

## ABSTRACT

A CAUSAL MODEL FOR FINANCIAL SATISFACTION IN THE  
SEVENTH-DAY ADVENTIST CHURCHES IN  
EDMONTON ALBERTA, CANADA

by

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ABSTRACT OF GRADUATE STUDENT RESEARCH

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School of Business and Legal Sciences

Title: A CAUSAL MODEL FOR FINANCIAL SATISFACTION IN THE SEVENTH-DAY ADVENTIST CHURCHES IN EDMONTON ALBERTA, CANADA

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Problem

Does the empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) influence directly financial satisfaction (FS) and financial literacy (FL) influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta?

Method

The researcher adopted a quantitative, explanatory, and cross-sectional approach in order to answer the research questions. The total population was approximately 2,000 members. The recommended sample was 323 members. The real sample was 322. The variables used in this research are as follows: (a) independent (financial literacy, financial attitude, financial behavior, financial indebtedness) and (b) control

or dependent variable (financial satisfaction).

## Results

The hypothesis raised was as follows: The empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) do not influence directly financial satisfaction (FS) and financial literacy (FL) do not influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta.

The structural equations and the Amos software were used on the null hypothesis and a good fit was found for the theoretical and empirical model, and the results are as follows:  $\chi^2 = 7.633$ ,  $p = .054$ , RMSEA = .072, GFI = .990, NFI = .984, and CFI = .990. The proportion of explained variance in the model was acceptable since 53% of the variability of financial satisfaction was explained.

## Conclusion

The direct effect and coefficient of determination of each endogenous variable shows the following: financial literacy is a significant predictor of financial attitude; however, this was different for financial indebtedness and financial behavior because they showed a low influence. Another important aspect of the model is that financial attitude is the best moderated variable according to the standardize coefficient. Over all, the model has a good fit because the variable explains a significant influence on financial satisfaction. In other words, the analysis has a good fit for both the theoretical and empirical models. Thus, financial indebtedness (FI); financial attitude (FA) and financial behavior (FB) have a direct influence on financial satisfaction (FS).

Montemorelos University  
Faculty of Business and Legal Sciences

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A dissertation  
presented in partial fulfillment  
of the requirements for the degree  
Doctorate in Business Administration

by  
Reynold Ferary


Abril 2020


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THE SEVENT-DAY ADVENTIST CHURCHES  
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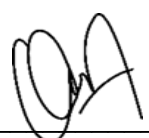
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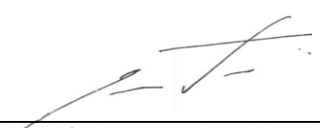
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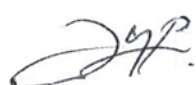
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## **DEDICATION**

This study is dedicated to my family; my wife Jennifer, my daughter Jendayi, my sons, Runako and Jalil who have been my source of inspiration and gave me strength to continue when times got tough and discouraging, who continually provided their moral, spiritual, emotional, and financial support.

To my brothers, relatives, mentor, friends, and classmates who shared their words of advice and encouragement to finish this study.

And lastly, I dedicate this thesis to the Almighty God who gave me guidance, strenght, power of mind, protection, skills, and a good life. I offer everything to Him.

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## **CHAPTER I**

### **STATEMENT OF THE PROBLEM**

#### **Introduction**

The following sections provide a brief compilation of definitions of the latent variables of this research: (a) financial literacy, (b) financial attitude, (c) financial behavior, (d) financial indebtedness, and (e) financial satisfaction.

#### **Financial Literacy**

Mandell (2006) states that financial literacy is what people must know in order to make important financial decisions in their own best interest. Huston (2010) describes financial literacy as measuring how well and individual can understand and use personal finance related information. Fatoki and Oni (2014) stated that financial literacy includes the ability and confidence of an individual to use his/ her financial knowledge to make financial decisions. Woodward (2009) defines financial literacy as the process by which financial consumes/ investors improve their understanding of financial products and concepts and, through information, instruction, and/ or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being. Jorgensen, Rappleyea, and Taylor (2014) define financial literacy as the ability to discern good from bad financial decisions, and the skills to make it practical.

## Financial Attitude

Arifin (2018) describes financial attitude is defined as a state of mind, opinion, and judgment of a person about finances. Woodyard and Robb (2016) state that Attitude refers to the way one feels towards certain financial problems which are measured by responses to statements or opinion. Financial attitude is a state of mind, opinions and judgments about finance. Arifin (2018) also states that financial attitude can be described as a state of thought, opinion, and assessment about finances. Rai, et al. (2019) defined financial attitude as personal inclination towards financial matters. It is the ability to plan ahead and maintain a savings account that matters Ibrahim and Alqaydi (2013) describe financial attitude as personal financial attitude, which is a variable that refers to a personal disposition toward financial matters. Mukokoma, Bwejeme, Mathias, and Nakayenga (2018) State that financial attitude is a psychological tendency expressed when evaluating recommended financial management practices with some degree of agreement or disagreement.

