Khandker (2005) also investigated the impact of microcredit programmes and discovered similar positive welfare effect towards all credits-receiving households. In addition, Morduch (2000) and Rahman and Hossain (1995) claimed that microcredit programme allowed their clients to achieve better life quality. A study by Hossain (1988) and Montgomery, Bhattacharya and Hulme (1996) revealed similar result where microcredit programmes were found to improve the borrowers' wellbeing and their standard of living by elevating their income and food consumption.



Meanwhile, study by Mizanur Rahman and Ahmad (2010) also stated that microcredit programmes helped to enhance the human capital of the borrowers as it is strongly associated with their welfare. Microcredit programmes offered the poor with the opportunity to perform in their economic activities and lead them to higher quality of life, as well as developing their ethics and moral. The poor managed to increase their household income and expenditure. Furthermore, the informal education introduced throughout the programme simultaneously developed their awareness towards proper sanitation, health care, and drinking safe water.

In view of this, some researchers investigated the impact of microcredit programmes on the participants' quality of life in Malaysia and their findings proved that microcredit programmes did improve the living quality of the poor. For instance, a study conducted by Al-Mamun, Abdul Wahab, Hossain and Malarvizhi (2010) investigated the impact of microcredit programmes on the quality of life among the hard-core poor. Al-Mamun et al. found the microcredit programmes improved the housing facilities with significant association between the housing condition (size, structure, and materials) and participation in microcredit programmes. Moreover, there were also improvements among the participants in which they used "environmentally less destructive cooking fuel, having environmentally safe toilet facilities, refrigerator, washing machine, and television". Al-Mamun et al. concluded that participating in AIM's microcredit programmes improved participants' quality of life. Similarly, Al-Mamun and Adaikalam (2011), Al-Mamun, Adaikalam, and Abdul Wahab (2011), Al-Mamun, Adaikalam, Mazumder, and Abdul Wahab (2011) and Chan and Abdul Ghani (2011) also reported



improvement in the participants' quality of life after participating in the microcredit programmes.

A microcredit programme is one of the most innovative tools in poverty alleviation. It grows dramatically. However, despite knowing there are immense literatures discussing on the positive and significant impacts of microcredit programmes on participants' life, nonetheless, there is also some literature that argued on the negative impact of microcredit programmes towards participants' life. Some of the arguments included how microcredit programmes developed dependency syndromes to the participants, as well as financially burdening the participants due to high interest rates and administrative rates charges. In fact, there were also critics on microcredit programmes on loan payback that drove the participants into a debt trap.

Although, there were some literatures that support the idea that the microcredit programmes negatively impact the participants' life, however, evidently it can be seen that there are vast literatures discussing the impact of microcredit programmes on the poor' life. Based on the literature reviews, these microcredit programmes are undeniably capable to help alleviate the poverty and improve the poor's life. Therefore, it is intrinsically sufficed to mention that the microcredit programmes still bring the positive contributions to the participants' income and life.

### **1.3 PROBLEM STATEMENT**

Poverty eradication is one of the ultimate goals of development policy. In relation to this, microcredit programme has been regarded as one of an important policy tools to

alleviate poverty (Bhuiyan, Siwar, Ismail & Talib, 2011). The advantage of microcredit programme is that it promotes self-help rather than dependency to the government. With the microcredit programme, the poor are given small loan to initiate self-employed economic activities that will help them to either generate new income or increase their current income.

There are many studies evaluating the success of microcredit in alleviating poverty among its participants. For instance, a study conducted by Ahmed, Siwar, Idris and Begum (2011) showed that microcredit programme had been successful in alleviating poverty in country such as Bangladesh. Thus, the microcredit programme was perceived as a revolutionary approach that helped alleviate poverty and reduced vulnerability through self-employed economic activities.

In Malaysia, studies by Md Saad and Duasa (2009), Md Saad (2010), Ismail (2001) and Ahmed et al. (2011) also indicated that microcredit programmes, especially Amanah Ikhtiar Malaysia, have been successful in alleviating poverty. While the achievements of microcredit institutions in enhancing income of the poor and alleviating poverty should be much-admired, it appears that most of these studies concentrated their investigation on the economic impact of the microcredit programme. This in turn raised another interesting question: does microcredit programme affect broader development goal, which is the life quality of the participants? Indeed, this question is relevant as argued by Murphy (2015) that the usefulness of microcredit programmes is not only limited to poverty alleviation, but might also include other dimensions of development goals. In fact, the question on the impact of microcredit programme towards the quality of life is

more relevant for Malaysia, since poverty rate in Malaysia is reported to be less than 1% in 2015 (Economic Planning Unit, 2015).

Therefore, this study argued that the investigation on the impact of microcredit programmes towards on the participants must go beyond the poverty impact studies. Greater attention must be given on the broader goal of development, which is improving the life quality of the poor. Indeed, this is in tandem with the stated goals of the Malaysian government in 2015 (Economic Planning Unit, 2015). Besides, assessing the impact of microcredit programmes on participants' life quality rather than focusing on poverty alleviation alone appears to be more relevant and useful as Malaysia has been successful to reduce absolute poverty to less than 1% in 2015 and is moving towards becoming a developed nation.

In this regards, there are a few studies that assessed the impact of microcredit on quality of life in Malaysia, particularly among the AIM's participants. For instance, Al-Mamun et al. (2010), Al-Mamun and Adaikalam (2011), Al-Mamun et al. (2011), Al-Mamun et al. (2011) and Chan and Abdul Ghani (2011) found that microcredit programmes had positive impact on participants' quality of life. In other countries, studies by Hossain (1988), Rahman and Hossain (1995) and Morduch (2000) also discovered that microcredit programmes allowed the borrowers to achieve better quality of life. While all these studies seem to support the idea that microcredit programmes positively affect the quality of life among the borrowers, however, it should be noted that most of these studies employed narrow measures of life quality. As quality of life covers broader domains of life, findings of these studies might not give clear and complete insights on the impact of microcredit towards life quality. Thus, there is a need to employ a broader

or comprehensive measure (of quality of life) in assessing the impact of microcredit on quality of life. This study is an attempt to employ a broader measurement on the impact of microcredit towards quality of life.

Furthermore, the study also argued that the impact of microcredit on quality of life among the participants is prone to be indirect, rather than direct effect. Most of the above studies assumed a direct relationship between microcredit and quality of life among the participants. Perhaps, this assumption might not represent accurate relationship between microcredit and quality of life, hence opens the possibility of other factors that influence the relationship. Hulme (2000), for instance, argued that the impact of microcredit programmes on participants' quality of life can either be direct or indirect. In this regards, the study specified the other factors that might influence the impact of microcredit on quality of life, namely the participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. These indirect factors are important. The inclusion of these factors is based on its potential impact on participants' quality of life. Therefore, microcredit institutions intervention on these factors is necessary if the impact of microcredit programme is to be improved and enhanced.

Towards this end, it is therefore important and useful to revisit and extend the previous study of microcredit programmes on the participants' quality of life by constructing a more comprehensive measure of life quality by using the Personal Wellbeing Index (PWI), the Malaysia Quality of Life Index (MQLI) and the Theory of Planned Behaviour (TPB) by Ajzen (1991). Besides, it is also important to investigate the mechanism through which microcredit has an impact on quality of life. The study is

important as it will not only provide richer insights on the impact of microcredit programmes on the participants' quality of life, but it is also vital to examine the effectiveness of the implemented microcredit programmes.

#### **1.4 RESEARCH QUESTIONS**

Based on the aforementioned problem statement, the following research questions are developed as to ascertain the impact of AIM microcredit programme on participants' quality of life:

1. Does the impact of microcredit programme AIM on quality of life differ between the new and old participants?
2. Does participants' entrepreneurial intention mediate the effect of participants' personal attitude, subjective norm, and perceived behavioural control on participants' entrepreneurial behaviour?
3. Does participants' entrepreneurial behaviour mediate the effect of participants' entrepreneurial intention on participants' quality of life?

#### **1.5 RESEARCH OBJECTIVES**

The main purpose of this research is to examine the impact of AIM microcredit programme on participants' quality of life. Besides, the researcher also sets out the following research objectives:

1. To analyse the differences in quality of life between the new and old participants.
2. To determine whether participants' entrepreneurial intention mediates the effect of participants' personal attitude, subjective norm and perceived behavioural control towards participants' entrepreneurial behaviour.
3. To determine whether participants' entrepreneurial behaviour mediates the effect of participants' entrepreneurial intention on participants' quality of life.

## **1.6 SIGNIFICANCE OF THE STUDY**

This research will study the impact of AIM microcredit programme on participants' quality of life in Malaysia. The findings of this study may be useful to both academics and policy makers in Malaysia. In addition, the results will also provide adequate information to the public especially the poor on the capability of the microcredit programmes in improving their quality of life.

### **1.6.1 Theoretical Contributions**

Poverty is a phenomenon that has captured a lot of interest from many researchers (Nudamatiya, Giroh, & Shehu, 2010). According to Nudamatiya et al. (2010), poverty is not a straightforward definition. The term is defined differently according to different people. Karlan and Goldberg (2007) study seems to support this notion and mentioned that there are varying definitions of the word "poor" and the focus on "poor" clients is almost universal. In conjunction with the study on microcredit programmes, Khandker



(2001) defined poverty as the ones lacking in basic necessities such as food, credit, chances to generate income, resources allocation empowerment, safety, and access to infrastructures. Khandker (2001) asserted that the poverty reduction depends on how the poor utilise the offered microcredit aid.

In parallel to microcredit programmes and poverty studies, many studies have shown positive impacts of microcredit programmes to these poor people which helped lift them up from poverty. According to Bhuiyan et al. (2011) microcredit programmes approach provided the poor with access of credit to increase their productivity, reduce vulnerability, and alleviate poverty through self-employed activities. Similarly, a study conducted by Karim and Osada (1998) also seemed to agree with this and stated that microcredit programmes provide the poor with small loans for self-employment to increase their income and improve their standard of living. In fact, study by Mohammed and Hasan (2008) also stated that the provision of financial services was to help “increase household income and economic security; build assets and reduce vulnerability; creates demand for other goods and services (especially education, health care and nutrition); and stimulates local economies”. Besides the studies of microcredit programmes and poverty studies, there are also vast studies related to the microcredit programmes and quality of life among the poor. Among them are the study by Hossain, (1988); Morduch, (2000); Rahman and Hossain (1995) who revealed that the microcredit programmes allowed the clients to achieve better quality of life.

In Malaysia, there are a few known studies that were carried out on microcredit and its effect on poverty alleviation such as the studies by Md Saad and Duasa (2009), Md Saad (2010), Ismail (2001) and (Ahmed, Siwar, & Hj. Idris, 2011). There are also a few

known studies that attempted to assess the economic and social impact of microcredit programme on its participants in Malaysia, such as the studies by Md Saad and Duasa (2009), Chan and Abdul Ghani (2011), Hamdan, Othman and Wan Hussin (2012), Omar, Mohamad Noor and Dahalan (2012) and Ismail (2001). Despite the growing numbers of researches on the impact of microcredit programmes on participants' life, there are few known studies that were conducted to assess the impact of microcredit programmes on participants' quality of life in Malaysia, for example Al-Mamun et al. (2010), Al-Mamun and Adaikalam (2011), Al-Mamun et al. (2011), Al-Mamun et al. (2011) and Chan and Abdul Ghani (2011). Surprisingly, most of these studies were incomprehensive as the selected indicators in these studies only reflected part of a person's quality of life. Furthermore, most of the above studies assumed a direct relationship between microcredit and quality of life among the participants.

Based on the aforementioned studies, theoretical literature evidences on the subject are still limited. Thus, it is the aim of this study to revisit and extend the previous study on the impact of microcredit programmes on participants' quality of life by constructing a more comprehensive quality of life measurement, particularly by using the Personal Wellbeing Index (PWI) and the Malaysia Quality of Life Index (MQLI) as a basis. In conjunction to this also, this study will take proactive steps to assess the impact of microcredit programmes on participants' quality of life via the inclusion of participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. In parallel to this, the Theory of Planned Behaviour (TPB) by Ajzen (1991) will be applied to assess the impact of microcredit programmes on participants' quality of life. Therefore, this study seeks to contribute by



coming out with broader concept of quality of life and its assessment, especially on the empirical evidence in Malaysia and the implementation of AIM's microcredit programmes.

### **1.6.2 Empirical Contributions**

From the empirical perspectives, study by Al-Mamun et al. (2010) presented some valuable information in which they highlighted the scarcity of investigation to investigate the impact of microcredit programme on quality of life. Similarly, a study by Al-Mamun and Adaikalam (2011) also argued that little investigation was conducted to investigate the impact of microcredit programme on quality of life. Interestingly, study by Al-Mamun et al. (2011) mentioned the need to investigate both clients and their households' quality of life.

Considering the highlighted aforementioned studies, empirical evidences on the subject are still limited and further consideration should be given to address this issue. This oversight issues raises the question whether microcredit programmes improve participants' quality of life and requires further research.

Despite the shortcoming on the abovementioned issue, there is also less sufficient study that emphasises the impact of microcredit programmes on participants' quality of life which incorporated participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. Little is known through Ajzen's constructs of Theory of Planned Behaviour (TPB) to investigate the impact of microcredit programmes on participants' quality of life. Therefore, the

Theory of Planned Behaviour (TPB) by Ajzen (1991) will be applied as the basic proxy to assess the impact of microcredit programmes on participants' quality of life.

Given the controversy on the abovementioned studies, this study attempts to expand the research of microcredit programmes on participants' quality of life. Thus, this study aims to revisit the previous study on the impact of microcredit programmes on participants' quality of life. In parallel to this, this study attempts to contribute to the empirical findings by responding to the impact of microcredit programmes on participants' quality of life. Furthermore, this study also attempts to contribute to the empirical findings by illustrating the importance of microcredit programmes towards participants' quality of life. The impact is not simple and direct, as there exists a complex relationship through which microcredit programmes affect participant's quality of life.

### **1.6.3 Methodological Contributions**

This study will also attempt to make methodological contribution. As previously mentioned, proactive steps will be taken to assess the impact of microcredit programmes on participants' quality of life via the inclusion of participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. Therefore, a major contribution towards this is by incorporates the Personal Wellbeing Index (PWI) by The International Well Being Group (2006) and the Malaysia Quality of Life Index (MQLI) as the basic measurement of participants' quality of life on microcredit programmes and the inclusion of Theory of

Planned Behaviour (TPB) by Ajzen (1991) that is very useful to assess the impact of microcredit programmes on participants' quality of life.

Previous studies assessing the impact of microcredit programmes on participants' quality of life in Malaysia only covered a few selected life domains to assess the impact of microcredit programmes on participants' quality of life. All these studies incomprehensively covered indicators that only reflected part of a person's quality of life. Most of the studies addressed a few numbers of indicators that covered only a few life domains to represent a person's quality of life, namely, housing, income, assets, education, and food. This is in contrast to the idea expressed by Hagerty et al. (2001) which argued that a person's whole life quality cannot be segmented and analysed separately. This means that any combination of those domains of life itself should represent the person's whole life and cannot be segmented and analysed separately. Actually, there are other factors that should be given due consideration. It is not sufficient to only measure the effectiveness of loans offered to the poor by limiting other measurements. Further consideration should also be given to a more comprehensive measurement of the quality of life.

Therefore, this study will incorporate the Personal Wellbeing Index (PWI) by The International Well Being Group (2006) and the Malaysia Quality of Life Index (MQLI) as a basis in assessing the impact of microcredit programmes on participants' quality of life. However, due to the consideration on the fact that quality of life is an evolving idea which changes across time, societies, population relationship, cultures, living conditions, and styles, this study has restructured the dimensions according to the key dimension in PWI and MQLI to reflect the followings dimensions; a) income earnings,

b) health, c) productivity, d) friendship, e) personal safety, f) education, g) future security, h) food, i) housing conditions, j) personal savings, and k) spirituality.

In parallel to the Theory of Planned Behaviour (TPB) by Ajzen (1991), the researcher tends to use all the constructs in Theory of Planned Behaviour (TPB) to investigate the impact of microcredit programme on participants' quality of life. In addition, this study will incorporate participants' entrepreneurial intention as a mediator in order to investigate the mediating effect on the relationship between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour. This study will also incorporate participants' entrepreneurial behaviour as a mediator to investigate the mediating effect on the relationship between participants' entrepreneurial intention and participants' quality of life.

On the other hand, this study will also contribute to the methodological literature by employing a sampling technique of new participants and old participants in assessing the impact microcredit programmes. This is in line with the report by Al-Mamun et al. (2010) which concluded that the major limitation of their study was the absence of a true control group. To further clarify this, the selected participants for microcredit programme of AIM are divided into two groups each namely new participants and old participants. Participants with less than or equal to 12 months of participation will be grouped as the new participants, while those who participated for more than 12 months will be grouped into the old participants group. Practically, the categorisation allows the study to address how the new participants in the microcredit programmes differ than those old participants in the programmes.

In addition to the methodological contribution, the measurements of variables will be adapted and adopted from various sources where the original measurements were conducted under different environments. In this situation, it becomes important to establish validity and reliability of the scales that will be used.

In sum, realistic expectations of what microcredit programmes can achieve should be drawn. If the microcredits programmes focused on improving the quality of life, there is a good chance of stimulating participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour to improve the participants' quality of life. Personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour guide the participants in their search for what they eventually want which is regarded as quality of life. Therefore, participants' quality of life is also an embodiment of their personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour.

## **1.7 SCOPE OF THE STUDY**

The scopes of the study are as follow:

1. The microcredit programme is limited to one (1) microcredit programme namely AIM.
2. A field study is designed in order to find out the association among the variables in real social structures because there are limitations in using the longitudinal study and full experimental approach.

3. The selected population only involved participants of AIM microcredit programme in Kedah, Pulau Pinang, and Perlis. Ideally, the selection of Kedah, Pulau Pinang and Perlis as a population for this study is due to the number of participants of AIM microcredit programme in these states that are relatively higher compared to other states (see Table 2.7 in Chapter 2).

## **1.8 DEFINITION OF KEY TERMS**

Some important terms repeatedly appear in this study are briefly defined as follow:

1. Microcredit is defined as a loan extended to low-income clients which is normally given in small forms to enable the poor to participate in activities that generate income and microenterprise businesses.
2. Quality of life (QOL) is defined as how well we are doing (Veenhoven, 2000). The words 'happiness' and 'welfare' were more commonly used in the past. Currently, the words 'quality of life', 'satisfaction', and 'wellbeing' are interchangeably used to describe the same purpose.
3. Quality of life is a multidimensional concept which uses the domains of life to study the relationship. Cummins (1996) argued that any proposed set of domains of life should aggregately contain the entire construct of quality of life. Therefore, domains of life refer to multidimensional concept that constructs quality of life.



4. An entrepreneurial activity reflects the entrepreneurial intention, while entrepreneurial intention reflects the entrepreneurial behaviour. According Krueger and Carsrud (1993), entrepreneurial intention is a reflection of an entrepreneur's vision and entrepreneurial activity. In fact, Krueger, Reilly and Carsrud (2000) also argued that entrepreneurship is a human planned behaviour.
5. Personal attitude refers to production of "favourable or unfavourable attitude towards any behaviour and the outcomes values of the behaviour" (Ajzen, 2006).
6. Subjective norm is "caused by perceived social pressure or subjective norm, in which what other people think the person should do affects the person's perception" (Ajzen, 2006).
7. Perceived behavioural control is "an individual's perceived behavioural control which is the individual's perceptions of his ability or feelings regarding his self-efficacy to perform the behaviour" (Ajzen, 2006).
8. Entrepreneurial intention refers to the determinant to measure entrepreneurial behaviour.
9. Entrepreneurial behaviour refers to entrepreneurial activity. As stated by Krueger and Carsrud (1993), entrepreneurial activity is the reflection of entrepreneurial intention where this entrepreneurial intention reflects entrepreneurial behaviour.

## **1.9 ORGANISATION OF THE THESIS**

This thesis is organised into six chapters. Chapter 1 provides the background of the study, problem statement, research questions, research objectives, research significance, research scope, and the organisation of the remaining chapters. Chapter 2 contains an overview of the Malaysian economy. This chapter provides overview on the Malaysian economic development through the era of New Economy Policy (NEP), New Development Policy (NDP), National Vision Policy (NVP) and New Economic Model (NEM). These are followed by the discussion on microcredit programmes in Malaysia.

Chapter 3 reviews related literatures on the impact of microcredit programmes on participants' quality of life. The review presented in this chapter includes the current research on assessing the impact of microcredit programmes towards participants' quality of life in Malaysia. This chapter explores the concepts of quality of life and also discusses all the domains of life that contribute to quality of life. This chapter also explores the concept of entrepreneurial behaviour and discusses the Theory of Planned Behaviour (TPB) as a proxy in assessing the impact of microcredit programmes on participants' quality of life. This chapter will finally highlight the conceptual framework, underpinning theory, and hypotheses of the study.

Chapter 4 describes the methodology employed in the study which includes research design, sample and data collection, research instrument, operational definition, and variables measurement. The data analysis method is also discussed in this chapter. Chapter 5 presents and discusses the empirical results. The overview of collected data, respondents' profile, descriptive analysis, assessments of the measurement model and

structural model, and results of the hypotheses are presented. At the end of this chapter, a summary of results is presented. Chapter 6 is devoted to summarise the major findings followed by discussions, contributions of the study, limitations and recommendations for future study, before ending the chapter with a conclusion.



## **CHAPTER TWO**

### **THE MALAYSIAN ECONOMY**

#### **2.1 OVERVIEW OF THE CHAPTER**

This chapter provides an overview of the Malaysian economic development through the era of New Economy Policy (NEP), New Development Policy (NDP), National Vision Policy (NVP) and New Economic Model (NEM). This is then followed by the discussion on microcredit programmes in Malaysia. The chapter ends with a chapter summary.

#### **2.2 AN OVERVIEW OF MALAYSIA ECONOMY**

A review of Malaysia's economic history since its independence over the past four decades reveals some surprising facts. Malaysia was one of the top economic performers in Asia. In the 1970s, the Malaysian economy was focused mainly on mining and agricultural activities. Later, a transition began in the 1980s when Malaysia turns its focus towards industrialisation, accelerating the country's economic growth (Mokhtar, 2011). According to the U.S. Department of State (2013), from the year 1957 to 2005, the Malaysian economy expanded on average of 6.5% annually until it reached its peaked performance starting from the year 1980 to the middle of 1990.

Despite the financial crisis in 2008/2009, Malaysia's Gross Domestic Product (GDP) growth reached more than 5% (except for -1.5% in 2009). Table 2.1 illustrates the annual growth of the Malaysian GDP from 2005 to 2014.

Table 2.1  
*Gross Domestic Product (GDP) of Malaysia, 2005-2014*

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GDP	na	5.6	6.3	4.8	-1.5	7.4	5.2	5.6	4.7	5.6
Growth										

Source: Department of Statistics (2014a)

### **2.3 THE NEW ECONOMIC POLICY (NEP), THE NATIONAL DEVELOPMENT POLICY (NDP), THE NATIONAL VISION POLICY (NVP) AND THE NEW ECONOMIC MODEL (NEM)**

Today, as a middle-income country, Malaysia's economy depends on a multi-sector industry focusing on services and manufacturing. The government of Malaysia continues to actively manage the economy by developing many economic initiatives. For instance, the National Economic Policy (1971) to help almost half of the Malaysian population who were living in poverty at the time.

Subsequently, the NEP was developed to (UNDP, 2005):

- (i) "reduce and eventually eradicate poverty by raising income levels and increasing employment opportunities among all Malaysians, irrespective of race, and
- (ii) restructure Malaysian society to correct economic imbalances so as to reduce and eventually eliminate the identification of race with economic function"

Surprisingly, since the commencement of the New Economic Policy (NEP) in 1971, tremendous social and economic developments have been observed. Among actions taken in eradicating poverty during the period were “the development of a *Bumiputera* Commercial and Industrial Community (BCIC) (*Bumiputera* is a Malay word that refers to the Malays and indigenous people in Malaysia), extending education and training especially to the *Orang Asli* (the indigenous groups) to enable them to acquire knowledge and skills, the establishment of Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA), Federal Agricultural Marketing Authority (FAMA), Rubber Industry Smallholders Development Authority (RISDA), *Program Pembangunan Rakyat Termiskin (PPRT)* which are currently consolidated with other poverty programmes under the *Skim Pembangunan Kesejahteraan Rakyat (SPKR)*; MARA which provides industrial and vocational training for the rural labour force, coupled with credit facilities and related support; and AIM which offers micro-credit financing to poor families (UNDP, 2005).

Later, the government of Malaysia introduced the National Development Policy (NDP) which succeeded the NEP to continue the economic and social development of the country. It consisted of the Second Outline Perspective Plan (OPP2) covering the period of 1991 to 2000. The development plan was established “to accelerate the process of eradicating poverty and restructuring society so as to correct social and economic imbalances”, (Economic Planning Unit, 1991).

The development of the NDP programme was aimed to create economic balance via income generation, wealth creation and skills enhancement among the *Bumiputera*.



Notably, the National Development Policy (NDP) still preserved the basic strategies of the NEP, (Economic Planning Unit, 1991; UNDP, 2005), which include;

- (i) “the focus on anti-poverty strategies was shifted to the eradication of hard-core poverty;
- (ii) an active Bumiputera Commercial and Industrial Community (BCIC) was developed to increase the participation of *Bumiputera* in the modern sectors of the economy;
- (iii) there was greater reliance on the private sector to generate economic growth and income; and
- (iv) an emphasis was placed on human resource development as a primary instrument for achieving the objectives of growth and distribution.”

Programmes under the NDP included “loan schemes for small-scale agricultural and commercial development modeled on the Grameen Bank, agricultural productivity enhancement projects, construction, land consolidation and rehabilitation programmes, commercialisation of farms, provision and improvement of services for the urban poor, and efforts to promote employment opportunities in manufacturing and other urban-based industries” (UNDP, 2005).

Later, the NVP replaced the NEP and NDP. NVP was developed based on Tun Dr Mahathir bin Mohamad’s vision of Malaysia becoming an industrialised nation by 2020. The NVP sets a framework for Malaysia in becoming a fully developed nation by 2020. According to Mokhtar (2011), these three Malaysian economic plans were successful in

the elimination of poverty, achievement of positive growth in GDP, increase of income among *Bumiputera* and reduction of unemployment.

Finally, the New Economic Model (NEM) was introduced to replace the NVP. The NEM is an economic plan with the intention to increase the nation's per capita income to more than double. Accordingly, the NEM goal is to transform the Malaysia into a high-income country. In other words, the goal of NEM is to increase the nation's income to stimulate economic growth. To realise this goal, the government of Malaysia has developed a framework comprising of four pillars to move the country forward. These pillars comprise of the Economic Transformation Programme (ETP), the Government Transformation Programme (GTP), 1Malaysia Development Berhad (1MDB) and the 10<sup>th</sup> Malaysia Plan 2011-2015. The timely implementation of these pillars is the key success for the country's current economic growth, and in this regard, it is a focal point for the country to continue being globally competitive.

Table 2.2  
*Overview of Malaysia's Development Planning Framework*

1960–1970 Pre-NEP	1971–1990 New Economic Policy (NEP)	1991–2000 National Development Policy (NDP)	2001–2010 National Vision Policy (NVP)	2011–2015 New Economic Model (NEM)
First Malaysia Plan (1966–1970)	Second Malaysia Plan (1971–1975) Third Malaysia Plan (1976–1980) Fourth Malaysia Plan (1981–1985) Fifth Malaysia Plan (1986–1990)	Sixth Malaysia Plan (1991–1995) Seventh Malaysia Plan (1996–2000)	Eighth Malaysia Plan (2001–2005) Ninth Malaysia Plan (2006–2010)	Tenth Malaysia Plan (2011–2015)

Source: Economic Planning Unit (2009)

## **2.4 NEP, NDP, NVP AND NEM: THE REDUCTION OF POVERTY AND SMALL LOAN TO THE POOR**

Malaysia experienced rapid economic growth almost continuously for every year during the NEP and NDP periods. As a matter of fact, the poverty level was reduced massively during this time as a result of the NEP and NDP implementation (Mokhtar, 2011). As evidence, UNDP (2005) stated that the number of poor communities was reduced to half in the last 15 years. It is expected that the proportion of poor communities will be reduced further in the next 15 years.

After the independence, the poverty rate of Malaysia was reduced to 49.3% in 1970. Meanwhile, in 1992, it declined to 12.4% and only 6.0 % of households were categorised as poor in 2002. The number further declined to 3.6% in 2007, 1.7% in 2012, and to 0.6% in 2014 (see table 2.3) (Department of Statistics, 2014a).

Currently, Kelantan, Pahang, Perak, Sarawak, and Sabah are the states with the highest concentration of poor communities. In this regard, in 2002, the poverty incidence percentage in Malaysia was 6.0 %, while poverty incidence for each state was as follows: Kelantan 17.8 %; Pahang 9.4 %; Perak 6.2 %; Sarawak 11.3 % and Sabah 16.0 %, respectively (see Table 2.3). This shows that at that time, the poverty level in each of these states was 2-3 times higher than the national percentage (UNDP, 2005). Similarly, in 2014, the reported incidence of poverty in Malaysia was 0.6 %, and the poverty incidence for each aforementioned state was, Kelantan 0.9 %; Pahang 0.7 %; Perak 0.7 %; Sarawak 0.9 % and Sabah 3.9 %, respectively (see Table 2.3).

Table 2.3'

*Incidence of Poverty by Ethnic, Strata and State, Malaysia, 1970-2014*

Years	1970	1976	1979	1984	1987	1989	1992	1995	1997	1999	2002	2004	2007	2009	2012	2014
<b>Malaysia</b>	49.3	37.7	37.4	20.7	19.4	16.5	12.4	8.7	6.1	8.5	6.0	5.7	3.6	3.8	1.7	0.6
<b>Ethnic</b>																
Bumiputera	64.8	46.4	49.2	28.7	26.6	23	17.5	12.2	9	12.3	9	8.3	5.1	5.3	2.2	0.8
Chinese	26	17.4	16.5	7.8	7	5.4	3.2	2.1	1.1	1.2	1	0.6	0.6	0.6	0.3	0.1
India	39.2	27.3	19.8	10.1	9.6	7.6	4.5	2.6	1.3	3.4	2.7	2.9	2.5	2.5	1.8	0.6
Others	44.8	33.8	28.9	18.8	20.3	22.8	21.7	22.5	13	25.5	8.5	6.9	9.8	6.7	1.5	0.9
<b>Strata</b>																
Urban	21.3	15.4	17.5	8.5	8.5	7.1	4.7	3.6	2.1	3.3	2.3	2.5	2	1.7	1.0	0.3
Rural	58.7	45.7	45.8	27.3	24.8	21.1	21.2	14.9	10.9	14.8	13.5	11.9	7.1	8.4	3.4	1.6
<b>State</b>																
Johor	45.7	29	18.2	12.2	11.1	9.8	5.6	3.1	1.6	3.1	2.5	2	1.5	1.3	0.9	0.0
Kedah	63.2	61	53.8	36.6	31.3	29.9	21.2	12.2	11.5	14.2	9.7	7	3.1	5.3	1.7	0.3
Kelantan	76.1	67.1	55	39.2	31.6	29.6	29.5	22.9	19.2	25.2	17.8	10.6	7.2	4.8	2.7	0.9
Melaka	44.9	32.4	20.4	15.8	11.7	12.4	8.5	5.3	3.5	2.9	1.8	1.8	1.8	0.5	0.1	0.1
N.Sembilan	44.8	33	26.3	13	21.5	9.1	8.1	4.9	4.7	4.1	2.6	1.4	1.3	0.7	0.5	0.4
Pahang	43.2	38.9	26.9	15.7	12.3	10	6.9	6.8	4.4	9.8	9.4	4	1.7	2.1	1.3	0.7
P.Pinang	43.7	32.4	19.7	13.4	12.9	8.7	4	4	1.7	0.7	1.2	0.3	1.4	1.2	0.6	0.3
Perak	48.6	43	30.5	20.3	19.9	19.2	10.2	9.1	4.5	6.8	6.2	4.9	3.4	3.5	1.5	0.7
Perlis	73.9	59.8	63.1	33.7	29.1	17.4	19.8	11.8	10.7	13.6	8.9	6.3	7	6	1.9	0.2
Selangor	29.2	22.9	14.5	8.6	8.9	7.6	4.3	2.2	1.3	1.9	1.1	1	0.7	0.7	0.4	0.2
Terengganu	68.9	60.3	53.1	28.9	36.1	31.3	25.6	23.4	17.3	22.7	14.9	15.4	6.5	4	1.7	0.6
Sabah/Labuan	-	58.3	40.7	33.1	35.3	29.7	27.8	22.6	16.5	23.4	16	23	16	19.2	7.8	3.9
Sawarak	-	56.5	47.8	31.9	24.7	21	19.2	10	7.3	10.9	11.3	7.5	4.2	5.3	2.4	0.9
K.Lumpur	-	-	-	4.9	5.2	3.7	1.7	0.5	0.1	0.4	0.5	1.5	1.5	0.7	0.8	0.1
Putrajaya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0

Source: Department of Statistics (2014b)

As mentioned, rapid economic growth has brought upon the reduction of poverty. Undoubtedly, poverty eradication programmes under the NEP, NDP, NVP and NEM have shown a positive impact on the Malaysian economy, as exhibited in Table 2.3.

In addition to this, the monthly gross household income is also used to measure the economic imbalances between ethnic groups, residential strata and different states. In 1970, Malaysia's mean household income was RM264 which had tremendously increased to RM1563 in 1992 and to RM3011 in 2002. Meanwhile, in 2009, the mean income for Malaysians was RM4025 and this was further increased to RM6141 in 2014. The mean monthly gross household income by ethnic groups in Malaysia revealed rapid increment since 1970. In 2014, the mean gross household income for *Bumiputera* was RM5548, RM 7666 for Chinese and RM6246 for Indian households. Before 1992, average monthly gross household income was around RM1676.66 per month by ethnic. After 2009, the average monthly gross household income was around RM4211.33 per month by ethnic.

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Table 2.4

*Mean Monthly Gross Household Income (RM) in Malaysia by Ethnicity and Residential Strata, 1970-2014*

<b>Years</b>	<b>1970</b>	<b>1974</b>	<b>1976</b>	<b>1984</b>	<b>1987</b>	<b>1989</b>	<b>1992</b>	<b>1995</b>	<b>1997</b>	<b>1999</b>	<b>2002</b>	<b>2004</b>	<b>2007</b>	<b>2009</b>	<b>2012</b>	<b>2014</b>
Malaysia	264	362	505	1098	1083	1169	1563	2020	2606	2472	3011	3246	3686	4025	5000	6141
<b>Ethnicity</b>																
Bumiputra	172	242	242	844	868	940	1237	1604	2038	1984	2376	2711	3156	3624	4457	5548
Chinese	394	534	534	1552	1488	1631	2196	2890	3378	3456	4279	4437	4853	5011	6366	7666
Indian	304	408	408	1107	1105	1209	1597	2140	2896	2702	3044	3456	3799	3999	5233	6246
<b>Others</b>	813	1299	1268	1475	2992	955	4548	1284	1680	1371	2165	2312	3561	3640	3843	6011
<b>Strata</b>																
Urban	428	570	570	1573	1488	1606	2050	2589	3357	3103	3652	3956	4356	4705	5742	6833
Rural	200	269	269	842	881	957	1009	1326	1704	1718	1729	1875	2283	2545	3080	3831

Source: Department of Statistic (2014c)



It can also be seen that there was a greater disparity between urban-rural mean monthly gross household incomes from 1970 to 2014. In 1970, the gap between urban-rural mean monthly gross household income was around RM228, this increased to RM3002 in 2014 (see Table 2.4). Meanwhile, the mean monthly gross household income by state shows that in 1992 Kelantan, Terengganu, Perlis and Kedah (with RM901, RM948, RM1038 and RM1049, respectively) were among the states with the lowest mean monthly gross household income, meanwhile in 2014, the mean monthly gross household income by state shows that Kelantan, Perlis and Kedah (respectively RM3715, RM4445 and RM4478) were among the states where average mean gross household income is lower than other states (see table 2.5).



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Table 2.5

*Mean Monthly Gross Household Income (RM) in Malaysia by State, 1970-2014*

Years	1970	1974	1976	1984	1987	1989	1992	1995	1997	1999	2002	2004	2007	2009	2012	2014
Johor	237	382	513	1065	1060	1220	1708	2138	2772	2646	2963	3076	3457	3835	4658	6207
Kedah	189	256	306	690	718	860	1049	1295	1590	1612	1966	2126	2408	2667	3425	4478
Kelantan	151	231	269	625	667	726	901	1091	1249	1314	1674	1829	2143	2536	3168	3715
Melaka	265	41	568	1040	1034	1190	1466	1843	2276	2260	2650	2791	3421	4148	4759	6046
N.Sembilan	286	386	505	1039	908	1162	1378	1767	2378	2335	2739	2886	3336	3540	4576	5271
Pahang	286	305	477	960	900	1092	1253	1436	1632	1482	1991	2410	2995	3279	3745	4343
P.Pinang	292	471	589	1183	1130	1375	1845	2225	3130	3128	3496	3531	4004	4407	5055	5993
Perak	254	305	436	883	863	1067	1276	1436	1940	1743	2153	2207	2545	2809	3548	4268
Perlis	140	206	338	692	711	852	1038	1158	1507	1431	2006	2046	2541	2617	3538	4445
Selangor	421	598	735	1590	1558	1790	2275	3162	4006	3702	4406	5175	5580	5962	7023	8252
Terengganu	173	206	339	756	694	905	948	1117	1497	1600	1837	1984	2463	3017	3967	4816
Sabah/Labuan	-	-	513	1212	1116	1358	1286	1647	2057	1905	2406	2487	2866	3144	4089	4985
Sarawak	-	-	426	1033	1141	1199	1524	1886	2242	2276	2515	2725	3349	3581	4293	4934
K.Lumpur	-	-	1058	1920	1790	2102	2567	3371	4768	4105	4930	5011	5322	5488	8586	10629
Putrajaya	-	-	-	-	-	-	-	-	-	-	-	-	5294	6747	8101	10401

Source: Department of Statistics (2014c)

Remarkably, as shown by the above statistics, the poverty level in Malaysia has declined dramatically. The decline in the poverty level is undoubtedly attributed to government planning since the beginning as well as the supplementing strategy which involved both the private sector and non-governmental organisations. This is proven by the study by Al-Mamun et al. (2011) which detailed the organisations that are working for the economic development of the poor. These organisations include, “(1) *Tabung Ekonomi Kumpulan Usahawan Nasional* (National Entrepreneurs Economic Group Fund - TEKUN), (2) Agrobank, (3) *Lembaga Kemajuan Ikan Malaysia* (Malaysia Fisheries Development Board - LKIM), (4) *Yayasan Basmi Kemiskinan* (Poverty Eradication Foundation –YBK) and (5) AIM 6) MOA, through the Bumiputera Commercial and Industrial Community Scheme (*Skim Masyarakat Perdagangan dan Perindustrian Bumiputera*).”

## **2.5 MICROCREDIT PROGRAMMES IN MALAYSIA**

### **2.5.1 Introduction to Microcredit Industry in Malaysia**

In Malaysia, the provision of microcredit is nothing new. Malaysia’s microcredit institutions have different types of lending systems, specifically the group-based lending system and the individual lending system. Malaysia’s microfinance institutions also have a standardised lending contract apart from offering limited microfinance products. In this regard, Malaysia’s microfinance institutions only offer microcredit loan with no microsavings or microinsurances. The limitation of the financial services is due to the restriction by the Malaysia Banking and Financial Act 1989 that states “*No person shall*

carry on banking services, including receiving deposits on current account, deposit account, saving account or no other similar account, without a licence as a bank or financial institutions” (McGuire et al., 1998). Meanwhile, each institution has different methods of implementing the programmes, such as selection and screening of participants, institutions’ operation, expertise, monitoring and programme features. For example, AIM offers a group-based lending scheme and imposes weekly loan payment for its lenders.

Earlier microcredit programmes were mainly carried out by NGOs, credit unions, co-operatives and specialised credit institutions (Jasman, Junaidi, & Rosalan, 2011). MARA, a trustee body for the *bumiputera*, and AIM, are some of the pioneers in Malaysia’s microfinance institutions. Malaysian commercial banks are also involved in offering microcredit facilities. In May 2003, a microcredit scheme was launched by *Bank Negara Malaysia* (The Central Bank) as part of the government’s effort to boost small and medium enterprise activities and agricultural production activities. This programme has provided business development and expansion opportunities for almost half million small medium enterprises in the country. Moreover, in 2006, the National SME Development Council (NSDC) approved a comprehensive microfinance institutional framework proposed by *Bank Negara Malaysia* (The Central Bank) to develop a sustainable microcredit industry. The participating institutions included banking institutions, the Development Finance Institutions (DFIs) and credit cooperatives.

In 2014, according to *Bank Negara Malaysia* (2014), there were 11 local banks that offered microcredit products. These banks include Agrobank Bhd, *Bank Rakyat*,

*Bank Simpanan Nasional*, Alliance Bank Bhd, AMBank Bhd, CIMB Bank Bhd, EONCAP Islamic Bank Bhd, Public Bank Bhd, United Overseas Bank Bhd, *Bank Muamalat* and Malayan Banking Berhad. Furthermore, there were nine (9) non-bank microcredit institutions offering microcredit products, namely, AIM, *Yayasan Usaha Maju*, *Koperasi Kredit Rakyat*, *Kooperasi Kredit Pekerja*, Partners in Enterprise Malaysia, TEKUN, MARA, Malaysia Building Society Berhad and Sabah Credit Corporation. The microcredit industry framework in Malaysia is illustrated below (see table 2.6).

The microcredit providers in Malaysia offer microcredit loans between RM1,000 to RM50,000 which are guaranteed by the Credit Guarantee Cooperation (CGC). The CGC is a government agency that acts as a guarantor which protects the microcredit offered by the financial institutions to the small and medium enterprises that have no track record or any collateral to obtain microcredit facilities. This has broadened up the microcredit facility to microcredit borrowers. In this light, a management fee of between 4 to 18 percent is charged by non-bank microcredit institutions, which is slightly lower than the local bank interest which is based on the Bank Lending Rate (BLR).

MARA and AIM are some of the pioneers which introduced microcredit programmes to the poor. TEKUN is also another non-bank microcredit institution that provides microcredit to the poor. Meanwhile, Agrobank Berhad is a credit institution that provides microcredit to the agricultural sector. There are also other commercial banks and Islamic banks that provide microcredit financing. These financing offered by commercial and Islamic banks are complementary to Government-

backed microcredit programmes. Aside from the banking institutions, there are also non-governmental organisations (NGOs) engagements in providing the microcredit to the poor. Among them are *Yayasan Usaha Maju (YUM)*, *Koperasi Kredit Rakyat (KKR)*, Credit Guarantee Corporation Berhad (CGC), Sabah Credit Corporation and others.

Table 2.6  
*A Microcredit Industry Framework in Malaysia*

Non-Bank Microcredit Institutions	Bank-Microcredit Institutions
<i>Amanah Ikhtiar Malaysia (AIM)</i>	Agrobank Berhad
<i>Yayasan Usaha Maju (YUM)</i>	Bank Kerjasama Rakyat Berhad
<i>Koperasi Kredit Rakyat (KKR)</i>	Bank Simpanan Nasional
<i>Koperasi Kredit Pekerja</i>	Alliance Bank Berhad
<i>Partners in Enterprise Malaysia</i>	AMBank Berhad
<i>Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN)</i>	CIMB Bank Berhad
<i>Majlis Amanah Rakyat (MARA)</i>	EONCAP Islamic Bank Berhad
Malaysia Building Society Berhad	Public Bank Berhad
Sabah Credit Corporation	United Oversea Bank Berhad
	Malayan Banking Berhad
	Bank Muamalat
	Credit Guarantee Corporation Berhad (CGC)

Source: *Bank Negara Malaysia* Website and Small and Medium Enterprises Corporation Malaysia Website (2014)



## **2.5.2 The Selected Microcredit Programme for this Study**

### **2.5.2.1 *Amanah Ikhtiar Malaysia* (AIM)'s Microcredit Programme**

Microcredit is a small business loan offered to people in need. The ideas of microcredit are not new. It was introduced in the 1970s by Prof. Muhammad Yunus who was actively involved in poverty alleviation programmes. In 1976, he visited very poor households in the village of Jobra, there, he learned that by providing capital and better opportunities, these poor households can improve their livelihood. He used his personal money to provide financial assistance to 42 poor individuals (Yunus, 1999). Satisfied with the repayment of these loans, he was prompted to expand the financial assistance using a more structured banking system. After many efforts and reaching out numerous banks, 1983 Grameen Bank was finally established in 1983 (Yunus, 1999). Grameen Bank was formed to offer small loans to the poor through small weekly instalments. The success story of Grameen Bank has become world-recognised and Prof. Muhammad Yunus was awarded a Nobel Peace in 2006.

Inspired by Grameen Bank's achievement, the approach of giving away loans to poor people was adopted in Malaysia starting with the initiation of a pioneer project in the north-western area of Selangor, known as Project *Ikhtiar*. Project *Ikhtiar* is deemed to be successfully implemented and the success of the project proves that microcredit project is helpful in improving the quality of life of the poor. This initial success led to the birth of AIM on 17<sup>th</sup> September, which is aimed to reduce poverty among the poor and hardcore poor households in Malaysia.

AIM provides microcredit services to selected participants throughout Malaysia. The implementation of this programme is based on the concept of trust and sharing liability. It offers interest-free loans to its participants which help them to undertake income generating activities. These interest-free loans are categorised into three categories, namely economic, education, and multi-purpose loans. The economic loans are offered to fund business activities such as trading, fisheries, animal husbandry, farming, manufacturing, services, and much more. The loan value ranges from RM1,000 to RM50,000 with an average of RM6,000 per loan, which should be settled within 25 to 150 weeks depending on the economic activities and the participants' performance and cooperation during the centre meetings. It monitors and manages its participants by holding weekly meetings in its centres and the participants are required to pay the loan repayment installment during these meetings. In this regard, once their loans are fully paid, the participants can request for a new later interest-free loan when the need arises with new terms based on the activity and the participant's performance and cooperation.

The process of loan disbursement starts when the participants apply for the interest-free loan. To ensure the effectiveness of AIM loan disbursement implementation process, the organisation carefully screens its participants. The prospective participants will be interviewed by its staff and need to receive favourable approvals from group, centre and branch or area office. Upon the loan approval, the loan is disbursed with no collateral, no guarantor, no interest charges and no legal action taken for the unpaid debt. Furthermore, the debt would be written off if the participants perish before the loan is fully paid. AIM has also established its Welfare and Wellbeing Fund to help the participants to cope with hardships, such as chronic disease, death, accidents among

others. The Welfare and Wellbeing Fund is funded by a small fee collected every week from each participant for providing aids for other participants and their families who are facing hardship.