## Financial Behavior

Hasibuan, Lubis, and HR (2018) assents that a person's financial behavior can be seen from how good he manages cash, debt, savings and other expenses. Individuals who have responsible financial behavior tend to be effective in using money, such as in making money, managing and controlling spending, investing, and paying consuming fees on time. Hasibuan, et al. states that financial behavior is defined by how good a household or individual manages financial resources that include savings budget planning, insurance and investment. Mukokoma, et al. (2018) defines financial



behavior as the economic conduct of an individual on monetary issues related to financial planning, wealth accumulation, debt and pension management. Ameliawati and Setiyani (2018) assert that financial behavior is demonstrated by good planning, management, and financial control. Herawati, Candiasa, Yadnyana, and Suharsono (2018) states that financial behavior can be related to the concept of financial management at individual level, planning, management, and controlling. Individual financial behavior can be related to the task of a financial manager in a company.

### Financial Indebtedness

Turunen and Hiilamo (2014) stated that when it comes to financial indebtedness there is no uniform definition for indebtedness (or over-indebtedness). The condition where a household falls behind in its loan payments and cannot escape the legal consequences of unmet financial obligations is generally referred to as indebtedness. Existing measures of consumer indebtedness are largely based on pragmatic grounds. Turunen and Hiilamo (2014) also stated that indebtedness can be defined as a lack of possible debt redemption in due time, resulting in a remarkable cutback in a household's standard of living.

### Financial Satisfaction

Škreblić Kirbiš, Vehovec, and Galić (2017) defines financial satisfaction, as satisfaction with one's current financial situation and it is considered to be a sub-component of general wellbeing. Woodyard and Robb (2016) associated financial satisfaction with personal well-being and life satisfaction as a subconstruct of financial well-being financial satisfaction is a subjective assessment of the adequacy of one's financial

resources or financial situation. Arifin (2018) stated that financial satisfaction is derived from a form of someone's behavior that is associated with how these people manage their revenues in order to meet their financial needs. Lim (2012) asserted that the focus towards the use of financial satisfaction as a suitable measure was first explored by Leyden School, they explained that general individual happiness and hence, the perception of well-being may be influenced by many factors that may be unrelated to the level of income of an individual. In addition, financial satisfaction can be seen as a "mediator" between wealth and happiness levels, and play an important domain of overall individual well-being. Aboagye and Jung (2018) state that financial satisfaction has also been defined as satisfaction with one's income, ability to handle financial emergencies, amount of debt, level of savings, and money for future needs.

### **Definition of Terms**

Although most of the above variables have previously been defined during the process of describing them, this section gives a brief definition of key terms that are used in this study.

*Financial Literacy:* Is the acquisition of knowledge, skills, confidence and motivation necessary to effectively manage financial matters.

*Financial Attitude:* It is extent to which values and beliefs influence financial decision making.

*Financial Behavior:* Is the Psychological characteristics that determine how people make financial decisions.

*Financial Satisfaction*: Relates to what people do and how they feel, given their objective and subjective knowledge of financial matter.

Biblical stewardship: Is being a responsible manager of life and its resources based on the principles of the sacred scriptures.

### **Relationship Between Variables**

This section describes the relationships between the variables. These relations are as follows: (a) financial literacy and financial satisfaction, (b) financial attitude and financial satisfaction, (c) financial behavior and financial satisfaction, and (d) financial indebtedness and financial satisfaction.

#### **Financial Literacy and Financial Satisfaction**

Xiao and Porto (2017) indicated that financial education may affect financial satisfaction, a measure of subjective financial well-being, through financial literacy, financial behavior, and financial capability variables. Results show that subjective financial literacy, desirable financial behavior, and a financial capability index are strong mediators between financial education and financial satisfaction. Škreblin Kirbiš, et al. (2017) reported that analyses conducted on a data collected on a large and heterogeneous sample of Croatian citizens ( $n = 900$ ) showed that men scored higher on some financial literacy variables and were more financially satisfied. The male subsample, when compared to the female sample, showed stronger correlations between financial satisfaction and financial literacy variables such as financial attitude, self-assessment of financial management and the monitoring of expenses.

Škreblin Kirbiš, et al. (2017) commented that regarding the relationship between financial literacy and financial satisfaction, existing literature generally assumes a positive relationship between the two, even though it was not always direct and was observed to be somewhat different for men and women. Murphy (2013) analyzed the relationship between financial literacy and several psychosocial variables (financial satisfaction, hopelessness and religiosity) in the 50+ age cohort. He found a low positive correlation between financial knowledge and financial satisfaction. A possible explanation for this correlation is that greater financial literacy improves financial satisfaction by helping individuals to develop the skills necessary to deal with their financial matters.

Xiao, Chen, and Chen (2014) claimed that financial education improves financial literacy, which motivates desirable financial behaviors, and enhances the financial well-being of consumers.

Murphy (2013) reported that an analysis of the relationship between financial literacy and financial satisfaction, hopelessness and religiosity found a low positive correlation between financial knowledge and financial satisfaction among older respondents. It was found that greater financial literacy, the development of the necessary skills to deal with financial matters, improve financial satisfaction.

#### Financial Attitude and Financial Satisfaction.

Škreblin Kirbiš, et al. (2017) commented that financial attitude component explained some financial satisfaction variance for men, but not for women. Financial knowledge was not found to be a significant predictor of financial satisfaction of both men and women. Arifin (2018) analysis of data showed that financial Behavior was

mediating the relation between Financial Knowledge and Financial Attitude towards Financial Satisfaction. Arifin (2018) commented that financial satisfaction comes from a form of one's behavior that is associated with how one manages income to meet one's financial needs. They can be successfully met if one is able to meet short-term consumption needs and long- term needs with minimal deficiency. Yap, Komalasari, and Hadiansah (2016) the study examined effect that financial literacy and financial attitudes have on financial management behavior and financial satisfaction of married individuals in Indonesia. The result shows that financial attitude was the most influencing variable toward financial management behavior, also financial management behavior was the most influencing variable toward financial satisfaction.

#### Financial Behavior and Financial Satisfaction

Arifin (2018) indicated that both financial knowledge and financial attitude have a positive influence on financial behavior. Coskuner (2016) indicated that, a study sample of ( $n = 596$ ) academic and administrative staff of a major state university in Turkey. The data was analyzed using binary logistic regression analysis, which showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. While a number of terms are used interchangeably to identify components and perceptions of an individual's financial situation, such as financial wellness, Financial satisfaction, Financial well-being, financial health etc. This study explicitly used financial satisfaction. Aboagye and Jung (2018) commented that the findings underscored the important role of positive savings and spending behavior on overall financial satisfaction and the opportunity for financial counselors, educators, and coaches to focus on the

motivation of clients to save and plan for the future. Nye and Hillyard (2013) reported that 'results from a diverse sample ( $n = 267$ ) of consumers confirm that both quantitative literacy and subjective numeracy, the individual's confidence in applying quantitative skills, are positively related to forward-looking financial behavior. Škreblin Kirbiš, et al. (2017) reported that financial behaviors were significant predictors of financial satisfaction for both men and women. Yap, Komalasari, and Hadiansah (2016) stated that it is recommended that both financial attitude and financial behavior are essential for financial satisfaction. Luksander, Németh, and Zsótér (2017) concluded that in order to deal with undesirable financial behavior it is essential to explore the cognitive, affective, and behavioral components of financial attitude.

#### Financial Indebtedness and Financial Satisfaction

Kennedy (2013) showed that financial literacy failed to predict intention to use credit cards. However, a positive correlation was found between attitudes toward credit cards and amount of credit card debt. Luksander, et al. (2017) reported that the results of a study that examined the personality traits and behavior patterns that influence an individual's indebtedness, showed that making savings is essential in the avoidance of indebtedness. It was further noted that learning to spend with caution and awareness is equally important. Blázquez and Budría (2015) indicated that results showed that non-mortgage debt payments and arrears in debt payment do have a significant impact on people's health. It was confirmed that over-indebtedness is negatively associated with health. Lown and Ju (1992) reported that respondents' feelings about their credit obligations was the greatest predictor of financial satisfaction, the higher the level of concern about credit the lower the level of Satisfaction. The subjective assessment of

credit obligations was more important in explaining financial satisfaction than the objective reality of family debt burden. Results indicated that socio-economic characteristics, credit attitudes and credit practices accounted for fifty- two percent of the model of financial satisfaction.

### **Problem Statement**

Christian families experience financial hardships due to inadequate understanding of biblical stewardship, knowledge and management of money (Marshall, 2019) reported that “in 2005, Canada overtook the United States in terms of its consumer debt- to -debt income ratio and , shortly after Canada’s bankruptcy rate also overtook that of the United States”. Research has shown that Christians are not exempted from the financial hardships that the general population faces. They are experiencing the negative effects of indebtedness and are unable to meet their financial obligations. This Puts them at a disadvantage when it comes to utilizing the financial system to benefit them towards financial freedom that would ultimately lead to financial satisfaction. Failure to understand these key concepts puts one at a disadvantage when it comes to acquisition and use of money. The right understanding of these important concepts is essential for security and stability of the institution of the family and the society at large Xu, Beller, Roberts, and Brown (2015) commented that given the importance of personal finance, governments and educational institutions are paying more attention to financial literacy in our educational system.

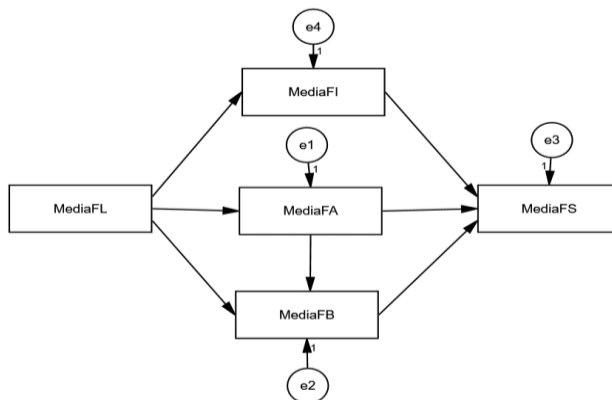
Archuleta, Dale, and Spann (2013) claimed that the impact of financial concerns on overall mental health has become a popular topic among researchers and

practitioners. Research has shown that there is a connection between debt and mental health. It is noted that individuals who are experiencing financial difficulties are impacted, cognitively, emotionally, and relationally in a negative way. Archuleta, et al. (2013). reported that, “financial well-being has been commonly measured by one’s overall level of satisfaction with their financial situation.