As of August 2010, AIM has extended its operation to 87 branches with 60,497 groups in 6,646 centres serving a total of 254, 116 clients in Malaysia. This has gradually increased and in December 2015, AIM had opened 139 branches with 102818 groups in 10043 centres serving a total of 377,282 clients in Malaysia (Amanah Ikhtiar Malaysia, 2015).

In this light, AIM has demonstrated a proven track record of success in the last of thirty years. In 2013 and 2014, AIM was awarded several international honours, including The Asian Leadership Award on Rural Development and Poverty Eradication, Best Islamic Microfinance Award and Global Excellence in Management Award on Excellence in Corporate Governance at the Global Islamic Finance Award, while in 2015, it was awarded the Best Islamic Microfinance Award and Best Islamic Finance Award.

However, AIM's most significant achievement is its track records in nurturing entrepreneurship among the poor. There are a number of success stories that highlighted how AIM participants managed to escape poverty. True to its pledge, AIM has become a stepping-stone for the poor to escape poverty. Through a nationwide survey conducted on 269,470 participants, it was reported that 94.7 percent have been able to alleviate their socio-economic status and escape poverty (SME Annual Report, 2012). It was also reported that 30 percent of the participants have earned monthly income exceeding RM3,000.

In addition, AIM's high repayment rate is also a representation of the significant achievements it has accomplished. The Asian Institute of Finance (2015) reported that AIM has achieved the repayment rate of about 99.6 per cent. In this light, AIM's delivery system of loan disbursement process and mutual support from members in the group facilitate the rapid repayment. In nutshell, being oriented microcredit institution with an aim to eradicate poverty, the financial services offered by AIM has gained a tremendous success in improving socio-economic performance.



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Table 2.7

*Participants of Amanah Ikhtiar Malaysia's Microcredit Programme Year of 2013, 2014 and 2015*

No.	States	No. of Participants			Total Borrowed (RM)		
		2013	2014	2015	2013	2014	2015
1	Wilayah Kedah	46,198			273,788,060		
2	Kedah		44,021			314,056,260	
3	Kedah Utara			27,184			1,452,313,965
4	Kedah Selatan			24,546			1,197,767,505
5	Wilayah Perak	39,178			188,426,080		
6	Perak		36,998			228,305,420	
7	Perak Utara			19,904			1,661,014,560
8	Perak Selatan			16,961			835,918,660
9	Wilayah Kelantan	48,134			336,055,250		
10	Kelantan Utara		24,004	22,070		192,275,900	1,661,014,560
11	Kelantan Selatan		16,819	15,588		119,372,100	1,368,144,908
12	Wilayah Terengganu	31,079			197,514,520		
13	Terengganu		28,954			211,576,410	
14	Terengganu Utara			15,588			862,890,820
15	Terengganu Selatan			15,697			925,111,335
16	Wilayah Pahang	24,103			128,704,060		
17	Pahang		23,161			147,786,400	
18	Pahang Barat			13,620			405,745,800
19	Pahang Timur			14,864			482,806,370
20	Johor		15,457			73,911,500	
21	Johor Utara			11,028			218,717,450

Table 2.7 (Continued)

No	States	No of Participants			Total Borrowed (RM)		
		2013	2014	2015	2013	2014	2015
22	Johor Selatan			10,912			152,564,120
23	Negeri Sembilan dan						
24	Melaka		16,751	19,102		93,401,400	459,018,220
25	Wilayah Lembah						
26	Klang	20,198			98,530,340		
27	Selangor/Kuala						
28	Lumpur		27,056			159,684,140	
29	Selangor/Kuala						
30	Lumpur Utara			8,606			312,217,860
31	Selangor/Kuala						
32	Lumpur Selatan			18,150			441,230,390
33	Sarawak Utara	18,085	16,553	10,597	70,516,150	77,987,400	273,314,840
34	Sarawak Selatan	20,434	19,864	16,298	74,465,440	86,903,000	410,470,390
35	Sabah Barat	37,294	20,922	13,363	160,375,580	107,301,360	381,899,380
36	Sabah Timur	16,864	15,784	11,678	68,364,180	65,255,950	229,182,810
37	Sabah Tengah		17,177	14,882		93,883,860	368,671,620
38	Sabah Utara			16,004			382,485,310
39	Sabah Selatan			15,852			355,275,980
40	Wilayah Selatan	22,443			86,662,500		
41	Wilayah Tengah	15,520			69,994,100		
		339,530	323,521	377,282	1,753,396,260	1,971,701,100	141,942,000,833

## 2.6 CHAPTER SUMMARY

A review of Malaysia's economic history over these past four decades has revealed some astonishing facts. In the early 1970s, the country was plagued with poverty, unemployment, and economic disparities among ethnic groups. To eradicate these problems, the NEP was developed to restructure the economic and social developments in Malaysia. Later, the government of Malaysia introduced the National Development Policy (NDP) to accelerate the process of eradicating poverty and restructuring society. As a result, the incidence of poverty in Malaysia was greatly reduced over the years. Subsequently, the National Vision Policy (NVP) was established to replace both the NEP and NDP before the introduction of the New Economic Model (NEM). The NEM is an economic plan intended to increase the per capita income to more than double. As discussed above, it can be seen that the programmes developed and established under NEP, NDP, NVP and NEM have been very successful in the economic and social developments in Malaysia.

This chapter also discussed the microcredit programmes in Malaysia which were introduced as part of the strategy to supplement the government's efforts in alleviating poverty and improving living conditions for the poor. Correspondingly, there are various microfinance institutions in Malaysia that have been established to assist the poor, especially to improve their quality of life. One of Malaysia's first microfinance provider, AIM, is selected for this study to assess the impact of microcredit programmes on the participants' quality of life. The establishment of AIM microcredit programme is inspired by the history and achievement of the Grameen Bank. This initial success of



Project *Ikhtiar* led to the birth of AIM with the aim to reduce poverty among the poor and hardcore poor households in Malaysia.



## **CHAPTER THREE**

### **LITERATURE REVIEWS**

#### **3.1 OVERVIEW OF THE CHAPTER**

This chapter presents an overview of the literature that relates to the topic of assessing the impact study of microcredit programmes on participants' quality of life. Section 3.2 reviews aspects on the quality of life while section 3.3 presents the underpinning theory of quality of life. Section 3.4 reviews the Malaysian Quality of Life (MQL). Later, Section 3.5 reviews the microcredit programmes and participants' quality of life; Section 3.6 reviews previous studies on the impact of microcredit programmes on each domains of life; Section 3.7 reviews on entrepreneurial intention and entrepreneurial behaviour. Next, Section 3.8 presents the underpinning theory of Theory of Planned Behaviour (TPB) and Section 3.9 reviews the microcredit programmes and participants' behaviour; Section 3.10 reviews previous studies on the impact of microcredit programmes on participants' entrepreneurial behaviour, then, section 3.11 discusses on the conceptual framework of the study, while section 3.12 provides the hypotheses development of the study. Finally, this chapter ends with a chapter summary.

## **3.2 QUALITY OF LIFE**

### **3.2.1 The Term Quality of Life**

What constitutes as a fair society and how the life of an individual should be, have remained as the two fundamental questions across time and cultures. The attention on the issue of the quality of life had started in the 1900s. This continued in the 1960s and 1970s which saw the increasing attention towards issues on quality of life, particularly in countries like the United States and Sweden. This indicates that the world's interests on the quality of life have been continuously renewed since the 1900s.

Historically, the term quality of life is used in diverse disciplinary settings, such as in medical research, life satisfaction, economy and psychology. In psychology, the first study on quality of life was conducted in 1949, and then in 1960, studies from the mental health field began to appear. Medical research related to the quality of life started in the late 1980s and it began to gain attention in the field of economy in the 1990s. Subsequently, quality of life has become a topic of interest in social sciences in the late 20<sup>th</sup> century. In fact, the growth of quality of life is simultaneous in almost all the social sciences. In this light, Ruta, Camfield, and Donaldson (2010) study mentioned that starting from the middle of the twentieth century, issues related to the quality of life have captured many researchers' interest from different areas, such as economics, health service, social policy, medicine and psychology. Similarly, as reported by Cummins, McCabe, Romeo, and Gullone (1994), studies on the quality of life have been done in

many different areas such as economics, sociology, political science, medical sciences, philosophy and psychology.

For centuries, researchers have proposed their own definition of quality of life and it has challenged the synergies of many researchers, philosophers and practitioners throughout history. Vesan and Bizzotto (2011) stated that many researchers have their own definition of quality of life that fit into different normative, religious or ideological assumptions.

In this regard, there are several terms that have been used to clarify the meaning of quality of life. Ruta et al. (2010) stated that the terms wellbeing, utility, and quality of life are often defined with reference to each other and frequently used interchangeably. Veenhoven (2000) argued that there are many noticeable terms which refer to the quality of life. Veenhoven (2000) added that the words 'happiness' and 'welfare' were more commonly used in the past, and presently, the words 'quality of life', 'satisfaction', and 'wellbeing' are used to represent the same meaning.

Moreover, Rahman, Mittelhammer and Wandsheider (2005) in their study stated that there are many studies focusing on wellbeing while Veenhoven (2004) defined wellbeing as something that is in a good state. However, literally, there is no clarification made to specify what that something means and to what 'good' is referring to. Veenhoven (2000) also claimed that the term of wellbeing is applied generically to all the good things in both the social system and for individuals. The term is synonymous with quality of life Veenhoven (2000). Therefore, as wellbeing is similar

with the quality of life, the term can be used as an approach in understanding an individual's quality of life.

Moreover, Emerson (1985) defined the quality of life as “the satisfaction of an individual's values, goals and needs which could be actualised by their abilities or lifestyle” and described the “quality of life as individual's own impression on the achievement in individual's value recognition, goals and needs” which are always actualised accordingly by one's abilities and lifestyle. On the other hand, Hagerty et al. (2001), described the “quality of life is the quality of a person's whole life”. Therefore, if the quality of life is divided into different segmented domains, the combination of those domains itself must represent the whole life of that person. Thus, the quality of life is to be valued based on a quality of a person's whole life which cannot be segmented and analysed separately. On the other hand, Veenhoven (1999) noted that the quality of life reflects a balance of benefits and costs while Veenhoven (1996) argued that both benefits and costs must be considered where the benefits could not be considered without looking at the costs.

By looking at how researchers define the term of quality of life across time, it was noticed that there were differences in the definition of the term. Consequently, the differences in the definition of the term of quality of life imply a shift in the proactive attempt to define the quality of life. Therefore, the researcher should be able in the first place to clear up with the definition before furthering any discussions. This is supported by Rojas (2009) who stated the term of quality of life must be clarified before continuing any effort in its measurement. The underlying reason is when the researchers inadequately theorize the term of quality of life, consequently, later, this will lead to the

debate on the measurement problems instead of on what defines the quality of life (Rojas, 2009). For this reason, it is therefore important for the researcher to debate the definition of quality of life to provide in-depth information before furthering any discussions. Despite the common concerns on having the exact definition of quality of life, researchers are still arguing that there is a need for conceptualization and measurement to determine what constitutes as a good life. This will be discussed in the next section.

### **3.2.2 The Domains of Life of Quality of Life**

A person's quality of life refers to various segments of an individual's life. In this study, the researcher's objective to measure the quality of life has led to a proliferation of the domains of life selection. According to Cummins (1996), Rojas (2004) and Veenhoven (1996), the domains of life refer to concrete areas where a person functions as a human being. In the same vein, Cummins (1996) stated that there are large possible numbers of domains, and, there are very large numbers of domains if each domain representing the aspects of the individual condition is measured separately. However, Cummins (1996) argued that people should know how to configure the level of satisfaction with their life using the logic of the measurement of domains of life. It is also acknowledged that constructing the list of domains of life can never be perfect. Therefore, the listed domains of life used should meet the normal standard of reliability and validity. In other words, any proposed domains of life, therefore, should be able to aggregately represent the whole life of a person.

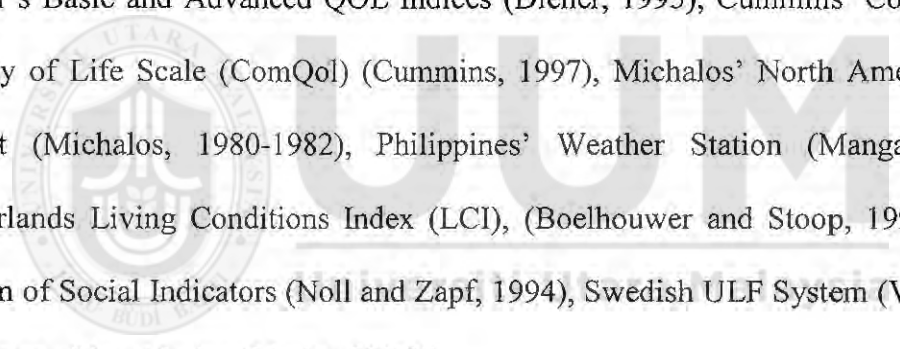
In addition to this, there are extensive discussions related to domains of life that represent life-satisfaction. For example, Cummins (1996) in his study had introduced seven domains, namely “material wellbeing, health, productivity, intimacy, safety, place in a community and emotional wellbeing”. Allardt (1976), on the other hand, used domains of life like “income, housing, political support, social relations, being irreplaceable, doing interesting things, education and life-satisfaction” with indicators of ‘having’, ‘loving’ and ‘being’. Meanwhile, Human Development Index (HDI), an index developed by the United Nations Development Programme (UNDP), used the following criteria of public’s quality of life: wealth, education, life expectancy, gender equity and income equity.

On the contrary, Rojas (2004) in his study proposed that there are “seven domains of life: health, economic, job, family, friendship, personal and community”. Meanwhile, van Praag, Frijters, and Ferrer-i-Carbonell (2003) noted that life-satisfaction is an aggregate concept which consists of the following components as its “domains: health, financial situation, job, housing, leisure, and environment”. Whereas, Rahman et al. (2005) focused on eight domains of QOL which are “relationship with family and friends, emotional wellbeing, health, work and productive activity, material wellbeing, being part of one’s local community, personal safety, and quality of environment”. Table 3.1 presents of the list of life domains have been used in assessing the quality of life. The table provides details of these domains of life that can be found in the literature.



Table 3.1  
List of Domains of Life

	Cummins (1996)	Allardt (1976)	Rojas (2004)	Personal Wellbeing Index (2006)	van Praag et al. (2003)	Rahman et al. (2005)	Shalock (2004)	Vesan and Bizzotto (2011)	Veenhoven (2004)	Ferrans and Power (1988)	Third European Quality of Life Questionnaires (2011)
	Material wellbeing	Income	Health	Income Earnings	Health	Relationship with family and friends	Material wellbeing	Material wellbeing	Livability of environment	Health and functioning	Economic
	Productivity	Housing	Economic	Health	Financial situation	Emotional wellbeing	Physical wellbeing	Habitability (housing and living environment)	Life ability of a person	Social	Housing and local environment
52	Intimacy	Political support	Job	Life achievements	Job	Health	Personal development	Psychophysical wellbeing	Utility	Family	Family relations
	Health	Social relations	Family	Personal relationship	Housing	Work	Emotional wellbeing	Social integration	Appreciation of life	Economic	Health
	Emotional wellbeing	Irreplaceable	Friendship	Personal safety	Leisure	Productive activity	Self- determination	Subjective wellbeing		Spiritual	Quality of society
	Community	Doing interesting things	Personal	Community- connectedness	Environment	Material wellbeing	Interpersonal relations				Satisfaction
	Safety	Health	Community	Future security		Feeling part of one's local community	Social inclusion				Happiness
		Education				Personal safety	Rights				Expectation about the future
		Life satisfaction				Quality of environment					

In relation to the selections of domains of life, there are large numbers of established quality of life index developed and reported in past studies. According to Rojas (2009), these include “World Health Organisation Quality of Life Index (WHOQOL) Group (1993), Consumer Confidence Indices (Zagorski and McDonnell, 1995), Index of Economic Wellbeing (Osberg and Sharpe, 1998), Genuine Progress Index (Cobb et.al. 1995), American Demographics Index of Wellbeing (Kacapyr, 1996), Johnston’s Quality of Life Index (Johnston, 1988), Veenhoven Happy Life-Expectancy Scale (Veenhoven, 1996), International Living Index ([www.internationalliving.com](http://www.internationalliving.com)), U.N. Human Development Index (UNHDP, 1990, 1993), Miringoffs’ Index of Social Health (Miringoff and Miringoff, 1999), Estes’ Index of Social Progress (ISP) (Estes, 1984), Diener’s Basic and Advanced QOL Indices (Diener, 1995), Cummins’ Comprehensive Quality of Life Scale (ComQol) (Cummins, 1997), Michalos’ North American Social Report (Michalos, 1980-1982), Philippines’ Weather Station (Mangahas, 1976), Netherlands Living Conditions Index (LCI), (Boelhouwer and Stoop, 1999), German System of Social Indicators (Noll and Zapf, 1994), Swedish ULF System (Vogel, 1998), and Happy-Planet Index (Marks, 2006)”. 

Other internationally renowned indexes for quality of life are the Personal Wellbeing Index (PWI), Life Quality Index (LQI), Legatum Prosperity Index (LPI), Physical Quality of Life Index (PQLI), Quality of Life Index (QLI), Human Development Index (HDI), Allardt’s welfare index, World Health Organisation Quality of Life (WHOQOL).

In selecting the domains of life to be used, a researcher should be able to provide a rational proliferation of domains of life. This is supported by Veenhoven (1996) study which stated that when life domains are concerned, the calculation is less difficult.

Veenhoven (1996) added that domains of life are easier to oversee than life as a whole. Cummins (1996) also argued that “any proposed set of domains of life should aggregately contain the entire construct of quality of life”. On the other hand, according to Cummins (1999), it is hard to agree on the number of domains used or on how to measure the quality of life. Therefore, the selected domains of life will be adopted based on data availability in the area. Rojas (2004) study seemed to support this as it is discovered that the selection of the domains of life is subjective. Furthermore, Rojas (2004) also stated that there are numerous imaginable human activities and it is impossible to separate aspects of a human’s life due to its complexity. Therefore, domains of life selection should depend on the objectives of the research.

Quality of life is a multidimensional concept which uses the domains of life to study relationship. In this regard, the domains of life are used to assess an individual’s quality of life. This implies the importance of the proliferation of the domains of life. Thus, researchers should be able to provide rationally constructed domains of life (Rojas, 2009). In fact, without the basic understanding of what constitute as the quality of life, a researcher may end up debating on measurement problems. Therefore, knowing what the term quality of life constitutes of will help to ease the construction of domains of life used in measuring quality of life. Failing to provide a basis of what is quality of life; researchers will not be able to propose the domains of life that are able to represent the whole life of a person. Hence, it is important for a researcher to provide a basic understanding of what quality of life constitute of before furthering the measurement. Thus, this will help a researcher to identify the domains of life used, determine the measurement techniques and hypothesizes the relationship.

It is an advantage for the researcher to focus on the domains of life with broad perspectives that denote an individual's quality of life rather than only when a domain is justified. This will help the researcher to know which domains of life contribute to an individual's quality of life. This is in line with Rojas (2004) findings that stated it is important to know which domains of life contribute to an individual's quality of life. Hence, the concern on the quality of life must not only focus on an individual's quality of life as a whole, further study is needed to examine the selected domains of life. The researcher presumed that regardless of how one's views the measurement, one thing remains equally defined is the quality of life.

### **3.2.3 Spirituality as Domain of Life**

The International Well-being Group (2006) argued that spirituality is also a domain of life. Cummins (1997) debated that spirituality is useful to be added as a domain of life to measure an individual's quality of life if the population under study is highly spiritual or if the researcher wants to examine spirituality as a domain of life. Researchers have proposed their own definition of spirituality to fit their beliefs and values assumptions.

According to Islam, men are created from matter to worship and pray to Allah SWT, and to become the vicegerent as quoted in Al-Quran, Surah Al-An'am, verse 2,

*"He it is Who created you from clay"*

Thus, according to the Islamic perspective, spirituality means self-realizations of human beings by living out life in the matter of serving Allah SWT. This is done by adhering to

what been preached by Prophet Muhammad's (PBUH) and avoiding the sins which will always yield out the tranquility and happiness in human's emotions and spirit. It is important to realize that humans are created by Allah SWT to meet the demands of human creation and to meet the needs of Allah SWT. Without this goal, there will be no spirituality, progress and true pleasure in a human's life.

In the Quran, Surah Adh-Dhariyat, verse 56, mentions that the goal and purpose of human creation is to worship Allah SWT:

*"And [remember] I have not created jinn and humankind other than they worship and serve Me".*

This verse clearly stated that the purpose of human creation by Allah SWT in this world is to worship and pray to Allah SWT, and to become the vicegerent, which is as the representative of creature in this world. This is based on by the position of the vicegerent as the leader of a group, as established by Prophet Muhammad (PBUH).

Prophet Muhammad's (PBUH) way of life has shown the true meaning of achieving spirituality, which is living by the Islamic way of life and worshipping Allah SWT through having faith and believing that Allah SWT has created the whole universe to follow Islamic way of life. Muslim individuals who follow the way of Islam will be Allah's vicegerent. The prosperity of the local community is preserved through the Islamic *syariah* law and legal practices which can be applied to the branches of social administration, economy, and ecosystem. Prosperity is an evident when there is an increased standard of living, self-sufficiency, infrastructure facilities and other basic

amenities to meet the individual basic needs that comply to the rules of Islam which is upheld and obeyed to create a happy and quality life.

The presence of spirituality can preserve a peace of mind that guarantees happiness in the life hereafter, as well as satisfaction in the current life. The Prophet (PBUH) taught his followers about the need to pray to ensure a good life in this world and as a safe guarantee for their lives in the Hereafter, as quoted in Surah Al-Baqarah, 2:201:

*“Our Lord, give us in this world good and in the Hereafter good and protect us from the punishment of the Fire”.*

By fulfilling the *hasanah* life in the nature of human life, a Muslim is said to achieve spirituality through having a healthy body from adhering to the Islamic way of life. This is portrayed by using his/her available leisure time to remember Allah SWT, being thankful for the blessings from Allah SWT, attending religious lectures and ceremonies, paying visits to others, and meeting the needs of human nature such as getting married, having children, and conducting activities that lead to happiness.

Literature also shown that spirituality is an inner self-drive which is meant to bring out tranquility and happiness in human beings' emotion and souls. Othman et al. (2009) detailed that Islam came to improve human's quality of life. He also added that the quality of life is not only based on the material aspects, but also emphasizes on the quality of spirituality. In fact, the quality in Islam is absolute because it is based on Allah SWT command and the words of His Messenger. In this light, if something is done earnestly and following the principles of Islam, it surely has quality.



Islam is a way of life and sets goals for human life. All matters including activities and things that help in achieving these goals can help increasing social welfare (Zarqa, 1980). In this regard, Umar Chapra (1980) in his study added that all human efforts whether for social, educational, scientific and material goals represent spiritual values or in other words, spirituality is in character as long as it conforms to the value system of Islam. Umar Chapra (1980) also claimed that this synthesis of the material wellbeing and the spiritual represents what is implied by welfare in Islam. This indicates that quality of life of individuals in an Islamic view comprises of a fuller realisation of spirituality among the individual.

#### **3.2.4 The Measurement of the Quality of Life: An Approach using Subjective Wellbeing**

While early literature has emphasised on objective indicators, however, the focus on subjective indicators has increased in recent literature. In addition, Veenhoven (2000) noted that a classic distinctive argument about the quality of life is based on both objective and subjective matters. Veenhoven (2007) in his study argued that initially, the focus was on objective indicators and during the 1970s, subjective indicators were added to the literature.

Meanwhile, in many discussions on subjective and objective quality of life, the subjective quality of life is presumed to contribute more significantly to the understanding of the human being. Vesan and Bizzotto (2011) in his study stated that the subjective wellbeing dimension denoted “a rather distinct and complementary dimension



of quality of life". In this regard, Diener (2009) distinguished the theories of subjective wellbeing into bottom-up and top-down approaches. Many researchers presume that a bottom-up approach is relevant and accurate (Headey, Veenhoven, & Wearing 1991; Argyle, 2001; Diener, 2009; Andrews & Whitley, 2012). The study added that the approach can establish a linear combination of domain satisfactions that accounts for subjective wellbeing. Similarly, Veenhoven (1996) in his study stated that a bottom-up approach reflects a strong correlation between life satisfaction and the domain of satisfaction as life satisfaction is based on the latter.

Specifically, in terms of subjective wellbeing, the bottom up approach refers to the sum of parts which include health satisfaction, marriage satisfaction, job satisfaction and others. This judgment represents appraisals of various domains of life that are combined to obtain an overall judgment. In other words, satisfaction with life as a whole is measured from the satisfaction with life-domains. As mentioned by Headey et al. (1991), an individual's whole life comprises of the sum of the parts reflecting one's satisfaction with life as a whole, including satisfaction in regards to one's health, marriage, satisfaction and other aspects. Moreover, a study by Headey, Holmstrom, & Wearing (1985); Argyle (2001); Andrews & Withey (2012) claimed that the study found that the six domains analysed - marriage, work, material standard of living, leisure, friendship and health - correlate strongly with subjective wellbeing (SWB). Meanwhile, Headey et al., (1991) illustrated that the relative strength of bottom-up approach varies from domain to domain

### 3.3 UNDERPINNING THEORY OF QUALITY OF LIFE

A study of quality of life is very complex as it denotes the understanding of the underlying domains of life. In this light, the theoretical aspect regarding the quality of life provides a vast understanding of the quality of life in general and the study on the quality of life requires researchers to conceptualise this aspect. Thus, this research considers the fact that the quality of life is an emerging idea which changes across time and societies. Hence, a further debate on the theoretical aspect of quality of life may help the researcher to illustrate how the theoretical aspect can be used in measuring the quality of life.

In term theoretical aspect of the quality of life, Cummins (1995) proposed 7 core domains of life in his study, namely “material wellbeing, health, productivity, intimacy, safety, community and emotional wellbeing” (as cited in Cummins, 1996) (see Figure 3.1), while Cummins (1997) also provided both theoretical and empirical arguments on the selected domains of life used to measure an individual’s quality of life and listed the five important main domains of life, emotional wellbeing, health, intimacy, material wellbeing, and productivity while in the preceding study. Cummins (1996) listed four main domains of life which are health, intimacy, material wellbeing and productivity as mentioned in Abrams 1973. Moreover, as cited in Cummins (1996), Campbell, Converse, and Rodgers in (197) discovered the domains of health intimacy, material wellbeing and productivity while Flanagan (1978) and Krupinski (1980) discovered the domains of health, intimacy, emotional wellbeing, material wellbeing and productivity. Therefore, according to Cummins (1996) seven main domains – material wellbeing,

health, productivity, intimacy, safety, community and emotional wellbeing, are deemed as important in assessing a person's quality of life.

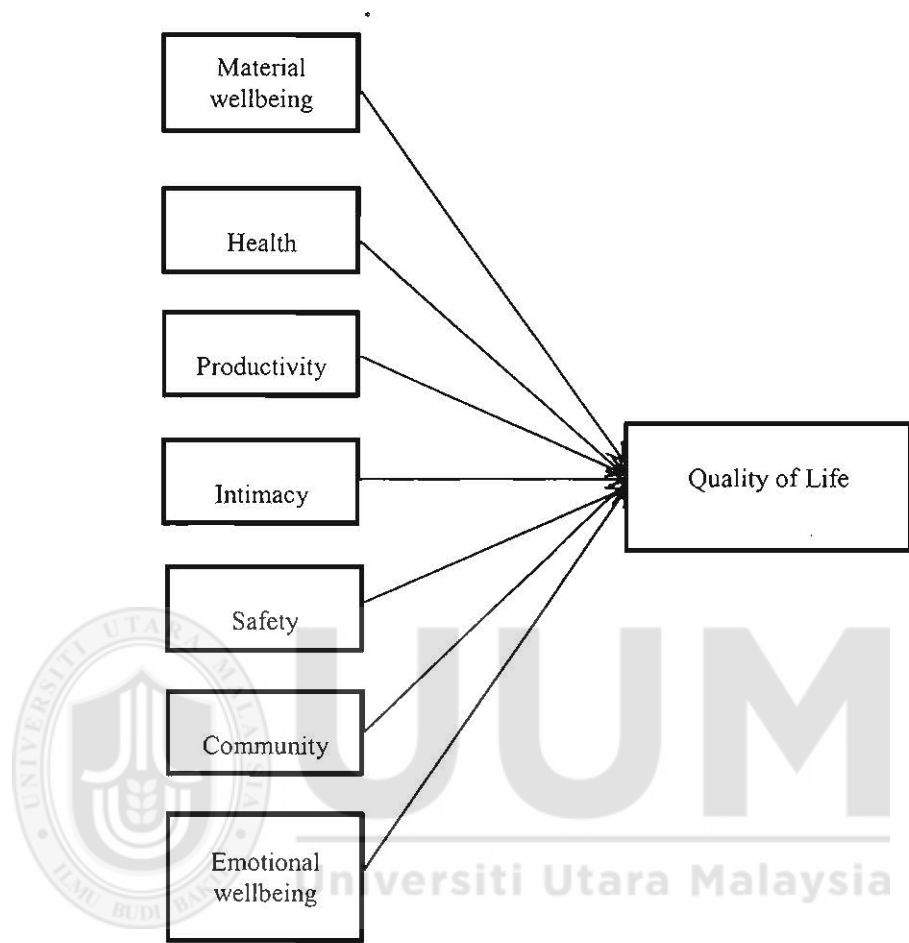


Figure 3.1  
*The Comprehensive Quality of Life Scale (ComQol)*  
Source: Cummins (1996)

The Comprehensive Quality of Life Scale (ComQol) by Cummins (1996) had received generally favourable appraisal. According to Cummins (1996), quality of life can be accessed through seven ComQol seven, however, the ComQol was abandoned in 2001 due to two main issues (Cummins, 2002). The first issue is the intention to simultaneously measure the subjective and objective dimensions In this regard, since there is no relationship between the subjective dimension and objective dimension of

quality of life, therefore, both dimension needs to be measured separately (The International Wellbeing Group, 2013). Meanwhile, the second issue is related to the multiplied issues between domain importance and domain satisfaction.

The Personal Wellbeing Index (PWI) was established to replace ComQol (The International Wellbeing Group, 2013). The Personal Wellbeing Index was derived from the Comprehensive Quality of Life Scale (ComQol). According to The International Wellbeing Group (2006), the Personal Wellbeing Index was established to measure the dimension of subjective dimension of quality of life which is Subjective Wellbeing. The PWI retained the subjective dimensions of satisfaction which comprises of six out of the seven domains in (see Figure 3.2). The domain of emotional wellbeing is removed and the new domain is introduced that is the domain of future security.

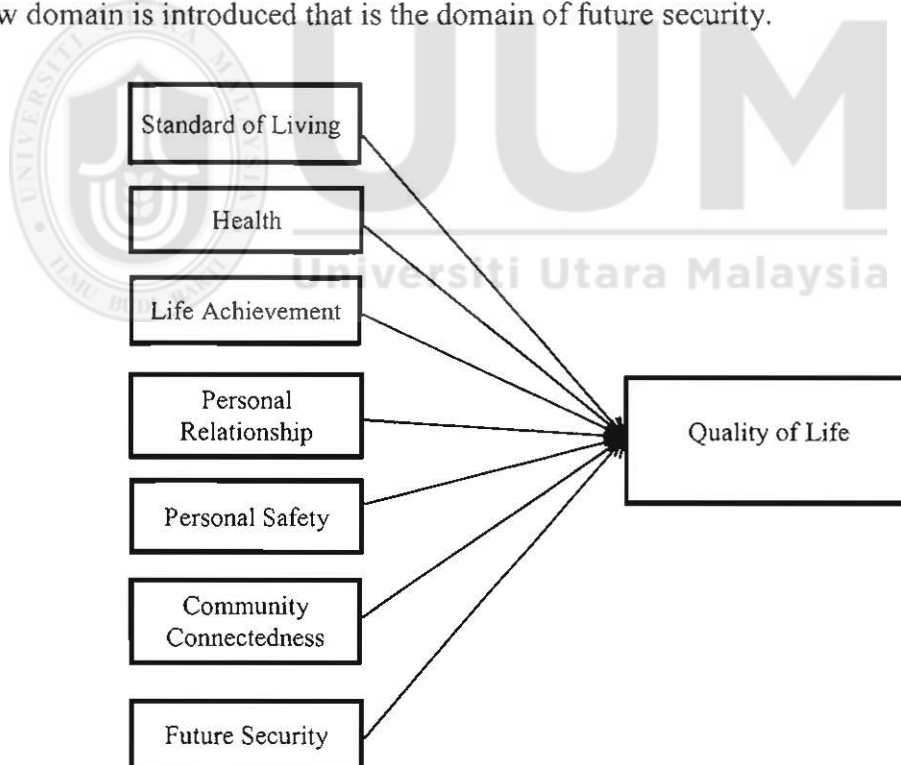


Figure 3.2  
*Personal Wellbeing Index (PWI)*  
Source: The International Wellbeing Group (2006)

In assessing the impact of microcredit programmes on participants' quality of life, an underpinning theory needs to be determined. This is also supported by Rojas (2009) that had mentioned in his study, there is a necessity to propose a framework for assessing the quality of life rather than proving the explanations. Thus, as a basis for understanding the individual of quality of life, the Personal Wellbeing Index (PWI) which was derived from the ComQol was chosen as the underpinning theory for this study.

### **3.4 THE MALAYSIAN QUALITY OF LIFE (MQL)**

The Malaysian Quality of Life (MQL) index was introduced in 1999. As stated in MQL (1999), “quality of life is defined as encompassing personal advancements, a healthy lifestyle, access and freedom to pursue knowledge, and attaining a standard of living which surpasses the fulfilment of the basic and psychological needs of an individual, to achieve a level of social wellbeing compatible with the nation’s aspirations”. MQL was established in 1999 to examine the quality of life among Malaysians.

The initial edition of MQL index consisted of 10 components and 38 indicators; meanwhile, the current version consists of 11 components and 45 indicators. The components are “income and distribution, working conditions, transport and communications, health, education, housing, environment, family life, social participation, public safety, as well as culture and leisure”. The MQLI index is “a tool to gain insights to understand the changes and improvements in the quality of life of the *rakyat* that includes physical, social, economic and psychological aspects”.

In the meantime, due to its inability to effectively measure the impact of microcredit programmes on improving the participants' quality of life, a benchmark for the efficient measurement of microcredit programmes and participants' quality of life is urgently needed. Therefore, based on the scope of this study which is assessing the impact of microcredit programmes on participants' quality of life, this study aims to revise the components in the MQL index and to re-examine the underpinning theory related to the quality of life.

### **3.5 MICROCREDIT PROGRAMMES AND PARTICIPANTS' QUALITY OF LIFE**

Microcredit is an effective tool for combating poverty. This is seem supported by Bhuiyan, Siwar, Ismail, & Hossain (2013) study that mentioned microfinance is an effective and popular tool in poverty alleviation all over the world. An extensive body of literature has also show that microcredit programmes help the poor to improve their lives. Evidently, the demand for microcredit is not only limited to people from poor countries but also from developing and developed countries. In developing countries, microcredit has been highlighted as a catalyst for change and in Europe, the rapid development of the microcredit sector is caused by the improvement in the microcredit programmes.

Certainly, literature on this field has shown that microcredit programmes have a great impact on participants' quality of life. For example, a study by Ghalib et al. (2011) stated several studies in Pakistan had shown that microcredit programmes have positive

impacts on the quality of life of the poor. The study's findings indicated that out of four dimensions of study, asset accumulation tends to be a better indicator of economic wellbeing. Their study also revealed that borrowing households spend more on healthcare than non-borrowers do and adult literacy is slightly better among borrowers compared to among non-borrowers. Meanwhile, for dwelling-related indicators, the study found that borrowers showed better achievement compared to non-borrowers. In all, the study revealed that microcredit programmes positively affect the welfare of the participating households.

The same result was also reported in Chowdhury and Bhuiya (2004) study which was conducted in Bangladesh. The study's findings revealed that microcredit has a positive impact on human wellbeing, survival rate and children education. Similarly, a study conducted by Khandker (2005) in Bangladesh examined the impact of microcredit programmes and found that welfare positively affects households which receive credit assistance. In addition Hossain (1988), Morduch (2000) and Rahman and Hossain (1995) claimed that microcredit programmes allowed their clients to achieve a better quality of life. While, a study by Montgomery, Bhattacharya and Hulme (1996) also revealed the same result where it was found that microcredit programmes helped improve the borrowers' wellbeing and standard of living by improving their income and food consumption.

A study by Mizanur Rahman and Ahmad (2010) stated that involvement in microcredit programme help enhance human capital among the borrowers as it is deeply related to their wellbeing. The study presumes that microcredit programmes offer the poor with an opportunity to perform in their economic activities and lead them to a higher quality of



life, as well as in the development of their ethics and morality. In this light, it was found that those involved in the programme managed to increase their household income and expenditure. Furthermore, as informal education was introduced throughout the programme, it has developed their awareness towards proper sanitation, health care and drinking safe water.

Similarly, a study by Afrane (2002) revealed that improvement in the respondents' wellbeing after they received financial assistance. This study's findings demonstrated that there were positive changes observed in most of the domains of life namely, economic, social, access to facilities, and spiritual. The study's findings had shown the positive impacts of Soweto Microenterprise Development (SOMED) and Sinapi Aba Trust (SAT) on the domains of life particularly the economic and access to facilities. Similarly, Aseanty and Hassan (2013) reported that there are extremely significant and conclusive results on the positive impact of microcredit programmes on the participant's quality of life.

Furthermore, a study by Epstein and Crane (2005) reported that microcredit programmes significantly impact the client's quality of life. The study's findings indicated a positive impact of the programme on economic domains, specifically job creation and economic activity. The study indicated a significant improvement in the social and economic wellbeing of the participants. A study conducted by Copestake, Bhalotra, and Johnson (2010) also documented that the significant impact of microcredit programme on participants' quality of life specifically their income. The study revealed that 52% of the borrowers and 57% of the pipeline participants felt they are better off after the programme,

Nader (2008) study, entitled “Microcredit and the Socio-Economic Wellbeing of Women” reported that the significant impact of microcredit on the participants’ socioeconomic wellbeing. The study’s findings revealed that the positive relationship between income domain and microcredit, in with the literature as well as illustrated the positive relationship between assets domain and microcredit and between children’s schooling domain and microcredit.

Mizanur Rahman, Jafrullah, and Tawhidul Islam (2008) study discovered that the provision of microcredit programme significantly and positively impacts the participants’ quality of life. The findings of the study demonstrated that all the domains of life selected for the study, namely duration of Rural Development Scheme (RDS) membership, number of income generating family members, share of food expenditure to total expenditure, household health expenditure and clients ethics and moral development, have a positive and significant impact on participants’ quality of life. The study also revealed that Rural Development Scheme (RDS) investment are the most contributed domain of life to the participants’ quality of life.

Planet Finance (2008) study reported the positive impact of microcredit programme on the overall participants’ quality of life in Egypt. Planet Finance (2008) shown that 76% of the participants claimed to experience a positive change in their sense of autonomy after using a microcredit facility. The study findings also indicated that 50% of the borrowers reported a positive impact in their quality and quantity of food while 40% of the borrowers reported that their participation in the microcredit programme has resulted in a positive impact in their children’s level of education. Planet Finance study’s also revealed that 40% of borrowers claimed that they experienced a positive change in their

health condition after they got involved in the microcredit programme while 46% of the borrowers stated that the microcredit programme also significantly impact their economic activities.

Table 3.2

*Studies of Impact of Microcredit Programmes on Participants' Quality of Life*

No	Author	Domains of Life	Country of Study
1.	Ghalib, Malki, & Imai (2011)	Asset accumulation, and household wellbeing, human resources, household income and expenditure, food security and consumption behaviour and dwelling-related indicators (such as the type of cooking fuel used, energy used for lighting, material used for constructing floors, roofs, walls, source of water supply, and the method used for waste water disposal).	Pakistan
2.	Chowdhury & Bhuiya (2004)	Nutritional status of children, child survival, food and family expenditure, family planning, education, violence against women and village health networks.	Bangladesh
3.	Khandker (2005)	Consumption	Bangladesh
4.	Afrane (2002)	Economic Domain (Business Opportunity, Market Opportunity, Quality of Business Premises, Household Assets). Access To Facilities (Housing Conditions, Health Conditions, Food and Nutrition, Children, Education). Social Domain (Family Relations, Public Respect and Acceptance, Time Pressure, Participation in Social Activities). Spiritual Domain (Participation in Church Activities, Church Attendance, Prayer and Devotion, Giving).	Ghana and South Africa
5.	Aseanty & Hassan (2013)	Income, possession of assets, children's schooling, health and harmony in the family.	Bangladesh
6.	Gobezie & Garber (2007)	Food security, health, Schooling, housing improvement, income smoothing and empowerment.	Northern Ethiopia
7.	Ahmed, Chowdhury, and Bhuiya (2001)	Emotional wellbeing	Bangladesh
8.	Datta (2004)	Financial wellbeing, happiness, the ability to provide a good upbringing for the children, trustworthiness, respect, productivity and possession of lands, and their access to credit.	Bangladesh
9.	Epstein & Crane (2005)	Income, savings, expenditure, social activities, leadership, community involvement, time pressures, housing quality, home ownership, and children's education, health care, levels of nutrition.	Ghana
10.	Planet (2008)	Finance Tangible indicators related to household and lifestyle (food, children's education, health, leisure) and intangible indicators (autonomy, respect from their partner, respect from children, stress, conflicts and tension in the family).	Egypt

Table 3.2 (Continued)

No	Author	Domains of Life	Country of Study
11.	Mizanur Rahman, Jafarullah, & Tawhidul Islam (2008)	The duration of Rural Development Scheme (RDS) membership (RDS investment), number of income generating family members, the share of food expenditure to total expenditure, household health expenditure and clients ethics and moral development.	Bangladesh
12.	Nader (2008)	Income, assets, children schooling, health perceptions, and perceptions of the harmony in the family.	Egypt
13.	Copestake, Bhalotra, & Johnson (2010)	Income.	Zambia
14.	Chowdhury & Bhuiya (2004)	Human wellbeing, survival rate and schooling of children	Pakistan

In Malaysia, the first internal impact on microcredit programmes was conducted by Gibbons and Sukor (1990) and the findings showed the slight increase in clients' income. However, this study did not investigate the impact of microcredit on participants' quality of life. The second internal impact study was performed later on. Moreover, the Research and Development Unit (1990) reported an improvement among participants' household income. Unfortunately, the second internal impact study did not assess the impact of microcredit programmes on participants' quality of life.

In the middle of the 1990s, Malaysian government's assessment of the impact of AIM's microcredit programmes revealed that participants had enjoyed the increment of their income up to two-fold after participating in AIM. This supports the previous findings. Moreover, the Social Science and Economic Research Unit (1990) in the Prime Minister's Department measured the impact on quality of life and showed that an improvement in the participants' income. This enables poor households to improve the

conditions of their house and increase their savings. This reflects the improvement in expenditures on food, nutrition, reinvestment and education.

Meanwhile, another research on the internal impact was performed by AIM's Research and Development Unit (1991 - 1993) and the result revealed the improvement in participants' quality of life. The findings showed that there were improvements in the number of occupied houses, the electrical products used, the ownership of agricultural land, the perception of nutritional quality and the household income after participating in AIM.

On the other hand, the last study on the impact of microcredit programmes on participants' quality of life was conducted in 1993 and up until 2009; little investigation on this aspect has been conducted in Malaysia. Consequently, in 2010, Al-Mamun et al. (2010) conducted a study to assess the impact of microcredit programmes on the quality of life of the hardcore poor. The study found that AIM's participants enjoyed an improvement in housing facilities, specifically the size of the house, the number of storeys and rooms in the house, the structural condition of the house, and the type of materials used for walls, floors and roofs. The findings also revealed the improvements in aspects like "using environmentally less destructive cooking fuel, environmentally safe toilet facilities, refrigerator, washing machine and television".

In the 2011, Al-Mamun and Adaikalam (2011) assessed the impact of microcredit programmes on participants' quality of life and concluded that participating in AIM microcredit programme improved the participants' quality of life. The study's results indicated a significant improvement in the ability of staying in "multi-storey houses, the

number of rooms per house that respondents lived in, the structural condition of the house which is better than before, materials used for roofs and floors, and other welfare indicators such as household's toilet facilities, cooking fuel, sources of light and sources of drinking water.

Al-Mamun et al. (2011) conducted another study which assessed the impact of microcredit programmes on participants' quality of life and discovered similar pattern on the impact of microcredit towards participants' quality of life. The findings showed that participants of AIM's microcredit programme, particularly those from poor rural households in Peninsular Malaysia experienced improvement in the quality of life indicating a similar pattern to the result of the findings in prior studies. A study conducted by Al-Mamun et al. (2011) reported an improvement in household's quality of life after the respondents' participation in *AIM*. Al-Mamun et al.' study concluded that the implementation AIM microcredit programme is effective.

Chan and Abdul Ghani (2011) concluded that participating in the microcredit programmes leads to improvement in participants' quality of life. Overall, the study reported that the microcredit programmes have led to increment in the respondents' consumption, savings, wealth accumulation, quality of family life, their children' education, better quality and quantity of food taken and better access to medical services. They are better-off in regard to the increment in income, employment, assets and living conditions.

Table 3.3

*Studies of Impact of Microcredit Programmes on Participants' Quality of Life in Malaysia*

No	Author	Indicators/Domains of Life	Findings
1.	Social Science and Economic Research Unit. (1990)	Income, ownership, quality of housing, type and quality of households assets, agricultural land, saving, expenditures on food, nutrition, investment and education.	The study confirmed the previous impact studies by (Gibbons & Sukor, 1990) and (Research and Development Unit, 1990) that after participating from AIM the income of households has more than doubled. The study also assessed the impact of quality of life and found that there is an increased in income enabling the participants to increase their household savings and housing conditions. It is noted that rising in income also assisted an increase in expenditures on food, nutrition, education and reinvestment.
2.	<i>Amanah Ikhtiar Malaysia (AIM)</i> 's Research and Development Unit (1993)	Occupied house, the use of electric household products, the ownership of agricultural land, the perception of nutritional quality and the household income.	The result showed improvement in the occupied house, the use of electric household products, the ownership of agricultural land, the perception of nutritional quality and the household income.
3.	Al-Mamun et al. (2010)	Housing conditions, housing and other welfare indicators such as sources of drinking water, toilet facilities, cooking fuel, electricity connection, refrigerator, washing machines, television, and motor vehicle.	There is no known study executed by AIM or any other researchers in assessing the impact of AIM's microcredit scheme on the hardcore poor clients' quality of life.  The study concluded that participation in AIM's microcredit programmes leads to improvement of the respondent's quality of life.