The empirical model in which financial literacy, financial attitude, financial behavior, and financial indebtedness are predictors of financial satisfaction is the focus of this investigation.

### Problem

Does the empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) influence directly financial satisfaction (FS) and financial literacy (FL) influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta? In Figure1 the theoretical model which aims to identify relationships between the independent variables to the dependent variable is presented.



*Figura 1: Proposed Theoretical Model.*



## **Hypothesis**

H<sub>1</sub> The empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) influence directly financial satisfaction (FS) and financial literacy (FL) influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta.

## **Research Objectives**

This section presents the statement of the actions to be carried out with the model proposed in this study.

1. To address a gap in knowledge regarding the relationship between the members of the Seventh-day Adventist churches in Edmonton Alberta and financial satisfaction by identifying and explaining the factors that affect financial satisfaction.
2. To build an instrument to measure each of the variables under study; financial literacy, financial attitude, financial behavior, financial indebtedness and financial satisfaction.
3. To know the impact of: financial literacy, financial attitude, financial behavior and financial indebtedness on financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton Alberta.
4. To gauge the correlation between the factors affecting the financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton Alberta.
5. To tabulate the results in a meaningful method that can help to benefit the membership.

## **Justification**

The researcher chose this study after reflecting on his experiences in pastoral ministry in both North America and the Caribbean. In his pastoral work for the last 30 years, he has seen firsthand the negative effects of indebtedness on both the family unit and the church. This study does not only benefit Christian families and institutions within the financial sector. The results of this study will expose trends, highlight concerns, and provide information that can benefit all Canadians. This study will contribute to the body of knowledge that would help in the building of healthy families, and communities and society at large. The debt load experienced by families in the church has become a major stressor. Families are having to choose between which basic needs are to be given priority, for example he has witnessed the situation of parents choosing between paying utility bills over buying food for the family. Since one job is not sufficient to adequately meet the families needs, family members are working multiple jobs and longer hours to make ends meet. This problem of indebtedness no doubt puts a strain on the family unit contributing to poor relationships between husbands and wives and between parents and children. This situation negatively impacts the financial satisfaction of the family. The study looks at the predictive factors of financial literacy, financial attitude, financial behavior and financial indebtedness. This problem of lack of financial satisfaction is a matter of concern for the survival of the institution of the family and society at large. These stressed relationships often result in infidelity, separation and unsupervised children exposing them to vulnerabilities and vices. The researcher has seen families express their sense of hopelessness and give up on their dreams and goals as a result of financial troubles. Families struggling with debt are unable to

financially support the church in the fulfilment of its mission. During his experience he has also seen how the stress resulting from indebtedness has compromised the quality of health for families and church members. In his view financial education would play a key role in improving the financial, emotional, mental, and relational health of families.

### **Limitations**

This study has the following limitations.

1. This study will be limited to the fourteen churches in the city of Edmonton of the Alberta conference of the Seventh-day Adventist church.
2. The results will be limited to the willingness of the members to give thorough answers on all the questions.
3. The questionnaire will be completed anonymously and will thus be restricted to be analyzed on a general and not individual basis.
4. The application of the instrument required the help of others.
5. For various reasons one hundred percent of the questionnaire will not be returned.
6. The application of the instrument will depend on the authorization of the pastor of each church.
7. There might be limitations of availability of literature on church members financial satisfaction.

### **Delimitations**

There are some delimitations that are considered relevant to the preparation of this research:

1. The instrument will be answered by Seventh-day Adventist church members in Edmonton Alberta.

2. The instrument may not be answered by a proportionate number of church members of the churches in Edmonton Alberta.

3. The instrument may be answered honestly by some of the member who consent to participate in the study.

### **Assumptions**

Below are some of the assumptions considered in the preparation of this research by the researcher:

1. Assume that the participants in the study are members of the churches under study.

2. It is expected that the participants will answer all questions truthfully.

3. The theoretical basis of relations between constructs is based on authors who know the subject.

4. That the participants will be anonymous and will adhere to the instructions outlined in the instrument to be completed.

### **Philosophical Background**

Christians experience financial hardship due to inadequate understanding of biblical stewardship, knowledge and management of money. The adoption of a biblical worldview is central for the achievement of financial satisfaction. It is also important to identify some of the main factors that contribute to the achievement of financial satisfaction. Every Christian should avail him or herself the necessary knowledge of money

and how it works. Having the right attitude toward money is essential for success. Financial behavior deals with the conduct of the individual when it comes to the acquisition and use of money. Financial indebtedness deals with the acquisition and management of debt. The authors to align the focus of this research with the sacred scriptures. The principles of the study of the correlation between financial literacy, financial attitude, financial behavior, financial indebtedness and financial satisfaction is well supported in scripture given how much the Bible has to say about the subject.

Christians are experiencing the negative effects of indebtedness and are unable to meet their financial obligations. This puts them at a disadvantage when it comes to utilizing the financial system to benefit themselves towards financial freedom. Failure to understand these key concepts puts one at a disadvantage. The right understanding of these important concepts is essential for security and stability of marriage and the family. The issue of family finance is a very important subject that much attention must be given to it.