Table 3.3 (Continued)

No	Author	Indicators/Domains of Life	Findings
4.	Al-Mamun & Adaikalam (2011)	Housing conditions, housing materials, and other welfare indicators such as drinking water, cooking fuel, toilet facilities and sources of light and availability of electricity supply.	<p>There was no known study that has been conducted to assess the impact of AIM's "Urban Micro Finance Programme" on clients' quality of life.</p> <p>In regards to the findings, the study reported that participations in AIM's microcredit programmes lead to increase of the respondent's quality of life in urban peninsular Malaysia.</p>
5.	Al-Mamun, Adaikalam, & Abdul Wahab (2011)	Housing conditions, housing materials, other welfare indicators such as household's toilet facilities, cooking fuel, sources of light and sources of drinking water.	The findings showed that participants of AIM's microcredit programme, leads to improvement in poor rural households quality of life in Peninsular Malaysia.
6.	Al-Mamun, Adaikalam, Mazumder, Abdul Wahab (2011)	Housing conditions, housing materials, other welfare indicators such as household's toilet facilities, cooking fuel, sources of light and sources of drinking water.	The study stated that there is a need to assess clients' quality of life that participates in a programme. As per findings, the study revealed that participations in AIM's microcredit programme leads to an improvement in the quality of life among the poor in Peninsular Malaysia.
7.	Chan & Abdul Ghani (2011)	Income, employment, assets and living conditions.	The study concluded that overall, microcredit programmes help improved the respondents' quality of life. The respondents of the study reported that microcredit programmes led to increment in their consumption, savings, wealth accumulation, quality of family life, their children' education, better quality and quantity of food taken and better access to medical services.

Cummins (1996) considered the fact that quality of life is an evolving idea which changes across time and societies, as well as in relation to the population, cultures, living conditions and styles. However, this study restructured the domains of life used on the key dimensions of PWI and MQLI to reflect the followings dimensions a) income earnings, b) health, c) productivity, d) friendship, e) personal safety, f) education, g) future security, h) food, i) housing conditions, j) personal savings and k) spirituality in measuring the participants' quality of life.

The selection of these key dimensions is also based on the available studies on microcredit programmes and participants' quality of life that mostly discussed on these dimensions. Therefore, the key dimensions chosen are seen most acceptable. The next following section is structured to discuss the stated domains of life in order to investigate the impact of microcredit programmes have on the participants' quality of life.

Table 3.4  
*The Selected of Domains of Life*

COMQOL	PWI	Current Study	MQLI
Material wellbeing	Standard of living	Income Earnings	Education Transportation and Communications
Health	Health	Health	
Productivity	Life Achievement	Productivity	Housing
Intimacy	Personal Relationship	Friendship	Culture and Leisure
75 Safety	Personal Safety Community Connectedness	Personal Safety	Income and Distribution
Community		Education	Public safety
Emotional wellbeing	Future Security	Future Security	Health
		Food	Social Participation
		Housing Conditions	Environment
		Personal Savings	Family Life
		Spirituality	Working Conditions

### **3.6 IMPACT OF MICROCREDIT PROGRAMMES ON EACH DOMAINS OF LIFE**

As previously mentioned, this study restructure the domains of life used on the key dimension of PWI and MQLI to reflect the followings domains of life: a) income earnings, b) health, c) productivity, d) friendship, e) personal safety, f) education, g) future security, h) food, i) housing conditions, j) personal savings and k) spirituality. In the event of this, therefore, this section has been structured to further discuss the mentioned domains of life.

#### **3.6.1 Impact of Microcredit Programmes on Income Earnings**

Based on the concern of microcredit programmes' development throughout the world, the questions concerning income and quality of life are immensely important as revealed by Rahman et al. (2005) study which stated the elements of income has both direct and indirect positive and negative impacts on a person's QOL. For example, a rising national income due to industrialization would raise the quality of life, but at the same time, the quality of life will decrease for those living in polluted areas.

A study conducted by Shukran and Rahman (2011) stated that microcredit is a small amount of loan given to the poor in helping them to improve their standard of living, enabling them to generate income and consequently, eradicating poverty. In other words, the loan given helps facilitate to enable the poor to operate a small-scale business and improve their family's shelter, food, education and treatment. A study by Ahmed et al. (2011) also stated that microfinance activities present a new approach for poverty

eradication and development. They added that the credit given can be used in productive economic activities, increasing household income and their savings as well as enabling the households to generate their own capital. In this light, as household income and savings increases, the borrower will stop taking any more loans in future.

Meanwhile, Mizanur Rahman et al. (2008) also stated the duration of RDS membership, the number of income-generating family members, the ratio of food expenditure to total expenditures, household's health-related expenditures and the degree of members' ethics and moral development, are positively and significantly contribute to the members' wellbeing.

Evidently, there is an overwhelming amount of evidence that shows that involvement in microcredit programmes has increased the participants' income which then leads to improvement in other welfare indicators. For example, a study conducted by Chan and Abdul Ghani (2011) discovered the pattern where it revealed that the increase in income leads to increases in consumption, savings and accumulation of wealth and reported that respondent claimed that the increase in their family's quality of life. The study stated that the respondent earned enough to pay back their loans, including the administrative charges and found that some of the respondents were able to make deposits into their personal savings accounts and they still have the fund to satisfy their daily basic necessities. The study also found that compared to their previous living conditions, the respondents reported improved food quality and quantity and a majority of respondents are able to consume nutritious food and have a balanced diet.

On the other hand, a study by Salma (2004) revealed that microcredit programmes have directly contributed to the generation of participants' income in comparison to non-microcredit programmes. Salma (2004) study also showed that in comparison to non-participants, the participants had shown an increase in their expenditure, savings and assets. This indicates that participating in the microcredit programmes has helped the participants tremendously in improving their income. Correspondingly, this shows that microcredit programmes could directly and indirectly affect the participants' quality of life through the domains of life of income earnings.

### **3.6.2 Impact of Microcredit Programmes on Health**

Brue, Guggenbichler, and Wollmann (2008) study stated that a fundamental domain of life is health, which is a major factor in determining forms of poverty and impoverishment. In this regard, Doyal and Gough (1991) mentioned that an individual's health condition plays an important role in determining one's participation in a whole range of life activities. This is supported by Ghalib (2007) study that poverty worsens health. This indeed causes the diminishing wellbeing among poor which consequently causes diseases and loss of life.

In regard to the concern on the microcredit programme impact on quality of life, specifically the participants' health, a study conducted by Rahman et al. (2005) revealed that excellent health condition will improve QOL. The findings in Ahmed et al. (2011) support this and the study claimed that the microcredit programmes' capacity to

increase the economic wellbeing of poor families, as well as improve nutritional status and food security ultimately contribute to good health.

Another study conducted by Czura (2010) discovered a relationship between microcredit and participant's health. In his study, participants were asked to answer three questions about participant's health situation i.e. how many days they missed from work in the last four weeks due to poor health, if they visited a doctor in the last month and if so, how often and if they stayed at a hospital and if so, for how many days. For question number one, which probed on how many days the participants had missed work in the last four weeks due to poor health, on average; the MFIs experienced 6.83 sick days in the last month. Meanwhile, question number two, probed whether they had visited a doctor in the last month and how often. 23.1% of the MFIs visited a doctor in the past four weeks with an average doctor visit of 2.08 times. The last question probed if they stayed at a hospital and how many days they stayed at a hospital, 11.1% reported that they had stayed at the hospital over the past year with average 8.62 hospital stay days. This study demonstrated that the positive impact of microcredit on participant's health condition.

Ghalib et al. (2011) revealed that microcredit programmes have significant impact on the participants' expenditure on healthcare. The findings also showed that participants have spent more than non-participants on healthcare with an average of Rs148 and a statistically significant difference of 1%. On the other hand, Goldberg and Karlan (2008) stated that in measuring the relation between of health and loan received, it is essential to measure the extent of changes to one's health so that the result will be more meaningful. There are two approaches to measure how the participants' life is affected either directly or indirectly methods. The programme has a direct impact if the loan



obtained was used directly to cover the participants' health expenses. Meanwhile, the programme has an indirect impact if the loan obtained was first used to finance the participants' businesses and then the income generated from the business is later used to cover health expenses. The effectiveness of each method used can be reflected by measuring its effects on health.

Health is chosen because it is vital to people's productivity; Aseanty and Hassan (2013) had stated that this aspect is an important variable. On the other hand, the impacts health issues have on the quality of life are so intertwined with so many indicators of quality of life that its significance can only be highlighted by using it as an independent variable in this study. Thus, based on the literature review, microcredit not only improves the other indicators but it also positively affects the participants' conditions of health.

### **3.6.3 Impact of Microcredit Programmes on Productivity**

One of the domains for satisfactions of life achievements is productivity. As the poor people are entrapped in poverty they tend to have low productivity. This is illustrated in Bhuiyan et al. (2013) study that the poor are bounded to low productivity, particularly those who are unemployed and have lack of access to financial resources. A study conducted by Ghalib (2007) claimed that low income will affect the health of the poor. In turn, the declining health will result in the escalating cost of treatment and consequently, drain the poor's savings and inevitably affect productivity, output and earning capability. Therefore, access to credit and financial resource offered by such

programmes can help the poor to upgrade their life by venturing into new businesses or improving their enterprises.

In regards to the impact of microcredit programme on participants' productivity and quality of life, Bhuiyan et al. (2011) study stated that microcredit is a revolutionary approach that helps the poor by increasing their productivity, reducing vulnerability and eradicate poverty through independent economic and enterpenual activities. In this light, providing the poor with access to credit could help them to improve their living condition and alleviating them from poverty. This is further clarified by Chan and Abdul Ghani (2011) who stated that microcredit encourages the establishment of microenterprises and small businesses in remote areas in Malaysia. Chan and Abdul Ghani (2011) added that the financial resources that the borrowers received help them to achieve better productivity. The study's findings showed that borrowers who received the loans reported increased productivity in their usual occupation. In the similar vein, Rahman et al. (2005) measured the quality of life across countries and claimed that microcredit help increased productivity. This is consistent with Muralidhar (2011) which presented the case study of Amri, who was categorised as poor. The loan extended to Amri had made it possible for her to achieve prestige in the eyes of her family and the community.

Another case study by Muralidhar (2011) revealed that there was also a situation where a member may turn into an activist. A year into her marriage, Manjula had joined Self-help Group (SHG) where she received two loans, one with an amount of Rs.5,000 and the other with an amount of Rs.10,000. She was able to improve her income and increased the productivity of her agricultural activities. Subsequently, the proceeds

received from the activities were used to repay old debts. She also bought a motorbike, some gold ornaments and connected to electricity her house while at the same time, underwent capacity-building training. There is also a study had clearly presented the dissimilarity of productivity between participants and non-participants. Nichols (2004) stated that based on focus group discussions among borrowers, it could be argued that borrowers had improved their living standards faster than non-borrowers even though they said that there was no clear difference between the two groups.

The poor are trapped in poverty due to low income and this leads to low productivity. On the other hand, participating in microcredit programmes could motivate them to increase their productivity of their income-generating activities. They are also able to confidently accomplish other things such as improving their nutrient intake, their children's education, constructing their own bathroom, performing banking-related transactions and much more. In this light, microcredit is able to assist them in income-generating activities. There is also a case where the access to microcredit but could turn a borrower into an activist. Consequently, microcredit not only gives support to the poor but also help them to improve each other's life.

#### **3.6.4 Impact of Microcredit Programmes on Friendship**

Cummins (1996) reviewed studies by Abrams (1973), Flanagan (1978) and Krupinski (1980) and discovered that domains of life such as health, intimacy, material wellbeing, productivity and emotional wellbeing are indeed an important aspect in one's life. Cummins (1996) also found that friendship domain is also among indicators used to

measure the domain of intimacy or personal relationships. Therefore, this study adopts friendship as a component for the personal relationships.

In this regard, Allardt (1976) argued that the four-item scale of friendship patterns which are based on the behavioural questions can be used to operationalise the values between friendship and welfare. The four-item scale of friendship patterns are “(1) the number of friends, (2) the intensity of friendships, and (3) the density of the friendship networks, as well as on (4) the attitudinal question of whether the respondent feels that he has opportunities to make contacts with other people”.

Rahman et al. (2005) posited that satisfaction with friends is an important element of an individual wellbeing. The study argued that one's relationship with family and friends should be considered in the QOL measurement. Similarly, Camfield, Choudhury, and Devine (2006) study claimed that friendship should also be considered in measuring QOL while Diener (2009) revealed there are many studies that reported a positive correlation between satisfaction and friends.

Based on the concern on the impact of microcredit programme have on friendship and quality of life, Maggiano (2006) stated that friendship plays an important role as group-lending creates the basis for the microcredit institutions. A group-lending approach could help establish a social network to welcome new members and stimulate the social network of the group members. Thus, friendship within the group incorporates understanding among members, more involved in spiritual and social activities; all of which help enhance and improve quality of life. Mourji (2000) in his study also discovered the same patterns which friendship established among group members

promotes social status among the group members and enhance individual's quality of life. Mourji (2000) study revealed that 77.03% of respondents feel that they have benefited from being a group member. The study also found that the respondents agreed on the advantages of being in the group. 59.8% believe that the group provided advice and support in case of need, while 37% revealed that the group has provide them with business ideas and contacts, 34.80% claimed that the group offers them new friendships, 31.50% claimed that the group gave them training and new information and 27.20% claimed that the group helps them to make repayments. The same evidence was also reported in Ismail (2001) where AIM provides opportunities for members to attend a weekly centre meeting and they are given the exposure to establish friendships and become more sociable.

In summary, having a good connection with friends is an important element of participant's quality of life hence, there is an apparent importance of networking between the participant and other members of the group. This supports the notion that friends support each other and help to improve their quality of life.

### **3.6.5 Impact of Microcredit Programmes on Personal Safety**

In regard to individual's quality of life, personal safety is also an important domain of life. Personal safety reflects freedom and the ability to move freely. In other words, personal safety is when people feel more happy living in a society with low criminal incidences compared to those who are living in high criminal offences.

Cummins (1996) had provided both empirical and theoretical arguments to understand this domain. As cited in Cummins (1996), Cummins (1995) proposed two additional domains, namely safety and community. In this light, “security, personal control, privacy, independence, autonomy, competence, knowledge of rights, and residential stability” are deemed to be parts of the safety domain. Furthermore, Hagerty et al. (2001) recommended the use of personal safety domain to measure the individual’s quality of life.

Meanwhile, discussing on the impact of microcredit programmes have on participants’ personal safety and quality of life, Khandker (2001) argued in some countries, microcredit provides support in form of organisational help, training, safety nets, empowerment, and financial and other help during crises. On the other hand, a study by Land, Lamb, and Mustillo (2001) demonstrated that economic development affects the domains of life including individual safety. Land et al. argued that economic downturn has not only negatively impact the safety/behavioural domain but also negatively impact the material wellbeing of children’s health and place in the community.

There are also evidences that indicated the “developed countries like Canada, USA, Japan, and Sweden perform the best in the domains of material wellbeing and feeling part of one’s local community, however, not in in the domains of personal safety, the quality of environment, relationships with family and friends, and emotional wellbeing” (Rahman et al., 2005). On the other hand, there are evidence that shown that for developing countries, the “domains of relationships with family and friends, emotional wellbeing, and personal safety are doing better” (Rahman et al., 2005).

### **3.6.6 Impact of Microcredit Programmes on Education**

As previously mentioned, in addition to the five most discussed domains of life, Cummins (1995) as cited in Cummins (1996) proposed another additional domain, namely community. It was argued that the construct of education is often part of the community domain. Therefore, this study adopts education to represent the domain of community.

Aseanty and Hassan (2013) reported that children schooling is an important benchmark of a country's human development, therefore, the selection of this variable as a domain to analyse the impact of microcredit on the participant's' QOL revealed the most significant effect of microcredit, particularly the implications to the next generations.

According to Goldberg and Karlan (2008) in gauging the significance of education in line with the loan received, it is important to measure the extent of changes of education so that it becomes more meaningful. There are two methods to measure these changes and determine whether it directly or indirectly influences the participant's life. In this light, the programme directly impacts the participants' life if the loan obtained is used directly for the participants' education and indirectly if the loan obtained is used to finance the businesses activities and then the income generated from business is later spent on education. The effectiveness of each method is used will determine how effective the loan in relation to education indicators. The findings from Aseanty and Hassan (2013) shown that once a household obtains a microcredit loan, the household is not only able to manage their business and daily life activities but to improve the education of their children for future wellbeing. The study's findings also reported that



loan from microfinance helped increase education among girls where the number of girls attending schools has shown an average increment of 29%. Similarly, number of boys attending schools has also shown an average increment of 31%.

A study by Khandker (2001) revealed that microcredit programmes have helped raise the per capita income and consumption, as well as education for children and household net worth and as such programmes help to get the poor out of poverty. Social Science and Economic Research Unit (1990) of the Prime Minister's Department in Malaysia also measured the impact of quality of life and shown that there was an incline in household income that enabled the participants to enhance their housing conditions as well as to increase their savings amount which in return, increases their spending on food, nutrition, reinvestment and education.

Meanwhile, Brue et al. (2008) study, the 'Impact of Microfinance in Ghana' found the participants strongly expressed the positive economic impacts of microfinance, specifically job creation and increased economic activity. The study also found that the participants strongly believe the programmes have increased the important social dimensions of the quality of life, particularly education for children, level of nutrition, health care, and quality of housing. Planet Finance (2008) study, "National Impact Survey of Microfinance in Egypt" stated that the significant impact of microfinance on quality of life and reported that 40% of the clients reported improvement in their children's level of education.

On the other hand, Gobezie and Garber (2007) stated that there is an improvement of in the schooling of children of matured participants compared to the children of new

clients. The study revealed that increased school expenses and spending on educational materials, school uniforms and living expenses. According to the study, some households used their loans from Amhara Credit and Saving Institution (ACSI) and income that they earned to cover up the cost of their children schooling. In this regard, it seems that microcredit programmes affect the education domain which either directly or indirectly affects the participants' ability to increase their quality of life.

### **3.6.7 Impact of Microcredit Programmes on Future Security**

The International Wellbeing Group (2006) argued that future security is indeed an important domain of life as future security is about future protection. According to Beuningen and de Jonge (2011) future security refers to more broad dimensions rather than economic risks. In regard to microcredit programmes, offering credit lending to the poor can create future security. This credit could be used to help the poor to stabilise their cash flow and provide them with better access to food, clothing, health and others. This is in line with a study by Sopheana et al. (2012) which claimed that the poor could use the credit to build assets, such to buy land. In this regard, the study claimed that the credit gives them future security.

A review of the literature suggests that microcredit programmes could significantly impact the lives of participants by helping them out from poverty and improving their quality of life. It was also revealed a small but growing empirical literature revealed that the access to microcredit positively impacts the participant's future security. This noted that participants' of microcredit programmes have experienced great benefit.

### 3.6.8 Impact of Microcredit Programmes on Food

Berma (2003) stated that in Malaysia, the Poverty Line Income (PLI) is used to measure poverty “which takes into consideration a household’s minimum needs for food, clothing and shelter and other regular expenditures that are necessary to enable them to maintain a modest standard of living”. Khandker (2001) defined poverty as the condition where one lacks basic necessities, such as food. A study conducted by Alemu (2008) argued that microfinance could be considered in fighting poverty and ensuring food security and growth in the country,

Interestingly, studies also discovered that apart from increasing income, microcredit also leads to increase in the quality and quantity of food taken, household diet, eating more, increasing expenditure on food, and consuming ‘luxury’ food. Gobezie and Garber (2007) measured the food condition, quality and quantity of food to see the impact of microcredit on the participants’ welfare found that an improvement their diet which is due to the increase in their income. The findings on food security indicate that there is an increase in the quantity of food taken and the participants have been eating more frequently. A study conducted by Ahmed et al. (2011) stated that when the borrowing families enjoy financial solvency, their economic wellbeing, food security and nutritional status will be improved and this ultimately contributes to good health.

In Malaysia, Social Science and Economic Research Unit 1990 of the Prime Minister’s Department measured the impact of quality of life and the result showed an increase in household income which enables the participants to improve their housing conditions, as well as increased savings which translate to an increase in expenditures on food,

nutrition, reinvestment and education. The findings reconfirmed the earlier findings from Ghalib et al. (2011) in which reported the increase in the quality of food eaten by the borrowers compared non-borrowers. The borrowers also seemed to have more stocks of wheat.

### **3.6.9 Impact of Microcredit Programmes on Housing Condition**

Housing condition is also another domain of life that is used to assess the impact of microcredit on participants' quality of life. Since a house is a basic need, microcredit programmes should empower their clients to own their own home. This is supported by Brue et al. (2008) study which argued that indicators such as poverty, health, education, empowerment, housing and self-esteem could be assessed in order to notice the long lasting impact in the borrowers' economic and social lives. Another study conducted by Brau, Hiatt and Woodworth (2009) revealed that economic and social indicators, including housing indicators, could be used in measuring the effectiveness of MFI.

The findings of a study conducted by Alemu (2008) support this notion. The study claimed that microcredit programmes contribute to the improvement in housing and stated that 60% of clients able to do house improvement. It was also revealed that the clients were most likely to own a home or land as compared to non-clients. Interestingly, these have shown that the borrowers are enjoying better dwelling conditions.

On the hands, a study that indicates that the increase in income as a result of participating in microcredit enables the participants to improve their housing condition, as well as other indicators. Snodgrass and Sebstad (2002) revealed that the access to

microfinance has benefited household income in India and Peru and encouraged income diversification. The findings also showed that repeat borrowers spent more on housing improvements.

Studies have also discovered that participating in microcredit programmes assists in improvement in housing condition. For example, Gobezie and Garber (2007) in their study stated that improved income level has facilitated housing improvement among the participants. The study findings reported that 47% of mature participants managed to do housing improvement than incoming participants with only 24%. The major categories of improvements made by the respondents including expanding or adding rooms, sanitation improvements, changing the roof from grass to corrugated iron sheet, and the use of electric power. Meanwhile, Ghalib et al. (2011) also discovered microcredit programmes impact the borrowers housing condition. It was stated that the dimensions measure were “across various indicators, such as the type of cooking fuel used, energy used for lighting, materials used for constructing floors, roofs, walls, the source of water supply, and the method used for waste water disposal”.

In Malaysia, Social Science and Economic Research Unit (1990) of the Prime Minister’s Department assessed the effect on quality of life and indicated a rise in household income which makes it possible for the participants to improve their housing conditions. In fact, the result reconfirmed the earlier findings that had been conducted. Another internal impact study that was conducted by AIM’s Research and Development Unit (1993) reported improvements in “the number of occupied houses, the use of electric household products, the ownership of agricultural land, the perception of nutritional quality and the household income”.

A study conducted by Al-Mamun et al. (2010) revealed that participating in AIM helps improved housing facilities of the participants, where there were “significant association between the size of the house, the number of storeys, number of rooms in the house, structural condition of the house, and materials used for walls, floor and roof”. The findings also revealed improvements in regard to using environmentally less destructive cooking fuel, environmentally safe toilet facilities and having access to basic household equipment such refrigerator, washing machine and television. This study concluded participating in AIM’s microcredit programme has helped improve participants’ quality of life. Similarly, Al-Mamun et al. (2011) showed the relationship between respondents’ participation status with the size of the house they are living in.

#### **3.6.10 Impact of Microcredit Programmes on Personal Savings**

Numerous studies had reported the significant impact of microcredit programme on its members. In this light, the impact might be small but it still has a significant impact. Khandker (2001) in his study in Bangladesh revealed that microcredit programmes increased the per capita income and consumption as well as household net worth for the poor and consequently, helps the poor to get out of poverty. The programme also helps the poor through income growth and income redistribution which affect the local economy tremendously. According to Khandker’s study, even if it shows relatively a small aggregate impact, the programme still has a significant impact. Having extra or increase in income leads to increase in consumption to the households, future savings, vulnerability reduction, better education for children and other benefits.

Mohammed and Hasan (2008) highlighted that “micro financing is the provision of financial services to low-income and poor households without any access to formal financial institution”. Therefore, microcredit programmes help the poor and low-income households by providing loans, savings and other financial assistance (Mohammed & Hasan, 2008).

Coleman (2002) in his study revealed that participants in a village bank programme enjoyed positive impact on household welfare. The study revealed that the significant impacts could be observed in wealth, savings, labour time and more productive expenses. These positive impacts show that the programme is feasible to the poor. Funding from microcredit offers immense help to the poor, especially in increasing the savings of the poor. According to Coleman, the increase in income helps the poor to structure their expenses much better for current and future needs.

Ahmed (2002) stated that microfinance is a contemporary method for alleviating poverty and expanding development. It was further added that in alleviating poverty, microfinance through credit lending is used in productive economic activities, improved the household income and savings, and to build up the capital. According to the study, a household becomes a full-fledged microenterprise as the level of income and savings grow and the household no longer depends on borrowed capital. This is also similar to a study conducted by Ahmed et al. (2011) which stated that a microfinance activity is a new approach for poverty alleviation and development. Ahmed et al. (2011) also discovered that the credit given is used in productive economic activities, in raising the household income and savings, and in facilitating the households to build up its own capital. Eventually, when the household income and savings have increased, in turn, this



will stop the borrower from lending any money in the future. Furthermore, a study conducted by Social Science and Economic Research Unit (1990) of the Prime Minister's Department in Malaysia measured the impact of quality of life and showed an increase in household income which enabled the participants to improve their housing conditions, as well as to increase their savings leading to increase in expenditures on food and nutrition, reinvestment and education.

Meanwhile, some microcredit programmes require their members to participate in savings. Brau and Woller (2004) study, 'Microfinance: A Comprehensive Review of the Existing Literature' reported that microcredit participants are required to save a minimum amount each week (or other fixed time periods), in form of forced savings. In this regard, the savings services offered by MFIs are divided into forced and voluntary savings, with forced savings far exceeding voluntary savings. Compulsory savings is a way of instilling financial discipline among participants besides helping to provide MFI with additional information about clients. Brau and Woller (2004) further added that forced savings act as a form of cash collateral.

Ahmed (2002) study also added that most MFIs have various (forced) savings programmes where the members are asked to save some amount of money in their personal savings account. It was also clarified that as the MFIs grow, the savings of beneficiaries accumulate and they are recycled in financing microenterprises. Similarly, a study by Zaidi et al. (2007) reported that women can set aside whatever amount of money they possess into their savings, which an integral part of the Asasah programme. From here, it can be seen that microcredit programmes not only provide loans to the

poor but also encourage savings among the poor. In short, to some extents, microcredit programmes have benefited their members.

### **3.7 ENTREPRENEURIAL INTENTION AND ENTREPRENEURIAL BEHAVIOUR**

#### **3.7.1 Understanding Entrepreneur and Relationship concerning Entrepreneurship, Entrepreneurial Intention and Entrepreneurial Behaviour**

An entrepreneur is defined as a person who develops his or her own business (Engle et al. (2010). An entrepreneur is the one who creates and finds opportunities to maximize the use of resources. In other words, an entrepreneur is a person who has the ability and capacity to transform the resources into areas of higher efficiency.

Furthermore, entrepreneurship is defined as a process of combining resources and turns these resources into profitable business growth and entrepreneurship involves entrepreneurial activity. It has also been established that this entrepreneurial activity is reflective of entrepreneurial intention, where this entrepreneurial intention is reflective of entrepreneurial behaviour. This is supported by a study conducted by Krueger and Carsrud (1993) that argued entrepreneurial intention is a reflection of an entrepreneur's vision and entrepreneurial activity. Furthermore, Krueger and Brazeal (1994) and Krueger and Carsrud (1993) studies claimed that entrepreneurship is a typical example of intentional and planned behaviours. Krueger et al. (2000) argued that entrepreneurship is a human planned behaviour. Consequently, it is clear that entrepreneurship involves entrepreneurial activity in which this entrepreneurial activity

denotes entrepreneurial intention and where this entrepreneurial intention is denoted as entrepreneurial behaviour.

### **3.7.2 Understanding the Relationship between Intention and Behaviour**

It has been established that an understanding of intentional behaviour is important when a particular behaviour is relatively special or uncommon. Krueger et al. (2000) claimed that when the behaviour is rare, it is difficult to observe or even involve unpredictable time lags, therefore, one's intention is proven to be a strong predictor of planned individual behaviours. Ajzen (2006) also claimed that in understanding processes, intentions will offer significant insights and are very useful. This is supported by Krueger & Carsrud (1993) which claimed to better understand particular behaviour, intentions models identify not only on what influences the behaviours but also how it influences behaviour.

Intentionality is grounded on rational thinking that attempts to explain or predict human behaviour. Bird (1988) described that rational/analytic thinking (goal directed behaviour) and intuitive/holistic thinking (vision) both represent the intentionality (a state of mind) that directs the individual towards achieving something. Ajzen (2006) argued that intentionality is about the changes in the awareness between the attitude, subjective norm and perceived behavioural control that predict the occurrence of a particular behaviour.

Based on the literature, it can be seen that there are a number of theories that discuss between intention and behaviour. It was found that all the discussion share the same

elements which are attitudes, self-confidence and intentions that cause a particular behaviour. In addition to this, one of the most commonly used and cited intention and behaviour model is Theory of Planned Behaviour (TPB) that was developed by Fishbein & Ajzen (1975). This theory describes the relationship between attitude, subjective norm, perceived behavioural control, intention and behaviour and is reviewed in detail by Ajzen (2006). The theory explains that “human beings are quite rational and make systematic use of the information available to them” (Ajzen & Fishbein, 1980). The next two sections have been structured to discuss Ajzen’s Theory of Planned Behaviour (TPB).

### **3.7.3 Measuring Entrepreneurial Behaviour: An Approach using Intention Model**

Ajzen (2006), Krueger et al. (2000) and Krueger and Carsrud (1993) claimed that behaviour is best predicted by intention. A review of an online database found that the most widely cited intention of behaviour model was developed by Ajzen (1991) which called the Theory of Planned Behaviour (TPB). The theory proposes a model that predicts the occurrence of a particular behaviour; whereby this particular behaviour is intentional. The model is used to measure how human behaviour is guided and as stated by Ajzen (2006), individual behaviour can be deliberative and planned. A finding from online database shows numerous research had used Ajzen’s theory of planned behaviour. These studies address aspects such as health-related behaviour (Godin and Kok, 1996), predicting dishonest action (Beck and Ajzen, 1991), internet purchasing (George, 2004), understanding and predicting electronic commerce adoption (Pavlou and Fygenson, 2006), self-identity (Sparks and Shepherd, 1992) and many more.

There are also studies that applied TPB in the areas of entrepreneurial intention. This is supported by a study conducted by Liñán and Chen (2009) which claimed there are increasingly empirical analyses of entrepreneurial intentions using TPB. Such studies include Krueger and Carsrud (1993), Krueger and Brazeal (1994), Krueger et al. (2000), Autio, Keeley, Klofsten, Parker, and Hay (2001), Fayolle, Gailly, and Lassas-Clerc (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi, Beimans, Lans, Mulder, and Chizari (2012). Serida and Tristán (2011) also reported that a number of these empirical analyses on entrepreneurial intention had applied the Theory of Planned Behaviour (TPB) in the context of entrepreneurship. All these overwhelming studies support the usefulness of the model of Ajzen's theory of planned behaviour.

One such study is by Autio et al. (2001) which examined the factors influencing entrepreneurial intent among university students in Scandinavia and in the USA by using the Theory of Planned Behaviour (TPB). Their study found that personal attitude, subjective norm and perceived behavioural control had significant effects on entrepreneurial intention where perceived behavioural control emerged as the most important determinant of entrepreneurial intent.

A study conducted by Karimi et al. (2012) examined the role of entrepreneurship education in developing students entrepreneurial intentions in Iran and found that the entrepreneurship education had a significant influence on perceived behavioural control and subjective norm. Another study conducted by Liñán and Chen (2009) in Spanish and Taiwan examined a specific instrument to measure entrepreneurial intentions using TPB. The results found that entrepreneurial intention questionnaire properties are satisfactory and strongly support the model. The results showed that both personal attitude and

perceived behavioural control have a significant effect on entrepreneurial intention, while subjective norm has no significant effect on intention.

A study by Krueger et al. (2000) tested Ajzen's theory of planned behaviour and Shapero's model to predict entrepreneurial intentions through the overall statistical fit and how the results supported each component of the model. The study found that there is strong statistical support for both models. A study conducted by Fayolle et al. (2006) in France also used Theory of Planned Behaviour (TPB) to examine the impact of entrepreneurship teaching programme. The study found the significant effect of the entire construct on entrepreneurial intention.

Similarly, Krueger and Carsrud (1993) discovered that the theory of planned behaviour demonstrated consistent robustness and replicability. Indeed, they also cited that research in entrepreneurship has ignored this model. However, they stated that there was little research in entrepreneurship considering intention models and found that the model would be a significant approach. Meanwhile, a study by Engle et al. (2010) called "Entrepreneurial Intent: A twelve-country evaluation of Ajzen's Model of Planned Behaviour" discovered that Ajzen's model appears to be an important model for the evaluation of entrepreneurial intention.

Therefore, measuring entrepreneurial behaviour by using Ajzen's theory of planned behaviour will promote an understanding of microcredit programmes and participants' quality of life. This will perhaps help contribute to the current studies on microcredit programmes, entrepreneurial behaviour and quality of life.

### 3.8 UNDERPINNING THEORY OF PLANNED BEHAVIOUR (TPB)

In general, intervention can lead to behaviour change. This can be observed when the participants of microcredit programmes were given loans which allow them to become an entrepreneur and start doing their business. This, in turn, helps improve their quality of life. In light of the behaviour change model, it can be seen that there is a vast number of literature that theorised and conceptualised behaviour change and theories and models of behaviour change have been applied to a number of field studies (Morris, Marzano, Dandy, & O'Brien, 2012).

However, the most widely cited and applied theory of planned behaviour was developed by Ajzen (1991); the Theory of Planned Behaviour (TPB). A search of the online database shows a large number of published studies using Ajzen's model of theory of planned behaviour. These studies addressed such areas as: relating to health and behaviour (Godin & Kok, 1996), predicting dishonest action (Beck & Ajzen, 1991), internet purchasing (George, 2004), understanding and predicting electronic commerce adoption (Pavlou & Fygenson, 2006), self-identity (Sparks & Shepherd, 1992) and many more. Besides, there are also numbers of studies that used Ajzen's model theory of planned behaviour addressing entrepreneurial intention such as Krueger and Carsrud (1993), Krueger and Brazeal (1994), Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán & Chen (2009), Engle et al. (2010) and Karimi et al. (2012).

The Theory of Planned Behaviour (TPB) proposes a model that predicts the occurrence of a particular behaviour; whereby this particular behaviour is intentional. In other words, the model is used to measure how human behaviour is guided. As stated by



Ajzen (2006) individual behaviour can be deliberative and planned. According to the theory, the human is rational and will make a systematic use of the available information. The underlying assumption is that changes in awareness and intention lead to behaviour. This clarifies that the intention to behave are explained by the changes in awareness which are from personal attitude, subjective norm and perceived behavioural control. The theory has been shown to have broad explanatory value. The theory presented the opportunity for direct interventions that are geared towards behaviour change (Ajzen, 2006).

Theory of Planned Behaviour (TPB) is a useful method for identifying a particular influence on behaviour that could be targeted for change. As stated by Ajzen (2006), human behaviour is directed by three main determinants. They are personal attitude, subjective norm and perceived behavioural control (see Figure 3.3). According to Ajzen (2006) personal attitude yield a favourable or unfavourable attitude toward the behaviour and they are the values of the behavioural outcomes. Subjective norm is caused by perceived social pressure or subjective norm in which what other people think the person should do affects the person's perception (to engage or not to engage). In other words, subjective norm refers to the positive suggestion, encouragement, or even advice from people surrounding the participants whether they should engage in the entrepreneurial intention. Finally, perceived behavioural control is an individual's perceived behavioural control which is individual's perceptions of his ability or feelings of self-efficacy to perform the behaviour.

These three main constructs are used to predict the intention to perform the behaviour. The intention can be a proxy measure of behaviour, though there does not exist a perfect

relationship between behavioural intention and actual behaviour (Netemeyer, Ryn, & Ajzen, 1991). On the whole, these three main constructs are used to determine the strength of an individual's intention which in turn predicts behaviour. In other words, the combination of these three main constructs leads to the formation of a behavioural intention which in turns predicts behaviour.

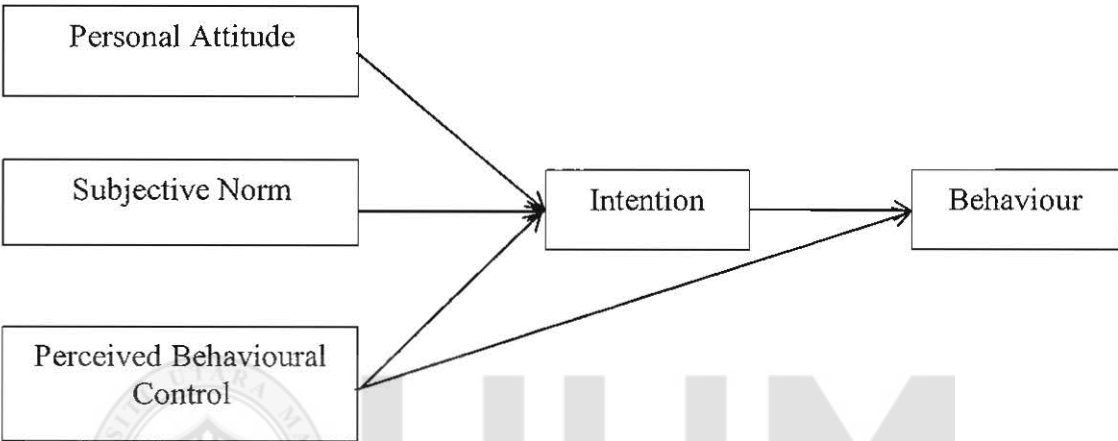


Figure 3.3  
*Ajzen's Model of Theory of Planned Behaviour*  
Source: Ajzen (2006)

### 3.9 MICROCREDIT PROGRAMMES AND PARTICIPANTS' BEHAVIOUR

Studies have established that microcredit programmes affect participants' behaviour. Some evidence revealed that microcredit works out in affecting the level of confidence, self-direction, optimism, ability to accept mistakes and learn from those mistakes, and also acceptance to others' mistakes, independence, comfort, and non-blaming behaviour. In parallel to this, some studies suggest that microcredit programmes bring some changes within a village's financial markets and affect contraceptive use (Steele, Amin, & Naved, 1998). Other studies revealed the formation of supportive groups of the

microcredit participants may affect HIV prevention-related behaviour with the increased access to material and emotional resources and increased knowledge and self-efficacy (The Horizon Programme, 2013). A study by Hossain Khan, Islam, Ahmed Talukder, and Uddin Khan (2013) also discovered that access to microcredit is significantly associated with interest in politics, voting behaviour, determination of voting and purchasing or selling of materials.

A study conducted by Snodgrass and Sebstad (2002) in three countries discovered that preparedness for the future, self-confidence, and self-esteem are stimulated by microfinance services and stated by Swain (2006), microcredit helps women to gain respect which in turn can lead to higher self-esteem and self-confidence.

The aforementioned literature discussed the impact of microcredit programmes on participants' behaviour and past studies showed that microcredit programmes also work on participants' entrepreneurial behaviour. This is proven by the study of Afrin, Islam and Ahmed (2008) which indicated that entrepreneurial behaviour is enhanced due to the availability of microcredit programmes. The study findings also showed that the poor are encouraged to involve themselves in businesses after receiving funding from the microcredit programmes.

### **3.10 IMPACT OF MICROCREDIT PROGRAMMES ON PARTICIPANTS' ENTREPRENEURIAL BEHAVIOUR**

Microcredit programmes affect participants' entrepreneurial behaviour. The money that they get enables them to become an entrepreneur and start doing a business. Thus, microcredit programmes are relevant with participants' entrepreneurial behaviour.

In light of entrepreneurial behaviour, Serida and Tristán (2011) argued that Ajzen's Theory of Planned Behaviour (TPB) could be applied to the empirical analyses of entrepreneurial behaviour. In fact, Liñán and Chen (2009) in their study claimed that there are growing numbers of analyses on entrepreneurial behaviour and there is an overwhelming number of studies that support the usefulness of Ajzen's theory of planned behaviour model in addressing entrepreneurial behaviours. These studies include Krueger and Carsrud (1993), Krueger and Brazeal (1994), Krueger et al. (2000), Autio et al. (2001), Fayolle et al. 2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012).

On the other hand, there is little research found in the literature that examined the link between microcredit programmes and entrepreneurial behaviour, specifically literature which examined microcredit programmes and entrepreneurial behaviour using Ajzen's theory of planned behaviour. It was also found that in investigating the impact of microcredit programmes on participants' entrepreneurial behaviour, most of the literature somehow had not investigated the impact of microcredit programmes on participants' entrepreneurial behaviour comprehensively. For example, a study conducted by Snodgrass and Sebstad (2002) discovered that individual's participation in

microfinance programmes helps contribute economically to the household but also strengthens their control over household resources, self-esteem, decision-making as well as a sense of preparedness and ability to deal proactively with the future.

In Malaysia, only a small number of studies have been done to assess the impact of microcredit programmes on participants' entrepreneurial behaviour. It can be also seen that most of the literature failed to thoroughly investigate the impact of microcredit programmes on participants' entrepreneurial behaviour. Furthermore, it was found that little attention has been given on adapted Ajzen's work of Theory of Planned Behaviour (TPB) in measuring the impact of microcredit programmes on participants' entrepreneurial behaviour.

In the meantime, a study conducted by Al-Mamun, Malarvizhi, Abdul Wahab, & Mazumder (2011) in Malaysia revealed that microcredit programmes affected the entrepreneurial behaviour specifically how the participants used the money. The study claimed that a total of 182 respondents or 54.65% used the amount borrowed on income generating activities. The findings also showed that 60.47% new participants used the money borrowed for income generating activities, whereas only 48.45% old participants used the money borrowed for income generating. The study also discovered that 36.04% of the respondents used the amount borrowed for trade or retail activities, while, 22.82% of the respondents used the money borrowed on agricultural or fishing activities, 11.41% of the respondents used the money obtained on manufacturing activities and 7.8% of the respondents used the money to fund their service activities. Furthermore, the findings also revealed that 36.64% of the respondents used the loan to purchase goods for sale, 29.73% of the respondents used the loan to purchase supply and raw materials for their

businesses, and 10.20% of the respondents used the loan to purchase tools or small equipment. In this light, the findings of the study reported that participation in AIM's enabled the members to start new economic activities (37.2%) or change their economic activities (48.40% for old respondents and 26.70% for the new respondents). The study claimed that the respondents used the money to start new seasonal economic activities and that older respondents prefer self-employed economic activities like trade and services. In addition, the findings also showed that participation in AIM's microcredit programmes enables the respondents to increase their source of income. The findings of the study have indicated that the use of the loan for income generating activities has led to increment in household assets among both old and new participants.

Similarly, a study conducted by Omar, Mohamad Nor and Dahalan (2012) revealed that microcredit programmes affect the entrepreneurial behaviour which translated into positive impact of income increment on AIM's participants. The study's findings showed that AIM's participants were able to increase their income from RM1286.77 ("before") to RM2703.63 ("after"). Thus, the study concluded that the increased income among the participants has increased the quality of life of AIM's participants in Kedah. Moreover, a study by Mohd Rosli and Syamsuriana (2013) concluded that microcredit is relevant for entrepreneurial behaviour as microcredit programmes affect the entrepreneurial behaviour specifically their personal attitude and self-confidence. The study's findings also revealed that microcredit is significantly related to the growth of small businesses.

Ismail (2001) in her study showed that microcredit programmes affected participant's entrepreneurial behaviour. The study's findings also reported that AIM participants used

their loans income generating activities, such as rearing livestock (38.9%), agriculture (29.6%), trading (29.6%) and tailoring and services (1.9%). The study also indicated that trading activities enable the participants to generate higher income to the participant, whereas, agriculture and livestock rearing were deemed as very unstable activities. The study findings revealed that not all AIM participants continued to do the same activities after obtaining a second loan as they believe that the first activity had failed to increase their income. The findings showed that 39.1% of those who obtained the second loan had changed their income generating activities where participants had shifted from agricultural activity to livestock, trading to agriculture, trading to livestock and livestock to agriculture.

Hamdan et al. (2012) in their study of "The Importance of Monitoring and Entrepreneurship Concept as Future Direction of Microfinance in Malaysia" reported 25.8% of their participants were involved in 'permanent stall' business, 20.4% in 'services' and 24.7% in food and beverages production. The study also revealed that microcredit programmes affected participant's entrepreneurial behaviour. In fact, the study reported that about 59.9% of participants started their business with a capital less than RM3,000. The study's findings also showed that many of the microenterprises are still in the initial phase of their business. Furthermore, the study's findings also reported that matured AIM and TEKUN participants had generated increased income and business profits slightly higher than new participants.

Similarly, a study conducted by Mokhtar (2011) examined whether microcredit loans had a buoyant effect on the borrowers' attitude towards the future in Malaysia and revealed that a majority of respondents (AIM, TEKUN and YUM participants) agreed



that microcredit loans have a buoyant effect in enabling them to face the future. The study findings showed that microcredit loans have improved the participants' businesses. The study also illustrated that microcredit programmes have shown significant effects on the participants' entrepreneurial behaviour.

Md Nor, Mohd Rashid, Nawawi, Mohd Ishak, and Mohd Zain (2012) examined the performance of microcredit among women entrepreneurs in Kelantan which revealed that borrower's managerial skills, borrower's knowledge and borrower's attitude are the factors affecting microcredit performance among women entrepreneurs in Kelantan. In this regard, the findings show that the borrower's attitude has a positive relationship with the borrower's performance while the borrower's attitude is the weakest factor affecting microcredit performance among women entrepreneurs.

Chan and Abdul Ghani (2011) study of microcredit performance in Malaysia revealed that microcredit programmes have impacted entrepreneurial behaviour. The study reported that loans created job opportunities to those who were previously unemployed (16.7 %). Furthermore, 38.9% of the respondents used the loan for project related to fishing, while, 23.6 % of the respondents used the loan for farming activities. Meanwhile, 13.9% of the respondents used loans for trading activities and 23.6% used the loan for establishing businesses such as tailoring, workshop, home construction and boat building. The study revealed that there are increments in income for the respondents after joining the programmes. In the meantime, the study found that mature centres experience more economic benefits rather than the newer centres.

As microcredit plays valuable roles in poverty alleviation among poor as well as nurturing participants' entrepreneurial behaviour, an understanding of personal attitude, subjective norm and perceived behavioural control in Ajzen's Theory of Planned Behaviour (TPB) may enhance the understanding of microcredit and participants' entrepreneurial behaviour. Furthermore, by taking into account the participants' personal attitude, subjective norm, perceived behavioural control and participants' entrepreneurial intention in ways that lead to participants' entrepreneurial behaviour, it is understood that microcredit programmes not only provide the poor with access to small loans, it also able to stimulate participants' entrepreneurial behaviour and help improve the participants' quality of life.

### **3.11 THE CONCEPTUAL FRAMEWORK**

The aim of this section is to provide a discussion on the conceptual framework regarding the impact of microcredit programmes on participants' quality of life and to bring order to the vast literature on the theoretical impact of microcredit programmes on participants' quality of life. In this light, impact assessment studies are not merely to measure the difference in the key variables between the outcome and the values of those variables but also to chronologies the understanding on the impact of microcredit programmes on participants' quality of life.

This is parallel to a study conducted by Hulme (2000) which claimed that both 'proving impacts and 'improving practice' are the goals of impact assessment studies (see Figure 3.4). The study also argued that implicitly, an impact assessment is when sponsors

gather information regarding the effectiveness of the microcredit programme while explicitly; the impact assessment helps the parties involved in improving the effectiveness and efficiency of operational activities.

	PROVING IMPACTS<-----	----->IMPROVING PRACTICE
Primary Goal	Measuring as accurately as possible impacts of an intervention	Understanding the process of intervention and their impacts so as to improve those processes
Main Audiences	Academics and researchers Policymakers Evaluation departments Programme Managers	Programme managers Donor field staff NGO personnel Intended beneficiaries
Associated Factors	Objectivity Theory External Top down Generalisation Academic research Long timescales Degree of confidence	Subjectivity Practice Internal Bottom up Contextualisation Market research Short timescales Level of plausibility

Figure 3.4  
*The Goals of Impact Assessment*  
 Source: Hulme (2000)

In addition, this study adapted a model of the impact chain by Hulme (2000) (see Figure 3.5). The model describes that when the microcredit programme is offered to the participants, it could cause a change in participants’ behaviours and practices where it leads to the achievement of desired outputs. In other words, behaviour change may not be the end goal, but a transition after an intervention that may enhance the result of other outcomes.

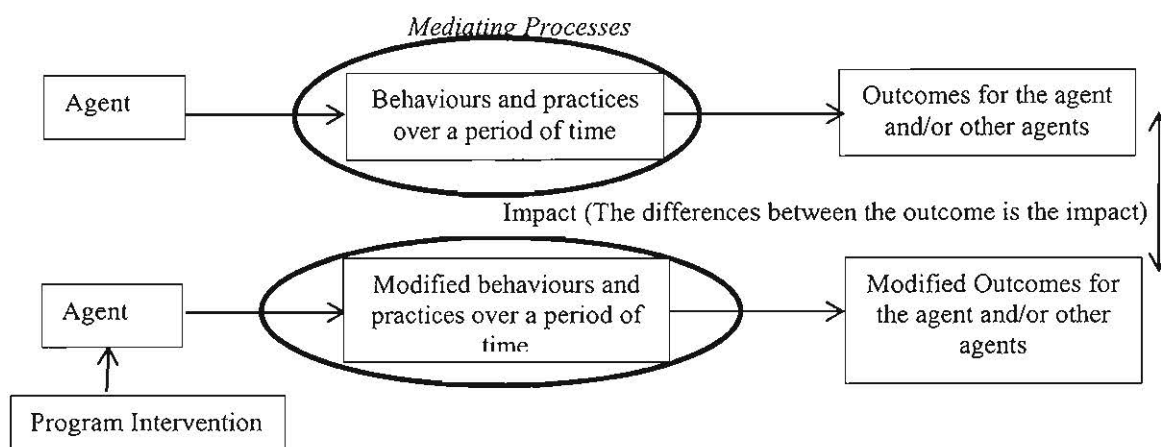


Figure 3.5  
*The Conventional Model of the Impact Chain*  
 Source: Hulme (2000)

The model above is in line with as stated in the Needs Opportunities Abilities Model (NOA) of behaviour change, the outcome is not the end in itself, but it generates further effects, such as personal wellbeing (Darnton, 2008). And, this is also supported by Swain (2006) that reported an improvement in the quality of life can be caused by positive self-efficacy behaviour demonstrated by the participants after receiving the loan. This was proven by Nader (2008) which revealed that self-esteem and confidence are enhanced through microcredit and led to improvement in the participants' quality of life. Planet Finance (2008) also claimed that microcredit programmes have created positive self-esteem among micro entrepreneurs and improvement in the participants' quality of life.

In retrospective, TPB looks into how the main constructs (personal attitude, subjective norm and perceived behavioural control) individual's intention can predict the behaviour of the individual. On a different outlook, Hulme (2006), Darnton (2008), Swain (2006) and Planet Finance (2008) mentioned that the intervention of the microcredits can result in behavioural change leading to improvement in quality of life. Therefore, the model as

established by Hulme (2006) is added into the TPB to come up with the conceptual framework of this study as shown in Figure 3.6 to understand the impact of the microcredit programmes on participants' quality of life.

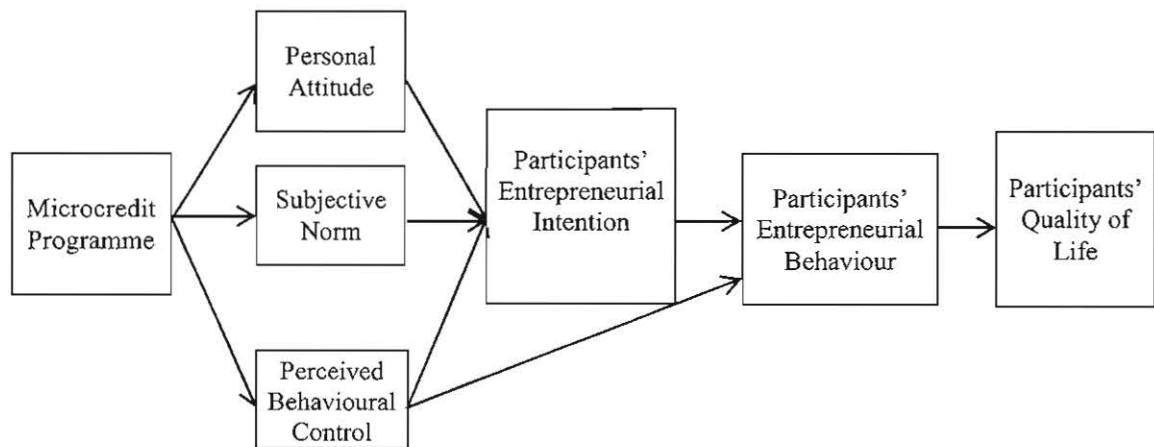


Figure 3.6  
*The Conceptual Framework of Assessing the Impact of Amanah Ikhtiar Malaysia's Microcredit Programme on Participants' Quality of Life*

### 3.12 RESEARCH HYPOTHESES

In light of the research objectives, research questions and the conceptual framework, the hypotheses were established to assess the impact of AIM's microcredit programme on participants' quality of life. Therefore, in order to use the conceptual framework, the study has tested several hypotheses.

#### 3.12.1 The First Hypothesis (H<sub>1</sub>)

The first hypothesis (H<sub>1</sub>) is designed to examine the impact of AIM's microcredit programme on participants' quality of life. The literature on this topic has shown that microcredit programmes have enabled the poor to improve their quality of life. Brue et

at. (2008) in their study stated that the quality of life of individual borrowers must be improved for microfinance to achieve its goals while a study by Ghalib et al. (2011) indicates that few studies have shown that microcredit programmes have brought some positive impacts on the quality of life of households in Pakistan. The same result also appeared in a study conducted by Chowdhury and Bhuiya (2004) which revealed that microcredit has a positive impact on human wellbeing, survival rate and schooling of children. Similarly, a study conducted by Khandker (2005) examined the impact of microcredit programmes and found that positive welfare for all households receiving credits. In addition, Hossain (1988), Morduch (2000) and Rahman and Hossain (1995) claimed that microcredit programmes allowed their clients to achieve a better quality of life. A study by Montgomery et al. (1996) revealed the same result where it was found that microcredit programmes helped improve the borrowers' wellbeing and the standard of living by improving their income and food consumption.

Most studies mentioned above had assumed a direct relationship between microcredit and quality of life of the participants. It also appears that little attention has been put on the Ajzen's work of Theory of Planned Behaviour (TPB) in measuring the impact of microcredit programs on participants' quality of life. However, this present study argues that there are other factors that might influence the impact of microcredit programmes on participants' quality of life. In this regard, it is argued that other factors might influence the impact of microcredit has on quality of life. These factors include the participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. Therefore, it is hypothesised that microcredit programmes have an impact on participants' quality of life.

In this light, there are six (6) hypotheses formulated to examine the impacts of AIM's microcredit programme on participants' quality of life:

- a) H<sub>1a</sub>: Participants' personal attitude has a positive influence on participants' entrepreneurial intention.
- b) H<sub>1b</sub>: Participants' subjective norm has a positive influence on participants' entrepreneurial intention.
- c) H<sub>1c</sub>: Participants' perceived behavioural control has a positive influence on participants' entrepreneurial intention.
- d) H<sub>1d</sub>: Participants' perceived behavioural control has a positive influence on participants' entrepreneurial behaviour.
- e) H<sub>1e</sub>: Participants' entrepreneurial intention has a positive influence on participants' entrepreneurial behaviour.
- f) H<sub>1f</sub>: Participants' entrepreneurial behaviour has a positive influence on participants' quality of life.

### **3.12.2 The Second Hypothesis (H<sub>2</sub>)**

The second hypothesis (H<sub>2</sub>) is designed to analyse the differences in quality of life of new and old participants. There are a number of studies that analysed the differences in the quality of life between new and old participants. For example, a study conducted by Al-Mamun et al. (2010) reported old participants seem to have a better quality of life, where they tend to live in a bigger house, with more rooms, better structural condition

and use permanent housing materials to build their house. The study also revealed that compared to new participants, the old participants used environmentally less destructive cooking fuel, environmentally safe toilet facilities, and have refrigerator, washing machine and television.

Consequently, analysing the differences in quality of life of new and old participants will improve the understanding of the impact of microcredit programmes have on participants' quality of life. Thus, it is hypothesised that there are differences in quality of life between the new and old participants.

### **3.12.3 The Third Hypothesis (H<sub>3</sub>)**

The third hypothesis (H<sub>3</sub>) is to determine whether participants' entrepreneurial intention mediates the effect of participants' personal attitude, subjective norm and perceived behavioural control on participants' entrepreneurial behaviour. Thus, H<sub>3</sub> is formulated to test the mediating effects of participants' entrepreneurial intention between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour.

As previously stated, Theory of Planned Behaviour (TPB) is a useful method for identifying a particular influence on behaviour. As stated by Ajzen (2006), human behaviour is determined by three constructs namely, personal attitude, subjective norm and perceived behavioural control. In this light, the Theory of Planned Behaviour (TPB) model used intention to behave as a proxy to measure the behaviour. In other words, a particular behaviour is dependent on these three main construct and the intention to behave as a proxy to determine the individual's behaviour. Thus, the combination of



these three main constructs leads to the formation of a behavioural intention which in turns predicts behaviour. This is also consistent with studies conducted by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen 2009), Engle et al. (2010) and Karimi et al. (2012) that stated participants' personal attitude, subjective norm and perceived behavioural control affected entrepreneurial intention and further will influence entrepreneurial behaviour.

In line with this study, thus, the combination of participants' personal attitude, subjective norm and perceived behavioural control leads to the formation of participants' entrepreneurial intention which in turn influences participants' entrepreneurial behaviour. In general, participants' entrepreneurial intention is used to investigate the influences it has on the relationship between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour.

Therefore, consideration of the participants' entrepreneurial intention as a mediator will improve the understanding on how the participants' entrepreneurial intention mediate the relationship between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour. Thus, it is hypothesised that the relationship between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour is mediated by participants' entrepreneurial intention.

Thus, three (3) hypotheses have been formulated:

- a) H<sub>3a</sub>: Participants' entrepreneurial intention mediated the relationship between participants' personal attitude and participants' entrepreneurial behaviour.
- b) H<sub>3b</sub>: Participants' entrepreneurial intention mediated the relationship between participants' subjective norm and participants' entrepreneurial behaviour.
- c) H<sub>3c</sub>: Participants' entrepreneurial intention mediated the relationship between participants' perceived behavioural control and participants' entrepreneurial behaviour.

#### **3.12.4 The Fourth Hypothesis (H<sub>4</sub>)**

The fourth hypothesis (H<sub>4</sub>) is to determine whether participant's entrepreneurial behaviour mediates the effect of participants' entrepreneurial intention on participants' quality of life. Therefore, H<sub>4</sub> is designed to estimate the mediating effects of participants' entrepreneurial behaviour on the relationship between participants' entrepreneurial intention and participants' quality of life.

In this study, participants' entrepreneurial intention is presumed to cause participants' entrepreneurial behaviour and predicts participants' quality of life. Generally, participants' entrepreneurial behaviour is used to investigate the influences it has on the relationship between participants' entrepreneurial intention and participants' quality of life. This is parallel to a study conducted by Hulme (2000). The model describes that when the microcredit is offered to the participants; perhaps it will cause a change in participants' behaviours and practices where it leads to the achievement of desired

outputs. In other words, behaviour change may not be the end goal, but a transition after an intervention that may enhance the result of other outcomes.

Participants' entrepreneurial intention is enhanced when the participants gain access to the credit where participants' positive entrepreneurial behaviour can increase the quality of life. By considering the participants' entrepreneurial intention in ways that lead to entrepreneurial behaviour which improves in participants' quality of life, microcredit programmes are not merely making small loans available to the poor to stimulate their entrepreneurial behaviours, but also able to upgrade the participants' quality of life. Thus, by considering the participants' entrepreneurial behaviour as a mediator, this will help the study to understand on how participants' entrepreneurial behaviour mediates the relationship between participants' entrepreneurial intention and participants' quality of life. Therefore, it is hypothesised that participants' entrepreneurial behaviour mediates the relationship between participants' entrepreneurial intention and participants' quality of life.

### **3.12.5 Summary of Research Objectives and Hypotheses**

With regard to the above findings and discussion of the literature review, the following hypotheses have been developed to answer the research objectives:

**Objective 1:** To examine the impact of AIM's microcredit programme on participants' quality of life.

- a) **H<sub>1a</sub>:** Participants' personal attitude has a positive influence on participants' entrepreneurial intention.

- b) **H1b:** Participants' subjective norm has a positive influence on participants' entrepreneurial intention.
- c) **H1c:** Participants' perceived behavioural control has a positive influence on participants' entrepreneurial intention.
- d) **H1a:** Participants' perceived behavioural control has a positive influence on participants' entrepreneurial behaviour.
- e) **H1c:** Participants' entrepreneurial intention has a positive influence on participants' entrepreneurial behaviour.
- f) **H1f:** Participants' entrepreneurial behaviour has a positive influence on participants' quality of life.

**Objective 2:** To analyse the differences in the quality of life between the new and old participants.

**H2:** There are differences in the quality of life between the new and old participants.

**Objective 3:** To determine whether participants' entrepreneurial intention mediates the effect of participants' personal attitude, subjective norm and perceived behavioural control on participants' entrepreneurial behaviour.

- a) **H3a:** Participants' entrepreneurial intention mediates the relationship between participants' personal attitude and participants' entrepreneurial behaviour.
- b) **H3b:** Participants' entrepreneurial intention mediates the relationship between participants' subjective norm and participants' entrepreneurial behaviour.

- c) **H3c:** Participants' entrepreneurial intention mediates the relationship between participants' perceived behavioural control and participants' entrepreneurial behaviour.

**Objective 4:** To determine whether participants' entrepreneurial behaviour mediates the effect of participants' entrepreneurial intention on participants' quality of life.

**H4:** Participants' entrepreneurial behaviour mediates the relationship between participants' entrepreneurial intention and participants' quality of life.

### 3.13 CHAPTER SUMMARY

Based on the review of the literature on the impact of microcredit programmes on participants' quality of life, the following conclusion can be made. It is important for a researcher to discuss the definition of quality of life to provide in-depth information. Knowing the definition of quality of life has helped the researcher to identify the acceptable domains of life in order to assess the impact of AIM microcredit programme on participants' quality of life. In this regard, a discussion on the relationship between the selected domains of life and quality of life proceeds further to present how dynamic the impact of microcredit programmes is on participants' quality of life. The structured sections are as follows: impact of microcredit programmes on a) income earnings, b) health, c) productivity, d) friendship, e) personal safety, f) education, g) future security, h) food, i) housing condition and j) personal savings.

Furthermore, this present thesis argues that the impact of AIM microcredit programme on participants' quality of life is more indirect rather than direct effect. This study takes

on a different perspective by examining aspects of personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour in assessing the impact of AIM microcredit programme on participants' quality of life. As a result, further discussion has been done on Ajzen's Theory of Planned Behaviour (TPB) to help improve the understanding of the impact of the AIM microcredit programme on participants' quality of life.

In addition, the study has developed a conceptual framework. The conceptual framework is adapted from Hulme (2000)' works and will be applied to measure impact of AIM microcredit programme on participants' quality of life in Malaysia in order to provide in-depth understanding on the dynamic aspects of the microcredit programmes. Finally, this chapter had described the formulated study hypotheses which will be empirically tested in this study.



## **CHAPTER FOUR**

### **RESEARCH METHODOLOGY**

#### **4.1 OVERVIEW OF THE CHAPTER**

This chapter discusses the methodology of the study. In designing the survey method, it must comprise the survey design, population and sample, instrumentation, sampling and data collection methods, and data analysis techniques. Discussion on the methodology is based on a number of references. This study will employ quantitative methods in investigating the impact of microcredit programmes on participants' quality of life. This section will start with a discussion on research design, followed with questionnaire design, then a discussion on operationalisation of the constructs and measurement. Next, a discussion on pre-test and pilot study follow. Later, data collection procedures and sampling design of the study will be discussed. Finally, the discussion will cover on the data analysis techniques.

#### **4.2 RESEARCH DESIGN**

Research design discusses a framework for the data collection and analysis. In other words, research design denotes the decisions regarding the priority given to a range of dimensions in the research process. In another way, research design can be simplified as decisions on sampling design and how data will be collected (data collection methods), as well as how variables will be measured and analysed to test the hypotheses (data analysis) in conducting a study.

As for the time and resources constraints, a field study was designed to conduct this study. In conjunction to this, the present research design was regarded as compatible with the notions by Khandker (2005) and Weiss and Montgomery (2005) who suggested that it was not possible to control all the factors in measuring the impact of microcredit programmes. Therefore, full experimental approach was not feasible to assess the impact of microcredit programmes. It is beyond the timeframe of this study to make use of a longitudinal study approach.

In this study, a field study was designed to find out the association among variables in the real social structures such as among the participants. A field study was conducted because the field survey enabled the researcher to gather ample amount of information from a large sample. In other words, studying a sample of a particular population provided a quantitative or numeric description of trends, attitudes or opinions of that population (Creswell, 2013). Thus, the researcher could make generalisation about the population based on the sample results. Moreover, the approach could maximise the representativeness of the sample population, thus helped to improve the generalisability of the results.

In relation to this, a cross-sectional design study was employed in this study. The cross-sectional design was a study conducted on one-time basis. In other words, data were collected at a single point in time only. The cross-sectional design was done by gathering data just once over a period of time such as in days, weeks, or months in order to answer the research questions. The researcher, however, acknowledged the limitations of this type of investigation.



### 4.3 QUESTIONNAIRE DESIGN

In this study, a discussion group with supervisors and the researcher itself was formed. At this stage, the discussion group discussed the adaptation of the developed questionnaires to better suit the study. There were 65 questions related to this study. Researcher divided the questionnaires into nine sections. There were 65 questions with 12 questions in Section A (demographics section), 20 questions in Section B (participants' involvement in *Amanah Ikhtiar Malaysia's* microcredit programme) and 32 questions in Section C to H. Meanwhile, Section I allowed the respondent to make any relevant comments regarding the *Amanah Ikhtiar Malaysia's* microcredit programme. With regard to questions in Section A, there were 12 questions consist of respondent's demographic. Meanwhile, Section B comprised 20 questions consisted of respondent's involvement in microcredit programme. Section C to H included 32 questions on participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention, participants' entrepreneurial behaviour and participants' quality of life. The questionnaires development were both adopted and adapted from Personal Wellbeing Index (PWI), and works by Liñán and Chen (2009), Bharadwaj-Badal (2012), McGee, Peterson, Mueller and Sequeira (2009) and Mokhtar (2011).

#### 4.3.1 Section A

The demographic information in this study captured the following data: age, gender, status, ethnicity, highest education level, housing type, area of employment, main job,

number of room, diseases, and meals taken daily. Q1- Q12 of Section One covers these variables, where the demographic information served as the profile description for the samples.

Table 4.1  
*Demographics of Participants*

No.	Original Scale Items
1.	Age in the year of 2015?
2.	Gender: Male? Female?
3.	Status: Single? Married? Divorced?
4.	Ethnic: Malay? Chinese? Indian? Others?
5.	Highest education level?
6.	Housing type?
7.	Is business your main job?
8.	If you answered "No" to question 7, please indicate your main job.
9.	Number of rooms in your house: 1 room? 2 rooms? 3 rooms? More than 3 rooms?
10.	Are you currently suffering from these diseases: Diabetes? Hypertension? Heart disease?
11.	Do you take these meals everyday: Breakfast? Lunch? Dinner?
12.	Based on question 11, do you NOT take any of the above meals because there is not enough money to buy food?

#### 4.3.2 Section B

In this study, categorical scale and ratio scale measurements were used to measure the participants' involvement in *Amanah Ikhtiar Malaysia's* microcredit programme. A total of 20 questions were asked to collect the data in this section. The following 20 questions

were asked using the categorical scale and ratio scale measurements to measure the participants' involvement in the *Amanah Ikhtiar Malaysia's* microcredit programme.

Table 4.2

*The Participants' Involvement in Amanah Ikhtiar Malaysia's Microcredit Programme*

No.	Scale Items	Source
1.	How long have you been participated in this microcredit programme institution?	
2.	How many times have you made borrowing from this microcredit programme institution?	
3.	What are the reasons for borrowing from this microcredit programme institution?	
4.	If you join for business purposes, then please state the nature of the business? (Can choose more than 1 answer)	
5.	How much is your paid capital?	
6.	How much is the sales (estimated) you get for a month?	Mokhtar (2011)
7.	How much is your total borrowing from this microcredit programme institution?	
8.	Is the borrowed amount sufficient to run the business?	
9.	If you answered "No" to question no.8, have you made a loan from other sources?	
10.	If your answer is "Yes" to question no.9, how do you get this extra credit?	
11.	After joining the microcredit programme, does your monthly income increases?	
12.	If "Yes" to question no.11, is the increment of income is due to joining this microcredit programme?	
13.	What is your monthly income (estimated) before joining the microcredit programme?	
14.	What is your monthly income (estimated) after joining the microcredit programme?	
	a. Income from business (per month)	
	b. Income from others (per month) e.g. pension, dividend, children	

Table 4.2 (Continued)

No.	Scales Items	Sources
15.	What is your overall savings (estimated) before joining the microcredit programme?	
16.	After joining the microcredit programme, does your overall savings increases?	
17.	If “Yes” to question no.16, is the increment of savings is due to joining this microcredit programme?	
18.	What is your overall savings (estimated) after joining the microcredit programme?	
19.	Have you ever attended an entrepreneurship course?	
20.	If your answer is “Yes” to question no.9, please specify how many times have you attended the entrepreneurship course?	

Source: Adapted from Mokhtar (2011)

### 4.3.3 Section C to H

#### 4.3.3.1 Participants' Quality of Life

As previously stated, the constructs and measurement of quality of life were adopted and adapted from the Personal Wellbeing Index (PWI) and Malaysian Quality of Life Index (MQLI). Participants' quality of life comprised eleven domains of life namely income earnings, health, productivity, friendship, personal safety, education, future security, food, housing conditions, personal savings, and spirituality. These domains consisted of subjective domains and rated with participants' 'level of satisfaction'. The following Likert Scale measurement of 11-points ranged from 0 (No Satisfaction at All) to 10 (Completely Satisfied) for assessing participants' quality of life, which was used to measure the impact of microcredit programmes on participants' quality of life.

Table 4.3

*Participants' Quality of Life: Original Items Versus Modified Items*

No.	Original Scale Items	Modified Scale Items
1.	How satisfied are you with your standard of living?	How satisfied are you with your income earnings?
2.	How satisfied are you with your health?	How satisfied are you with your health?
3.	How satisfied are you with what you are achieving in life?	How satisfied are you with your productivity?
4.	How satisfied are you with your personal relationships?	How satisfied are you with your friendship?
5.	How satisfied are you with how safe you feel?	How satisfied are you with how safe you feel?
6.	How satisfied are you with feeling part of your community?	How satisfied are you with the extent of changes in your and your child education?
7.	How satisfied are you with your future security?	How satisfied are you with your future security?
8.	How satisfied are you with your standard of living?	How satisfied are you with the food you consume?
9.	How satisfied are you with your standard of living?	How satisfied are you with your housing condition?
10.	How satisfied are you with your standard of living?	How satisfied are you with the savings you have?
11.	How satisfied are you with your spirituality?	How satisfied are you with your spirituality?

Source: Personal Wellbeing Index (PWI)' work

**4.3.3.2 Participants' Personal Attitude**

In this study, researcher both adopted and adapted the works of Liñán and Chen (2009), Bharadwaj-Badal (2012), and McGee et al. (2009) to measure participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour.

The following 11- point Likert Scale ranged from 0 (Total disagreement) to 10 (Total agreement) to assess participants' personal attitude that was used to measure the impact of microcredit programmes on participants' quality of life.

Table 4.4  
*Participants' Personal Attitude*

No.	Scale Items	Source
	Personal attitude refers to produce a favourable or unfavourable attitude toward the behaviour and they are the values of the behaviour outcomes.	
1.	Being an entrepreneur implies more advantages than disadvantages to me.	Liñán & Chen (2009)
2.	A career as an entrepreneur is attractive to me.	
3.	If I had the opportunity and resources, I'd like to expand my business.	
4.	Being an entrepreneur would entail great satisfactions for me.	
5.	Among various options, I would rather be an entrepreneur.	

Source: Adapted from Liñán & Chen (2009)

#### 4.3.3.3 Participants' Subjective Norm

Also, an 11- point Likert scale ranging from 0 (Total disagreement) to 10 (Total agreement) was used to measure the participants' subjective norm that was used to measure the impact of microcredit programmes on participants' quality of life.

Table 4.5  
*Participants' Subjective Norm*

No.	Scale Items	Source
	If you decided to expand your business, would people in your close environment approve of that decision?	
1.	My family.	Liñán & Chen (2009)
2.	My friends.	

Source: Adopted from Liñán & Chen (2009)

#### 4.3.3.4 Participants' Perceived Behavioural Control

On the other hand, an 11- point Likert scale ranging from 0 (Total disagreement) to 10 (Total agreement) was used to measure the participants' perceived behavioural control and investigate the impact of microcredit programmes on participants' quality of life.

Table 4.6

*Participants' Perceived Behavioural Control*

No.	Scale Items	Source
	How much confidence do you have in your ability to .....?	
1.	Brainstorm (come up with) a new idea for a product or service.	
2.	Estimate customer's demand for a product or service.	
3.	Network-i.e., make contact with and exchange information with others.	McGee et al. (2009)
4.	Deal effectively with day-to-day problems and crises.	
5.	Organise and maintain the financial records of my business.	

Source: Adopted from McGee et al. (2009)

#### 4.3.3.5 Participants' Entrepreneurial Intention

Meanwhile, an 11- point Likert scale ranging from 0 (Total disagreement) to 10 (Total agreement) was used to measure the participants' entrepreneurial intention that was used to measure the impact of microcredit programmes on participants' quality of life.

Table 4.7

*Participants' Entrepreneurial Intention*

No.	Scale Items	Source
1.	As an entrepreneur, I am ready to do anything.	Liñán & Chen (2009)
2.	My professional goal is to become a successful entrepreneur.	
3.	I will make every effort to sustain my own firm.	
4.	I am determined to expand my business in the future.	

Source: Adapted from Liñán & Chen (2009)

**4.3.3.6 Participants' Entrepreneurial Behaviour**

Finally, an 11- point Likert scale ranging from 0 (Total disagreement) to 10 (Total agreement) was used to measure the participants' entrepreneurial behaviour in assessing the impact of microcredit programmes on participants' quality of life. The scale is as follows:

Table 4.8

*Participants' Entrepreneurial Behaviour*

No.	Scale Items	Source
	Entrepreneurial behaviour refers to the entrepreneur's capability to undertake risks, making decision and managing towards profit maximisation.	
1.	I am willing to bear risk of failure.	Bharadwaj-Badal (2012)
2.	I spent most of my time to attend my business.	
3.	I have invested large amount of money for my business.	
4.	I have great durability.	

Source: Adapted from Bharadwaj-Badal (2012)



#### **4.4 MEASUREMENT OF VARIABLES AND DIMENSIONS**

This section presents the constructs' measurement for the proposed research framework. The measuring instrument consisted of six sections. Sections C to Section H covered the empirical measurements for the constructs in the proposed model. At this stage, the items were identified using existing instruments and some modifications were made. In order to develop items for the quality of life construct, the researcher adopted and adapted the items from the existing instrument of Personal Wellbeing Index (PWI). Meanwhile, for the constructs of participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour; this study adopted and adapted the items from the existing instrument of Liñán and Chen (2009) and Bharadwaj-Badal (2012) work while adopted a few items from McGee et al. (2009) study.

##### **4.4.1 Measurement for the Participants' Quality of Life**

In this study, all eleven items in each domain of life were assessed based on 11- points Likert Scale. Each item composed 11 domains of life, namely income earnings, health, productivity, friendship, personal safety, education, future security, food, housing conditions, personal savings, and spirituality.

Table 4.9  
*Domains of Life of Quality of Life*

Variables	Measurement	Total numbers of items
Income Earnings		1
Health		1
Productivity		1
Friendship		1
Personal Safety		1
Education	11-points Likert Scale (Level of Satisfaction)	1
Future Security		1
Food		1
Housing Conditions		1
Personal Savings		1
Spirituality		1

Source: Adapted from Personal Wellbeing Index (PWI) and Malaysian Quality of Life Index (MQLI) Works'

In the same way, an 11- points Likert Scale was used to measure the participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour in assessing the impact of microcredit programmes on participants' quality of life. A total of 20 questions were used to collect data from this section.

Table 4.10  
*Participants' Personal Attitude, Subjective Norm, Perceived Behavioural Control, Entrepreneurial Intention and Entrepreneurial Behaviour*

Variables	Measurement	Total numbers of items
Personal Attitude		5
Subjective Norm		2
Perceived Behavioural Control		5
Participants' Entrepreneurial Intention	11-points Likert Scale (Level of Agreement)	4
Participants' Entrepreneurial Behaviour		4

Sources: Liñán and Chen (2009), Bharadwaj-Badal (2012)' work and McGee et al. (2009)'s study

The followings are the measures of subjective domains in previous study on quality of life that were adopted and adapted into this study. The domains are summarised in Table 4.11 below.

Table 4.11  
*Measures of Domains of Life in the Previous Study of Quality of Life*

Variables	Original Scale Items	Previous reliability scores	Sources
Standard of Living	An 11-point (0-10) End-Defined Response Scale	.35	The International Well Being Group (2006)
Health	An 11-point (0-10) End-Defined Response Scale	.59	The International Well Being Group (2006)
Life Achievements	An 11-point (0-10) End-Defined Response Scale	.22	The International Well Being Group (2006)
Personal Relationship	An 11-point (0-10) End-Defined Response Scale	.57	The International Well Being Group (2006)
Personal Safety	An 11-point (0-10) End-Defined Response Scale	.35	The International Well Being Group (2006)
Community Connectedness	An 11-point (0-10) End-Defined Response Scale	.43	The International Well Being Group (2006)
Future Security	An 11-point (0-10) End-Defined Response Scale	.42	The International Well Being Group (2006)

On the other hand, the followings are the measures of the variables included in previous study of participants' personal attitude, subjective norm, perceived behavioural control and participants' entrepreneurial intention that were adopted and adapted into this study. The measures are summarised in Table 4.12 below.

Table 4.12

*Measures of Variables in the Previous study of Personal Attitude, Subjective Norm, Perceived Behavioural Control and Entrepreneurial Intention*

Variables	Original Scale Items			Previous reliability scores	Sources
Personal Attitude	Likert	Scale	Interval	.897	Liñán & Chen (2009)
	measurement of 7- points. (5 items)				
Subjective Norm	Likert	Scale	Interval	.773	Liñán & Chen (2009)
	measurement of 7- points. (3 items)				
Perceived Behavioural Control	Likert	Scale	Interval	.885	McGee et al. (2009)
	measurement of 7- points. (6 items)				
Entrepreneurial Intention	Likert	Scale	Interval	.943	Liñán & Chen (2009)
	measurement of 7- points. (6 items)				

#### 4.5 OPERATIONALISATION OF VARIABLES

This section presents the operationalisation of the constructs for the proposed research model. As per earlier discussion, this study adapted the constructs from Personal Wellbeing Index (PWI) and the Malaysian Quality of Life (MQL) index. The study also adopted the constructs proposed by Ajzen (2006) on the Theory of Planned Behaviour (TPB). According to Sekaran and Bougie (2009), operationalising a concept to become measurable was done by looking at the behavioural dimensions or properties contributed by the concept. Thus, in this study, the domains of life, participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour were attributable to the concept of

participants' quality of life. These constructs were then converted into observable and measurable elements in order to develop a measurement for the study.

#### **4.5.1. Domains of Life**

Operational definitions for the key constructs of participant's quality of life in this study were adapted from Personal Wellbeing Index (PWI) as a basis and review from the Malaysian Quality of Life (MQL) index. However, this study only concerned on the subjective domains of life. Eleven items of domains of life with each item corresponded to a quality of life domain were used in operationalising participants' quality of life, namely the income earnings, health, productivity, friendship, personal safety, education, future security, food, housing conditions, personal savings, and spirituality.

Meanwhile, the operational definitions for participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention, and participants' entrepreneurial behaviour in this study were used as the proposed theoretical framework and collectively adapted from Liñán and Chen (2009), Bharadwaj-Badal (2012) and McGee et al. (2009).

##### **4.5.1.1 Income Earnings**

For the first domain of life - the income earnings - the measurement was adapted from the PWI's work on standard of living and based on a review from the Malaysian Quality of Life (MQL). This domain of life was rated according to the level of participant's satisfaction. The level of participant's satisfaction of income earnings domain was defined as an individual participant's perceived satisfaction towards the money earned

from income generating activities in proportion to the small amount of loan given to the participants through microcredit programmes.

#### **4.5.1.2 Health**

In measuring the second construct of the health domain, this study adopted the PWI's work of health and a review from the Malaysian Quality of Life (MQL). This dimension was also rated by the level of participant's satisfaction. The level of participant's health satisfaction was defined as how participant perceived his satisfaction on his health conditions.

#### **4.5.1.3 Productivity**

Productivity was also another domain of life that was measured in this study by adapting PWI's work of life achievements and a review from past literature. In this study, productivity was also assessed by the level of participant's satisfaction. The level of participant's satisfaction of productivity was defined as participant's perceived satisfaction on the effectiveness and efficiency of resources usage that increased their value.

#### **4.5.1.4 Friendship**

Similar to the above, the study on the fourth dimension of friendship was adapted from PWI's work of personal relationships and a review from previous literature. In this study, friendship was also gauged by subjective domains that consisted of the level of participant's satisfaction. Accordingly, the level of a participant's satisfaction in term of

friendship was defined as how participant perceived satisfaction from his close relationship with friends.

#### **4.5.1.5 Personal Safety**

The measure for the following domain of life was the personal safety that was also adopted from PWI's work. Similarly, personal safety was also gauged by the subjective domains that consisted of the participant's satisfaction level. The level of participant's satisfaction for this domain of life was defined as participant's perceived satisfaction on his or her sense of safety.

#### **4.5.1.6 Education**

The measure for the next domain of life was education. The measure was adapted from PWI's work of community connectedness and a review from the Malaysian Quality of Life (MQL). It was also rated by subjective domains that consisted of the level of participant's satisfaction. The level of participant's satisfaction in term of education was defined as participant's perceived satisfaction on the extent of changes in his or his child's education.

#### **4.5.1.7 Future Security**

Meanwhile, the domain of life for future security was also adopted from PWI's work and a review from literature. Future security domain was also measured by subjective domains that constituted the level of participant's satisfaction. The level of participant's satisfaction for this domain of life was defined as participant's perceived satisfaction on his or her feeling regarding future security.

#### **4.5.1.8 Food**

Food was the next dimension measured in this study. It was based on the adaption of PWI's work of standard of living and a review from literature. This domain of life was also rated by the level of participant's satisfaction. The level of participant's satisfaction for food domain was defined as participants' perceived satisfaction of the improvement in his or her food intake.

#### **4.5.1.9 Housing Condition**

The following domain of life in this study was housing conditions which was also based on the adaption of PWI's work of standard of living and a review from the Malaysian Quality of Life (MQL). This domain of life was also rated by the level of participant's satisfaction, in which participant's satisfaction on housing conditions domain was defined as how satisfying participant perceived the housing conditions that he or she was living in.

#### **4.5.1.10 Personal Savings**

Personal savings was the next measure which was also based on the adaption of PWI's work of standard of living and a review from previous literature. This domain of life was also rated by the level of participant's satisfaction. The level of participant's satisfaction on personal savings domain was measured by participant's perceived satisfaction of the extra money that he is able to put aside as his personal saving.



#### **4.5.1.11 Spirituality**

The last domain was spirituality which was also based on recommendation by PWI's work and a review from literature. This domain of life was also rated by the level of participant's satisfaction, while the level of participant's satisfaction on spirituality domain was measured by the participant's perceived satisfaction of his or her spirituality.

#### **4.5.2 Participants' Personal Attitude**

Initially, the measure for participants' personal attitude in this study was adapted from Liñán and Chen (2009). In this study, participants' personal attitude was operationalised by five dimensions that indicated the level of participant's agreement. Level of participant's agreement referred to the degree to which the individual held a positive or negative personal valuation about being an entrepreneur (Liñán & Chen, 2009; Netemeyer et al., 1991).

#### **4.5.3 Participants' Subjective Norm**

Secondly, the measure of participants' subjective norm in this study was adopted from Liñán and Chen (2009). In this study, subjective norm was operationalised by two dimensions: to indicate participant's belief about what other people think the person should do. In this study, measuring participant's belief about what other people think the person should do referred to the perceived social pressure to carry out or not to carry out entrepreneurial behaviour (Liñán & Chen, 2009; Netemeyer et al., 1991). It also referred

to the perception that “reference people” would either approve or disapprove the decision to become an entrepreneur (Liñán & Chen, 2009).

#### **4.5.4 Participants’ Perceived Behavioural Control**

Thirdly, the measure for participants’ perceived behavioural control in this study was adopted from McGee et al. (2009). In this study, the perceived behavioural control was operationalised by five dimensions: to indicate the extent of individual participant’s perception that he or she had the ability or confident over the skills and resources that they had. According to Liñán and Chen (2009), this concept was similar to the concept of self-efficacy as proposed by Bandura (1994). He exerted that the extent of a participant’s agreement regarding his self-confidence referred to the perception of ease and difficulty of becoming an entrepreneur.

#### **4.5.5 Participants’ Entrepreneurial Intention**

The measure for participants’ entrepreneurial intention in this study was also adapted from Liñán and Chen (2009). In this study, participant’s entrepreneurial intention was operationalised by three dimensions explained by the changes in awareness which was from personal attitude, subjective norm, and perceived behavioural control.

#### **4.5.6 Participants' Entrepreneurial Behaviour**

Finally, measurement of participants' entrepreneurial behaviour in this study was adapted from Bharadwaj-Badal (2012). In this study, participant's entrepreneurial behaviour was operationalised by four dimensions.

#### **4.5.7 Translation of Questionnaire**

At first, the questionnaire was designed in English. Due to respondent's demographic background, the questionnaire was then translated into Bahasa Malaysia. Therefore, the English version of the questionnaire was then transformed to the standard Malay version. Later, the questionnaire was re-translated to English to preserve the exact meaning according to its original meaning. As per suggested by Brislin (1970), back translation was required to preserve understanding. During the translation process, discussions took place in order to improve the related areas to preserve the understanding.

#### **4.6 PRE-TEST AND PILOT STUDY**

In this study, a pre-test was conducted before the pilot study to check the validity of the items. In conjunction with this, content validity and face validity were conducted to make sure the items included in the questionnaires to measure the constructs were appropriate, understood, and sufficiently representative. Once the pre-test was done, a pilot test was then conducted.

#### 4.6.1 Pre-Test

Accordingly, content validity was conducted to ensure the items in the questionnaires were appropriate, understood and representative. Content validity was conducted to ensure the included items were related to the measured constructs. In other word, it evaluated the representativeness of the questions. In line with this, the researcher of this study sought consultations from six field experts for their opinions pertaining to the items' appropriateness and representativeness. This is in line with suggestion made by Sekaran and Bougie (2009) who suggested that "validity is about a test of how well the instrument developed the particular concept". In other words, it concerned whether the researcher measured the right concept. These field experts were requested to check for the appropriateness, comprehensibility, and representativeness of the questionnaire. By other means, these experts were requested to check whether there was any misleading word or structure of the items, and whether the items amply covered the range of the issues. In parallel to this, the comments suggested by these experts were then considered for instrument improvement.

Upon finalising the instrument as per suggested by the experts and before the pilot study, face validity was also conducted. According to Sekaran and Bougie (2009), "face validity is considered a basic or minimum index of content validity". In this event, the researcher conducted the face validity test involving some target respondents and sought their opinions. Five potential respondents were identified and researcher asked for their opinions regarding the appropriateness of the items in terms of wordings, instructions, general formatting, and comprehensibility of scales used. As expected, there were some

confusion and unclear sentences in the questionnaires as highlighted by the respondents. Based on the feedback gathered from the session, their suggestions were taken into consideration and the questions were further improved to facilitate the completion of the final version that was used in the pilot study.

#### **4.6.2 Pilot Study**

In this study, a pilot study was also conducted before any further assessment. Accordingly, a pilot study was a small scale research that was conducted to test the validity and reliability of the instruments used. This was in line with what was stated by Zikmund (2003) in his book where pilot study was conducted to collect data in which the data served as a guide for larger study. The required sample size in this pilot study was relatively small, ranging from 15-30 respondents (Malhotra, 2008).

In parallel with this, one hundred and eight (108) questionnaires were distributed to two AIM branches in Kedah, whereby only hundred (100) questionnaires were usable with 52 and 48 respondents respectively, representing 92.6 % participation rate. In conjunction to this, this study conducted a pilot study using a stratified sampling of 100 respondents of AIM participants in two Kedah branches. The researcher distributed the questionnaires and sat with the respondents while waiting for the respondent to complete the entire questionnaires. Each respondent took approximately 25 minutes to complete the entire questionnaires.

#### 4.6.2.1 Factor Analysis of the Pilot Study

In the pilot study stage, the Exploratory Factor analysis (EFA) was initially conducted to understand the items of the variables. Factor analysis was commonly used to assess the dimensionality of variable/variables. By other means, it was used to identify the structure of the interrelationship among a large number of items. It was statistically driven by the software used to identify reduced reduction on the basis of predetermined set of items.

Henceforth, a factor analysis was conducted on 31 items to validate whether the respondents perceived the variables of this study to be distinct. Initially, the Kaiser-Meyer-Olkin (KMO) measurement was employed to verify the sampling adequacy for this analysis. In this study, the KMO measure of sampling adequacy ranged from .500 to .892 which indicated sufficient intercorrelation among the variables, based on the following guidelines; value around .90 as marvellous, .80 as meritorious, .70 as middling, and .60 as mediocre. Any value less than .50 was regarded as unacceptable (Kaiser, 1974). Meanwhile, the Barlett's Test of Sphericity indicated significant relationship among the variables, in which Hair, Money, Samouel and Page (2007) suggested the value to be .05 or smaller. Subsequently, the factor loadings of the items were also checked. The guidelines used to check the factor loadings were: each item should load at .50 or greater on one factor (Igbaria et al., 1995). Table 4.13 shows the results of factor analysis. The results from the table showed that each of the constructs was unidimensional and factorially distinct.

Table 4.13

*Factor Analysis of Pilot Study*

Constructs	No of Original Items	Factor for items in first factor	loading	KMO	Eigenvalue	% of Variance
Participants' Quality of Life	11	QOL 1	.725	.892	6.456	58.690
		QOL 2	.656			
		QOL 3	.767			
		QOL 4	.770			
		QOL 5	.758			
		QOL 6	.771			
		QOL 7	.828			
		QOL 8	.821			
		QOL 9	.796			
		QOL 10	.766			
		QOL 11	.755			
Participants' Entrepreneurial Behaviour	4	PEB 1	.778	.767	2.863	71.587
		PEB 2	.897			
		PEB 3	.785			
		PEB 4	.916			
Participants' Personal Attitude	5	PA 1	.854	.856	3.780	75.597
		PA 2	.925			
		PA 3	.746			
		PA 4	.904			
		PA 5	.906			
Participants' Subjective Norm	2	SN 1	.913	.500	1.669	83.436
		SN 2	.913			
Participants' Perceived Behavioural Control	5	PBC 1	.901	.841	3.773	75.464
		PBC 2	.887			
		PBC 3	.917			
		PBC 4	.852			
		PBC 5	.778			
Participants' Entrepreneurial Intention	4	PEI 1	.884	.822	3.442	86.049
		PEI 2	.850			
		PEI 3	.949			
		PEI 4	.927			

**4.6.2.2 Reliability Analysis of the Pilot Study**

Reliability analysis is an important aspect in any measurement procedure. Reliability refers to the consistency level of the items of the constructs. In other words, reliability tells the degree of inter items consistency. This in line with Sekaran & Bougie (2009) who claimed the reliability is a measurement of the consistency of the items in the construct and helps to assess how much the researcher can depend on a measure

(Sekaran & Bougie, 2009). Therefore, the reliability test was applied in the study using the SPSS version 22 in order to measure the consistency level of the items in the constructs.

On the other hand, the Cronbach's alpha coefficient was applied to test the reliability of the items in the constructs. In this sense, the Cronbach alpha coefficient helped the researcher to identify the consistency level of the items in the constructs. Accordingly, higher Cronbach alpha value was recommended because it showed higher consistencies, in line with suggestion by Nunnally (1978) who claimed the result of reliability test should at least achieved .70 to possess sufficient reliability or minimum acceptable limit. This was supported by Sekaran and Bougie (2009) who also stated that reliability of more than .80 was good, those in the .70 was acceptable and those less than .60 was considered as poor.