Stewardship is defined as the lifestyle of one who accepts Christ's Lordship by walking in partnership with God and acting as his agent to manage his affairs on earth. The Apostle Paul states, "Moreover it is required in stewards that one be found faithful" (1 Corinthians 4:2 NKJV).

As we contemplate Christian stewardship it is significant to note, that the two main concepts that are to be considered are ownership and attitude. It is clear, that God is the sole owner of everything we possess. We are not at liberty to do what we please with these resources. Our attitude should be that of a manager and not an owner. We owe all we are and have to God, we can't take credit for anything. Jesus

says, “Asuredly, I say to you that it is hard for a rich man to enter the Kingdom of heaven” (Matthew 19:23 NKJV). Luke states, “For where your treasure is there your heart will be also.” (Luke 12:34 NKJV). We ought to be careful that our treasures do not become more important than God. Jesus indicates that when we help the poor and dis-advantaged we honor Him (Matthew 25:35-45 NKJV). Balance is very important in our stewardship understanding and practice. It is essential to note that God is not anti money or success.

On the question of ownership, there are many Bible passages that demonstrate that God is supreme owner. In Genesis Abraham returned tithes to the priest Melchizedek. Malachi states, “Bring all the tithes into the storehouse, that there may be food in My house, and try Me now in this, says the Lord of Hosts, If I will not open for you the windows of heaven and pour out for you such blessings that there will not be enough room to receive it” (Malachi 3:10 NKJV). The Psalmist states, “The earth is the Lord’s and all its fullness, the world and those who dwell therein” (Psalm 24:1 NKJV). Deuteronomy indicates, “Indeed heaven and the highest heavens belong to the Lord your God, also the earth with all that is in it” (Deuteronomy 10:14 NKJV). John states, “John answered and said, ‘A man can receive nothing unless it has been given to him from heaven” (John 3:27 NKJV).

*Financial literacy:* God made man a free moral agent to enjoys the resources that he has entrusted to man’s care. The Bible clearly states, “if any of you lacks wisdom let him ask of God, who gives to all liberally and without reproach, and it will be given him” (James 1:5 NKJV). Proverbs also declares, “Receive my instructions and not silver, and knowledge rather than choice gold; For wisdom is better than rubies, and all

the things one may desire cannot be compared with her” (Proverbs 8:10,11 NKJV). White, (2000) comments, “Many, very many have not so educated themselves that they can keep their expenditures within the limit of their income. They do not learn to adapt themselves to circumstances, and become overwhelmed in debt, and consequently they become discouraged and disheartened.”

*Financial attitude:* The Bible is filled with information concerning the attitude we should have towards money. In the book of 1 Timothy we find. “Command those who are rich in this present age not to be haughty, nor to trust in uncertain riches but in the living God. Who gives us richly all things to enjoy? 18. Let them do good, that they be rich in good works, ready to give, willing to share, storing up for themselves a good foundation for the time to come, that they may lay hold on eternal life” (1Timothy 6:17-19 NKJ). Jesus says “No man can serve two masters for either he, will hate the one, and love, or else, he will hold to the one, and despise the other, Ye cannot serve God and Mammon” (Matthew 6:24 NKJV). The Lord says, “And you shall remember the Lord your God, for it is He who gives you power to get wealth, that He may establish His covenant which He swore to your fathers, as it is this day” (Deuteronomy 8:18 NKJV).

*Financial behavior:* Our Christian morals and values should dictate how we conduct ourselves when it comes to the acquisition and use of money. Our financial resources are also to be used to further the kingdom of God and not just be used to satisfy all our selfish ambitions. Jesus says “And the king will answer and say to them, assuredly, I say unto you, inasmuch as you did it to one of the least of these My brethren, you did it to Me” (Matthew 5:40 NKJV).

Financial Indebtedness: The Bible has a lot to say about debt and its harmful effects on the Christian. Christians ought to educate themselves in the area of the acquisition and management of debt. Each Christian should endeavour to live a debt free life as far as is possible. The book of Proverbs states, "The rich rules over the poor, and the borrower is servant to the lender". White (2000) comments that "we should be on our guard not to allow ourselves to spend money upon that which is unnecessary, and simply for display. We should not permit ourselves to indulge taste that lead us to pattern after the customs of the world and rob the treasury of the Lord". Christians who have debt should endeavour to pay off their debt and not seek to pay it off soon as possible. Jesus fed five thousand, and then He taught an important lesson of economy. "Gather up the fragments that remain that nothing be lost." Duties, important duties rest upon you. "owe no man anything" were you infirm, were you unable to labor, then your brethren will be in duty bound to help you.

Living within one's means should be a noteworthy goal of every Christian. We are advised to spend less than we earn. The Bible counsels against the idea of standing surety for someone. Proverbs states, "Do not be one of those who shake hands in a pledge, one of those who is surety for debts; If you have nothing with which to pay, why should he take away your bed from under you?" (Proverbs 22: 26,27 NKJV).

White (2000) counselled I was shown that you my brother and sister, have much to learn, you have not lived with your means, you have not learned to economize. If you earn high wages, you do not know how to make it go far as possible, you consult taste or appetite instead of prudence. At times you expend money for a quality of good



in which your brethren cannot afford to indulge. Dollars slip from your pocket very easily. Self-denial is a lesson which you both have yet to learn.