Table 4.14  
*Reliability Analysis of Pilot Study*

Constructs	No of Original Items	Cronbach's Alpha	Item Deleted
Participants' Quality of Life	11	.927	NIL
Participants' Entrepreneurial Behaviour	4	.855	NIL
Participants' Personal Attitude	5	.917	NIL
Participants' Subjective Norm	2	.800	NIL
Participants' Perceived Behavioural Control	5	.918	NIL
Participants' Entrepreneurial Intention	4	.945	NIL



Table 4.14 presents the Cronbach's Alpha value of this study. It can be seen that all the Cronbach's Alpha values ranged from .800 to .945 and above the acceptable limit. Therefore, no item was considered for deletion as all items of the instruments were sufficient and highly reliable to be used in this study. As such, this pilot study indicated that the instrument being used was valid and reliable and enabled the researcher to further collect the field data for this study.

#### **4.7 DATA COLLECTION PROCEDURES OF THE STUDY**

In collecting the data, this study employed a structured questionnaire. According to Sekaran & Bougie (2009), a structured questionnaire was defined as a reformulated written set of questions to which respondents record their answers. It was the most common method applied in data collection.

The questionnaire in this study comprised nine sections. The first section consisted of demographic questions. The second section consisted of participants' involvement in microcredit programme. While the next six sections consisted of items related to the constructs. Finally, the last section allowed the respondent to make any relevant comments regarding the study.

The questionnaire took about 20-25 minutes to complete. The following is a detailed discussion of each section.

### Section A

This section contained general information of respondents, which included age, gender, status, ethnicity, highest education level, housing type, area of employment, main job, number of room, diseases, and meals taken daily.

### Section B

This section consisted of questions regarding the participants' involvement in microcredit programme. There were a total of 20 questions including how long the participants participated in the selected microcredit programmes, how many times they borrowed, and how much they borrowed, reason for borrowing from the selected microcredit programmes, paid capital to start the business, total sales per month, total loan, whether the credit given was enough, income increment, monthly income, total savings, savings increment, and entrepreneurial courses attended.

### Section C

This section included 11 subjective questions of 11 domains of life. The questions asked the respondents to rate how they felt about various aspects of their life. The domains of life included income earnings, health, productivity, friendship, personal safety, education, future security, food, housing condition, personal savings, and spirituality. This section used an 11-point Likert Scale measurement where the focus was to see the impact of microcredit programmes on participants' quality of life.

#### Section D, E, F, G and H

This section also included 20 questions composed of five constructs. These 20 questions also asked the respondents to rate the number that best described their personal opinions. The constructs included participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention, and entrepreneurial behaviour. This section used an 11- points Likert Scale measurement where the focus was to assess the impact of microcredit programmes on participants' quality of life.

#### Section I

The final part in this section allowed the respondent to make any relevant comments regarding the study.

On the front page of the instrument, cover letter containing ethics approval, purpose of the study, and the researcher's contact information was provided. The covering letter was personalised by having a hand-signed signature of the researcher. It was an appeal to the respondents by highlighting the importance of their participation in this research and the assurance of anonymity. A small token of appreciation was given to the respondents for their participation.

The outlines of the questionnaires are provided in the table below:

Table 4.15  
*Summary of Sections*

	<b>Sections</b>	<b>Information</b>
I	Section A	General Information on respondents includes age, gender, status, ethnicity, highest education level, housing type, area of employment, main job, number of room, diseases, and meals taken daily.
ii	Section B	Information related to the participants' involvement in the microcredit. There were a total of 20 questions that were be asked which included how long the participant had been participating in the selected microcredit programmes, how many times they borrowed and how much have been borrowed, reason for borrowing from the selected microcredit programmes, paid capital to start the business, total sales per month, total loan, whether the credit given was enough, income increment, monthly income, total savings, savings increment, and entrepreneurial courses attended.
iii	Section C	Information related to how the respondent felt about various aspects of their life. The included domains of life were income earnings, health, productivity, friendship, personal safety, education, future security, food, housing condition, personal savings and spirituality. This section used an 11-point Likert Scale measurement where the focus was to see the impact of microcredit programmes on participants' quality of life.
iv	Section D, E, F, G and H	Information related to participants that best described their personal opinions. The included constructs were participants' personal attitude, participants' subjective norm, participants' perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour. This section used an 11-points Likert Scale measurement where the focus was to assess the impact of microcredit programmes on participants' quality of life.
v	Section I	The final part in this section allowed the respondent to make any relevant comments regarding the study.

## 4.8 SAMPLING DESIGN OF THE STUDY

### 4.8.1 Sampling Design of the Study

The sampling design of this study involved the discussion on the study population, sample size and sampling technique. Each of the constructs will be discussed in the following sections.

### 4.8.2 Population of the Study

The population of this study was the participants of AIM in Kedah, Pulau Pinang, and Perlis. As at the end of 2013, there were 46,198 microcredit participants approved by AIM in Kedah, Pulau Pinang and Perlis. However, there were only 44,021 microcredit participants approved by AIM in Kedah, Pulau Pinang and Perlis in 2014. Meanwhile, in 2015 there were a total of 51,730 microcredit participants that were approved by AIM in the three states.

Table 4.16

*Total Numbers of AIM Participants in Kedah, Pulau Pinang and Perlis*

<b>Participants of Microcredit Programme of AIM of Kedah, Pulau Pinang and Perlis /Years</b>	<b>Total Numbers</b>
2013	46,198
2014	44,021
2015	51,730

Sources: Amanah Ikhtiar Malaysia (2014)

### 4.8.3 Sample Size of the Study

Since the population was 51,730, the minimum sample size required to conduct the research was 383 of the total number of participants in the microcredit programmes in Kedah, Pulau Pinang and Perlis (refer Table 4.17). As cited in Sekaran and Bougie (2009) and Krejcie and Morgan (1970), the decision was to ensure a good decision model was simplified.

Table 4.17

*Sample Size for a Given Population Size*

Population Size = N	Sample Size = S
10,000	370
15,000	375
20,000	377
30,000	379
40,000	380
50,000	381
75,000	383
1,000,000	384

Source: Sekaran & Bougie (2009)

As stated above, the minimum sample size required to conduct the research was 383 out of the total number selected participants for the microcredit programmes in Kedah, Pulau Pinang and Perlis. However, the sample size must be larger than the calculated required sample responses to overcome sample attrition issue.

Based on the survey questionnaires in previous research, response rates were normally between 60% to 90% (Coleman, 1999; Husain, 1998; Mokhtar, 2011). Taking 80% proposed by Mokhtar (2011) as the estimated response rate, the calculated working sample size required to avoid problems such as bias and incomplete responses was 478

samples, to be drawn from the total 51,730 participants. A total sample of 377 (78.87%) respondents were selected from AIM Kedah, 60 (12.55%) from AIM Pulau Pinang, and another 41 (8.58%) from AIM Perlis.

Table 4.18

*Sample Size for AIM Participants in Kedah, Pulau Pinang and Perlis for the Year 2015*

State	Numbers of AIM Participants as at end of 2015	Numbers of Samples	Numbers of Samples (%)
Kedah	40,807	377	78.87
Pulau Pinang	6,463	60	12.55
Perlis	4,460	41	8.58
Total	51,730	478	100

#### 4.8.4 Sampling Technique

It is known that the establishment of microcredit programmes was to improve the participants' life condition. As the number of the AIM participants in Kedah were relatively higher compared to other states (see Table 2.7 in Chapter 2), our selection was justified. Therefore, it was relevant at this point for Kedah to be selected as a sample for this study in order to see how the microcredit programmes benefited the poor in Kedah, particularly in improving the participants' quality of life. Apart of Kedah, Pulau Pinang and Perlis were also selected. The reason behind this was that participants of Pulau Pinang and Perlis were also included to a total numbers of participants in Kedah-Kedah Utara and Kedah Selatan (see Table 2.7 in chapter 2).

In general, microcredit programmes had been established throughout the state of Kedah, Pulau Pinang, and Perlis. Accordingly, AIM in these states was divided into a number of branches according to the state's distinct. Therefore, this study employed a probability sampling (disproportionate stratified) technique in selecting the samples as there were 17 AIM branches in these states with 13,431 groups in 1240 centers. However, due to numbers of limitations such as account closing as at the end December of 2015 and early year of 2016 meeting, there were only a number of branches from these states that were willing to cooperate in distributing the questionnaires. The branches are Pendang, Padang Terap, Kubang Pasu, Baling, Sungai Petani and Kuala Muda for Kedah; Georgetown for Pulau Pinang; and Kangar for Perlis. Even though there was only a number of branches participated in this survey, their response was representative of other participants as per their homogeneous characteristics in term of the microcredit programme.

Table 4.19  
*AIM's Participants for Kedah, Pulau Pinang and Perlis as at December 2015*

No	Branches	No of Participants
1.	Pendang	4844
2.	Padang Terap	4794
3.	Kubang Pasu	4194
4.	Kota Setar	4010
5.	Langkawi	2546
6.	Alor Setar	2336
7.	PKMB Kota Setar	0
8.	Baling	3868



Table 4.19 (Continued)

No	Branches	No of Participants
9.	Sik	4055
10.	Kuala Muda	4114
11.	Kulim	4649
12.	Sungai Petani	1397
13.	PKMB Georgetown	2055
14.	Pulau Pinang/Bukit Mertajam	3772
15.	Butterworth	636
16.	Perlis	3225
17.	PKMB Kangar	1235
	Total	51730

Source: Amanah Ikhtiar Malaysia (2015b) and Amanah Ikhtiar Malaysia (2015c)

As pointed out before, 478 samples were drawn from 51,730 participants in these stated. Accordingly, a total sample of 377 (78.87%) was selected from AIM Kedah, 60 (12.55%) were selected from AIM Pulau Pinang, and 41 (8.58%) were selected from AIM Perlis in this study. However, this study decided to distribute a total of 677 questionnaires to the participants of AIM (Amanah Ikhtiar Malaysia) in Kedah, Pulau Pinang, and Perlis, where, 377 (55.69%) questionnaires were distributed to the participants of AIM in Kedah, 200 (29.54%) questionnaires were distributed to the participants of AIM in Pulau Pinang, and 100 (14.77%) questionnaires were distributed

to the participants of AIM in Perlis. The numbers were enough to accommodate future problems pertaining to sample error, missing error, etc.

Table 4.20  
*Sample Size Decided to be Selected*

State	Numbers of AIM Participants as at end of 2015	Minimum Numbers of Distributions of Questionnaires	Minimum Numbers of Distributions of Questionnaires Decided to be Selected
Kedah	40,807	377	377
Pulau Pinang	6,463	60	200
Perlis	4,460	41	100
Total	51,730	478	677

Through the meetings with the head of selected branches, it was agreed that the head of the selected branches will select the suitable centres to distribute the questionnaires. Among the reasons to conduct at the selected centres were because of various unaccepted conditions such as due to the lack of attendance among respondents to the stated meeting, the low literacy level among respondents in certain centres, centres with the too small number of respondents, centre having confidential meeting which did not permit other agenda, and centres which refused to cooperate in completing the questionnaires without any reason. The researcher and her assistant visited each of the selected branches from 1<sup>st</sup> of November 2015 to 31<sup>th</sup> of December 2015 to distribute the questionnaires during the centres meetings. Complete data were collected from the selected centres with a total of 638 were considered for the data analysis. As expected, a total of 39 respondents were unable to fulfil the questionnaires.

Table 4.21  
*Questionnaires Collected*

No	Branches	No of Participants
1	Pendang	53
2	Padang Terap	42
3	Kubang Pasu	86
4	Baling	43
5	Sungai Petani	50
6	Kuala Muda	76
7	Georgetown	195
8	Kangar	93
	Total	638

This study also attempted to make a comparison on quality of life between new and old participants of AIM. In conjunction to this, participants of AIM were divided into two groups which were new participants and old participants, whereby, participants who participated for less than or equal to 12 months were grouped into the new participants and participants who participated for more than 12 months denoted old participants (Al-Mamun et al. 2011).

However, since the researcher did not know how many respondents of new participants and old participants were during time of data collection, a disproportionate stratified sampling procedure was also employed. This was in line with the proposition by Sekaran and Bougie (2009) who posited the applicability of disproportionate sampling

when the selected strata were too small or too large. They further claimed that a disproportionate sampling procedure was applied when the researcher did not know the exact number of respondents in each groups during the time of data collection. Practically, this type of sampling technique enabled the study to distinguish between new and old participants in the programmes. Thus, a disproportionate sampling method was an appropriate approach to select respondents from the districts and groups to represent a sample. Therefore, from the 638 completed questionnaires collected from the selected centres, 146 were new participants and 492 were old participants.

#### **4.9 DATA ANALYSIS TECHNIQUES**

Data analysis was an important part of this study as it transformed raw data into more understandable form. The analysis helped the researcher to describe the data characteristics and answer doubtful questions. Before further analysis, the researcher started by examining the response rate. The next step involved the coding and editing processes. Later, the data were transformed to determine some results. After the coding and editing processes, data screening and cleaning were then conducted. Data screening and cleaning assessed any missing values and assumptions of normality. All the steps performed were to make sure that the data were correctly entered. The final step was to conduct descriptive analysis and inferential analysis. Descriptive analysis was analysed using software IBM SPSS Statistics 22 while the inferential analysis was analysed using software Smart PLS version 3.0.

#### **4.9.1 Data Entry Checking**

Before proceeding to the descriptive analysis, the data was first checked for errors. This was conducted to reconfirm the earlier data entry process. According to Pallant (2013), “When checking for errors, you are primarily looking values that fall outside the range of possible values for a variable”. For example, if gender was coded between 1=male and 2=female, there should not be any other entered score rather than 1 or 2. Similarly, responses in other sections were also checked for errors.

#### **4.9.2 Data Screening and Cleaning**

Although there was no concern of data distribution (Chin, 2010), this study still conducted the data screening and cleaning procedure to treat for missing values (if any) and checked the normality before performing further analysis.

##### **4.9.2.1 Missing Values**

Consequently, the data were examined for missing values. Undeniable, there were perhaps uncontrollable issues such missing data during the data collection stage. Therefore, missing values were examined at the early stage to find any missing data and to rectify the issue before advancing to further steps. It was supported that examining missing value was important due to generalisation concern (Hair, Hult, Ringle & Sarstedt, 2014a).

#### **4.9.2.2 Assumption of Normality**

Finally, after the data entry checking and missing values assessment, the researcher conducted tests for skewness and kurtosis to assess the distribution of scores on continuous variables which was reflected by the skewness and kurtosis of the collected data (Tabachnick & Fidell, 2007). In other words, the statistical assumption of normality conducted in this study examined the skewness and kurtosis of the measured variables to indicate the symmetrical curve.

#### **4.9.3 Descriptive Statistics**

In the beginning of this study, descriptive statistics were conducted using IBM SPSS Statistics 22 software. In general, descriptive statistics are useful to describe the samples or the population of the study. In other words, data analysis conducted in this study were used to describe the basic data related to the demographic profile of the participants' microcredit programmes. Amongst the descriptive statistics that were employed was frequency distribution. The results of this analysis were described using frequency and percentage values.

#### **4.9.4 Inferential Statistics**

Meanwhile, inferential data analysis of this study was conducted using a multivariate approach of Structural Equation Modeling (Structural Equation Modelling – SEM). SEM data analysis is an advanced statistical and used to test proposed relations among the variables in the model and make predictions from the data. The technique allowed

answering questions that involved multiple regression analysis of factors among a single measured dependent variable and a group of measured independent variable. Moreover, it facilitated the modelling of complex models and studied all equations simultaneously. In fact, SEM technique also allowed for comparing two groups and two models (Al-Qeisi, 2009). This made the technique as an adequate tool to test the hypotheses and achieve the objectives of this study.

In this study, Partial Least Squares (PLS) structural equation model (PLS-SEM) was used for the data analysis. PLS was a structural equation modelling (SEM) technique that tested both the measurement model (relationships between indicators and their corresponding latent constructs or variables) and the structural model (relationships between the constructs or variables). PLS approach was applied to “predict and understand the role and formation of individual constructs and their relationships among each other” (Chin, 1998). Hence, it showed that PLS was used to test for the quality of the model. Therefore, this technique was considered as adequate for the type of investigation to be carried out later.

#### **4.9.4.1 Partial Least Square (PLS) as a Choice**

Ringle, Sarstedt, and Straub (2012) noted on the apparent increasing use of PLS-SEM over time. According to Ringle et al. (2012), the PLS-SEM was usually included as a discussion at the beginning of the data analysis by referring to some specific statistical properties of the PLS-SEM method. In response to this, Ringle et al. (2012) (1) reasoned the choice of PLS-SEM based on a few factors, namely; (1) researchers seemed to appreciate the use of PLS SEM as the ability of PLS-SEM to handle model complexity

with fewer restrictions compared to CB-SEM, (2) sample sizes reason, (3) non-normal data distribution, (4) the use of formatively measured latent variables, and (5) PLS-SEM allowed for unrestricted use of single item constructs. However, according to Ringle et al. (2012), although there were lists of given minimal restrictions on the use of PLS-SEM in testing the research model, it should then meet certain conditions. Such conditions were adequate effect sizes, sufficiently large number of items per constructs, and highly reliable constructs.

However, this study chose to use PLS approach due its ability to deal with model complexity and predictive capability. This was supported by a study by Chin and Newsted (1999) that argued a “PLS approach is often more suitable for application and prediction when the phenomenon under research is relatively new, changing, or when the theoretical model or measures are complex”.

#### **4.9.4.2 A Systematic Procedure for Applying PLS-SEM Analysis**

Figure 4.1 specifies a systematic procedure when conducting PLS-SEM analyses. The process started with the PLS path model estimation. In this stage, the PLS Algorithm was calculated using the software that was recommended by PLS-SEM. In PLS Path Model Estimation, treatment was conducted for the missing value beforehand. Once the treatment on missing value was done, PLS path model estimation then took place.

PLS path model estimation involved the evaluation stage of the measurement and structural models. However, the process involved separate evaluations in determining the result of the measurement model and structural model. According to Hair, Hult, Ringle and Sarstedt (2014c), measurement model represented the relationships between



constructs and their corresponding indicators variables. Meanwhile, structural model represented the relationships between the constructs. In other words, model estimation empirically measured the relationships between the indicators and the constructs (measurement models) while also empirically measured the relationships between the constructs (structural model). Later, the hypotheses testing involving the structural relationships among constructs was assessed. From this, the findings from the assessment which were the empirical measures of measurement and structural model enabled the researcher to determine how well the theory fit the data. This indicated that PLS-SEM enabled the researcher to judge the model's quality based on the model's predictive capabilities.

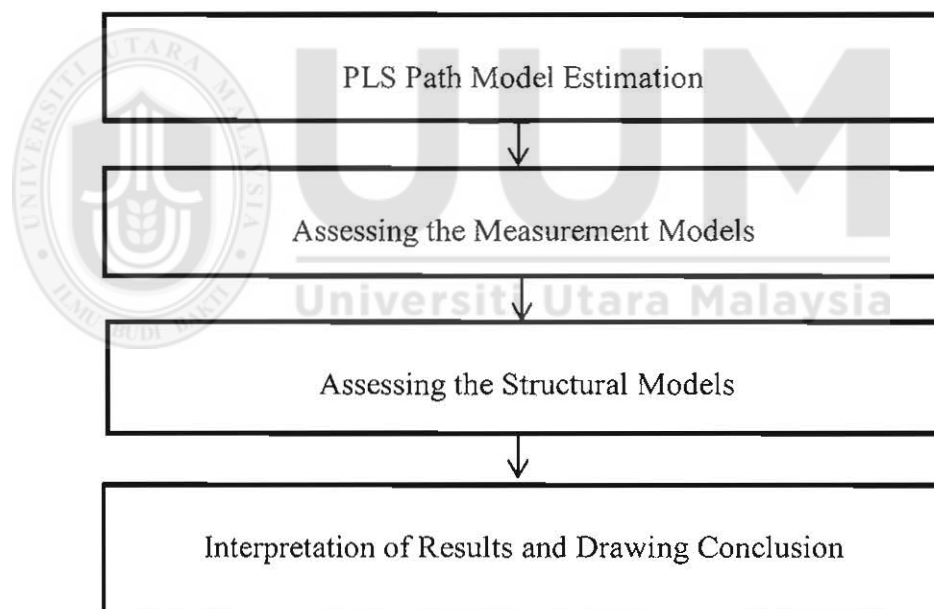


Figure 4.1  
*A Systematic Procedure for Applying PLS-SEM Analysis*  
Source: Hair et al. (2014c)

#### 4.9.4.3 The Evaluation of Measurement Model

The first part in evaluating a model was to present the measurement model results (Chin, 2010). Accordingly, the measurement model represented the theory in which the model specified how the measured variables come together to represent the latent factors. At this stage, the convergent validity was assessed. At the beginning, the factor loadings were initially assessed. This provided an evaluation on how accurate (i.e. reliable) the measures. Once the factor loadings were assessed, an evaluation on composite reliability (CR) was conducted. This was followed by the evaluation on the average variance extracted (AVE) and discriminant validity. Accordingly, the hypotheses testing involving the structural relationships among constructs was only reliable or valid if the measurement models were reliable and valid.

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#### Evaluation of the Measurement Model

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##### 1. Convergent Validity

- Factor Loadings (Loadings)
- Composite Reliability (CR)
- Average Variance Extracted (AVE)

##### 2. Discriminant Validity

- Cross Loadings
- Fornell Larcker Criterion

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Figure 4.2

*Evaluation of the Measurement Model*

Source: Hair et al. (2014a)

#### **4.9.4.3.1 Convergent Validity**

Convergent validity was the extent to which a measure correlated positively with alternative measures of the same construct (Hair et al., 2014a). Therefore, the items of a specific construct should converge high proportion of variance. Researcher should consider the factor loadings of the indicators, composite reliability (CR), as well as the average variance extracted (AVE) when establishing the convergent validity.

##### **4.9.4.3.1.1 Factor Loadings**

The factor loadings of all constructs were examined where the factor loadings of .70 or more was considered as acceptable (Hair et al., 2014a). The factor loadings of .50 and less should be considered for removal only if the deletion led to an increase in composite reliability and AVE above the suggested threshold value.

##### **4.9.4.3.1.2 Composite Reliability (CR)**

Composite reliability (CR) was the first evaluated criterion in order to measures the reliability of the indicators. Traditionally, Cronbach's alpha provided an estimate for the reliability. However, composite reliability was used in PLS-SEM to estimate reliability. According to Hair et al. (2014a), composite reliability took into account the different outer loadings of the indicator variables. In composite reliability, higher loading values indicated higher reliability levels. The composite reliability values varied between 0 and 1, where .60 to .70 were considered as acceptable in exploratory research (Hair et al., 2014a) and value less than .60 indicated a lack of composite.

#### **4.9.4.3.1.3 Average Variance Extracted (AVE)**

AVE was defined as the grand value of the squared loadings of the indicators associated with the constructs (i.e., the sum of the squared loadings divided by the number of indicators). Therefore, the AVE was equivalent to the communality of the construct. An AVE value of .50 or higher indicated the constructs explained more than half of the variance of its indicators in average. Vice-versa, an AVE value of less than .50 indicated that, on average, more error remains in the items than the variance explained by the construct.

#### **4.9.4.3.2 Discriminant Validity**

Discriminant validity was the extent to which a construct was truly distinct from other constructs by empirical standards. Hence, establishing discriminant validity implied the uniqueness of the construct. A latent variable should explain the variance of its own indicators better than the variance of other latent variables. This captured the phenomena not presented by other constructs in the model. Cross loading checking was one of the approaches to assess discriminant validity and among others was the Fornell-Larcker criterion. In cross loadings checking, loadings of an indicator on its assigned latent variable should be higher than its loadings on all other latent variables. Meanwhile, the Fornell-Larcker criterion compared the square root of the AVE values with the latent variable correlations. This means the square root of each construct's AVE should be greater than its highest correlation with any other construct (see table 4.22).

Table 4.22

*Summaries of Validity Guidelines for Assessing Measurement Model*

No.	Validity Type	Criterion	Guidelines
1.	Factor Loadings	Outer Loadings	Loadings > .5
2.	Composite Reliability	CR	CR > .7 (for exploratory study) CR > .8 (advance research) CR < .6—lack of reliability
3.	Average Variance Extracted	AVE	AVE > .5
4.	Discriminant validity	-Cross loading  -Fornell Larcker Criterion	Item's loading of each indicator is highest for its designated construct.  The square root of the AVE of a construct should be greater than the correlations between the construct and other constructs in the mode

Source: Hair et al. (2014a)

**4.9.4.4 Evaluation of the Structural Model**

Having established the measurement model evaluation for the study, the next step was to evaluate the study's structural model and presented the findings. The structural model of this study presented the theory specifying how the constructs were related to other constructs in the model.

Table 4.23

*The Evaluation of Structural Model*

Evaluation of the Structural Model
1. Determination coefficients ( $R^2$ )
2. Effect size ( $f^2$ )
3. Collinearity assessment (VIF)
4. Predictive relevance of the model ( $Q^2$ )

Source: Hair et al. (2014a)

Table 4.23 shows a systematic approach to the assessment of the structural model. This involved examining the model's predictive capabilities, as well as the relationship between the constructs, multi group analysis, and the mediating analysis.

#### **4.9.4.4.1 Determination Coefficient ( $R^2$ )**

$R^2$  measures the model's predictive accuracy, calculated as the squared correlation between actual and predicted values of a specific endogenous construct (Hair, Hult, Ringle and Sarstedt al., 2014b). The coefficient represented the exogenous latent variables' combined effects on the endogenous latent variables. It also represented the amount of variance in the endogenous constructs explained by all exogenous constructs linked to it. The  $R^2$  values ranged from 0 to 1, with higher value indicated higher level of predictive accuracy.

#### **4.9.4.4.2 Effect Size ( $f^2$ )**

Effect size ( $f^2$ ) assesses the change in the  $R^2$  value when a specified exogenous construct is omitted from the model. It can be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs. As suggested by Cohen (1988),  $f^2$  values of .02, .15 or .35 respectively indicated small, medium or large influence on the dependent latent variable (Hair, Hult, Ringle & Sarstedt, 2014).

#### **4.9.4.4.3 Collinearity Issues (VIF)**

In evaluating the structural model of this study, assessment of the structural model for collinearity was also performed. Collinearity assessment (VIF) was examined to provide support that there was no high correlation between the constructs. At this stage, VIF was

used to assess collinearity. VIF value of 5 and higher indicated potential collinearity problem (collinearity was very high) (Hair, Ringle, & Sarstedt, 2011). Thus, one should consider removing one of the corresponding indicators if the level of collinearity was very high.

#### **4.9.4.4.4 Predictive Relevance ( $Q^2$ )**

The final step was to assess the predictive relevance ( $Q^2$ ). According to Hair, Hult, Ringle and Sarstedt (2014b), when PLS-SEM exhibited predictive relevance, it accurately predicted the data points of indicators in reflective measurement models.  $Q^2$  values larger than zero for a certain reflective endogenous latent variables indicated the path model's predictive relevance for the particular construct. Measuring  $Q^2$  using the cross-validated redundancy was recommended by Hair et al. (2014b), since it included the key elements of the path model and the structural model to predict the eliminated data points. Similarly, the guidelines suggested by Fornell and Cha (1994) also asserted that any  $Q^2$  value that was greater than zero indicated the predictive relevance of the model, while  $Q^2$  value that was less than zero implied a lack of predictive relevance.

Therefore, the following test was evaluated for the structural model in this study:

1. Determination coefficient ( $R^2$ ) depended on the recommended individual study.
2. As suggested by Cohen (1988), values for effect size ( $f^2$ ) of .02, .15 or .35 indicated small, medium or large influence on the dependent latent variable, respectively (Hair et al., 2014).
3. The VIF should be  $<5$ .

4. The values of  $Q^2$  should be greater than zero.

#### **4.9.4.5 Direct Relationship Analysis between the Exogenous (IV) and Endogenous (DV)/ The Hypotheses Testing**

In this study, a direct relationship analysis was performed. The direct relationship analysis was conducted to examine the impact of AIM's microcredit programme towards its participants' quality of life. In addition, the direct relationship was conducted to examine the impact of AIM's microcredit programme on participants' quality of life based on the impact chain model by Hulme (2000). The model described how the offered microcredit could affect the participants; it caused a change in participants' behaviour and practices and eventually led to the achievement of desired outputs. In the event of this, the microcredit offers were hoped to cause a change in participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention, and entrepreneurial behaviour, which in turns affected their quality of life. The direct relationship analysis will be analysed using Smart PLS version 3.0. In conjunction to this, the path coefficient of the relationship will be analysed to show a positive influence of participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention, and entrepreneurial behaviour on quality of life.

#### **4.9.4.6 Multi Group Analysis**

In this study, a multi group analysis was also performed. The multi group analysis was conducted to analyse the differences in quality of life between participants who joined the microcredit programme for less than one year (new participants) and participants



who joined the microcredit programme for more than one year (old participants). The multi group analysis also employed the Smart PLS version 3.0. Henceforth, the path coefficients between the two groups of participants who joined the microcredit programme for less than one year (new participants) and participants who joined the microcredit programme for more than one year (old participants) was compared to illustrate the differences in quality of life between these two participant groups.

**4.9.4.7 Mediating Analysis**

A mediating analysis was also performed. According to Baron and Kenny (1986), mediation model sought to identify and explain a relationship between an independent variable (IV) and a dependent variable (DV) via the inclusion of a third explanatory variable (M). The third explanatory variable was known as a mediator variable. In other words, a mediator variable provided intervention between the two related variables namely X and Y.

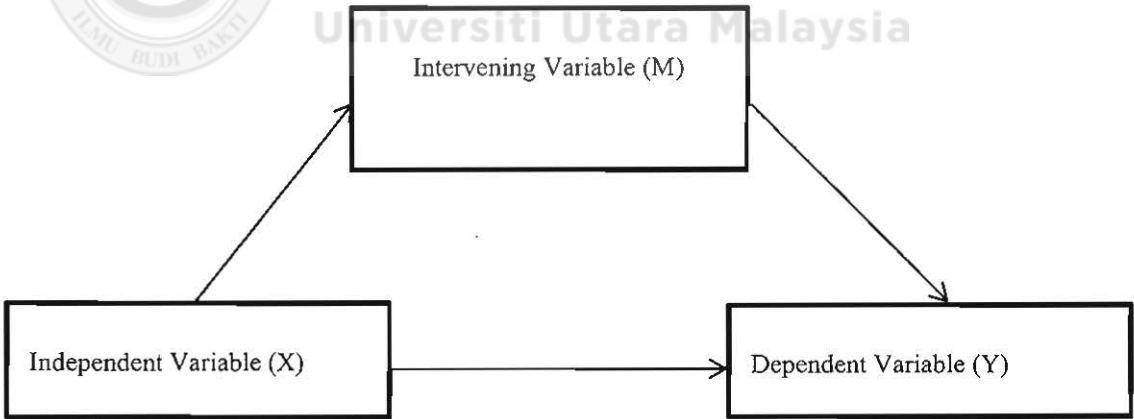


Figure 4.3  
*Mediating Effect*  
Source: Hayes (2013)

Hayes (2013) claimed that a simple mediation model consisted of at least one causal antecedent X variable in influencing an outcome Y through a single intervening variable

M. Figure 4.3 described a simple mediation model consisting of two distinct pathways by which a specific variable X was proposed as influencing Y. The direct effect of X and Y was a pathway from X to Y without passing through M, whereas, the indirect effect of X on Y was a pathway from X to Y through M. In other words, the indirect effect represented how Y was influenced by X through a causal sequence in which X influenced M, which in turn influenced Y. This was also supported by Hayes (2013) who claimed that a statistical method known as mediation analysis was often used to answer the question on how some causal agent X transmitted its effect on Y.

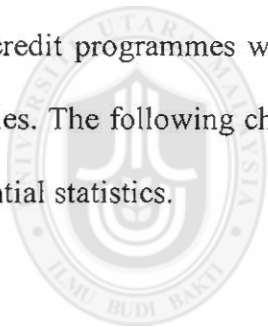
Previously, one had to successfully demonstrate that X and Y were associated before undertaking the mediation analysis (Baron & Kenny, 1986). Thus, there was no point to explain the “how” if there was no association between X and Y. However, today's practice did not require the researcher to prove the association between X and Y as a precondition (Hayes, 2013). This was also supported by Zhao, Lynch Jr. and Chen (2010) that stated if the X and Y did not have significant effect in the absence of the mediator, there was still evidence of mediation as long as the researcher was able to theoretically explain that there was a relationship between X and Y.

In line with this, a mediating analysis was performed to identify and explain the relationship between the participants' personal attitude, subjective norm, and perceived behavioural control (IVs) and participants' entrepreneurial behaviour (DV) via the inclusion of participants' entrepreneurial intention (M). It was also performed to identify and explain the relationship between participants' entrepreneurial intention (IV) and participants' quality of life (DV) via the inclusion of participants' entrepreneurial

behaviour (M). The mediating analysis was also conducted using the Smart PLS version 3.0.

#### **4.10 CHAPTER SUMMARY**

This chapter discusses the researcher's research methodology stance which also covered the research processes and survey method designed for this study. Past literatures had identified the attributes of domains of life and quality of life. Similarly, there were vast literatures identified the behaviour change. This study made use and adapted the survey instrument to provide additional insight in understanding the dynamics impact of microcredit programmes on participants' quality of life. Data of the participants in the microcredit programmes were collected with regard to the independent and dependent variables. The following chapter describes the findings in terms of both descriptive and inferential statistics.



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## CHAPTER FIVE

### FINDINGS

#### 5.1 OVERVIEW OF THE CHAPTER

This chapter presents the results of the analysis. Firstly, this chapter begins with an analysis of the response rate, data entry checking, and data screening and cleaning, which comprise looking through missing values and testing the normality assumption. Secondly, it presents the demographic profiles of the respondents. Thirdly, the chapter continues on the discussion and summarises the characteristics of the data using the descriptive analysis. Fourthly, it discusses the analysis model by incorporating the convergent validity analysis which consists of factor loadings, composite reliability (CR), and average variance extracted (AVE), and discriminant validity. The discriminant validity comprises values of cross loading and the Fornell-Larcker criterion. In addition, the analysis on the structural model through the discussion of the model's strength ( $R^2$ ) estimation, the estimation of effect size ( $f^2$ ), collinearity assessment (VIF) and the predictive relevance of the model ( $Q^2$ ) were also conducted. Fifthly, it presents the discussion on the results of the hypotheses testing and path coefficient for direct relationship, multi group analysis, and mediating analysis. Finally, this chapter ends with the chapter summary.

## **5.2 OVERVIEW OF DATA COLLECTED**

### **5.2.1 Response Rate**

A total of 677 questionnaires were distributed to the participants of AIM, with 377 questionnaires were distributed to the participants of AIM in Kedah, 200 questionnaires distributed to the participants of AIM in Pulau Pinang, and 100 questionnaires distributed to the participants of AIM in Perlis. The questionnaires were distributed during the AIM weekly meeting and the researcher instantly checked for any unanswered responses. Since some of the respondents were not willing to participate in the survey, only 638 out of 677 questionnaires were received and usable for the data analysis in this study. As per the above conditions, Tabachnick and Fidell (2007) suggested to drop the case. Although there are 39 incomplete questionnaires, giving the response rate of 94.24 percent (638/677), the number is adequate and equivalent to the previous study which were recorded response rate between 60 to 90 percent (Mokhtar, 2011).

Table 5.1  
*Number of Responses*

State	Numbers of AIM Participants as at end of 2015	Minimum Number of Distribution of Questionnaires	Minimum Number of Distribution of Questionnaires Decided	Actual Number of Completed and Usable Questionnaires	Percentage of Completed and Usable Questionnaire (%)
Kedah	40,807	377	377	350	54.86
Pulau Pinang	6,463	60	200	195	30.56
Perlis	4,460	41	100	93	14.58
Total	51,730	478	677	638	100

### 5.2.2 Data Entry Checking

As previously mentioned, the data will first be checked for errors before proceeding to the descriptive analysis. Data entry error can be checked via the descriptive or frequency analyses. Therefore, after the data entry process, the descriptive or frequency analyses were performed to check for any data entry error. Examples are data entry checking on responses for gender must be within the specified range of 1 or 2, status within the range of 1 to 3, and ethnic within the range of 1 to 4. Other demographic profiles and respondents involvement in AIM microcredit programmes were also checked to be within the specific range. Similarly, responses on all the measurement items in Section C to H were also within the specific range in the 11-points Likert scale.

### **5.2.3 Data Screening and Cleaning**

As mentioned previously, this study used Smart PLS version 3.0 to analyse the data, evaluate the model quality, and test the hypotheses. Although there is no concern on data distribution (Chin, 2010) in conducting the data analysis using Smart PLS, this study still conducted the data screening and cleaning procedure to treat for missing values (if any) and checked the normality before performing further analysis.

#### **5.2.3.1 Missing Values**

Before any further analysis, the missing values need to be treated where six hundred thirty-eight (638) questionnaires were entered into the Smart PLS version 3.0 to examine the missing values. Despite the adequate caution during the data collection process, missing values were still present due to unanswered options by the respondents. Hence, the researcher decided to apply the mean replacement method in treating these missing values. Hair et al. (2014c) stated that missing value can be replaced using the mean or median technique if the missing values are only around 20-30% of the total observation. The missing value were discovered from 3 responses (Case ID: 83, 272, 450) where there was no answer for one item in all the three cases. In respond to this, all missing values were replaced with the mean using SPSS and ready for further analysis.

#### **5.2.3.2 Assumption of Normality**

After screening for missing values, the researcher checked for skewness and kurtosis to assess the distribution of scores on continuous variables which is reflected by the skewness and kurtosis of the collected data (Tabachnick & Fidell, 2007). The skewness

indicates the symmetry of the distribution while kurtosis provides the ‘peakedness’ of the distribution (Pallant, 2013). In general, normally distributed data will have skewness and kurtosis values close to zero. An acceptable skewness and kurtosis values are recommended to be within the range of 2 and 7 (West, Finch, & Curran, 1995).

From Table 5.2, skewness and kurtosis values were found to be within the limit values of 2 and 7, skewness and kurtosis values ranging from -.08 to -1.471 and -.027 to 1.641. The result indicate that the data were normally distributed and do not violate the normality assumption as the skewness and kurtosis values of the data conformed to the rule of thumb.

Table 5.2  
*Results of Skewness and Kurtosis for Normality Test*

Variables	Kurtosis Values	Skewness Values
<b>Participants' Quality of Life</b>		
C2A	-0.787	-0.080
C2B	-0.405	-0.533
C2C	-0.200	-0.432
C2D	0.580	-1.102
C2E	-0.200	-0.735
C2F	-0.622	-0.458
C2G	-0.091	-0.652
C2H	0.049	-0.854
C2I	0.157	-0.831
C2J	-0.027	-0.524
C2K	0.071	-0.828



Table 5.2 (Continued)

Variables	Kurtosis Value	Skewness Values
<b>Participants' Entrepreneurial Behaviour</b>		
D1	-0.889	-0.090
D2	-0.449	-0.555
D3	-0.619	-0.417
D4	-0.585	-0.554
<b>Participants' Personal Attitudes</b>		
E1	-0.313	-0.572
E2	-0.398	-0.689
E3	0.171	-1.000
E4	0.136	-0.931
E5	0.363	-1.036
<b>Participants' Subjective Norms</b>		
F1	1.641	-1.471
F2	0.322	-1.070
<b>Participants' Perceived Behavioural Control</b>		
G1	-0.578	-0.399
G2	-0.142	-0.593
G3	-0.221	-0.598
G4	-0.273	-0.648
G5	-0.782	-0.484
<b>Participants' Entrepreneurial Intention</b>		
H1	0.230	-1.009
H2	0.336	-1.119
H3	0.458	-1.159
H4	1.261	-1.405

## 5.3 PROFILE OF RESPONDENTS

### 5.3.1 The Demographics Profile of Respondents

Table 5.3  
*The Respondents Profile*

Demographics	Indicators	Frequency	(%)
Age	18-25 Years	17	2.67
	26-35 Years	135	21.16
	36-45 Years	194	30.41
	46-55 Years	192	30.09
	56 and Above Years	100	15.67
Gender	Female	637	99.80
	Male	1	0.20
Status	Single	21	3.30
	Married	547	85.70
	Separated/Divorced/Widow	70	11.00
Ethnic	Malay	629	98.60
	Chinese	2	0.30
	Indian	3	0.50
	Others	4	0.60
Academic Qualification	No school	54	8.50
	UPSR	51	8.00
	PMR/SRP	145	22.70
	SPM/SPMV	302	47.30
	STPM/STAM/Sijil/Diploma	75	11.80
	Bachelor Degree	9	1.40
	Master Degree	2	0.30
Doing Business as a Main Job	Yes	552	86.5
	No	86	13.5

Respondents profile was analysed for the discussion of the results. The data were not analysed to address the specific research question of this study, but to draw a clear understanding with regard to the respondents' profile. Table 5.3 presents the respondents profile of this study.

From 638 respondents, 30.41 %, 30.9 %, 21.16 % and 15.67 % of the respondents were between the age of 36-45, 46-55, 26-35 and above 56 years old, respectively. The remaining 2.67 % of the respondents were in the 18-25 years old group. For marital status, majority of the respondents (85.7 %) were married, 11 % of them were separated/divorced/widow and 3.3 % were still single. For ethnicity, 629 (98.6 %) of the respondents were Malays, 2 (.3 %) Chinese and 3 (.5 %) were Indian. The remaining .6 percent of the respondents were in the others group.

In terms of gender, 99.8 % of the respondents were female and .2 % were male. As for educational qualification, 47.3 % of the respondents had SPM/SPMV, 22.7 % of them had PMR/SRP and 11.8 % of the respondents had STPM/STAM/Sijil/Diploma. The rest of the respondents had UPSR (8.0 %), bachelor degree (1.4 %), and master degree (.3 %). However, 8.5 % of the respondent did not have any educational qualification (no school). For doing business as the main job, majority of the respondents (552, 86.5 %) operated business as their main job and the remaining 86 respondents (13.5 %) took up business as second income job.

As a whole, the respondents profile shows a variety of respondents as presented by different categories of age groups, gender, status, ethnicity, and academic qualifications pointing to diverse backgrounds among the respondents.

### 5.3.2 The Participants' Involvement in AIM Microcredit Programme

Table 5.4

*Mean Income Earnings and Savings of the Participants*

ITEMS	NEW PARTICIPANTS	OLD PARTICIPANTS
Mean income earnings after joining the microcredit programme	1814.93	2847.07
Mean savings after joining the microcredit programme	2071.71	5738.86

In addition to the above analysis on the respondents' demographics profile, this study also extended the analysis on the participants' involvement in AIM microcredit programme using the independent t-test analysis on income earnings and savings after joining the AIM microcredit programme.

From the analysis, it was shown that the mean income earnings and savings after joining the AIM microcredit programme for new participants (146) were RM1814.93 and RM2071.71, respectively. Meanwhile, old participants (492) earned RM2847.07 for mean income earnings and RM5738.86 for mean savings after joining the AIM microcredit programme.

Thus, from the above analysis using independent t-test, it was shown that there was no difference in income after joining the microcredit programme between new and old participants ( $t=-1.465$ ,  $p>.05$ ). Similarly, the findings also demonstrated no difference in

savings results after joining the microcredit programme between new and old participants ( $t=-1.193$ ,  $p>.05$ ).

Table 5.5  
*Results of T-Test Analysis*

Items	Mean income earnings for new participants	Mean income earnings for old participants	Differences	P-value	Sig
Income earnings after joining the microcredit programmes	1814.93	2847.07	-1032.142	-1.1465	-
Savings after joining the microcredit programmes	2071.71	5738.86	-3667.149	-1.193	-

#### 5.4 DESCRIPTIVE ANALYSIS ON CONSTRUCTS OF THE STUDY

Descriptive analysis in Table 5.6 summarises and describes the main characteristics of the data set for the study. According to Pallant (2013), the descriptive analysis is important to check if there is any violation of the assumptions underlying the statistical techniques in addressing the research questions.

From Table 5.6, all the dimensions demonstrated an acceptable mean ranged from 7.45 to 8.65, whereas the standard deviations for all dimensions ranged from acceptable

values of 1.470 to 1.745. Therefore, all dimensions in this study achieved the acceptable and satisfactory implementation level.

Table 5.6  
*Descriptive Statistic of the Constructs*

Construct	N	Minimum	Maximum	Mean	Std. Deviation
Personal Attitude	638	2	10	8.17	1.646
Subjective Norm	638	3	10	8.65	1.586
Perceived Behavioural Control	638	3	10	7.74	1.666
Participants' Entrepreneurial Intention	638	3	10	8.59	1.618
Participants' Entrepreneurial Behaviour	638	3	10	7.45	1.745
Participants' Quality of Life	638	1	10	7.64	1.470

## 5.5 EVALUATION OF MEASUREMENT MODEL

In analysing the data using Smart PLS version 3.0, the researcher evaluated the measurement model at the items level. The measurement model (known as outer model) was examined to describe the reliability and validity of the items as to determine how well the items loaded on the constructs. In other words, the measurement model was to demonstrate the constructs reliability and validity in order to ensure the survey items used to measure the particular constructs are consistent and reliable. Henceforth, the

items in the measurement model needed to establish both convergent and discriminant validity. This is consistent with Hair et al. (2014a) where they conducted the construct reliability and validity through convergent and discriminant validity. In conjunction to this, this study ran PLS algorithm to generate the factor loadings, composite reliability (CR), average variance extracted (AVE) for convergent validity analysis and cross loading and the Fornell-Larcker criterion for discriminant validity analysis.

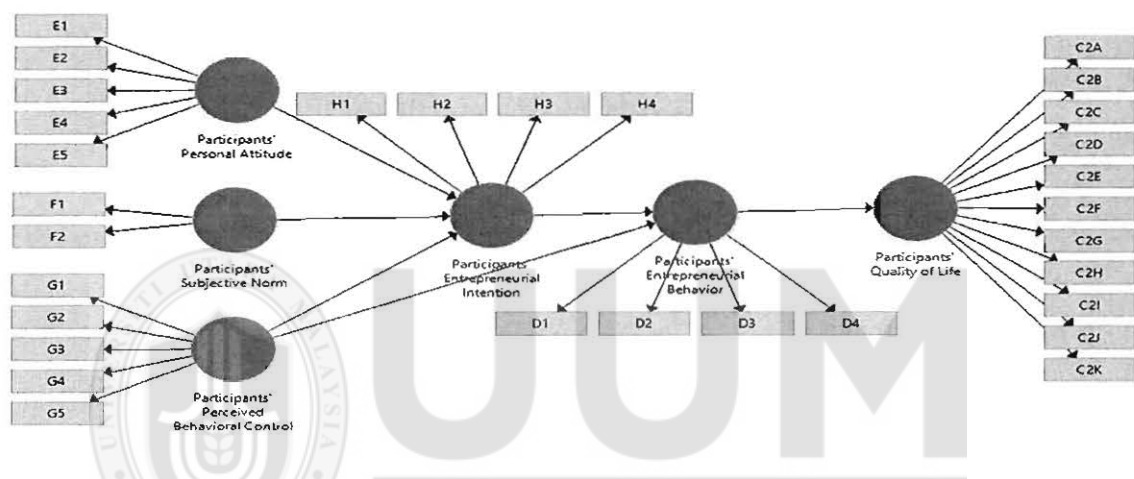


Figure 5.1  
Original Study Model in PLS

### 5.5.1 Convergent Validity

In measurement model evaluation, firstly the convergent validity analysis was examined. Therefore, in order to assess the convergent validity, the factor loadings, composite reliability (CR) and average variance extracted (AVE) were assessed (Hair et al., 2014a).