*Financial Satisfaction:* How do Christians feel about their financial situation. The harsh realities of the national and worldwide economies make it difficult for the average individual to survive. Proverbs says, “A good name is to be chosen rather than great riches, loving favor rather than silver and gold” (Proverbs 22:1 NKJV). Jesus told a parable about a wealthy farmer who had a great harvest, but his barns were too small to hold the increase so he thought to himself that he would build bigger barns to accommodate his crop but he did not know that his life would end that very night (Luke 12:16-21 NKJV). The pursuit of material gain in search of satisfaction and security turns out to be fruitless. Selfishness and greed pervade this materialistic world. The scripture declares that. And he said unto them, take heed, and beware of covetousness, for one’s life does not consist in the abundance of the things he possesses.

### **Study Organization**

This study has been divided into the following, in five chapters as follows:

Chapter I includes a history of the problem, relationship between variables, investigations, problem statement, definition of terms, research hypothesis, supplementary questions, research objectives, justification, limitation, delimitations, assumptions and philosophical background.

Chapter II presents a comprehensive review of the literature concerning financial literacy financial attitude, financial behavior, financial indebtedness and financial satisfaction.

Chapter III describes the methodology, the type of research, population and study sample, the measurement instrument, validity, reliability, operationalization of variables, the null hypothesis, and the operationalization of the null hypothesis, research question, data collection and data analysis.

Chapter IV Shows the results, the description of the population and sample, the behavior of the variables, validation of instruments, hypothesis testing, analysis of the confirmatory model, analysis of the alternative model, as well as additional analysis and qualitative results

Chapter V presents the summary of the study, discussion of results, drawing conclusions, implications and recommendations.

## **CHAPTER II**

### **FRAMEWORK**

#### **Introduction**

In this second chapter of this paper a few items will be considered such as the importance of the different variables, the study of their dimensions and the different relations and relations that might exist among them.

This section discusses financial literacy construct introducing the concepts, importance and dimensions.

#### **Financial Literacy**

##### **Concepts**

Nash (2011) defined financial literacy as the ability to make informed judgements and to take effective decisions regarding the use and management of money. Hogarth, Beverly and Hilgert (2003) defined financial literacy as financial knowledge. Lusardi and Mitchell (2013) defined financial literacy as people's ability to process economic information and make informed decisions about financial planning, wealth accumulation, pensions, and debt. Collins (2011) defined financial literacy as a set of financial skills that informs decisions, affects behavior, and ultimately leads to financial security over the life course. Collins (2011) defined financial literacy as, the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being.

## Importance

Lusardi and Mitchell (2013) demonstrated that financial literacy is important in economic decisions and showed how costly it is to be financially ignorant. Low financial literacy impacts savings habits, retirement planning, and cost of borrowing negatively. Lusardi (2019) commented on the importance of financial literacy, noting the fact that the financial landscape is rapidly changing with the development in technology and the new and more complex products that are available. Hung, Parker, and Yoong (2009) commented that the role of financial literacy, and the extent of the challenge it represents and the best way to address it continue to be debated. It is further stated that there is a knowledge gap about relationships between literacy, education and behavior due to unavailability of the needed data.

## Dimensions

### **Financial Personality/knowledge**

This section discusses financial attitude construct introducing the concepts, importance and dimensions.

Kubilay and Bayrakdaroglu (2016) found that a significant relation between the personality traits of investors and the psychological biases they faced and that the personality traits of investors affected their risk tolerances. Bucher-Koenen, Alessie, Lusardi, and Van Rooij (2016), commented that women when asked questions to measure knowledge of basic financial concepts, are less likely than men to answer correctly or more likely to say that they do not know the answer. Zsoter and Nemeth (2017). Commented that from the time of the financial crisis of 2008 the investigation of financial

literacy, especially the components of personality, attitudes, behavior etc., is the focus of public attention. In 2015 two pieces of research were conducted in Hungary that focused on the financial personality types and the investigation of Hungarian financial culture.

### **Financial Skills**

Lusardi and Mitchell (2013) and Schwab (2008) commented that individuals who have strong financial skills do a better job at financial planning and saving for retirement. The U.S. President's Advisory Council on Financial Literacy (PACFL) noted that too many Americans lack the basic skills necessary to develop and maintain a budget, to understand credit, to understand investment vehicles, or to even take advantage of the banking system. Agnew, Bateman, and Thorp (2013) commented that even though Australians have a mandatory retirement savings plan they are responsible for decisions relating to the plan which require them to be well-informed and to have the necessary financial skills. Hung, et al. (2009) claimed that the relationship between decision-making competence and financial skills may be comparable to the relationship between financial and general knowledge. Luksander, et al. (2017) indicated that the economic crisis has brought to the forefront the importance of financial literacy in Hungary and around the world. A number of studies have been conducted, on the subject, to evaluate people's financial skills. Lusardi and Mitchell (2011) reported that while higher financial literacy might lead to broader financial inclusion, operating an account or using credit may also deepen consumers' financial skills.