### 5.5.1.1 Factor Loadings

Firstly, the factor loadings of all constructs were examined where factor loadings of .70 or more were considered as acceptable (Hair et al., 2014a). The factor loadings of .50 and less should be considered for removal only if the deletion led to an increase in composite reliability and AVE above the suggested threshold value. Table 5.7 presents factor loadings to each of the construct obtained from the model which included: participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention, participants' entrepreneurial behaviour, and participants' quality of life. Table 5.7 and Figure 5.2 show that all factor loadings were higher than .70. Therefore, all factor loadings in the study met the minimal requirement.

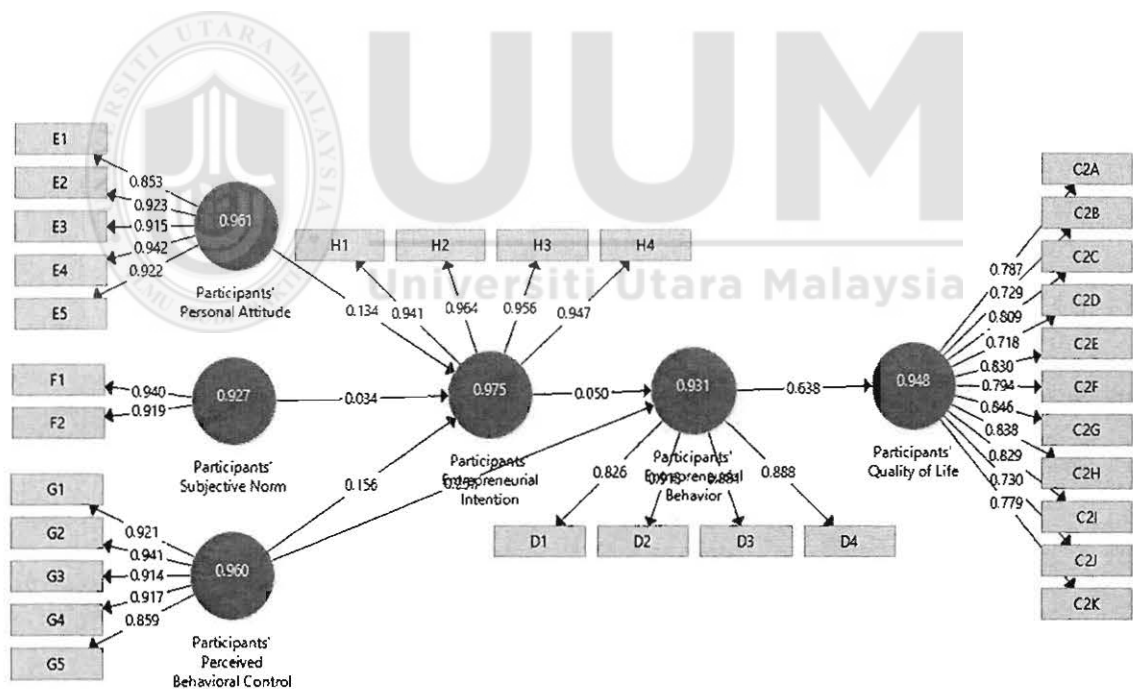


Figure 5.2  
Factor Loadings Results



### 5.5.1.2 Composite Reliability (CR)

Traditionally, Cronbach's alpha was applied to assess the composite reliability (CR). However, this study opted to use Smart PLS version 3.0 by taking into account the individual factor loadings of the constructs which were more appropriate to determine the reliability. This assessment was also known as internal consistency reliability which specifically looked at the reliability of each individual item.

According to Hair et al. (2014), the composite reliability values of .60 and .70 are considered acceptable where any value less than .60 indicate the lack of composite reliability. Meanwhile, Nunnally (1978) suggested the composite reliability values of .70 or higher for basic research. Table 5.7 and Figure 5.3 display the composite reliability (CR) values for all constructs that ranged from .927 to .975 which were within the acceptable values.

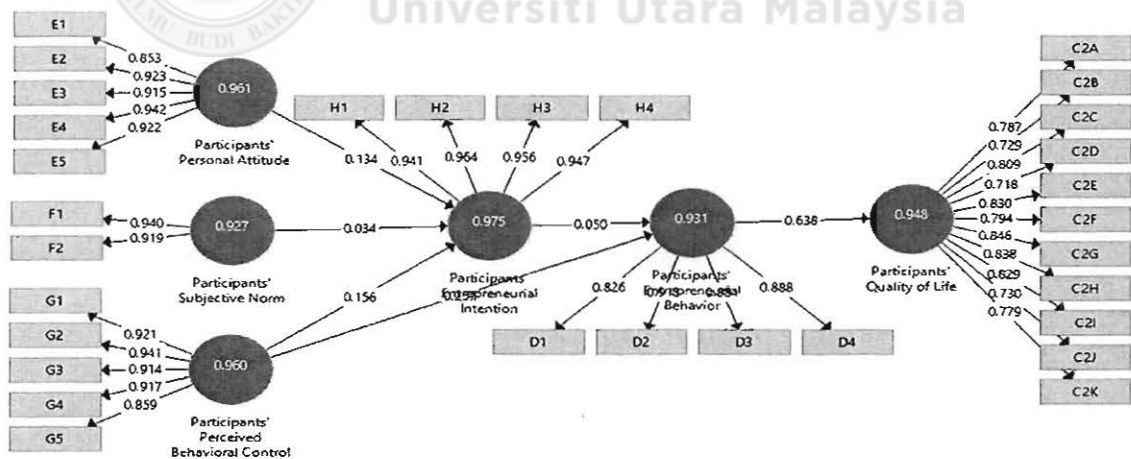


Figure 5.3  
Composite Reliability Results

### 5.5.1.3 Average Variance Extracted (AVE)

Next, the average variance extracted (AVE) of the constructs were measured. According to Hair et al. (2014a), the ideal value of AVE should be more than .50. Table 5.7 and Figure 5.4 exhibit the AVE values within the range of .626 to .906 which met the minimal requirement of .50. From these assessments, the result shows that an adequate convergent validity was achieved.

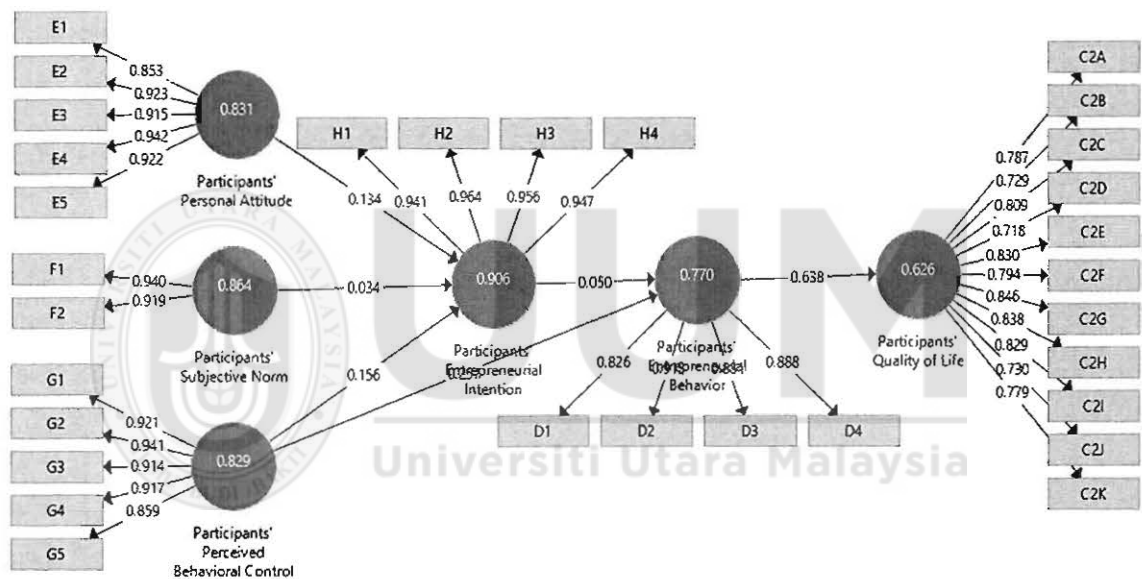


Figure 5.4  
Average Variance Extracted (AVE) Results

Table 5.7  
Results of Convergent Validity Analysis

Variables/Constructs	Items	Factor Loading (Loadings) (>0.50)	Composite Reliability (CR) (>0.70)	Average Variance Extracted (AVE) (>0.50)
Participants' Personal Attitude	E1	0.853	0.961	0.831
	E2	0.923		
	E3	0.915		
	E4	0.942		
	E5	0.922		
Participants' Subjective Norm	F1	0.940	0.927	0.864
	F2	0.919		
Participants' Perceived Behavioural Control	G1	0.921	0.960	0.829
	G2	0.941		
	G3	0.914		
	G4	0.917		
	G5	0.859		
Participants' Entrepreneurial Intention	H1	0.941	0.975	0.906
	H2	0.964		
	H3	0.956		
	H4	0.947		
Participants' Entrepreneurial Behaviour	D1	0.826	0.931	0.77
	D2	0.913		
	D3	0.881		
	D4	0.888		
Participants' Quality of Life	C2A	0.787	0.948	0.626
	C2B	0.729		
	C2C	0.809		
	C2D	0.718		
	C2E	0.830		
	C2F	0.794		
	C2G	0.846		
	C2H	0.838		
	C2I	0.829		
	C2J	0.730		
	C2K	0.779		

### 5.5.2 Discriminant Validity

After the convergent validity analysis, the discriminant validity analysis was performed on the constructs. Discriminant validity was conducted to assess the extent to which a construct was different from one another. Ideally, it was conducted to compare the square root of the AVE values with the latent variable correlations, requiring the square root of each construct's AVE to be greater than its highest correlation with any other construct. In respect to this, the square root of each construct's AVE was assessed with correlation between constructs. In doing this, the cross-loading values were examined to establish support for the discriminant validity. Similarly, the Fornell-Larcker criterion was also examined to establish support for the discriminant validity. These were in line with the suggestions by Hair et al. (2014a) and Chin (2010).

In addition, the cross-loading values showed that the diagonal values were higher than the other values in the column and row. In the same way, the Fornell-Larcker criterion values also showed that the square roots of AVE in diagonal setting were higher than the correlations with the other constructs. Therefore, the constructs were considered as well discriminated. Table 5.8 and Table 5.9 present the acceptable square root of AVE in diagonal setting.

In a nutshell, all the assessments established that the construct reliability and validity of the measurement model met the minimal requirement. As such, it was assumed that the structural model evaluation was reliable and valid.

Table 5.8

*Results of Cross Loadings*

	Participants' Quality of Life	Participants' Entrepreneurial Behaviour	Participants' Personal Attitude	Participants' Subjective Norm	Participants' Perceived Behavioural Control	Participants' Entrepreneurial Intention
C2A	0.787	0.534	0.500	0.419	0.523	0.379
C2B	0.729	0.477	0.463	0.365	0.439	0.381
C2C	0.809	0.510	0.500	0.441	0.528	0.399
C2D	0.718	0.500	0.500	0.467	0.511	0.421
C2E	0.830	0.485	0.513	0.435	0.489	0.445
C2F	0.794	0.496	0.476	0.384	0.493	0.408
C2G	0.846	0.487	0.473	0.428	0.498	0.424
C2H	0.838	0.478	0.474	0.411	0.489	0.424
C2I	0.829	0.479	0.443	0.383	0.437	0.344
C2J	0.730	0.460	0.402	0.351	0.443	0.348
C2K	0.779	0.508	0.466	0.448	0.429	0.401
D1	0.518	<b>0.826</b>	0.608	0.441	0.560	0.504
D2	0.595	<b>0.913</b>	0.715	0.543	0.658	0.595
D3	0.515	<b>0.881</b>	0.608	0.441	0.615	0.553
D4	0.559	<b>0.888</b>	0.705	0.529	0.655	0.582
E1	0.534	0.676	<b>0.853</b>	0.550	0.655	0.575
E2	0.553	0.708	<b>0.923</b>	0.619	0.720	0.682
E3	0.575	0.666	<b>0.915</b>	0.651	0.701	0.736
E4	0.555	0.708	<b>0.942</b>	0.663	0.733	0.727
E5	0.525	0.681	<b>0.922</b>	0.684	0.723	0.744
F1	0.500	0.528	0.686	<b>0.940</b>	0.612	0.646
F2	0.471	0.510	0.606	<b>0.919</b>	0.582	0.558
G1	0.542	0.662	0.722	0.587	<b>0.921</b>	0.688
G2	0.552	0.667	0.738	0.597	<b>0.941</b>	0.702
G3	0.539	0.635	0.707	0.602	<b>0.914</b>	0.682
G4	0.575	0.684	0.719	0.598	<b>0.917</b>	0.705
G5	0.563	0.582	0.642	0.542	<b>0.859</b>	0.670
H1	0.518	0.620	0.718	0.624	0.730	<b>0.941</b>
H2	0.467	0.608	0.737	0.616	0.731	<b>0.964</b>
H3	0.480	0.605	0.741	0.626	0.728	<b>0.956</b>
H4	0.451	0.595	0.715	0.609	0.694	<b>0.947</b>

Table 5.9  
Results of Fornell and Larcker Criterion

	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
Participants' Entrepreneurial Behaviour	0.878					
Participants' Entrepreneurial Intention	0.638	0.952				
Participants' Perceived Behavioural Control	0.710	0.757	0.911			
Participants' Personal Attitude	0.753	0.765	0.775	0.912		
Participants' Quality of Life	0.624	0.504	0.608	0.601	0.791	
Participants' Subjective Norm	0.559	0.650	0.643	0.698	0.523	0.930

## 5.6 EVALUATION OF STRUCTURAL MODEL

At this stage, the determination coefficient ( $R^2$ ), effect size ( $f^2$ ), collinearity assessment (VIF) and predictive relevance of the model ( $Q^2$ ) were assessed. In addition, the standardised path coefficients were also assessed in the structural model evaluation to test the hypothesised relationship between exogenous (IV) and endogenous (DV) variables in the model. Therefore, the assessed structural model provided evidence to support the conceptual framework of this study.

Firstly, the researcher run the PLS algorithm to generate convergent validity and discriminant validity. Secondly, the same PLS algorithm results was used to assess the determination coefficient ( $R^2$ ), effect size ( $f^2$ ) and collinearity assessment (VIF). Thirdly, the blindfolding analysis was conducted to generate predictive relevance of the

model ( $Q^2$ ). Finally, bootstrapping was conducted with 5000 bootstrap samples bigger than the actual sample to generate the path coefficients.

### 5.6.1 Determination Coefficient ( $R^2$ )

Once the PLS algorithm was run, the determination coefficient ( $R^2$ ) was assessed. The determination coefficient ( $R^2$ ) denoted the percentage of variance explained by the model. Specifically, the  $R^2$  value explained the predictive power of the structural model. This was in line with Chin (2010) who suggested that  $R^2$  for each dependent variable in structural model needed to be assessed. The acceptable  $R^2$  value ranged from 0 to 1 (Hair et al., 2014a). Supportively, Götz, Liehr-Gobbers, and Krafft (2010) noted that the acceptable values depended on the individual study where they pointed that higher percentage of variance explained will increase the  $R^2$ . In response to this, Hair et al., (2011) indicated that a result of .20 was considered high in the discipline of consumer behaviour. On the other hand, Rojas (2004) stated that  $R^2$  value of .308 was deemed as high in the quality of life discipline. Table 5.10 and Figure 5.5 show the percentage of variance explained by the model. It can be seen that the percentage of variance explained was between the acceptable ranges.

Table 2.51  
*Results of Determination Coefficient ( $R^2$ )*

Constructs	$R^2$	Predictive Power
Participants' Entrepreneurial Intention	0.664	High
Participants' Entrepreneurial Behaviour	0.528	High
Participants' Quality of Life	0.390	High

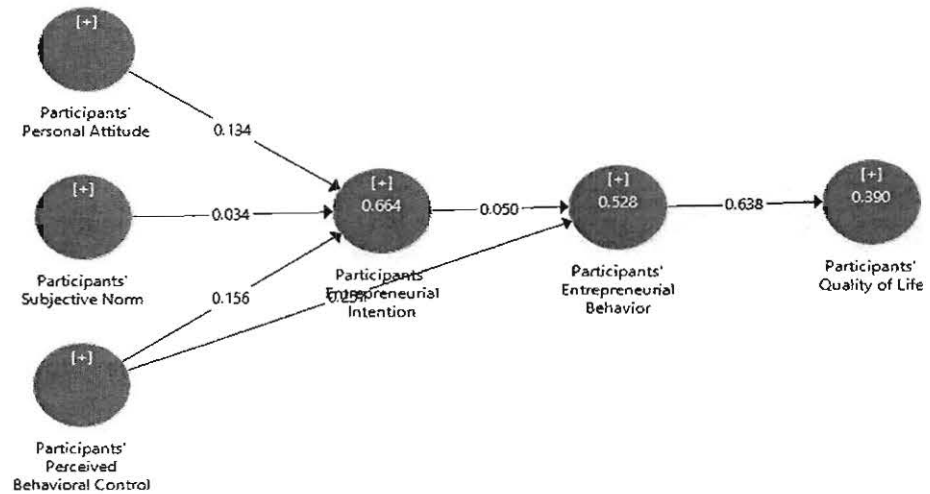


Figure 5.5  
*Determination Coefficient ( $R^2$ )*

### 5.6.2 Effect Size ( $f^2$ )

Besides observing the  $R^2$  to determine the model strength, the researcher also conducted the effect size ( $f^2$ ) estimation. Effect size ( $f^2$ ) estimation was conducted “to see whether the impact of particular independent latent variable on dependent latent variable has substantive impact” (Chin, 2010). The evaluation was done by assessing the structural model twice using the formula below i.e., the second iteration excluded the independent latent variable:

$$\text{Effect size: } f^2 = \frac{R^2_{\text{included}} - R^2_{\text{excluded}}}{1 - R^2_{\text{included}}}$$

However, the effect size ( $f^2$ ) can be directly obtained after conducting the PLS algorithm procedure by using Smart PLS version 3.0.



As suggested by Cohen (1988), the values for  $f^2$  of .02, .15 or .35 respectively indicated small, medium or large influence on the dependent latent variable (Hair et al., 2014). As shown in Table 5.11 and Figure 5.6, the independent latent variable affecting the particular dependent latent variable was considered through one by one assessment.

From the table, the dependent latent variable 'participants' entrepreneurial intention' was explained by three independent latent variables (participants' personal attitude, subjective norm, and perceived behavioural control) whose effect size ranged from .034 and .156. Following the guideline from Cohen (1988), the effect size was considered between small to medium. It can also be seen that the dependent latent variable 'participants' entrepreneurial behaviour' was explained by the independent variable of 'participants' entrepreneurial intention' whose effect size was .050 which was considered as small. On the other hand, the effect size between the dependent latent variable 'participants' entrepreneurial behaviour' and the independent variable 'perceived behavioural control' was regarded as medium at .257. Finally, the effect size of .638 was considered as large between the dependent latent variable 'participants' quality of life and the independent variable of 'participants' entrepreneurial behaviour'.

Table 5.11  
Results of Effect Size ( $f^2$ )

Constructs	$R^2$	$F^2$	Effect Size ( $f^2$ ) Rating
Participants' Entrepreneurial Intention	0.664		
Participants' Personal Attitude	-	0.134	Small Effect
Participants' Subjective Norm	-	0.034	Small Effect
Participants' Perceived Behavioural Control	-	0.156	Medium Effect
Participants' Perceived Behavioural Control	-	0.257	Medium Effect
Participants' Entrepreneurial Intention	-	0.050	Small Effect
Participant' Quality of Life	0.390		
Participants' Entrepreneurial Behaviour	-	0.638	Large Effect

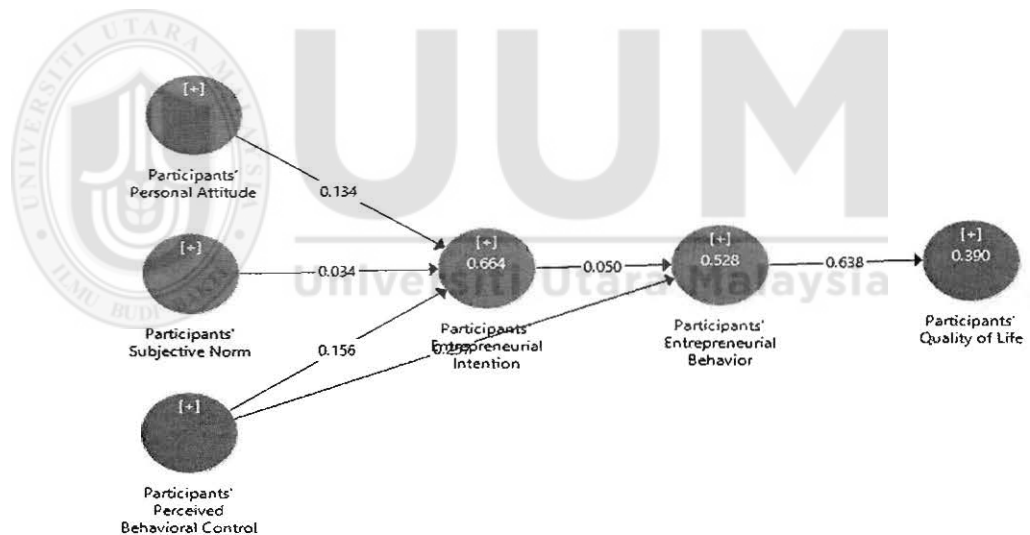


Figure 5.6  
Effect Size ( $f^2$ )

### 5.6.3 Collinearity Assessment (VIF)

Later, the collinearity assessment (VIF) was examined. Collinearity assessment (VIF) dictated that there should not be any high correlation between the constructs. According to Hair et al. (2014a), high correlation between the constructs will create problem in the methodology. This problem was called multicollinearity which indicated collinearity among the constructs. If this happens, the researcher needed to eliminate redundant constructs to avoid any impact on the statistical significance (Hair et al., 2014a). The guidelines to assess collinearity was based on the VIF where the cut-off point was VIF <5. If the collinearity was more than 5, the corresponding constructs needed to be eliminated. Table 5.12 displays that the correlation between the constructs were at VIF <5. Therefore, it was acceptable.

Table 5.12  
*Results of Collinearity Assessment (VIF)*

	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
Participants' Entrepreneurial Behaviour					1.000	
Participants' Entrepreneurial Intention	2.343					
Participants' Perceived Behavioural Control	2.343	2.642				
Participants' Personal Attitude		3.019				
Participants' Quality of Life						
Participants' Subjective Norm		2.052				

#### 5.6.4 Predictive Relevance of the Model ( $Q^2$ )

Besides having the  $R^2$  assessment to predict relevance, there was also a need to assess the model's predictive relevance ( $Q^2$ ) (Chin, 2010). In order to examine the model's predictive relevance ( $Q^2$ ), the blindfolding procedure was applied to obtain the  $Q^2$  value (Stone, 1974; Geisser, 1975). According to Geisser (1975), a model's predictive relevance can be assessed using the cross-validated redundancy procedure which represents a predictive sample reuse technique. The guidelines suggested by Fornell and Cha (1994) reported the values of  $Q^2$  greater than zero indicated that the model had predictive relevance while the values of  $Q^2$  of less than zero implied a lack of predictive relevance. Table 5.13 and Figure 5.7 show that cross-validated redundancy  $Q^2$  of .563, .382 and .226 respectively on the dependent latent variables of participants' entrepreneurial intention, participants' entrepreneurial behaviour and participants' quality of life. The results disclosed that the model had predictive relevance. This result met the criteria stipulated by Fornell and Cha (1994).

Table 5.13  
*Results of Predictive Relevance of the Model ( $Q^2$ )*

	SSO	SSE	$Q^2 (=1 - \text{SSE}/\text{SSO})$	Predictive Relevance of the Model ( $Q^2$ )
Participants' Entrepreneurial Behaviour	2,552.00	1,577.30	0.382	Has predictive relevance
Participants' Entrepreneurial Intention	2,552.00	1,114.32	0.563	Has predictive relevance
Participants' Perceived Behavioural Control	3,190.00	3,190.00		
Participants' Personal Attitude	3,190.00	3,190.00		
Participants' Quality of Life	7,018.00	5,432.50	0.226	Has predictive relevance
Participants' Subjective Norm	1,276.00	1,276.00		

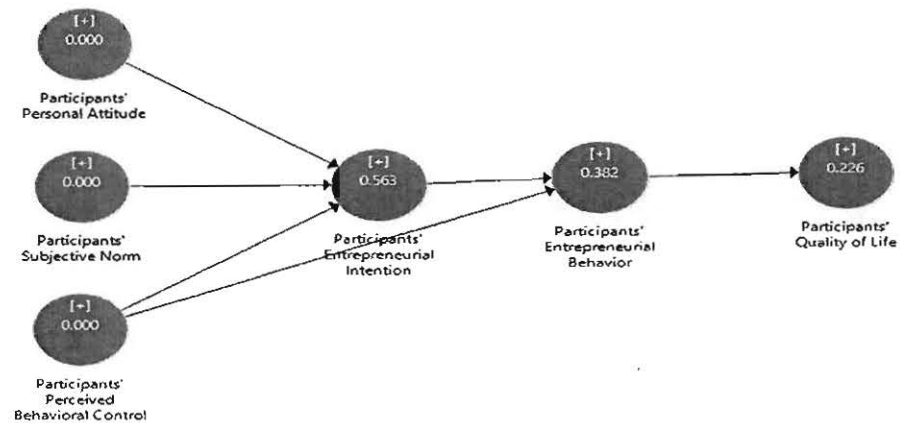


Figure 5.7  
*Predictive Relevance of the Model ( $Q^2$ )*

## 5.7 STRUCTURAL MODEL PATH COEFFICIENT/RELATIONSHIPS

In the previous sections, the researcher conducted the PLS algorithms to evaluate the measurement model followed by the blindfolding and bootstrapping procedures to assess the structural model. In this section, the same bootstrapping procedure was also used to assess the path coefficients and t-values to test the direct relationship between exogenous (IV) and endogenous (DV) variables. Thus, the bootstrapping procedure was used to provide evidence to support the hypotheses of this study. The next section will further discuss on the hypotheses of the study which consists of the direct relationships, multi group analysis, and the mediating analysis.

### **5.7.1 Direct Relationship Analysis between the Exogenous (IV) and Endogenous (DV)/ The Hypotheses Testing**

There were six hypotheses developed to test the direct relationship. From the bootstrapping procedure, the hypotheses results were obtained and examined. Table 5.14 and Figure 5.8 show the final results that exhibited the standard beta values of the path analysis and displayed the t-values of the path model significance.

Firstly, hypothesis H<sub>1a</sub> of a positive and significant influence between participants' personal attitude and entrepreneurial intention was supported at .01 level of significance ( $b=.369$ ,  $t=5.656$ ,  $p<.05$ ). Secondly, hypothesis H<sub>1b</sub> asserted a positive and significant influence between participants' subjective norm and participants' entrepreneurial intention which was supported at .01 level of significance ( $b=.154$ ,  $t=3.649$ ,  $p<.05$ ). Thirdly, hypothesis H<sub>1c</sub> indicated a positive and significant influence between participants' perceived behavioural control and participants' entrepreneurial intention and was proven as significant at .01 level of significance ( $b=.372$ ,  $t=5.646$ ,  $p<.05$ ).

Fourthly, hypothesis H<sub>1d</sub> pointed a positive and significant relationship between participants' perceived behavioural control and participants' entrepreneurial behaviour which was supported at .01 level of significance ( $b=.533$ ,  $t=11.434$ ,  $p<.05$ ). Fifthly, hypothesis H<sub>1e</sub> established a positive and significant relationship between participants' entrepreneurial intention and participants' entrepreneurial behaviour which was supported at .01 level of significance ( $b=.234$ ,  $t=5.076$ ,  $p<.05$ ). Finally, hypothesis H<sub>1f</sub> showed that participants' entrepreneurial behaviour was positively and significantly

influenced by the participants' quality of life at .01 level of significance ( $b=.624$ ,  $t=20.927$ ,  $p<.05$ ).

Table 5.14  
*Results of Hypotheses Testing*

Hypothesis 1	Relationship (Exogenous-->Endogenous)	Standard Beta	Standard Error	T- Values	P Values	Decision
H1a	PA -> PEI	0.369	0.065	5.656	0.00***	Supported
H1b	SN -> PEI	0.154	0.043	3.649	0.00***	Supported
H1c	PBC -> PEI	0.372	0.066	5.646	0.00***	Supported
H1d	PBC -> PEB	0.533	0.047	11.434	0.00***	Supported
H1e	PEI -> PEB	0.234	0.046	5.076	0.00***	Supported
H1f	PEB -> PQL	0.624	0.030	20.927	0.00***	Supported

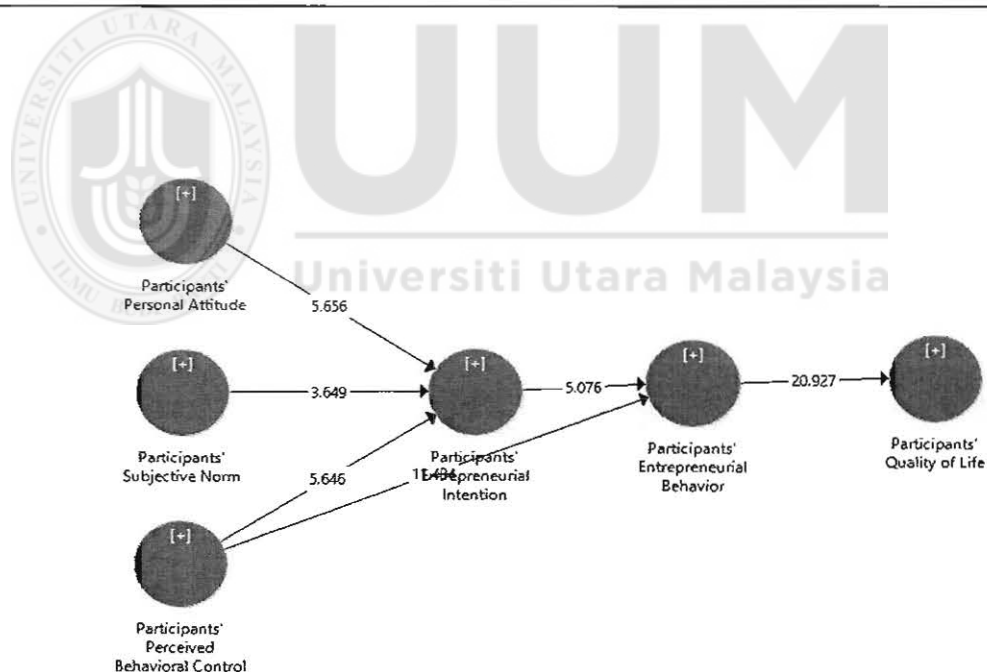


Figure 5.8  
*Path Coefficients*

### 5.7.2 Multi Group Analysis

In this study, multi group analysis was also conducted to test the differences between path coefficients in the structural model across two groups of data. Hair et al. (2014) stated that a multi group analysis was conducted to assess PLS path models between two groups whether there are differences in parameter estimates for each group. In respect to this, Eberl (2010) argued that it was possible to differentiate the different path coefficients between two groups of data.

In the context of this study, the different path concerning the impact of AIM microcredit programme on its participants' quality of life can be revealed using the result of path coefficients across two groups of data. As such, multi group analysis was conducted to observe the path coefficients across the two groups.

In order to conduct this assessment, the researcher divided the length of years joining the AIM microcredit programme participants using SPSS analysis which created separate data sets of two groups; participants who joined the microcredit for less than one year (new participants=146) and participants who joined the microcredit for more than one year (old participants=492). Later on, comparison was made by running the PLS model. Initially, Smart PLS version 3.0 generated the data group. In the next step, the researcher ran the PLS algorithm. Later, multi group analysis was then conducted by bootstrapping 5000 subsamples. Once the calculation was finished, statistical results were obtained. A comparison between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants) was analysed using the p-value.



Table 5.15

*PLS Multi Group Analysis Results in Details*

	New Participants (146 Respondents)		Old Participants (492 Respondents)		Diff	p-Value	sig
	Beta	SE	Beta	SE			
<b>PA -&gt; PEI</b>	0.550	0.098	0.322	0.073	0.228	0.033	*
<b>SN -&gt; PEI</b>	0.219	0.080	0.134	0.047	0.085	0.181	-
<b>PBC -&gt; PEI</b>	0.152	0.082	0.431	0.074	0.280	0.994	-
<b>PBC -&gt; PEB</b>	0.446	0.084	0.564	0.053	0.117	0.881	-
<b>PEI -&gt; PEB</b>	0.370	0.080	0.190	0.051	0.179	0.032	*
<b>PEB -&gt; PQL</b>	0.588	0.074	0.637	0.031	0.049	0.716	-

Table 5.15 shows the results of multi group analysis in the detail. Overall, the path coefficients between the two groups showed no difference in quality of life between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). As shown in Table 5.15, the results of p-value at .181 indicates no significant difference in the effect of subjective norm of the participants on participants' entrepreneurial intention between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). Similarly, p-value of .994 demonstrated no significant difference in the effect of perceived behavioural control of participants on participants' entrepreneurial intention between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). In addition, the p-value at .881 indicated no significant difference in the effect of perceived behavioural control of participants on participants' entrepreneurial behaviour between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). In fact,

the results of p-value at .716 also revealed no significant difference in the effect of participants' entrepreneurial behaviour on the participants' quality of life between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants).

Although the overall path coefficients between the two groups showed no different in quality of life between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants), there were only two relationships (path coefficients) which differed significantly across the two groups. Evidently, the effect of participants' personal attitude on participants' entrepreneurial intention was significantly higher ( $p < .05$ ) for participants who joined the microcredit for less than one year (new participants). Similarly, the effect of participants' entrepreneurial intention on participants' entrepreneurial behaviour was also significantly higher ( $p < .05$ ) for participants who joined the microcredit for less than one year (new participants).

Table 5.16  
*PLS Multi Group Analysis Results*

	Path Coefficients-differences (Group 1 and Group 2)	p-Value	sig
<b>PA -&gt; PEI</b>	0.228	0.033	*
<b>PBC -&gt; PEB</b>	0.117	0.881	-
<b>PBC -&gt; PEI</b>	0.280	0.994	-
<b>PEB -&gt; PQL</b>	0.049	0.716	-
<b>PEI -&gt; PEB</b>	0.179	0.032	*
<b>SN -&gt; PEI</b>	0.085	0.181	-

Table 5.16 shows the results of multi group analysis. The table presents the differences in quality of life between the two groups involved; participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). The table revealed that hypothesis H<sub>2</sub> was not significant. The path coefficients between the two groups showed no difference in quality of life between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants).

### 5.7.3 Mediating Analysis

A mediating analysis was also conducted in this study. The mediational model hypothesises that the participants' personal attitude, subjective norm and perceived behavioural control affected the participants' entrepreneurial intention, which in turn influenced the participants' entrepreneurial behaviour. Furthermore, it was also hypothesised that the participants' entrepreneurial intention affected the participants' entrepreneurial behaviour and eventually influenced the participants' quality of life.

In correspond to this, a bootstrapping procedure was applied to estimate the indirect effects ( $a*b$ ) in order to test the mediation effect (Hair et al., 2014). In this procedure, the Smart PLS version 3.0 calculated the indirect effects; thus, no manual calculation was needed to evaluate the significance of indirect effects. The Smart PLS version 3.0 generated the confidence interval. Accordingly, mediation effect was present if the t-value of  $a*b > 1.96$ . Table 5.17 shows that the path coefficient and the t-value of  $a*b$ .

Apparently, there was a mediation effect for all the hypotheses of the relationships in concern with mediating testing effects. From the table, hypothesis H<sub>3a</sub> was significantly supported by t value of  $a*b=3.317$  which exhibited a mediating effect of participants' entrepreneurial intention between the participants' personal attitude and participants' entrepreneurial behaviour. In addition, hypothesis H<sub>3b</sub> with t-value of  $a*b=2.943$  demonstrated a significant mediating effect of participants' entrepreneurial intention between the participants' subjective norm and participants' entrepreneurial behaviour. Subsequently, hypothesis H<sub>3c</sub> of participants' entrepreneurial intention revealed a significant mediating effect with t-value of  $a*b=4.124$  between the relationship of participants' perceived behavioural control and participants' entrepreneurial behaviour. Finally, hypothesis H<sub>4</sub> of the relationship between the participants' entrepreneurial intention and participants' quality of life was significantly mediated at t-value of  $a*b=5.030$  with participants' entrepreneurial behaviour.

Table 5.17

*Results of Mediating Analysis*

Hypotheses 3 and 4	Relationship (Exogenous-->Endogenous)	Standard Beta	Standard Error	T- Values	P Values	Decision
H <sub>3a</sub>	PA -> PEB	0.086	0.026	3.317	0.001***	Supported
H <sub>3b</sub>	SN -> PEB	0.036	0.012	2.943	0.003***	Supported
H <sub>3c</sub>	PBC -> PEB	0.087	0.021	4.124	0.000***	Supported
H <sub>4</sub>	PEI -> PQL	0.146	0.029	5.030	0.000***	Supported

## 5.8 CHAPTER SUMMARY

This chapter presented and reported the findings. It presented and reported findings on the response rate, data entry checking, data screening and cleaning to detect missing values and to meet normality assumptions. Additionally, it also presented and reported findings of the respondents' profiles and characteristics of the data. Following the characteristics of the data, the findings showed acceptable and satisfactory level of implementation. Later, the assessment on measurement model and structural model were done. After that, the structural model was examined to test the hypotheses, multi group analysis, and mediating analysis. The results were reported as per the above discussions.



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## **CHAPTER SIX**

### **DISCUSSION AND CONCLUSION**

#### **6.1 OVERVIEW OF THE CHAPTER**

This chapter recapitulates and discusses the purpose of this study. The chapter highlights the contributions from the theoretical, empirical and methodological aspects. It also discusses limitations of the study and recommendations for future research. Finally, this chapter ends with a conclusion of this study.

#### **6.2 DISCUSSION**

The conceptual framework presented in this study was tested based on the relationships between the involved variables. Initially, the measurement model was assessed and followed by assessment on the structural model. Once all analysis met the minimal requirement, the researcher proceeded with the hypothesis testing. The following sub-sections are organised to further discuss the result of the hypotheses testing in correspond to the research questions and objectives.

##### **6.2.1 To Examine the Impact of Amanah Ikhtiar Malaysia Microcredit Programme on Participants' Quality of Life**

The first objective is to examine the impact of AIM's microcredit programme on participants' quality of life. In conjunction to this, path coefficients were examined.

Firstly, the result supported hypothesis H<sub>1a</sub> which states a positive and significant influence of participants' personal attitude on participants' entrepreneurial intention. The present finding suggests that those participants with favourable personal attitude will influence participants' entrepreneurial intention. A study by Pitt and Khandker (1996) supported the finding as they reported how microcredit programmes can alter villagers' attitude in nurturing entrepreneurial intention. Under normal condition, individuals will normally evaluate favourable or unfavourable attitude based on the source of information they receive. If the condition leads to the individual's evaluation as being favourable, positive personal attitude is resulted and influences a positive entrepreneurial intention. In the same manner, the participants of a microcredit programme will evaluate favourable or unfavourable perception based on the source of information they receive which leads to positive or negative personal attitude towards entrepreneurial intention. Furthermore, there is positive participant's personal attitude towards positive entrepreneurial intention. This findings are in parallel with the studies by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012) who claimed that personal attitude has significant effects on entrepreneurial intention.

Secondly, the result confirms the presence of positive and significant influence of participants' subjective norm on participants' entrepreneurial intention as indicated by hypothesis H<sub>1b</sub>. It shows that the participants' entrepreneurial intention arises from the influence of subjective norm. Alternatively, significant participants' subjective norm will influence entrepreneurial intention. This significant influence of participants' subjective norm on participants' entrepreneurial intention can be attributed to the

positive suggestion, encouragement, or even advices from people surroundings the participants whether they should engage in the entrepreneurial intention. Indirectly, this situation gives rise to positive participants' subjective norm of entrepreneurial intention. In a simple meaning, the subjective norm is considered as social influence which comes from the people surrounding the participants who approved and supported the participants to take on positive entrepreneurial intention. As a whole, higher subjective norm will create stronger participants' entrepreneurial intention. This finding is consistent with findings by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012) who revealed that subjective norm had significant effects on entrepreneurial intention.

Thirdly, Hypothesis H<sub>1c</sub> which indicates a positive and significant influence of participants' perceived behavioural control on participants' entrepreneurial intention was found to be in agreement with the result of the study. A study by Snodgrass and Sebstad (2002) claimed that microcredit programmes shaped and promoted individuals' preparedness for the future, self-confidence and self-esteem assuming that they have the ability or feeling of self-efficacy over their skills and resources. In return, this situation will influence the participants' entrepreneurial intention. Then again, the significant influence of participants' perceived behavioural control on participants' entrepreneurial intention can bring about positive or negative perceived behavioural control of entrepreneurship that will influence entrepreneurial intention. In addition, the participants with higher level of perceived behavioural control will have stronger entrepreneurial intention. This finding is in line with the findings of Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al.



(2010) and Karimi et al. (2012) who agreed that perceived behavioural control had significant effects on entrepreneurial intention.

Fourthly, the result supported H<sub>1d</sub> hypothesis which affirms that a positive and significant influence of participants' perceived behavioural control on participants' entrepreneurial behaviour. Retrospectively, an entrepreneurial behaviour is significantly influenced by positive or negative perceived behavioural control of entrepreneurship. In relation to this, the participants who are confident with their skills and resources will have positive entrepreneurial behaviour. To put it differently, participants who possess higher level of perceived behavioural control will have stronger entrepreneurial behaviour. Supportively, findings by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012) are in accordance with the study's finding where they revealed that perceived behavioural control had significant effects on entrepreneurial intention.

Fifthly, Hypothesis H<sub>1e</sub> is in tandem with the result where it indicated the presence of positive and significant influence of participants' entrepreneurial intentions on the participants' entrepreneurial behaviour. Generally, this relationship concurs with the participants' will of intention. In other words, the participants' entrepreneurial behaviour depends on the participants' entrepreneurial intention. This finding is in parallel with the studies conducted by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012) who unveiled that participants' entrepreneurial intentions had significant effects on entrepreneurial behaviour. In clearer note, higher participants' entrepreneurial intention leads towards stronger participants' entrepreneurial behaviour.

Lastly, the result showed a positive and significant influence of participants' entrepreneurial behaviour on the participants' quality of life which is consistent with hypothesis H<sub>1f</sub>. In general, the significant influence of participants' entrepreneurial behaviour on participants' quality of life is determined by participants' entrepreneurial behaviour. Ideally, the present finding demonstrates that a significant influence of participants' entrepreneurial behaviour on the participants' quality of life concurs with the impact chain model introduced by Hulme (2000). Hulme (2000) claimed that microcredit will cause changes in participants' behaviour and will end in another outcome. By the same token, Darnton (2008) stated that the behavioural change will affect a person's quality of life rather than being the end outcome. Similarly, Swain (2006) also claimed that an improvement in quality of life can result from a positive behaviour. In fact, this is also in line with Nader (2008) that stated self-esteem and confidence were enhanced through microcredit and led to improvement in the participants' quality of life. In addition, this is in line by a study conducted by Planet Finance (2008) in which microcredit programmes led positive self-esteem of micro entrepreneurs and improvement in participants' quality of life.

Therefore, microcredit programme will have an impact on the participants' quality of life through participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour enhancements. The microcredit is offered to the participants of microcredit programmes for self-employment activities. The microcredit promotes positives personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour that boost income-generating activities to improve the participants' quality of

life and take care for themselves and their families. As such, higher participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour will create stronger participants' quality of life. Therefore, the present finding revealed that participants' personal attitude, subjective norm and perceived behavioural control influenced the participants' entrepreneurial intentions which largely shaped the participants' entrepreneurial behaviour and influenced the participants' quality of life. The present study signifies that microcredit programme enhanced participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour which will eventually affect participants' quality of life. Thus, these findings brought enrichment to the literature in discussing the impact of microcredit programmes on participants' quality of life.

#### **6.2.2 To Analyse on the Differences in Quality of Life of New and Old Participants**

The second objective of the study is to analyse the differences in quality of life between the new and old participants. Hence, multi groups analysis was examined. In parallel to this, hypothesis 2 was tested to meet the research objective. This present finding reconfirmed that microcredit programmes improved the participants' quality of life which was captured through measuring the impact of AIM's microcredit programme has on participants' quality of life. However, despite the findings, surprising findings were found regarding the length of years joining in the AIM microcredit programme. The present finding indicates no difference in quality of life between new participants who joined the microcredit programme for less than one year (new participants=146) and old

participants who joined the microcredit programme for more than one year (old participants=492).

In comparing these two groups; new participants who joined the microcredit programme for less than one year (new participants) and old participants who joined the microcredit programme for more than one year (old participants); it was found that there was no difference in their quality of life. This finding lies in stark contrast with previous study conducted by Al-Mamun et al. (2010) where Al-Mamun et al. reported different quality of life between the new and old participants.

From the present findings, it was found that the new and old participants of the AIM microcredit programme did not demonstrate any difference in their quality of life as the path coefficients between the two groups showed no difference in quality of life between participants who joined the microcredit for less than one year (new participants) and participants who joined the microcredit for more than one year (old participants). In addition, this study has also extended the analysis on the respondents' involvement in AIM's microcredit programme using the independent t-test analysis. Supportively, the findings demonstrated that no slight difference in income and savings after joining the microcredit programmes between new participants who joined the microcredit programme for less than one year and old participants who joined the microcredit programme for more than one year.

Although the researcher expected to see different quality of life between new participants who joined the microcredit programme for less than one year and old participants who joined the microcredit programme for more than one year, the present

findings indicated that old participants of microcredit programmes who joined the microcredit programme for more than one year may insufficiently expand their potentials and opportunities to achieve better quality of life.

From the present findings, it shows that AIM microcredit programme need to come out with support programmes that address wider entrepreneurship activities for old participants who joined the microcredit programme for more than one year. These support programmes may be required for this group as the present findings indicated that AIM microcredit programme is only used by these participants (old participants) for survival. In conjunction to this issue, the survey also revealed that the respondents did state the lack of training and guidance from the AIM microcredit programme, as well as lacks of two way communications between the management and the participants. These highlighted points urged AIM microcredit programme to come out with initiatives to overcome these issues.

Logically, these old participants required motivations and supports to continuously thrive in their businesses. The greatest challenge for these old participants is to stay on track, overcome the obstacles and fuel up their enthusiasm. In parallel to this, these old participants need to connect with the entrepreneurship environment for professionalism and emotional supports to ensure they improved and increased their productivity. Without these motivations and supports from the management and the programmes itself, these old participants will typically do their businesses merely for survival. Furthermore, it is also suggested that AIM microcredit programme should profile the business activities involving these old respondents before providing further approval on

loan related to expansion of their businesses. In addition, it will ensure the risk on beneficiaries defaulting on loan uses and reduce these significant setbacks.

On the other hands, the present finding also reveals that only two relationships (path coefficients) differed significantly across the two groups where the effect of participants' personal attitude on participants' entrepreneurial intention was significantly higher ( $p < .05$ ) for new participants who joined the microcredit programme for less than one year. In the same way, the result exhibited the effect of participants' entrepreneurial intention on participants' entrepreneurial behaviour is significantly higher ( $p < .05$ ) for new participants who joined the microcredit programme for less than one year. An interesting result from the present findings showed that participants who joined the microcredit programme for less than one year (new participants) were associated with positive personal attitude. Elsewhere, it was demonstrated that the occurrence of positive personal attitude among those who joined the microcredit programme for less than one year (new participants) suggested positive personal attitude such as eagerness in doing business and higher level of motivation. Likewise, it was also revealed that the occurrence of positive entrepreneurial intention among those who joined the microcredit programme for less than one year (new participants) signified positive entrepreneurial intention towards the entrepreneurial behaviour for this group.

### **6.2.3 To Determine Whether Participants' Entrepreneurial Intention Mediates the Effect of Participants' Personal Attitude, Participants' Subjective Norm and Participant' Perceived Behavioural Control on Participants' Entrepreneurial Behaviour.**

For the third objective, three hypotheses were formulated to assess the mediation effect of participants' entrepreneurial intention in the relation to participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour. To achieve this objective, the mediating effect was examined. The result of the test supported hypothesis H<sub>3a</sub> of a significant mediator of participants' entrepreneurial intention between participants' personal attitude and participants' entrepreneurial behaviour. As such, if an individual is in favour of the source of information, it will lead to a positive personal attitude of the participant. Directly, this will create a positive entrepreneurial intention which in turn engage in entrepreneurial behaviour. In other words, higher participants' personal attitude towards entrepreneurial intention will display stronger entrepreneurial behaviour. This present finding is in line with the Theory of Planned Behaviour (TPB) developed by Ajzen (1991). Here, the intention is a proxy used to measure behaviour. Significantly, the participants' entrepreneurial intention plays a major role as an intervening variable for the participants to perform entrepreneurial behaviour. Thus, the participants' personal attitude does not directly affect participants' entrepreneurial behaviour.

Almost in a similar manner, H<sub>3b</sub> is fully supported by the result as a significant mediator of participants' entrepreneurial intention between participants' subjective norm and

participants' entrepreneurial behaviour was found. As stated earlier, the participants' subjective norm is related to the participants' willingness to engage with the suggestions, encouragements or advices made by the people surrounding the participants. The result showed that positive participants' subjective norm will influence entrepreneurial intention in engaging into entrepreneurial behaviour. In different words, higher participants' subjective norm in entrepreneurial intention will move towards stronger entrepreneurial behaviour. This present finding is consistent with the Theory of Planned Behaviour (TPB) which was developed by Ajzen (1991). Again, the intention is the proxy used to measure behaviour and denotes participants' entrepreneurial intention as an essential intervention factor in shaping the entrepreneurial behaviour. Conclusively, subjective norm does not directly cause entrepreneurial behaviour where an intervening variable is needed as a proxy.

The result of the test is also in tandem with H<sub>3c</sub> where it was shown that there was a significant mediation of participants' entrepreneurial intention between participants' perceived behavioural control and participants' entrepreneurial behaviour. In laymen understanding, participants with positive perception of their ability or feeling of self-efficacy over their skills and resources will influence their entrepreneurial intention to engage in the entrepreneurial behaviour. This directly shows that higher participants' perceived behavioural control in higher entrepreneurial intention will stimulate stronger entrepreneurial behaviour. This finding corresponds with the Theory of Planned Behaviour (TPB) by Ajzen (1991) where intention is also a proxy to measure behaviour. Hence, the participants' entrepreneurial intention plays an important role as an intervening variable for the participants to perform entrepreneurial behaviour. In other



meaning, an intervening variable of entrepreneurial intention is required to intervene in the relationship between the perceived behavioural control and entrepreneurial behaviour. In short, the perceived behavioural control does not directly cause entrepreneurial behaviour.

In summary, the significant mediator variable of participants' entrepreneurial intention indicated which positive participants' personal attitude, subjective norm and perceived behavioural control will influence entrepreneurial intentions to engage in the entrepreneurial behaviour. Indeed, this is consistent with studies conducted by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen (2009), Engle et al. (2010) and Karimi et al. (2012).

#### **6.2.4 To Determine Whether Participants' Entrepreneurial Behaviour Mediates the Effect of Participants' Entrepreneurial Intention on Participants' Quality of Life.**

The fourth objective of the study is to investigate the mediating roles of participants' entrepreneurial behaviour between participants' entrepreneurial intention and participants' quality of life. Again, the mediating effect was examined. From the empirical analysis, the result supported hypothesis 4 where there was a significant mediator of participants' entrepreneurial behaviour between participants' entrepreneurial intention and participants' quality of life.

As stated earlier, participants' entrepreneurial intention will cause entrepreneurial behaviour which will later lead to improvement in participants' quality of life. The result signifies that the entrepreneurial intention will influence the participants to perform the

entrepreneurial behaviour which will help uplift their quality of life. Literally, higher participants' entrepreneurial intention with higher entrepreneurial behaviour will give way to quality of life. Therefore, participants' entrepreneurial behaviour played an important role as an intervening variable between the entrepreneurial intention and participants' quality of life. This shows that the entrepreneurial behaviour was a mediator to the relationship. Hence, this finding corresponds with a study conducted by Hulme (2000). The model described that when microcredit is offered to the participants; it will cause a change in participants' behaviour and practices where it leads to the achievement of desired outputs. In other words, behaviour change may not be the end goal, but a transition after an intervention that may enhance the result of other outcomes.

### **6.3 CONTRIBUTIONS OF THE STUDY**

#### **6.3.1 Theoretical Contributions**

Aside from a number of studies assessing the impact of microcredit programmes on poverty alleviation, there are other studies attempted to assess the impact of microcredit programmes on its participants' quality of life. However, most of these studies cover incomprehensive domains of life in measuring the person's quality of life by selecting domains that only reflect a part of a person's quality of life. Therefore, the scarcity of theoretical literature evidences is apparent.

As Malaysia moves towards becoming a developed nation, the indicators that represent the measurement of quality of life need to be reviewed in parallel to the development of the society. In addition, little is known about how the effect of the microcredit

programmes towards the participants' quality of life. To this point, the Personal Wellbeing Index (PWI) work and the Malaysian Quality of Life Index (MQLI) are chosen as a basis to construct a comprehensive measure of quality of life. In line with this, the Theory of Planned Behaviour (TPB) by Ajzen (2006) was included to assess the impact of AIM microcredit programme on participants' quality of life.

The aim of this study is to revisit and extend the previous impact study of microcredit programmes on participants' quality of life by suggesting a broader concept of quality of life and its assessment, especially of the available empirical evidence in Malaysia and AIM microcredit programmes. In parallel to this, proactive steps were taken in the context of assessing the impact of Amanah Ikhtiar Malaysia microcredit programmes on participants' quality of life. This study revisited and extended previous study on the impact of microcredit programmes on participants' quality of life by constructing a more comprehensive measures of quality of life based on the Personal Wellbeing Index (PWI)' work and the Malaysian Quality of Life Index (MQLI). In relation to this, a number of domains of life have been added while some of the domains of life constructs were modified to comprehensively measure the participants' quality of life. The modified domains are income earnings, health, productivity, friendship, personal safety, education, future security, food, housing conditions, personal savings, and spirituality.

Furthermore, the Theory of Planned Behaviour (TPB) was applied in assessing the impact of microcredit programmes on participants' quality of life. Therefore, three main constructs of Theory of Planned Behaviour (TPB) namely personal attitude, subjective norm, perceived behavioural control and entrepreneurial intention together with entrepreneurial behaviour are used to measure participants' quality of life. The

entrepreneurial behaviour are used to measure participants' quality of life. The entrepreneurial intention is used as a mediator to measure the relationship between participants' personal attitude, subjective norm, perceived behavioural control and participants' entrepreneurial behaviour. In addition, the entrepreneurial behaviour is used as a mediator to measure the relationship between participants' entrepreneurial behaviour and participants' quality of life. These relationships add additional arrows to the linkage in comprehensively explain the quality of life concept.

The measurement of participants' quality of life of this study is in line with Hulme (2000) who argued that the microcredit offered to the participants will cause a change in participants' behaviour and practices. Eventually, this leads to the achievement of desired outputs in reference to the quality of life. This is consistent with the Needs Opportunities Abilities Model (NOA) of behaviour change which states that the outcome is not the end in itself, but it generates further effect such as personal wellbeing (Darnton, 2008). And, this is also in track with studies conducted by Swain (2006), Nader (2008) and Planet Finance (2008) that stated microcredit offered to the participants will cause a change in participants' behaviour and eventually and leads to improvement in the participants' quality of life.

Through the idea presented earlier, this study has taken proactive steps to assess the impact of AIM microcredit programme on its participants' quality of life via the inclusion of participants' personal attitude, subjective norm, and perceived behavioural control together with entrepreneurial intention and entrepreneurial behaviour. Ideally, a comprehensive measure of quality of life and the inclusion of participants' personal attitude, subjective norm, and perceived behavioural control together with

entrepreneurial intention and entrepreneurial behaviour may help improve and broaden the concept of quality of life and its assessment. Thus, identification and conceptual definition of Theory of Planned Behaviour (TPB) enable the inclusion of additional constructs to measure the impact of microcredit programmes on participants' quality of life as shown by the extra arrows to illustrate improvement in the development of additional theory linkage. Indirectly, this helps the researcher to better explain the concept of quality of life in a comprehensive scope. As such, inclusion of participants' personal attitude, subjective norm, and perceived behavioural control together with entrepreneurial intention and entrepreneurial behaviour in assessing the impact of AIM microcredit programme on its participants' quality of life is a contribution to the body of knowledge concerning microcredit programmes and its participants' quality of life.

### **6.3.2 Empirical Contributions**

As previously discussed in chapter one of this thesis, Al-Mamun et al. (2010) reported the limited investigation in measuring the impact of AIM's microcredit scheme on the hard core poor clients' quality of life. Furthermore, Al-Mamun and Adaikalam (2011) argued that there was also little investigation to measure the impact of AIM's "Urban Micro Finance Programme" on clients' quality of life. In fact, Al-Mamun et al. (2011) suggested the need to measure clients' quality of life and their households participation in the programme. The abovementioned studies highlighted the limitation of existing empirical evidences. In response to this, some considerations should be given to address this issue of whether or not microcredit programmes improve participants' quality of life.

Given the unresolved issues, this study attempts to expand the research of microcredit programmes on participants' quality of life by extending the work of Al-Mamun et al. (2010) using the comprehensive Personal Wellbeing Index (PWI) and Malaysian Quality of Life Index (MQLI) methods as the basis. In addition, the study also includes the Theory of Planned Behaviour (TPB) in measuring the impact of microcredit programmes on its participants' quality of life.

From the result of the analysis, it is confirmed that microcredit programmes significantly influence the participants' quality of life. Based on the findings of this study, the participants' personal attitude, subjective norm and perceived behavioural control significantly influence the participants' entrepreneurial intention, entrepreneurial behaviour and quality of life. Apparently, the participants' perceived behavioural control significantly influences participants' entrepreneurial behaviour. Therefore, this study validates the claims by Hulme (2000), Darnton (2008), Swain (2006), Nader (2008) and Planet Finance (2008) who affirmed that the microcredit offered to the participants led to changes in participants' behaviours and improved their quality of life. Empirically, this study contributes to the body of knowledge of microcredit and participant quality of life by confirming that the microcredit programmes have an impact on participants' quality of life. In addition, the inclusion of participants' personal attitude, subjective norm, and perceived behavioural control together with entrepreneurial intention and entrepreneurial behaviour also affect the participants' quality of life.

In addition, in-depth analysis of this study showed that the inclusion of participants' entrepreneurial intention as a mediator contributes to the empirical aspect. The participants' entrepreneurial intention was introduced as a mediator due to its major role

as an intervening variable to the participants in performing entrepreneurial behaviour. Likewise, personal attitude, subjective norm, and perceived behavioural control did not directly cause the participants to perform entrepreneurial behaviour. Therefore, participants' entrepreneurial intention as a mediator provided some insights on the significant relationship between personal attitude, subjective norm, and perceived behavioural control and participants' entrepreneurial behaviour. To this matter, significant mediator of participants' entrepreneurial intention signifies that positive participants' personal attitude, subjective norm and perceived behavioural control will heighten entrepreneurial intentions to engage in the entrepreneurial behaviour. Indeed, this is consistent with studies conducted by Krueger et al. (2000), Autio et al. (2001), Fayolle et al. (2006), Liñán and Chen 2009), Engle et al. (2010) and Karimi et al. (2012).

This study also discovered that the inclusion of participants' entrepreneurial behaviour as a mediator contributes to the empirical aspect since there is less sufficient knowledge available on the participants' entrepreneurial behaviour as a mediator. The participants' entrepreneurial behaviour was introduced as a mediator because it is a major intervening variable for the participants to uplift their quality of life. Subsequently, the variable did not directly affect participants' quality of life. Therefore, participants' entrepreneurial behaviour as a mediator can provide some understandings on the significant relationship between participants' entrepreneurial intention and participants' quality of life. Pertaining to this, the entrepreneurial intention leads the participants to perform the entrepreneurial behaviour in uplifting their quality of life. The analysis on the influence of participants' entrepreneurial behaviour on participants' quality of life enhanced the

empirical findings on microcredit programmes and participants' quality of life. This study found that the participants' entrepreneurial behaviour had the most important influence in uplifting the participants' quality of life.

Indeed, the multi group analysis to determine the differences in quality of life between participants who joined the microcredit programme for less than one year (new participants) and participants who joined the microcredit programme for more than one year (old participants) empirically contributed to the body of knowledge on microcredit programmes and participants' quality of life. The present study found that the overall path coefficients between the two groups showed no difference in participants' quality of life between participants who joined the microcredit programme for less than one year (new participants) and participants who joined the microcredit programme for more than one year (old participants). However, the present findings revealed that only two relationships (path coefficients) differed significantly across the two groups; the effect of participants' personal attitude on participants' entrepreneurial intention and the effect of participants' entrepreneurial intention on participants' entrepreneurial behaviour were significantly higher ( $p < .05$ ) for participants who joined the microcredit programme for less than one year (new participants). Meanwhile, the effect of participants' entrepreneurial intention on participants' entrepreneurial behaviour was also significantly higher ( $p < .05$ ) for participants who joined the microcredit programme for less than one year (new participants).



### 6.3.3 Methodological Contributions

As mentioned before, proactive steps have been taken to assess the impact of AIM microcredit programme on participants' quality of life. Therefore, the main methodological contributor towards the objective are the Personal Wellbeing Index (PWI) by The International Well Being Group (2006) and the Malaysian Quality of Life Index (MQLI) as the basis of measuring participants' quality of life. Considering the fact that quality of life is an evolving idea which changes across time and societies as well as in relation to the population, cultures, living conditions and styles, this study restructured the dimensions used in the key dimension of PWI to reflect the followings dimensions; a) income earnings, b) health, c) productivity, d) friendship, e) personal safety, f) education, g) future security, h) food, i) housing conditions j) personal savings, and k) spirituality. Besides, the Theory of Planned Behaviour (TPB) was included to assess the impact of AIM microcredit programme on participants' quality of life. All the constructs in the Theory of Planned Behaviour (TPB) namely personal attitude, subjective norm, perceived behavioural control, intention and behaviour are used to assess the impact of AIM microcredit programme on participants' quality of life.

In addition, the participants' entrepreneurial intention as a mediator to investigate the mediating effect on the relationship between participants' personal attitude, subjective norm and perceived behavioural control and participants' entrepreneurial behaviour is considered as a methodological contribution. A contribution to the methodology includes the addition of participants' entrepreneurial behaviour as a mediator to

investigate the mediating effect on the relationship between the participants' entrepreneurial intention and participants' quality of life.

Parallel to the methodological contributions, this study employed a sampling technique comprising of two groups namely new participants and old participants in assessing the impact AIM microcredit programme on participants' quality of life. This is in line with the studies by Al-Mamun et al. (2010) and Ismail (2001). As an important note, the measurements of variables were adapted and adopted from various sources of studies which were originally conducted under different environments. Therefore, the validity and reliability of the scales were successfully checked in a numbers of procedures and statistical calculations using valid and reliable instruments in different contexts which will be helpful for future researchers.

#### **6.3.4 Policy Contributions**

AIM microcredit programme was established with the objective to reduce the poverty among the household poor and provide low income earners with microcredit facilities to improve their income earnings through income generating activities. The establishment of AIM microcredit programme was also with the objective to provide guidance and training to these poor.

Despite the great achievement of AIM microcredit programme especially in poverty alleviation and improvement in quality of life of the poor, poverty alleviation and improvement in quality of life of the poor are significantly associated with AIM's entrepreneurial development such services of trainings, business development and

human capital development. In conjunction to this, conducted survey also revealed that there were participants who suggested further improvement in guidance and training in the programme.

AIM microcredit programme is a great initiative to the poor. Therefore, this present study suggested AIM microcredit programme to keep records of their participants' training and development programmes. This is necessity to help facilitate the sustainable development of participants' training and development programmes. Providing the participants with training and development programmes is compulsory because it is a significant strategy to monitor the effectiveness of poverty alleviation strategy which is not only through the increment of income earnings monitoring and other aspects such as improvement in quality of life and high repayment rate. Without the necessary training and development programmes, participants may face difficulties especially in conducting their businesses and pay the loan.

The linkage between the microcredit offered and the participants' training and development programmes is necessary and viable. Therefore, it is recommended for AIM to have a permanent facility in each region, where local experts teach these participants with necessary skills and supported them with business and human capital development programmes. The objective to provide the participants with training and development programmes should also be a core business for AIM to assist in participants' business production capacity which eventually boost their income generation.

Discussion with experts of a local university may also help to facilitate AIM's training and development programmes. Further discussion between AIM and the local university should be conducted to see how the experts in the local university can bring significant arrangement to the participants especially in training and development programmes. AIM should take this opportunity as a continuing effort for greater impact and sustainability.

On the other hand, an establishment of mentoring programme of entrepreneurship may also further the significant of AIM's training and development programmes. A mentoring entrepreneurship programme is a strategic concept of learning and development between the mentor and mentee. The mentor will be able to help the mentee by advising and recommending the necessary actions. This mentoring programme of entrepreneurship may perhaps help to contribute to the development of talented pipeline of particular businesses among the participants. This is an opportunity to both AIM and the participants towards the achievement of objectives. This is also a great opportunity to transfer the knowledge and the skills.

The arguments are quite valid. Therefore, to make AIM microcredit programme more effective so that it can better serve these household poor, AIM microcredit programme needs to review their objectives so that their practices will bring the changes they hope for.

#### **6.4 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDY**

This study makes proactive steps in assessing the impact of AIM microcredit programme on participants' quality of life via the inclusion of participants' personal attitude, subjective norm, perceived behavioural control, entrepreneurial intention and entrepreneurial behaviour. Even though this research made several contributions as per stated previously, some limitations are unavoidable due to the dynamic setting of the field study. On the contrary, these limitations provided some future recommendations for consideration.

One of the limitations is the choice of respondents in this study which is limited to the participants of the microcredit programme by AIM in the Northern Region of Malaysia; Kedah, Pulau Pinang and Perlis. In view of this, this present finding may not be generalised to the participants of microcredit programme by AIM, as well as other microcredit programmes in other regions in Malaysia. Therefore, future researches should gather larger sample size of which involved the participants of microcredit programmes from all regions in Malaysia. It is also suggested that the model in the present study should be tested in other developing countries for broader view in understanding the issue.

Specific to the present study, another limitation is the instruments used to collect the data; the quantitative approach. For this study, questionnaire was distributed to the sample of the study. A study of microcredit and participants' quality of life is a dynamic issue. Therefore, to better understand the phenomenon, future researches should use the

qualitative or mix method i.e. both quantitative and qualitative approaches to better comprehend the issues.

Another limitation is related to the cross-sectional research design of this study. This cross-sectional research design is done at a single point of time as in days, weeks or months for the sample to answer the questionnaires. Due to this, it cannot describe the patterns of changes between the variables over a period of time. In other words, this type of research design is unable to investigate the participants' quality of life over a period of time. Thus, future researches should use a longitudinal study to provide better approach in investigating the outcomes of this study. Perhaps, with a longitudinal study can reveal more opportunities for the researchers and other parties to make more improvement to the current study.

In conjunction to the present study on multi group analysis between new and old participants, the researcher cannot exclude the possibility that there may be unobserved heterogeneity between new participants who joined the microcredit programme for less than one year and old participants who joined the microcredit programme for more than one year that were unaccounted in the study. Additionally, this present study also does not highlight specific causes for positive between personal attitude and entrepreneurial intention; and between entrepreneurial intention and entrepreneurial behaviour. Therefore, these conditions require conduction further investigation.

The present study investigated the role of participants' entrepreneurial behaviour in assessing the impact of AIM microcredit programme on participants' quality of life based on Hulme (2000), Darnton (2008), Swain (2006), Nader (2008) and Planet

Finance (2008) studies. It found that the role of entrepreneurial behaviour in assessing the impact of AIM microcredit programme on quality of life could also be expanded to different types of respondents who are involved in entrepreneurship and the like. On that basis, the findings of the study could be different and offer interesting angle for other researchers and relevant parties.

In this present study, participants' entrepreneurial intention was examined as a mediator between the relationship of participants' personal attitude, subjective norm and perceived behavioural control towards participants' entrepreneurial intention, which in turn affected the participants' entrepreneurial behaviour that influence the participants' quality of life. Additionally, this present study also examined participants' entrepreneurial behaviour as a mediator between participants' entrepreneurial intention and participants' quality of life. It was found that both mediators are significant in the relationship. In connection to this finding, it is recommended that other mediators should be considered in the future studies to help improve the findings of the study.

Due to insufficient knowledge on the moderator effect in assessing the impact of AIM microcredit programme on participants' quality of life, this study also recommends a moderator or moderators for future investigation. For example, the entrepreneurial training and skills development programmes can be added as moderators to the relationship to better understand the assessment of the impact of the microcredit programmes on the participants' quality of life.

As a closing remark and recommendation for future study, this study recommends to explore other intention-behaviour models for dynamic knowledge development in assessing the impact of AIM microcredit programme on participants' quality of life.

## **6.5 CONCLUSION**

The present study aims to assess the impact of AIM microcredit programme on the participants' quality of life using the domains of life comprising income earnings, health, productivity, friendship, personal safety, education, future security, food, housing, personal savings, and spirituality. In assessing the impact of AIM microcredit programme on the participants' quality of life, the study also includes participants' personal attitude, subjective norm, perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour in its assessment of quality of life. From the findings, all the reported hypotheses were significant and supported—they were influential on participants' quality of life.

The findings revealed that AIM microcredit programme improved the participants' quality of life. The findings show that the participants' personal attitude, subjective norm and perceived behavioural control influence the participants' entrepreneurial intention which in turns influences participants' entrepreneurial behaviour and participant's quality of life. In respect to the discussion, it shows that the fund received by the participants enabled them to develop positive personal attitude, experienced positive subjective norm and perceived behavioural control which influenced the participants' entrepreneurial intention, entrepreneurial behaviour and quality of life.



Thus, these findings enrich the literature in discussing the impact of microcredit programmes on participants' quality of life.

Although the present study shows that AIM microcredit programme had significant impact on participants' quality of life, the present findings showed no difference in quality of life between new and old participants. The present findings revealed that income earnings and savings of the participants play insignificant role in improving the participants' quality of life. In conjunction to this, AIM microcredit programme, on that front, falls short. In response to this, supplementary programmes such as motivation and professional and emotional supports are the key links for the old participants to not doing the businesses merely for survival but also to ensure that they improved and increased their productivity for the business successes. Therefore, the AIM microcredit programme must provide these support programmes for the sake of its participants. In addition, AIM microcredit programme should adopt a profiling on businesses activity regarding the old respondents before providing further approval on loan related to business expansions. This is to ensure that the risk of default on loan uses and reduce these significant setbacks.

The present study provides a comprehensive discussion on the concept of quality of life among the participants of the microcredit programme and its assessment, especially the empirical evidence in Malaysia and AIM in the implementation of the microcredit programme. This finding gives the researcher a much stronger basis that participants' quality of life assessment may not only be directly examined through the selected lists of domains of life, but rather with the inclusion of participants' personal attitude, subjective

norm, perceived behavioural control, participants' entrepreneurial intention and participants' entrepreneurial behaviour.

As conclusions, the present study reconfirmed that AIM microcredit programme improved the participants' quality of life and indicated positive and significant impact on participants' quality of life. Interestingly, it shows that AIM microcredit programme is doing a great job. Thus, the microcredit programmes are regarded as relevant.



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## APPENDIX A

### Research Questionnaire-Malay Version



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### Menilai Kesan Program Mikrokredit Amanah Ikhtiar Malaysia Terhadap Kualiti Hidup Sahabat

Responden yang dihormati,

Sukacita dimaklumkan bahawa tuan/puan telah dipilih untuk menyertai satu soal selidik berbentuk kajian ilmiah. Kajian ini dilakukan atas tujuan untuk mendapatkan maklumat berkenaan kualiti hidup sahabat program mikrokredit Amanah Ikhtiar Malaysia di Malaysia. Jesteru itu, maklumat dari tuan/puan adalah penting untuk kegunaan kajian ini. Oleh itu, diharap tuan/puan dapat meluangkan masa (lebih kurang 15minit) untuk menjawab kesemua soalan kaji selidik ini. Respon tuan/puan akan dianggap sulit dan digunakan hanya untuk tujuan akademik sahaja. Ringkasan keputusan akan dihantar kepada tuan/puan atas permintaan tuan/puan selepas data dianalisis.

Jika tuan/puan mempunyai sebarang soalan mengenai kajian ini, sila hubungi Zuraidah Mohamed Isa ([zuraidah588@kedah.uitm.edu.my](mailto:zuraidah588@kedah.uitm.edu.my)). Akhir kata, setinggi-tinggi penghargaan diucapkan diatas kerjasama, masa dan usaha yang tuan/puan berikan.

Yang benar,

Zuraidah Mohamed Isa  
Penuntut Program Doktor Falsafah (No. Matrik: 94392)  
Othman Yeop Abdullah  
Graduate School of Business  
Universiti Utara Malaysia  
Sintok, Kedah

<b>No ID</b>	
<b>AMANAHI IKHTIAR MALAYSIA (AIM)</b>	<b>KEDAH PULAU PINANG PERLIS</b>
<b>CAWANGAN</b>	
<b>NAMA PUSAT</b>	

## BAHAGIAN A: Maklumat Latarbelakang

Tandakan ( ✓ ) pada kotak yang berkenaan.

1. Umur pada tahun 2015: \_\_\_\_\_ Tahun

2. Jantina:                      a. Lelaki                      ☐                      b. Perempuan                      ☐

3. Status:

a. Belum Berkahwin                      ☐                      b. Berkahwin                      ☐

c. Berpisah/Bercerai/Balu                      ☐

4. Etnik:

a. Melayu

b. Cina

c. India

d. Lain-lain (Sila nyatakan).....

☐  
☐  
☐

5. Pendidikan tertinggi:

a. Tidak Bersekolah

☐

b. UPSR

☐

c. LCE/SRP/PMR

☐

d. MCE/SPM/SPMV

☐

e. HCE/STPM/STAM/Sijil/Diploma

☐

f. Ijazah

☐

g. Sarjana

☐

h. Ph.D

☐

6. Tempat kediaman

a. Rumah Kampung

☐

b. Rumah Pangsa

☐

c. Rumah Teres

☐

d. Rumah Kembar Dua

☐

e. Rumah Banglo

☐

f. Rumah Kedai

☐

g. Rumah Setingan ☐ h. Kuarters Kerajaan ☐  
 7. Adakah perniagaan merupakan pekerjaan utama anda?

a. Ya ☐ b. Tidak ☐

8. Sekiranya "Tidak" bagi soalan 7, sila nyatakan pekerjaan utama anda?

a. Pengurus	<input type="checkbox"/>	b. Profesional	<input type="checkbox"/>
c. Juruteknik dan Profesional Bersekutu	<input type="checkbox"/>	d. Pekerja Sokongan Pengkeranian	<input type="checkbox"/>
e. Pekerja Perkhidmatan dan Jualan	<input type="checkbox"/>	f. Pekerja Mahir Pertanian, Perhutanan, dan Perikanan	<input type="checkbox"/>
g. Pekerja Kemahiran dan Pekerja Pertukangan Yang Berkaitan	<input type="checkbox"/>	h. Operator Loji dan Mesin dan Pemasang	<input type="checkbox"/>
i. Pekerjaan Asas	<input type="checkbox"/>	j. Pekerjaan Angkatan Tentera	<input type="checkbox"/>

9. Jumlah bilik tidur di rumah anda:

a. 1 bilik  
 b. 2 bilik  
 c. 3 bilik  
 d. Lebih dari 3 bilik

☐  
☐  
☐  
☐

10. Adakah anda sedang menghidap penyakit berikut:

	YA	TIDAK
a. Kencing Manis	<input type="checkbox"/>	<input type="checkbox"/>
b. Darah Tinggi	<input type="checkbox"/>	<input type="checkbox"/>
c. Jantung	<input type="checkbox"/>	<input type="checkbox"/>

11. Setiap hari adakah anda mengambil hidangan makanan berikut:

- a. Sarapan Pagi
- b. Makan Tengahari
- c. Makan Malam

YA	TIDAK
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

12. Berdasarkan soalan 11, adakah anda **TIDAK** mengambil mana-mana hidangan makanan diatas kerana tidak ada cukup wang untuk membeli makanan.

a. Ya

☐

b. Tidak

☐

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## BAHAGIAN B: Pembabitan Sahabat dalam Program Mikrokredit Amanah Ikhtiar Malaysia

Tandakan ( ✓ ) pada kotak yang berkenaan.

1. Berapa lamakah anda telah menyertai program mikrokredit ini?  
\_\_\_\_\_ Tahun \_\_\_\_\_ Bulan
2. Sudah berapa kali anda meminjam dari program mikrokredit ini?  
\_\_\_\_\_ kali
3. Apakah sebab anda menyertai program mikrokredit ini? (Pilihan boleh melebihi dari 1).

- a. Sebagai modal memulakan perniagaan
- b. Untuk membesarkan/mengembangkan perniagaan
- c. Membayar hutang lama
- d. Membeli barangan keperluan
- e. Perkahwinan
- f. Lain-lain (Sila nyatakan).....


4. Sekiranya anda menyertai program mikrokredit ini adalah untuk tujuan perniagaan, sila nyatakan jenis perniagaan yang dibuat? (Pilihan boleh melebihi dari 1).

- |                                   |                          |                    |                          |
|-----------------------------------|--------------------------|--------------------|--------------------------|
| a. Peruncitan                     | <input type="checkbox"/> | b. Perkhidmatan    | <input type="checkbox"/> |
| c. Pertanian<br>Akuakultur        | <input type="checkbox"/> | d. Penternakan dan | <input type="checkbox"/> |
| e. Pembuatan                      | <input type="checkbox"/> | f. Pengangkutan    | <input type="checkbox"/> |
| g. Pemborongan                    | <input type="checkbox"/> | h. Pembinaan kecil | <input type="checkbox"/> |
| i. Lain-lain (Sila nyatakan)..... |                          |                    |                          |

5. Berapakah modal berbayar anda semasa memulakan perniagaan?  
RM \_\_\_\_\_

6. Berapa anggaran jumlah jualan yang anda perolehi untuk sebulan.  
RM \_\_\_\_\_
7. Berapakah jumlah keseluruhan pinjaman program mikro kredit anda?  
RM \_\_\_\_\_
8. Adakah jumlah yang dipinjam untuk menjalankan perniagaan anda mencukupi?  
a. Ya ☐ b. Tidak ☐
9. Sekiranya anda menjawab “Tidak” bagi soalan 8, adakah anda membuat pinjaman dari sumber lain?  
a. Ya ☐ b. Tidak ☐
10. Sekiranya jawapan anda adalah “Ya” bagi soalan 9, bagaimanakah anda mendapatkan kredit tambahan ini?
- a. Tabungan
  - b. Saudara-mara
  - c. Kawan-kawan
  - d. Pajak Gadai
  - e. Institusi Kewangan
  - f. Ah Long (Institusi Tidak Berlesen)
  - g. Lain-lain (Sila nyatakan).....
11. Selepas menyertai program mikro kredit ini, adakah pendapatan bulanan anda meningkat?  
a. Ya ☐ b. Tidak ☐
12. Sekiranya ‘Ya’ bagi soalan 11, adakah punca peningkatan pendapatan ini dari program mikro kredit yang disertai?  
a. Ya ☐ b. Tidak ☐


13. Berapakah pendapatan sebulan (anggaran) anda **SEBELUM** menyertai program mikro kredit ini?  
RM \_\_\_\_\_
14. Berapakah jumlah pendapatan sebulan (anggaran) anda **SELEPAS** menyertai program mikro kredit ini?
- a. Pendapatan dari perniagaan (sebulan)  
RM \_\_\_\_\_
  - b. Pendapatan dari sumber lain (sebulan) contoh: pencen/pemberian dari anak/dividend an lain-lain
    - i. \_\_\_\_\_
    - ii. \_\_\_\_\_
    - iii. \_\_\_\_\_
15. Berapa anggaran keseluruhan tabungan (tabungan di ASB, Tabung Haji, Koperasi, Insititusi Kewangan dan lain-lain) anda **SEBELUM** menyertai program mikro kredit ini?  
RM \_\_\_\_\_
16. Selepas menyertai program mikro kredit ini, adakah jumlah tabungan anda meningkat?
- a. Ya ☐ b. Tidak ☐
17. Sekiranya jawapan anda adalah 'Ya' bagi soalan 16, adakah punca peningkatan tabungan ini dari program mikro kredit yang disertai?
- a. Ya ☐ b. Tidak ☐
18. Berapa anggaran keseluruhan tabungan (tabungan di ASB, Tabung Haji, Koperasi, Insititusi Kewangan dan lain-lain) anda **SELEPAS** menyertai program mikro kredit ini?  
RM \_\_\_\_\_
19. Pernahkan anda menghadiri kursus keusahawanan?
- a. Ya ☐ b. Tidak ☐
20. Sekiranya jawapan anda adalah 'Ya' bagi soalan 19, nyatakan berapa kali (keseluruhannya) anda telah menghadiri kursus keusahawanan?  
\_\_\_\_\_ kali



## BAHAGIAN C: Kualiti Hidup

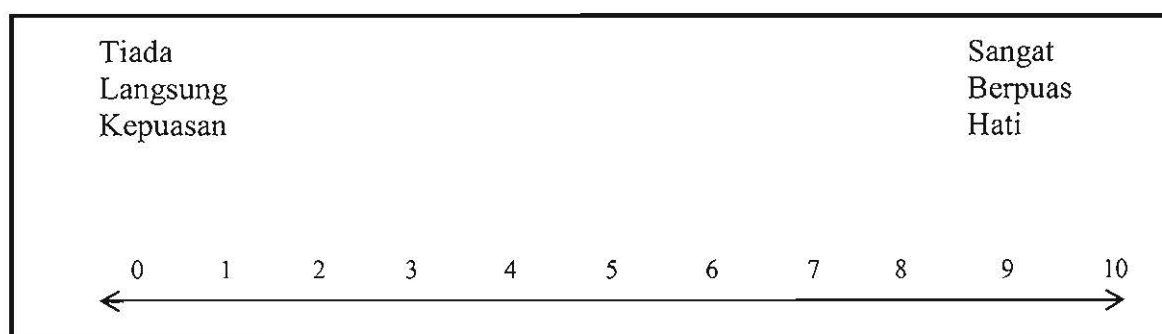
Anda dikehendaki menjawab dengan memilih tahap kepuasan yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala yang sudah disediakan seperti di bawah.

Sila **bulatkan pilihan** anda.

**Kualiti hidup ditakrifkan sebagai kualiti keseluruhan hidup seseorang.**

Tiada Langsung Kepuasan	Sangat Berpuas Hati
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>←</span> <span>0    1    2    3    4    5    6    7    8    9    10</span> <span>→</span> </div>	

Kualiti Hidup		Tahap Kepuasan Anda										
1.	Secara keseluruhannya, sejauh manakah anda berpuas hati dengan kualiti hidup anda sekarang.	0	1	2	3	4	5	6	7	8	9	10



Kualiti Hidup		Tahap Kepuasan Anda										
<i>Sejauh manakah anda berpuas hati dengan ...?</i>												
1.	Pendapatan	0	1	2	3	4	5	6	7	8	9	10
2.	Kesihatan	0	1	2	3	4	5	6	7	8	9	10
3.	Produktiviti (Kegiatan produksi)	0	1	2	3	4	5	6	7	8	9	10
4.	Persahabatan (Persahabatan dengan sahabat-sahabat AIM yang lain)	0	1	2	3	4	5	6	7	8	9	10
5.	Keselamatan diri	0	1	2	3	4	5	6	7	8	9	10
6.	Pendidikan	0	1	2	3	4	5	6	7	8	9	10
7.	Jaminan masa depan	0	1	2	3	4	5	6	7	8	9	10
8.	Makanan	0	1	2	3	4	5	6	7	8	9	10
9.	Keadaan rumah	0	1	2	3	4	5	6	7	8	9	10
10.	Tabungan peribadi	0	1	2	3	4	5	6	7	8	9	10
11.	Kerohanian	0	1	2	3	4	5	6	7	8	9	10

## BAHAGIAN D: Tingkah Laku Keusahawanan

Anda dikehendaki menjawab dengan memilih tahap yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala berikut.

Sila **bulatkan pilihan** anda.

Tingkah laku keusahawanan adalah merujuk kepada keupayaan usahawan untuk mengambil risiko, membuat keputusan dan menguruskan ke arah memaksimumkan keuntungan.

Sangat Tidak Bersetuju	Sangat Bersetuju

Tingkah Laku Keusahawanan		Tahap Persetujuan Anda
<p><i>Tingkah laku keusahawanan adalah merujuk kepada keupayaan usahawan untuk mengambil risiko, membuat keputusan dan menguruskan ke arah memaksimumkan keuntungan.</i></p>		
1.	Saya bersedia menerima sebarang risiko kegagalan.	0 1 2 3 4 5 6 7 8 9 10
2.	Saya telah banyak meluangkan masa untuk perniagaan saya.	0 1 2 3 4 5 6 7 8 9 10
3.	Saya telah membuat pelaburan kewangan yang banyak untuk perniagaan saya.	0 1 2 3 4 5 6 7 8 9 10
4.	Saya mempunyai daya tahan yang tinggi.	0 1 2 3 4 5 6 7 8 9 10

## BAHAGIAN E: Tingkah Laku Keusahawanan - Sikap Peribadi

Anda dikehendaki menjawab dengan memilih tahap yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala berikut.

Sila **bulatkan pilihan** anda.

**Sikap peribadi merujuk kepada sikap sama ada suka atau tidak suka akan sesuatu tingkah laku, dan ia merupakan nilai bagi hasil daripada tingkah laku tersebut.**

Sangat Tidak Bersetuju	Sangat Bersetuju

Sikap Peribadi		Tahap Persetujuan Anda
<i>Sikap peribadi merujuk kepada sikap sama ada suka atau tidak suka akan sesuatu tingkah laku, dan ia merupakan nilai bagi hasil daripada tingkah laku tersebut.</i>		
1.	Saya berpendapat lebih banyak kebaikan daripada keburukan apabila menjadi seorang usahawan.	0 1 2 3 4 5 6 7 8 9 10
2.	Kerjaya sebagai usahawan adalah menarik.	0 1 2 3 4 5 6 7 8 9 10
3.	Jika saya mempunyai peluang dan sumber, saya ingin mengembangkan perniagaan saya.	0 1 2 3 4 5 6 7 8 9 10
4.	Saya mendapat kepuasan yang tinggi apabila menjadi seorang usahawan.	0 1 2 3 4 5 6 7 8 9 10
5.	Berbanding dengan kerjaya lain, saya lebih suka memilih menjadi seorang usahawan.	0 1 2 3 4 5 6 7 8 9 10

## BAHAGIAN F: Tingkah Laku Keusahawanan - Norma Subjektif

Anda dikehendaki menjawab dengan memilih tahap yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala berikut.

Sila **bulatkan pilihan** anda.

**Norma Subjektif** ialah apa yang orang lain fikirkan terhadap seseorang individu itu perlu lakukan atau buat akan mempengaruhi persepsi individu berkenaan untuk melaksanakan tingkah lakunya.

Sangat Tidak Bersetuju	Sangat Bersetuju
<div style="display: flex; align-items: center; justify-content: center;"><div style="margin-right: 10px;">←</div><div style="display: flex; flex-direction: column; align-items: center;"><div style="border-top: 1px solid black; width: 100%;"></div><div style="display: flex; justify-content: space-between; width: 100%;"><span>0</span><span>1</span><span>2</span><span>3</span><span>4</span><span>5</span><span>6</span><span>7</span><span>8</span><span>9</span><span>10</span></div></div><div style="margin-left: 10px;">→</div></div>	


Norma Subjektif		Tahap Persetujuan Anda	
Sekiranya anda membuat keputusan untuk mengembangkan perniagaan anda, adakah mereka ini akan bersetuju dengan keputusan anda?			
1.	Keluarga saya	0	1 2 3 4 5 6 7 8 9 10
2.	Rakan-rakan saya	0	1 2 3 4 5 6 7 8 9 10

## BAHAGIAN G: Tingkah Laku Keusahawanan - Tahap Keupayaan

Anda dikehendaki menjawab dengan memilih tahap yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala berikut.

Sila **bulatkan pilihan** anda.

**Tahap Keupayaan** merujuk kepada kemampuan atau perasaan kecekapan sendiri individu tersebut untuk melaksanakan sesuatu tingkah laku.

Sangat Tidak Bersetuju	Sangat Bersetuju
0    1    2    3    4    5    6    7    8    9    10 	

Tahap Keupayaan		Tahap Persetujuan Anda	
Tahap keupayaan anda mengenai perkara berikut?			
1.	Melahirkan idea baru untuk produk atau perkhidmatan.	0	1 2 3 4 5 6 7 8 9 10
2.	Menjangkakan permintaan pelanggan untuk produk atau perkhidmatan.	0	1 2 3 4 5 6 7 8 9 10
3.	Mewujudkan hubungan dan pertukaran maklumat dengan orang lain.	0	1 2 3 4 5 6 7 8 9 10
4.	Menangani masalah harian dengan berkesan.	0	1 2 3 4 5 6 7 8 9 10
5.	Menyusun dan menyimpan rekod kewangan perniagaan dengan baik.	0	1 2 3 4 5 6 7 8 9 10

## BAHAGIAN H: Tingkah Laku Keusahawanan – Niat Keusahawanan

Anda dikehendaki menjawab dengan memilih tahap yang anda persetujui untuk setiap soalan di dalam bahagian ini dengan berpandukan skala berikut.

Sila **bulatkan pilihan** anda.

Niat keusahawanan dijelaskan melalui perubahan pada kesedaran yang terbentuk daripada sikap peribadi, norma subjektif, dan tahap keupayaan.

Sangat Tidak Bersetuju	Sangat Bersetuju
<div style="display: flex; justify-content: space-between; align-items: center;"><div style="text-align: center;">←</div><div style="display: flex; justify-content: space-around; width: 100%;"><span>0</span><span>1</span><span>2</span><span>3</span><span>4</span><span>5</span><span>6</span><span>7</span><span>8</span><span>9</span><span>10</span></div><div style="text-align: center;">→</div></div>	

Niat Keusahawanan		Tahap Persetujuan Anda										
1.	Saya bersedia melakukan apa sahaja untuk menjadi usahawan berjaya.	0	1	2	3	4	5	6	7	8	9	10
2.	Sasaran profesion saya ialah menjadi usahawan berjaya.	0	1	2	3	4	5	6	7	8	9	10
3.	Saya akan berusaha sedaya upaya untuk mempertahankan perniagaan saya.	0	1	2	3	4	5	6	7	8	9	10
4.	Saya bertekad untuk mengembangkan perniagaan saya pada masa akan datang.	0	1	2	3	4	5	6	7	8	9	10

## BAHAGIAN I: Cadangan

Apakah cadangan anda terhadap program mikrokredit Amanah Ikhtiar Malaysia?

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**TERIMA KASIH KERANA SUDI BEKERJASAMA DALAM MENJAWAB  
BORANG SOAL SELIDIK INI.**

## APPENDIX B

### Research Questionnaire-English Version



## UNIVERSITI UTARA MALAYSIA

### Assessing the Impact of Amanah Ikhtiar Malaysia's Microcredit Programme on Participants' Quality of Life

Dear Respondents,

This research is conducted to investigate the impact of Amanah Ikhtiar Malaysia's microcredit programme on participants' quality of life in Malaysia. Therefore, your responses are essential to the usefulness of this research. In conjunction to this, therefore, it is hope that you would have time to answer the research questionnaire (approximately fifteen minutes). Confidentiality is assured and the results will be used for only academic purposes. Lastly, in exchange for your participation, a summary of the results will be mailed to you upon your request after the data are analysed.

If you have any questions regarding this study, please contact Zuraidah Mohamed Isa ([zuraidah588@kedah.uitm.edu.my](mailto:zuraidah588@kedah.uitm.edu.my)). Finally, I am highly thankful for your cooperation, time and effort in answering the questionnaire.