## **Technical Financial Skills**

Cameron, Brimble, Knutsen, and Freudenberg (2014) reported that financial planning in Australia is moving away from viewing finance from an “industry” perspective to a “profession” perspective. A key goal of any profession is to create an educational framework that allows for the development of technical knowledge and generic skills that would adequately prepare students for the workplace. Educational standards have not been able to keep up with the growth of the financial planning services and expanding complexity of technical knowledge and the relevant generic skills. Lursadi, (2015) indicated that students should be required to demonstrate competency in the following areas: what government taxes and benefits are, ability to draw up a budget to plan regular spending and saving, understanding of the impact of compound interest on savings. Kanyugi and Ondiba (2018) the results of the study showed that while numeracy skills, book keeping skills, and budgeting skills were important factors in influencing the effectiveness of financial control in the community support fund, auditing skills had an influence, but that influence was not significant.

## **Financial Attitude**

### **Concepts**

Rajna, Ezat, Al Junid, and Moshiri (2011) defined financial attitude as the application of financial principles to create and maintain value through decision making and proper resource management. as the application of financial principles to create and maintain value through decision making and proper resource management. Parrotta and Johnson (1998) defined financial attitude as the psychological tendency expressed

when evaluating recommended financial management practices with some degree of agreement or disagreement. Ibrahim and Alqaydi (2013) defined financial attitude as the personal disposition toward financial matters. Pankow (2003) defined financial attitude as a state of mind, opinion, and judgment of a person about finances.

### Importance

Rajna, et al. (2011) conducted a study to measure the level of personal financial management attitude of the medical practitioners in Malaysia and identified their financial management practical trends, strengths and weaknesses. The study revealed that the medical practitioners in Malaysia had a positive financial attitude but lacked financial practice. The study established the basis for future research and established the need for a financial education program to help medical practitioners make informed decisions for greater financial satisfaction. Yong, Yew, and Wee (2018) conducted a study to examine the relationship between financial knowledge, attitude, behavior and financial literacy among young working adults in Malaysia. It was a conceptual model that was based on the theory of planned behavior. The data was analyzed using structural equation modeling (SEM). Results showed that financial education positively influenced financial knowledge which in turn, significantly predicted both financial attitude and behavior. Attitude partially mediated the effect of knowledge on behavior. Further analysis revealed that in terms of financial attitude, future and non-impulsiveness was significant while in financial behavior, expenditure monitoring and saving behavior was critical.

Murphy and Yetmar (2010) conducted a study of MBA students in the USA on their personal financial planning attitudes. The study surveyed 206 students about their attitudes to personal financial planning. The findings revealed that, while most respondents felt that financial planning was important and that they were interested in developing a financial plan, very few felt that they had the necessary skills and knowledge to prepare their own plan. In addition, they had a strong preference for professional personal financial planning advice. The study also indicated that less than 13 percent had prepared a comprehensive personal financial plan. They also indicated that a certified financial planner was their professional of choice to seek financial advice from.

## Dimensions

### **Values**

Zsoter and Nemeth (2017) noted that the financial markets and products are becoming increasingly complex, thus widening the financial information gap, researchers and marketers should get better acquainted with behavior, habits and attitudes future consumers. The aim of the study was to identify young adults' characteristics regarding their financial behavior and attitudes. Financial attitudes were grouped into four factors awareness, attitudes towards loans, risk-oriented, and moral values. The hierarchical clustering method was used to determine the number of clusters. The sample was then divided into three groups: (a) negative attitude toward loans, (b) risk taking, and (c) moral values. It was found that the conservatives and the experienced were characterized by a high level of awareness, low risk taking, and strong moral values, but were different in terms of their attitudes toward loans. The rebel cluster was the



most negative and the experienced cluster was the most positive when it comes to loans. The rebel cluster had a lower level of awareness, greater risk appetite and lower moral values compared to the two other clusters. Drever, et al. (2015) commented that young children absorb financial values by watching their parents and other adults, and can benefit from discussions of wants versus needs and from practicing delay gratification. Through parental modeling and monitoring teens and young adults can be provided guidance and opportunities as they navigate in the financial system. Mishra, Tatzel, Arum, and Abidi (2014), this study probed the potential effects of increased income on money-related attitudes in India. The analysis of the data showed that those with strong material values believed that money brought status and they were trusting of market prices.

## **Beliefs**

Rajna, et al. (2011, cited in Hira, 1997) study that was done on financial attitudes, beliefs and behaviors showed that 69% of the respondents indicated that the most important source of influence on their money beliefs and attitudes was either their mother or father. The results confirmed the findings of previous studies showing the importance of parental involvement in shaping money attitude and behavior of children. Emerson and McKinney (2010) results of the study showed that the business professionals who considered their religious faith to be highly important to them were significantly less accepting of ethically questionable behavior. It was concluded fervor with which persons held their religious beliefs was a more significant predictor of ethical attitudes than the specific beliefs. Singhapakdi, Vitell, Lee, Nisius, and Yu (2013) researched the

potential impact of “love of money” on a manager’s ethical decision-making in marketing and the potential impacts of extrinsic and intrinsic religiosity on ethical marketing-decision making. It was found that “love of money.” Both dimensions of religiosity, and ethical judgement had significant impact on ethical intentions in a marketing situation.