Kind Regards,

Zuraidah Mohamed Isa  
PhD Candidate (Matrik No.: 94392)  
Othman Yeop Abdullah  
Graduate School of Business  
Universiti Utara Malaysia  
Sintok, Kedah

<b>No ID</b>	
<b>AMANAH IKHTIAR MALAYSIA (AIM)</b>	<b>KEDAH PULAU PINANG PERLIS</b>
<b>CAWANGAN</b>	
<b>NAMA PUSAT</b>	



## SECTION A: Background Information

Please put a tick ( ✓ ) in the appropriate box.

1. Age in the year of 2015: \_\_\_\_\_ years old

2. Gender:

a. Male

☐

b. Female

☐

3. Status:

a. Single

☐

b. Married

☐

c. Divorced/Widowed

☐

4. Ethnic:

a. Malay

b. Chinese

c. Indian

d. Others (Please state).....

☐  
☐  
☐

5. Highest education level:

a. Not attending school

☐

b. UPSR

☐

c. LCE/SRP/PMR

☐

d. MCE/SPM/SPMV

☐

e. HCE/STPM/STAM/Cert/Diploma

☐

f. Degree

☐

g. Masters

☐

h. Ph.D.

☐

6. Housing type

a. Village house

☐

b. Flat

☐

c. Terrace

☐

d. Semi-detached

☐

e. Bungalow

☐

f. Shop house

☐

- g. Squatters ☐ h. Government quarters ☐
7. Is business your main job?
- a. Yes ☐ b. No ☐

8. If you answered "No" to question 7, please indicate your main job.

- |   |                          |  |                          |
|---|--------------------------|--|--------------------------|
| a. Manager                                    | <input type="checkbox"/> | b. Professionals                               | <input type="checkbox"/> |
| c. Technicians and<br>associate professionals | <input type="checkbox"/> | d. Non-professional clerical<br>workers        | <input type="checkbox"/> |
| e. Service and sales workers<br>forestry      | <input type="checkbox"/> | f. Skilled agriculture,<br>and fishery workers | <input type="checkbox"/> |
| g. Skills and carpentry<br>operators workers  | <input type="checkbox"/> | h. Plant and machine<br>and installers         | <input type="checkbox"/> |
| i. Foundation works                           | <input type="checkbox"/> | j. Military forces                             | <input type="checkbox"/> |

9. Number of rooms in your house:

- a. 1 room
- b. 2 rooms
- c. 3 rooms
- d. More than 3 rooms

☐  
☐  
☐  
☐

10. Are you currently suffering from these diseases:

- |                  | YES                      | NO                       |
|------------------|--------------------------|--------------------------|
| a. Diabetes      | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Hypertension  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Heart problem | <input type="checkbox"/> | <input type="checkbox"/> |

11. Do you take these meals everyday:

- a. Breakfast
- b. Lunch
- c. Dinner

YES

☐  
☐  
☐

NO

☐  
☐  
☐

12. Based on question 11, do you NOT take any of the above meals because there is not enough money to buy food?

a. Yes

☐

b. No

☐

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## SECTION B: Participant's Involvement in Amanah Ikhtiar Malaysia's Microcredit Programme

Please put a tick ( ✓ ) in the appropriate box.

1. How long have you been participating in the microcredit program?

\_\_\_\_\_ Years \_\_\_\_\_ Months

2. How many times have you made loans from the microcredit program?

\_\_\_\_\_ times

3. What are the reasons you participate in the microcredit program? (You can tick more than 1).

a. As a capital to start a business

b. To expand business

c. Pay old debts

d. Purchase daily needs

e. Wedding

f. Others (Please state).....


4. If you participated in the microcredit program for business purposes, please state the nature of the business made? (You can tick more than 1).

a. Retail

☐

b. Services

☐

c. Agriculture

☐

d. Fisheries and aquaculture

☐

e. Manufacturing

☐

f. Transportation

☐

g. Wholesale

☐

h. Small constructions

☐

i. Others (Please state).....

5. What was your paid-up capital when you started a business?

RM \_\_\_\_\_

6. What is the estimated amount of sales you get per month?

RM \_\_\_\_\_

7. What is the total amount of your microcredit program loan?

RM \_\_\_\_\_

8. Is the total amount of loan sufficient to run your business?

a. Yes ☐

b. No ☐

9. If you answered "No" to question 8, did you make loans from other sources?

a. Yes ☐

b. No ☐

10. If you answered "Yes" to question 9, how did you get the extra credit?

a. Savings

b. Relatives

c. Friends

d. Pawnshops

e. Financial Institutions

f. Loan sharks (Unlicensed institutions)

g. Others (Please state).....


11. After joining the microcredit program, does your monthly income increase?

a. Yes ☐

b. No ☐

12. If you answered 'Yes' to question 11, does participation in microcredit program cause the increase in your income?

a. Yes ☐

b. No ☐

13. How much income per month did you gain (approximately) **BEFORE** you join the microcredit program?  
RM \_\_\_\_\_
14. How much income per month do you gain (approximately) **AFTER** you join the microcredit program?
- a. Income from business (per month)  
RM \_\_\_\_\_
  - b. Income from other sources (per month) Examples: pension/given by children/dividend and others
    - i. \_\_\_\_\_
    - ii. \_\_\_\_\_
    - iii. \_\_\_\_\_
15. What is the estimated total savings (savings in the ASB, Tabung Haji, Cooperatives, Financial Institutions and others) **BEFORE** you join the microcredit program?  
RM \_\_\_\_\_
16. After joining the microcredit program, do your savings increase?
- a. Yes ☐
  - b. No ☐
17. If you answered 'Yes' to question 16, is participating in the microcredit program causes an increase in your savings?
- a. Yes ☐
  - b. No ☐
18. What is the estimated total savings (savings in the ASB, Tabung Haji, Cooperatives, Financial Institutions and others) **AFTER** you join the microcredit program?  
RM \_\_\_\_\_
19. Have you attended any course on entrepreneurship?
- a. Yes ☐
  - b. No ☐
20. If you answered 'Yes' to question 19, specify the number of times (in total) you attended entrepreneurship courses?  
\_\_\_\_\_ times

## SECTION C: Quality of Life


Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Quality of life (QOL) is defined as how well we are doing.**

No Satisfaction at All	Completely Satisfied
0	10
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0
←	→

Quality of Life		Satisfaction Level										
1.	Overall, how satisfied are you with your quality of life?	0	1	2	3	4	5	6	7	8	9	10

No Satisfaction at All	Completely Satisfied
0	10
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0
	

Quality of Life		Satisfaction Level										
How satisfied are you with your...?												
1.	Income Earnings	0	1	2	3	4	5	6	7	8	9	10
2.	Health	0	1	2	3	4	5	6	7	8	9	10
3.	Productivity	0	1	2	3	4	5	6	7	8	9	10
4.	Friendship	0	1	2	3	4	5	6	7	8	9	10
5.	Personal Safety	0	1	2	3	4	5	6	7	8	9	10
6.	Education	0	1	2	3	4	5	6	7	8	9	10
7.	Future Security	0	1	2	3	4	5	6	7	8	9	10
8.	Food	0	1	2	3	4	5	6	7	8	9	10
9.	Housing Condition	0	1	2	3	4	5	6	7	8	9	10
10.	Personal Savings	0	1	2	3	4	5	6	7	8	9	10
11.	Spirituality	0	1	2	3	4	5	6	7	8	9	10




## SECTION D: Entrepreneurial Behaviour

Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Entrepreneurial behaviour refers to the entrepreneur's capability to undertake risks, making decision and managing towards profit maximisation.**

Total Disagreement	Total Agreement
0    1    2    3    4    5    6    7    8    9    10	
	


Entrepreneurial Behaviour		Agreement Level										
<i>Entrepreneurial behaviour refers to the entrepreneur's capability to undertake risks, making decision and managing towards profit maximisation.</i>												
1.	I am willing to bear risk of failure.	0	1	2	3	4	5	6	7	8	9	10
2.	I spent most of my time to attend my business.	0	1	2	3	4	5	6	7	8	9	10
3.	I have invested large amount of money for my business.	0	1	2	3	4	5	6	7	8	9	10
4.	I have great durability.	0	1	2	3	4	5	6	7	8	9	10

## SECTION E: Personal Attitude

Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Personal attitude refer to produce a favourable or unfavourable attitude toward the behaviour and they are the values of the behaviour outcomes.**

Total Disagreement	Total Agreement
0    1    2    3    4    5    6    7    8    9    10	
	


Personal Attitude		Agreement Level										
<i>Personal attitude refer to produce a favourable or unfavourable attitude toward the behaviour and they are the values of the behaviour outcomes.</i>												
1.	Being an entrepreneur implies more advantages than disadvantages to me.	0	1	2	3	4	5	6	7	8	9	10
2.	A career as an entrepreneur is attractive to me.	0	1	2	3	4	5	6	7	8	9	10
3.	If I had the opportunity and resources, I'd like to expand my business.	0	1	2	3	4	5	6	7	8	9	10
4.	Being an entrepreneur would entail great satisfactions for me.	0	1	2	3	4	5	6	7	8	9	10
5.	Among various options, I would rather be an entrepreneur.	0	1	2	3	4	5	6	7	8	9	10

## SECTION F: Subjective Norm

Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Subjective norm is caused by perceived social pressure or subjective norm in which what other people think the person should do affects the person's perception.**

Total Disagreement	Total Agreement
0    1    2    3    4    5    6    7    8    9    10	
	


Subjective Norm		Agreement Level										
If you decided to expand your business, would people in your close environment approve of that decision?												
1.	My Family.	0	1	2	3	4	5	6	7	8	9	10
2.	My Friends.	0	1	2	3	4	5	6	7	8	9	10

## SECTION G: Perceived Behavioural Control

Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Perceived behavioural control is an individual's perceived behavioural control which is individual's perceptions of his ability or feelings of self-efficacy to perform behaviour.**

Total Disagreement	Total Agreement
0    1    2    3    4    5    6    7    8    9    10	
	

Perceived Behavioural Control		Agreement Level										
<i>How much confidence do you have in your ability to .....</i>												
1.	Brainstorm (come up with) a new idea for a product or service.	0	1	2	3	4	5	6	7	8	9	10
2.	Estimate customer's demand for a product or service.	0	1	2	3	4	5	6	7	8	9	10
3.	Network-i.e., make contact with and exchange information with others.	0	1	2	3	4	5	6	7	8	9	10
4.	Deal effectively with day-to-day problems and crises.	0	1	2	3	4	5	6	7	8	9	10
5.	Organize and maintain the financial records of my business.	0	1	2	3	4	5	6	7	8	9	10

**SECTION H: Entrepreneurial Intention**

Indicate your level of agreement with the following sentences.

Please circle (0) the box that best describes your level of agreement.

**Entrepreneurial intention is explained by the changes in awareness which are formed by personal attitude, subjective norm and perceived behavioural control**

Total Disagreement											Total Agreement				
0	1	2	3	4	5	6	7	8	9	10					

Entrepreneurial Intention		Agreement level										
1.	As an entrepreneur, I am ready to do anything.	0	1	2	3	4	5	6	7	8	9	10
2.	My professional goal is to become a successful entrepreneur.	0	1	2	3	4	5	6	7	8	9	10
3.	I will make every effort to sustain my own business.	0	1	2	3	4	5	6	7	8	9	10
4.	I am determined to expand my business in the future.	0	1	2	3	4	5	6	7	8	9	10

**SECTION I: Suggestions**

What are your suggestion regarding Amanah Ikhtiar Malaysia’s microcredit programme?

**Thank you for your cooperation.**

## APPENDIX C

### Output Pilot Study

#### Factor and Reliability Analyses

##### For construct Quality of Life

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
QOL INCOME EARNINGS	6.83	2.035	100
QOL HEALTH	7.92	1.600	100
QOL PRODUCTIVITY	7.13	1.824	100
QOL FRIENDSHIP	8.44	1.585	100
QOL PERSONAL SAFETY	8.22	1.840	100
QOL EDUCATION	7.54	1.961	100
QOL FUTURE SECURITY	8.03	1.678	100
QOL FOOD	8.40	1.557	100
QOL HOUSING CONDITION	7.76	1.908	100
QOL PERSONAL SAVINGS	6.62	2.169	100
QOL SPIRITUALITY	8.29	1.653	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.892
Bartlett's Test of Sphericity	Approx. Chi-Square	714.100
	df	55
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.456	58.690	58.690	6.456	58.690	58.690
2	.979	8.901	67.591			
3	.755	6.864	74.456			
4	.645	5.865	80.321			
5	.489	4.442	84.763			
6	.405	3.678	88.441			
7	.337	3.068	91.509			
8	.321	2.917	94.426			
9	.247	2.243	96.669			
10	.221	2.009	98.678			
11	.145	1.322	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix <sup>a</sup>	
	Component
	1
QOL INCOME EARNINGS	.725
QOL HEALTH	.656
QOL PRODUCTIVITY	.767
QOL FRIENDSHIP	.770
QOL PERSONAL SAFETY	.758
QOL EDUCATION	.771
QOL FUTURE SECURITY	.828
QOL FOOD	.821
QOL HOUSING CONDITION	.796
QOL PERSONAL SAVINGS	.766
QOL SPIRITUALITY	.755
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Reliability Statistics	
Cronbach's Alpha	N of Items
.927	11

### For Construct Participants' Entrepreneurial Behaviour

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
PEB 1	6.84	2.557	100
PEB 2	7.60	2.035	100
PEB 3	7.25	2.148	100
PEB 4	7.47	1.925	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.767
Bartlett's Test of Sphericity	Approx. Chi-Square	210.732
	df	6
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.863	71.587	71.587	2.863	71.587	71.587
2	.634	15.859	87.446			
3	.275	6.875	94.322			
4	.227	5.678	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix <sup>a</sup>	
	Component
	1
PEB 1	.778
PEB 2	.897
PEB 3	.785
PEB 4	.916
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Reliability Statistics	
Cronbach's Alpha	N of Items
.855	4



**For Construct Personal Attitude**

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
PA 1	7.96	1.864	100
PA 2	8.26	1.721	100
PA 3	8.49	1.784	100
PA 4	8.42	1.748	100
PA 5	8.42	1.759	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	384.301
	df	10
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.780	75.597	75.597	3.780	75.597	75.597
2	.531	10.628	86.225			
3	.371	7.411	93.636			
4	.175	3.509	97.145			
5	.143	2.855	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix <sup>a</sup>	
	Component
	1
PA 1	.854
PA 2	.925
PA 3	.746
PA 4	.904
PA 5	.906
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Reliability Statistics	
Cronbach's Alpha	N of Items
.917	5

**For Construct Subjective Norm**

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
SN 1	8.61	1.663	100
SN 2	8.09	1.776	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	57.794
	df	1
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.669	83.436	83.436	1.669	83.436	83.436
2	.331	16.564	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix <sup>a</sup>	
	Component
	1
SN 1	.913
SN 2	.913
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Reliability Statistics	
Cronbach's Alpha	N of Items
.800	2

**For Construct Perceived Behavioural Control**

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
PBC 1	7.58	1.970	100
PBC 2	7.67	1.980	100
PBC 3	7.80	1.975	100
PBC 4	7.85	1.731	100
PBC 5	8.06	1.663	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.841
Bartlett's Test of Sphericity	Approx. Chi-Square	396.438
	df	10
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.773	75.464	75.464	3.773	75.464	75.464
2	.594	11.889	87.352			
3	.315	6.294	93.646			
4	.203	4.059	97.705			
5	.115	2.295	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix <sup>a</sup>	
	Component
	1
PBC 1	.901
PBC 2	.887
PBC 3	.917
PBC 4	.852
PBC 5	.778

Extraction Method:  
Principal Component  
Analysis.

a. 1 components  
extracted.

Reliability Statistics	
Cronbach's Alpha	N of Items
.918	5

**For Construct Participants' Entrepreneurial Intention**

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
PEI 1	8.43	1.647	100
PEI 2	8.80	1.544	100
PEI 3	8.91	1.518	100
PEI 4	9.01	1.494	100

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi-Square	409.382
	df	6
	Sig.	.000

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.442	86.049	86.049	3.442	86.049	86.049
2	.329	8.222	94.271			
3	.130	3.256	97.526			
4	.099	2.474	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix <sup>a</sup>	
	Component
	1
PEI 1	.884
PEI 2	.950
PEI 3	.949
PEI 4	.927
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Reliability Statistics	
Cronbach's Alpha	N of Items
.945	4



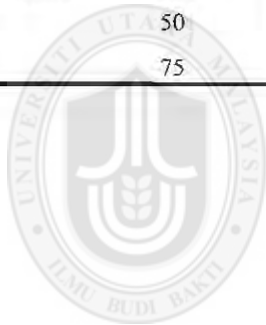
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## Appendix D

### The Respondents Profile

		Statistics				
		Age	Gender	Status	Ethnic	Academic Qualification
N	Valid	638	638	638	638	638
	Missing	0	0	0	0	0
Percentiles	25	36.00	2.00	2.00	1.00	3.00
	50	43.50	2.00	2.00	1.00	4.00
	75	52.00	2.00	2.00	1.00	4.00

		Statistics		
		Living Quarters	Business as Main Job	Others as Main Job
N	Valid	638	638	638
	Missing	0	0	0
Percentiles	25	1.00	1.00	11.00
	50	1.00	1.00	11.00
	75	3.00	1.00	11.00



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**Frequency Table**

		Age			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	18	1	.2	.2	.2
	21	1	.2	.2	.3
	23	1	.2	.2	.5
	24	5	.8	.8	1.3
	25	9	1.4	1.4	2.7
	26	7	1.1	1.1	3.8
	27	4	.6	.6	4.4
	28	8	1.3	1.3	5.6
	29	11	1.7	1.7	7.4
	30	14	2.2	2.2	9.6
	31	18	2.8	2.8	12.4
	32	15	2.4	2.4	14.7
	33	12	1.9	1.9	16.6
	34	21	3.3	3.3	19.9
	35	25	3.9	3.9	23.8
	36	14	2.2	2.2	26.0
	37	11	1.7	1.7	27.7
	38	27	4.2	4.2	32.0
	39	21	3.3	3.3	35.3
	40	31	4.9	4.9	40.1
	41	28	4.4	4.4	44.5
	42	21	3.3	3.3	47.8
	43	14	2.2	2.2	50.0
	44	10	1.6	1.6	51.6
	45	17	2.7	2.7	54.2
	46	22	3.4	3.4	57.7
	47	24	3.8	3.8	61.4
	48	18	2.8	2.8	64.3
	49	20	3.1	3.1	67.4
	50	23	3.6	3.6	71.0
	51	21	3.3	3.3	74.3
	52	17	2.7	2.7	77.0
	53	15	2.4	2.4	79.3
	54	13	2.0	2.0	81.3
	55	19	3.0	3.0	84.3
	56	7	1.1	1.1	85.4
	57	11	1.7	1.7	87.1
	58	11	1.7	1.7	88.9
	59	11	1.7	1.7	90.6

60	16	2.5	2.5	93.1
61	8	1.3	1.3	94.4
62	4	.6	.6	95.0
63	5	.8	.8	95.8
64	7	1.1	1.1	96.9
65	8	1.3	1.3	98.1
66	2	.3	.3	98.4
67	1	.2	.2	98.6
68	1	.2	.2	98.7
69	1	.2	.2	98.9
70	1	.2	.2	99.1
71	1	.2	.2	99.2
73	2	.3	.3	99.5
74	2	.3	.3	99.8
79	1	.2	.2	100.0
Total	638	100.0	100.0	



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### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	1	.2	.2	.2
	FEMALE	637	99.8	99.8	100.0
	Total	638	100.0	100.0	

### Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SINGLE	21	3.3	3.3	3.3
	MARRIED	547	85.7	85.7	89.0
	SEPARATED/DIVORCED/ WIDOW	70	11.0	11.0	100.0
	Total	638	100.0	100.0	

### Ethnic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALAY	629	98.6	98.6	98.6
	CHINESE	2	.3	.3	98.9
	INDIA	3	.5	.5	99.4
	OTHERS	4	.6	.6	100.0
	Total	638	100.0	100.0	

#### Academic Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO SCHOOL	54	8.5	8.5	8.5
	UPSR	51	8.0	8.0	16.5
	SRP/PMR	145	22.7	22.7	39.2
	SPM/SPMV	302	47.3	47.3	86.5
	STPM/STAM/SIJIL/DIPLO MA	75	11.8	11.8	98.3
	BACHELOR	9	1.4	1.4	99.7
	MASTERS	2	.3	.3	100.0
	Total	638	100.0	100.0	

#### Living Quarters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RUMAH KAMPUNG	379	59.4	59.4	59.4
	RUMAH PANGSA	75	11.8	11.8	71.2
	RUMAH TERES	134	21.0	21.0	92.2
	RUMAH KEMBAR DUA	14	2.2	2.2	94.4
	RUMAH BANGLO	7	1.1	1.1	95.5
	RUMAH KEDAI	3	.5	.5	95.9
	RUMAH SETINGGAN	1	.2	.2	96.1
	KUARTERS KERAJAAN	25	3.9	3.9	100.0
	Total	638	100.0	100.0	

#### Business as Main Job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	552	86.5	86.5	86.5
	NO	86	13.5	13.5	100.0
	Total	638	100.0	100.0	

Others as Main Job

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid PENGURUS	1	.2	.2	.2
PROFESSIONAL	2	.3	.3	.5
JURUTEKNIK DAN PROFESSIONAL	1	.2	.2	.6
BERSEKUTU				
PEKERJA SOKONGAN PENGKERANIAN	3	.5	.5	1.1
PEKERJA PERKHIDMATAN DAN JUALAN	21	3.3	3.3	4.4
PEKERJA MAHIR PERTANIAN, PERHUTANAN DAN PERIKANAN	21	3.3	3.3	7.7
PEKERJA KEMAHIRAN DAN PEKERJA PERTUKANGAN YANG BERKAITAN	12	1.9	1.9	9.6
OPEATOR LOJI DAN MESIN DAN PEMASANG	1	.2	.2	9.7
PERKERJA ASAS	22	3.4	3.4	13.2
NOT APPLICABLE	554	86.8	86.8	100.0
Total	638	100.0	100.0	

## APPENDIX E

### The Participants' Involvement in Amanah Ikhtiar Malaysia (AIM)' Microcredit Programme

#### T-Test for Income After Join AIM

##### Group Statistics

	B1_group	N	Mean	Std. Deviation	Std. Error Mean
Monthly Income After	L1	146	1814.93	2265.569	187.500
Join AIM	M1	492	2847.07	8419.337	379.573

##### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
Monthly Income After Join AIM	Equal variances assumed	1.145	.285	-1.465
	Equal variances not assumed			-2.438

##### Independent Samples Test

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
Monthly Income After Join AIM	Equal variances assumed	636	.143	-1032.142
	Equal variances not assumed	632.358	.015	-1032.142

### Independent Samples Test

		t-test for Equality of Means	
		Std. Error Difference	95% Confidence Interval of the Difference
			Lower
Monthly Income After Join AIM	Equal variances assumed	704.589	-2415.744
	Equal variances not assumed	423.358	-1863.499

### Independent Samples Test

		t-test for Equality of Means	
			95% Confidence Interval of the Difference
			Upper
Monthly Income After Join AIM	Equal variances assumed		351.461
	Equal variances not assumed		-200.784

### T-Test for Savings After Join AIM

**Group Statistics**

	B1_group	N	Mean	Std. Deviation	Std. Error Mean
Total Saving After Join AIM	L1	146	2071.71	7980.878	660.502
	M1	492	5738.86	36863.754	1661.946

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
Total Saving After Join AIM	Equal variances assumed	2.124	.146	-1.193
	Equal variances not assumed			-2.051

**Independent Samples Test**

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
Total Saving After Join AIM	Equal variances assumed	636	.233	-3667.149
	Equal variances not assumed	607.070	.041	-3667.149

### Independent Samples Test

		t-test for Equality of Means	
		Std. Error Difference	95% Confidence Interval of the Difference
			Lower
Total Saving After Join AIM	Equal variances assumed	3073.606	-9702.792
	Equal variances not assumed	1788.387	-7179.326

### Independent Samples Test

		t-test for Equality of Means	
			95% Confidence Interval of the Difference
			Upper
Total Saving After Join AIM	Equal variances assumed		2368.493
	Equal variances not assumed		-154.973

## APPENDIX F

### Descriptive Analysis on Construct of the Study

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Mean_PQL	638	2	10	7.64	1.470	-.639
Mean_PPA	638	3	10	8.17	1.646	-.833
Mean_PSN	638	3	10	8.65	1.586	-1.172
Mean_PBC	638	3	10	7.74	1.666	-.516
Mean_PEI	638	3	10	8.59	1.618	-1.178
Mean_PEB	638	1	10	7.45	1.745	-.319
Valid N (listwise)	638					

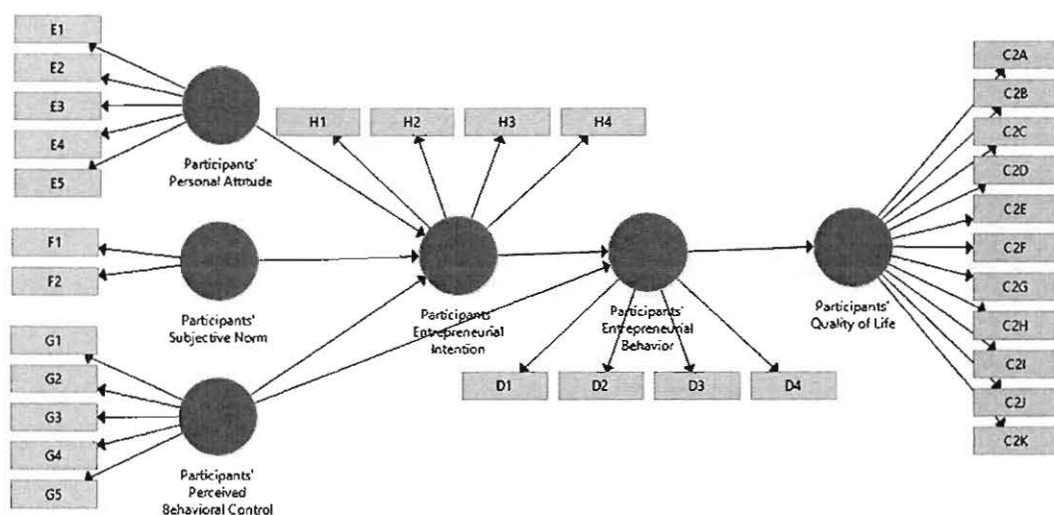
**Descriptive Statistics**

	Skewness	Kurtosis	
	Std. Error	Statistic	Std. Error
Mean_PQL	.097	.210	.193
Mean_PPA	.097	-.133	.193
Mean_PSN	.097	.588	.193
Mean_PBC	.097	-.501	.193
Mean_PEI	.097	.609	.193
Mean_PEB	.097	-.634	.193
Valid N (listwise)			



## APPENDIX G

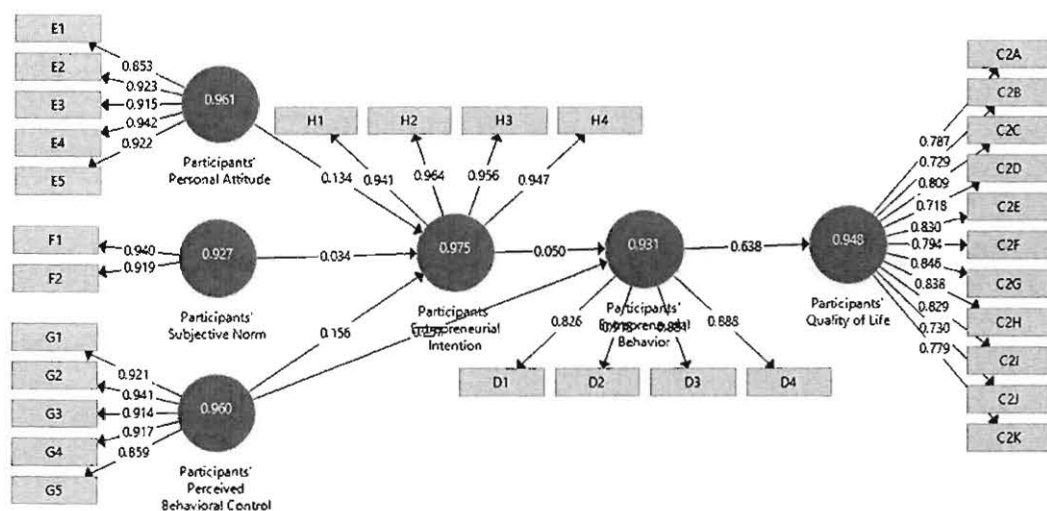
### Original Study Model in PLS



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## APPENDIX H

### Factor Loadings



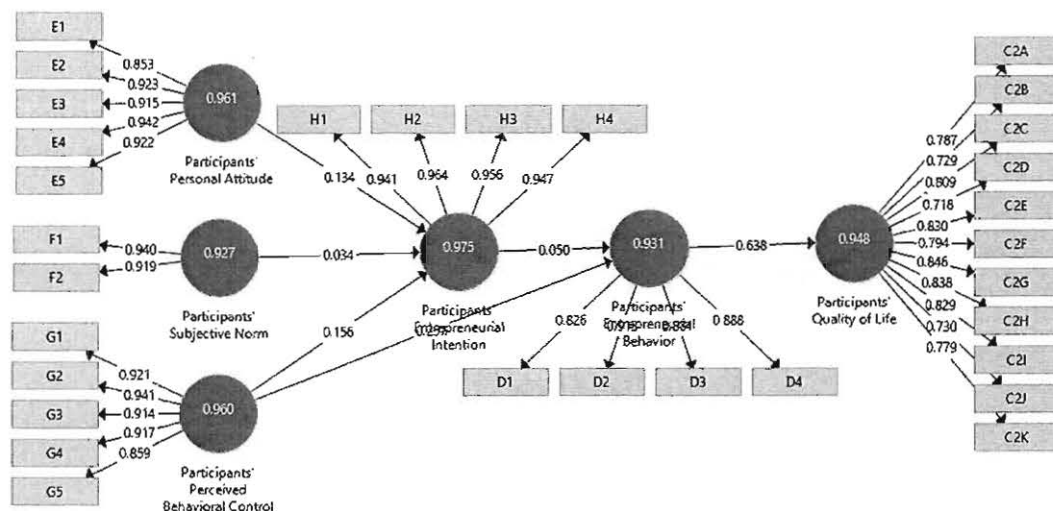
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# **APPENDIX I** **Factor Loadings**

	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Quality of Life	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Subjective Norm
C2A			0.787			
C2B			0.729			
C2C			0.809			
C2D			0.718			
C2E			0.830			
C2F			0.794			
C2G			0.846			
C2H			0.838			
C2I			0.829			
C2J			0.730			
C2K			0.779			
D1	0.826					
D2	0.913					
D3	0.881					
D4	0.888					
E1					0.853	
E2					0.923	
E3					0.915	
E4					0.942	
E5					0.922	
F1						0.940
F2						0.919
G1				0.921		
G2				0.941		
G3				0.914		
G4				0.917		
G5				0.859		
H1		0.941				
H2		0.964				
H3		0.956				
H4		0.947				

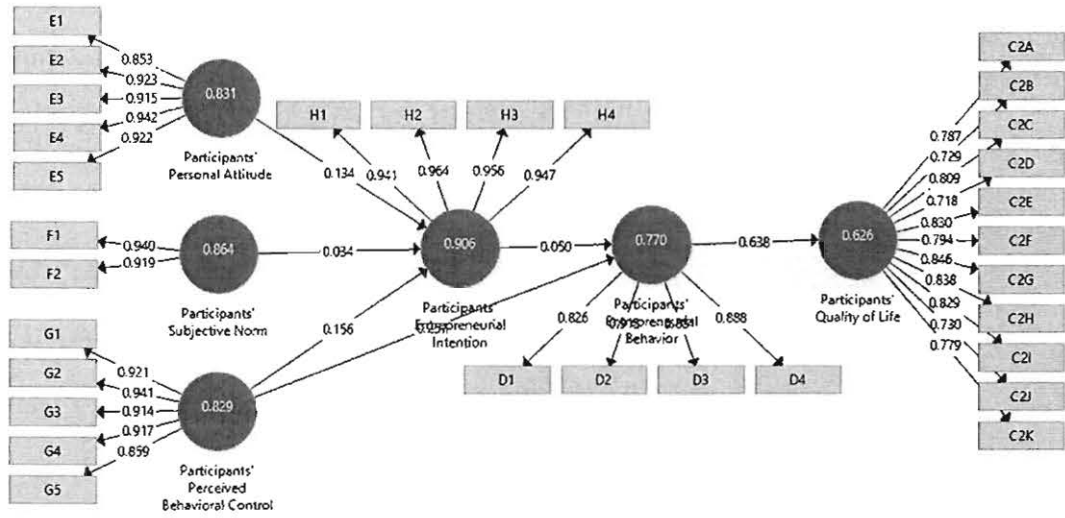
## APPENDIX J

### Composite Reliability (CR)



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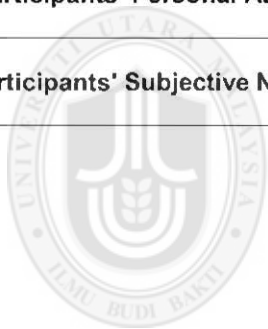
# **APPENDIX K** **Average Variance Extracted (AVE)**



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**APPENDIX L**  
**Composite Reliability (CR) Average and Variance Extracted (AVE)**

	<b>Composite Reliability (CR)</b>	<b>Average Variance Extracted (AVE)</b>
<b>Participants' Entrepreneurial Behaviour</b>	<b>0.931</b>	<b>0.770</b>
<b>Participants' Entrepreneurial Intention</b>	<b>0.975</b>	<b>0.906</b>
<b>Participants' Quality of Life</b>	<b>0.948</b>	<b>0.626</b>
<b>Participants' Perceived Behavioural Control</b>	<b>0.960</b>	<b>0.829</b>
<b>Participants' Personal Attitude</b>	<b>0.961</b>	<b>0.831</b>
<b>Participants' Subjective Norm</b>	<b>0.927</b>	<b>0.864</b>



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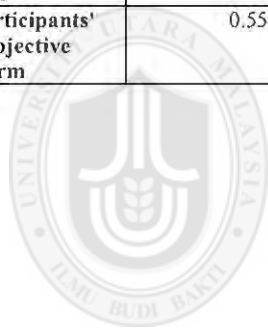
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**APPENDIX M**  
**Cross Loadings**

	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
C2A	0.534	0.379	0.523	0.500	0.787	0.419
C2B	0.477	0.381	0.439	0.463	0.729	0.365
C2C	0.510	0.399	0.528	0.500	0.809	0.441
C2D	0.500	0.421	0.511	0.500	0.718	0.467
C2E	0.485	0.445	0.489	0.513	0.830	0.435
C2F	0.496	0.408	0.493	0.476	0.794	0.384
C2G	0.487	0.424	0.498	0.473	0.846	0.428
C2H	0.478	0.424	0.489	0.474	0.838	0.411
C2I	0.479	0.344	0.437	0.443	0.829	0.383
C2J	0.460	0.348	0.443	0.402	0.730	0.351
C2K	0.508	0.401	0.429	0.466	0.779	0.448
D1	0.826	0.504	0.560	0.608	0.518	0.441
D2	0.913	0.595	0.658	0.715	0.595	0.543
D3	0.881	0.553	0.615	0.608	0.515	0.441
D4	0.888	0.582	0.655	0.705	0.559	0.529
E1	0.676	0.575	0.655	0.853	0.534	0.550
E2	0.708	0.682	0.720	0.923	0.553	0.619
E3	0.666	0.736	0.701	0.915	0.575	0.651
E4	0.708	0.727	0.733	0.942	0.555	0.663
E5	0.681	0.744	0.723	0.922	0.525	0.684
F1	0.528	0.646	0.612	0.686	0.500	0.940
F2	0.510	0.558	0.582	0.606	0.471	0.919
G1	0.662	0.688	0.921	0.722	0.542	0.587
G2	0.667	0.702	0.941	0.738	0.552	0.597
G3	0.635	0.682	0.914	0.707	0.539	0.602
G4	0.684	0.705	0.917	0.719	0.575	0.598
G5	0.582	0.670	0.859	0.642	0.563	0.542
H1	0.620	0.941	0.730	0.718	0.518	0.624
H2	0.608	0.964	0.731	0.737	0.467	0.616
H3	0.605	0.956	0.728	0.741	0.480	0.626
H4	0.595	0.947	0.694	0.715	0.451	0.609

**APPENDIX N**  
**Fornell and Larcker Criterion**

	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
Participants' Entrepreneurial Behaviour	0.878					
Participants' Entrepreneurial Intention	0.638	0.952				
Participants' Perceived Behavioural Control	0.710	0.757	0.911			
Participants' Personal Attitude	0.753	0.765	0.775	0.912		
Participants' Quality of Life	0.624	0.504	0.608	0.601	0.791	
Participants' Subjective Norm	0.559	0.650	0.643	0.698	0.523	0.930

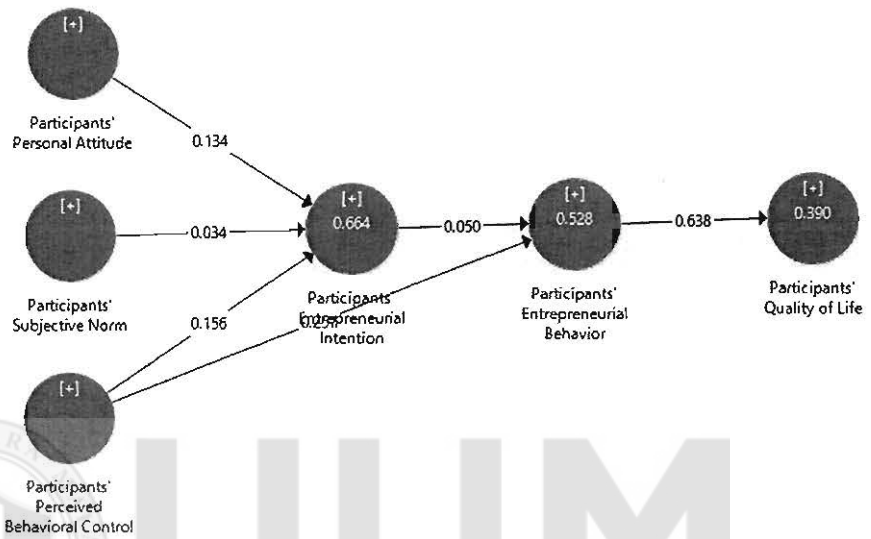


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## APPENDIX O

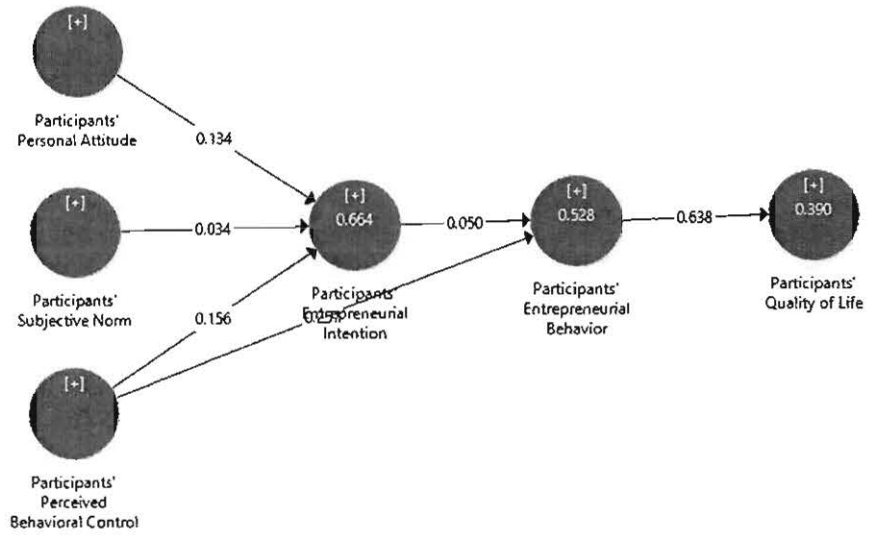
### R Square Diagram and Table



	R Square
<b>Participants' Entrepreneurial Behaviour</b>	0.528
<b>Participants' Entrepreneurial Intention</b>	0.664
<b>Participants' Quality of Life</b>	0.390

## APPENDIX P

### f Square Diagram and Table



	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
Participants' Entrepreneurial Behaviour					0.638	
Participants' Entrepreneurial Intention	0.050					
Participants' Perceived Behavioural Control	0.257	0.156				
Participants' Personal Attitude		0.134				
Participants' Quality of Life						
Participants' Subjective Norm		0.034				

## APPENDIX Q

### Collinearity Assessment (VIF)

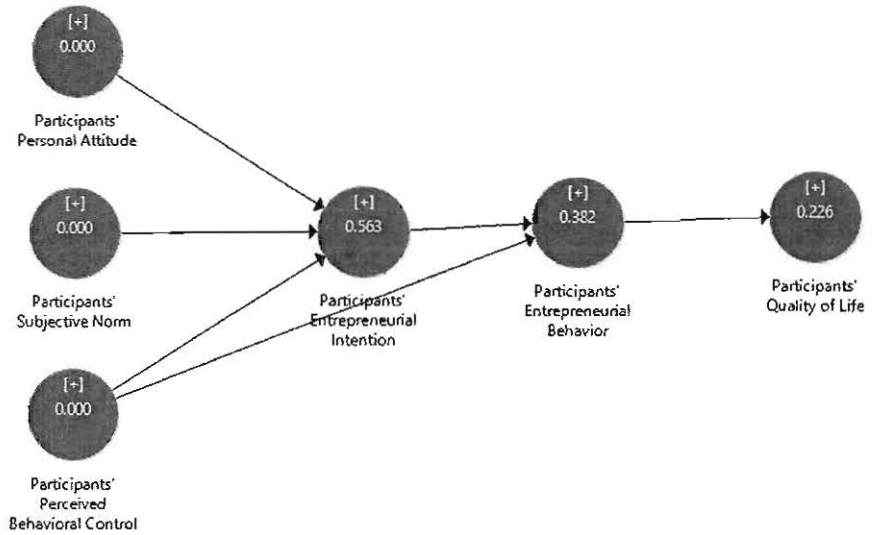
	Participants' Entrepreneurial Behaviour	Participants' Entrepreneurial Intention	Participants' Perceived Behavioural Control	Participants' Personal Attitude	Participants' Quality of Life	Participants' Subjective Norm
Participants' Entrepreneurial Behaviour					1.000	
Participants' Entrepreneurial Intention	2.343					
Participants' Perceived Behavioural Control	2.343	2.642				
Participants' Personal Attitude		3.019				
Participants' Quality of Life						
Participants' Subjective Norm		2.052				



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## APPENDIX R

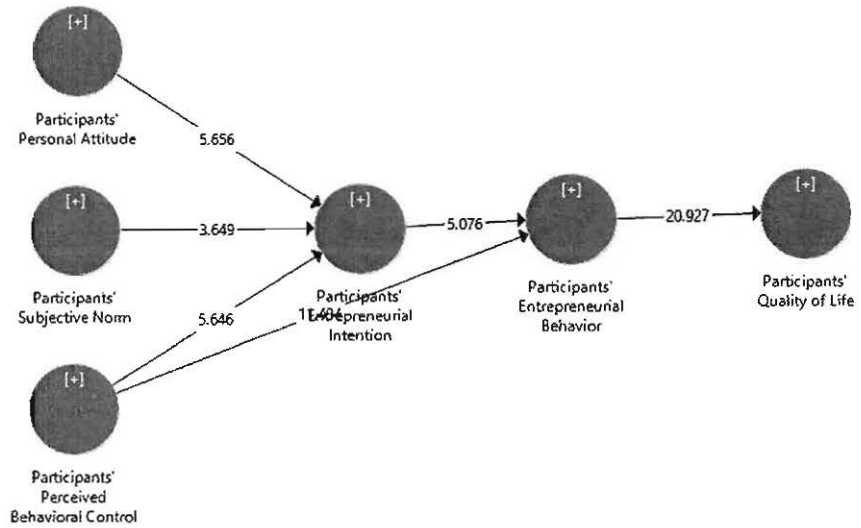
### Q Square (Q<sup>2</sup>)



	SSO	SSE	Q <sup>2</sup> (=1- SSE/SSO)
Participants' Entrepreneurial Behaviour	2,552.00	1,577.30	0.382
Participants' Entrepreneurial Intention	2,552.00	1,114.32	0.563
Participants' Perceived Behavioural Control	3,190.00	3,190.00	
Participants' Personal Attitude	3,190.00	3,190.00	
Participants' Quality of Life	7,018.00	5,432.50	0.226
Participants' Subjective Norm	1,276.00	1,276.00	

## APPENDIX S

### Path Coefficients



	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Participants' Entrepreneurial Behaviour -> Participants' Quality of Life	0.624	0.626	0.03	20.927	0
Participants' Entrepreneurial Intention -> Participants' Entrepreneurial Behaviour	0.234	0.234	0.046	5.076	0
Participants' Perceived Behavioural Control -> Participants' Entrepreneurial Behaviour	0.533	0.533	0.047	11.434	0
Participants' Perceived Behavioural Control -> Participants' Entrepreneurial Intention	0.372	0.369	0.066	5.646	0
Participants' Personal Attitude -> Participants' Entrepreneurial Intention	0.369	0.371	0.065	5.656	0
Participants' Subjective Norm -> Participants' Entrepreneurial Intention	0.154	0.155	0.043	3.649	0

## APPENDIX T

### Mediating Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Participants' Entrepreneurial Behaviour -> Participants' Quality of Life					
Participants' Entrepreneurial Intention -> Participants' Entrepreneurial Behaviour					
Participants' Entrepreneurial Intention -> Participants' Quality of Life	0.146	0.146	0.029	5.03	0
Participants' Perceived Behavioural Control -> Participants' Entrepreneurial Behaviour	0.087	0.086	0.021	4.124	0
Participants' Perceived Behavioural Control -> Participants' Entrepreneurial Intention					
Participants' Perceived Behavioural Control -> Participants' Quality of Life	0.387	0.388	0.032	12.094	0
Participants' Personal Attitude -> Participants' Entrepreneurial Behaviour	0.086	0.088	0.026	3.317	0.001
Participants' Personal Attitude -> Participants' Entrepreneurial Intention					
Participants' Personal Attitude -> Participants' Quality of Life	0.054	0.055	0.016	3.321	0.001
Participants' Subjective Norm -> Participants' Entrepreneurial Behaviour	0.036	0.036	0.012	2.943	0.003
Participants' Subjective Norm -> Participants' Entrepreneurial Intention					
Participants' Subjective Norm -> Participants' Quality of Life	0.022	0.023	0.008	2.895	0.004

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