## **Financial Behavior**

### **Concepts**

Qamar, Nadeem Khemta, and Jamil (2016) defined financial behavior as any human behavior that is relevant to money management- degree a student borrows, saves or invest and spends, management of personal finances. Rootman and Antoni (2015) defined financial behavior as the actual decisions consumers make in the financial market, linked to their levels of savings, debt and spending. Xiao (2008) stated that financial behavior is a human behavior that is relevant to financial management. Horgarth et al. (2003) defined financial behavior as a combination of cash flow management, credit management, savings, and investment.

### **Importance**

Barbić, Lučić, and Chen (2019) commented that sound consumption decisions determine an individual’s well-being, while responsible consumption behavior affects not only an individual’s finances, but also one’s societal status and emotional state, Ning (2017) this research investigated the intergenerational influence on financial behavior. The financial behavior of 2,520 young adults were linked back to their general self-control skill and their parents’ financial behavior conducted during their children’s adolescence. Evidence of intergenerational consistency in financial behavior was found

between parents and children. That is, the financial behavior of the parents affected the financial behavior of their children both directly and indirectly. Pham, Yap, and Dowling (2011) the study looked at the impact that financial management practices and financial attitudes had on the relationship between materialism and compulsive buying severity after controlling for materialism. In addition, financial management practices, not financial attitude, significantly moderated the relationship between materialism and compulsive buying. The findings supported the inclusion of financial management components in current psychological interventions and showed that highly materialistic individuals with poor financial management practices are prone to engage in compulsive buying practices.

## Dimensions

### **Motivation**

Mckenzie and Liersch (2011) this research looked at misunderstanding about savings growth and its implications for retirement savings behavior. Three experiments were conducted: the first experiment revealed that the participants underestimated the growth of their investment over 40 years as a result they underestimated their account balance at retirement, the second experiment demonstrated that the above misunderstanding led them to underestimate the cost of waiting to save, the third experiment showed that highlighting the exponential growth of savings motivated both employees and college students to save more for their retirement. Stolper and Walter (2017) indicated that individuals who exhibit high levels of financial literacy might have similar characteristics such as, superior numerical abilities, intelligence, motivation to deal with

their personal finances. Cho, Loibl, and Geistfeld (2014) commented that the Regulatory Focus Theory posits that prevention and promotion-oriented personality traits may influence financial decision making. The results of the study affirmed that promotion-oriented consumers were less likely to save for prevention goals, while the opposite was true for prevention-oriented individuals. Saving for retirement reflected motivation to achieve positive outcomes later in life, while saving for emergencies was the avoidance of negative financial consequences of unexpected life events.

### **Self-esteem**

Weinstein and Stone (2018) reported that experiencing financial insecurity lowers well-being and increases problematic financial behaviors. Results of the study demonstrated that conditions that were financially insecure undermined basic psychological needs and lowered well-being that was measured in terms of self-esteem, depression and anxiety. Hira and Mugenda (1998) this study looked at both people's perception of themselves in relation to others and social expectations were deemed important. The purpose of the study was to explore the relationship between self-worth and financial beliefs and behavior. It was indicated that higher levels of income alone did not add to a person's self-worth. It was noted that it wasn't tangible resources that predicted self-worth, but one's perception. Sages (2012) this dissertation consisted of three studies that explored the influence of self-esteem upon retirement planning behaviors. The first study found a correlation between information search behaviors and retirement planning actions on efficacy and worth. The second study revealed that while higher levels of self-esteem, level of education, net worth and net income were found

to be associated with individuals who were likely to engage in one or more pre-retirement behaviors, creditworthy practices were not found to be associated with pre-retirement planning behaviors. The third study showed that a composite psychological profile was associated with individuals likely to engage in one or more retirement planning behavior.

### **Flexibility and Resilience**

Swamy (2018) this study reviewed the financial diaries of the poor and provided evidence of the impact of financial inclusion program on the poor beneficiary households in India. The findings suggested that the financial inclusion was more beneficial in strengthening the resilience of poor households, especially the downtrodden classes in India. The findings provided direction for policy makers and practitioners who were involved in building and measuring changes in household resilience. Egeland, Carlson and Sroufe (1993) commented that resilience is the development of competence despite severe or pervasive adversity. This study looked at high-risk children and families. The factors relating to resilience were examined in terms of transactional process. It was found that emotionally responsive care giving mediated the effects of high-risk environments and promoted positive change for children who had experienced poverty, family stress and bad treatment. Salignac, Marjolin, Reeve, and Muir (2019) commented that financial inclusion has become a policy priority. The results of the study revealed that over 2 million Australian adults experienced severe or high levels of financial vulnerability raising concerns about financial well-being. When it came to how respondents fared with regards to financial resilience components, the findings showed

respondents had, on average, high levels of economic resources (2.88) and financial knowledge and behavior (2.65). Gutman, Garon, Hogarth and Schneider 2017) commented that overall, the financial health network estimates that 57% of American adults, approximately 138 million people, struggle financially, either with managing their day-to-day financial lives, establishing a cushion for financial resilience, or positioning themselves for financial security and mobility.

## **Financial Indebtedness**

### **Concepts**

Greenberg (1980) defined indebtedness as a state of obligation to pay another. Commented that the cost of attending college has increased significantly over the past century. Many families and students chose to get into debt to finance their education. It was reported that nearly 40% of all individuals between ages twenty and forty now have some form of student debt. Rao and Tripathi (2020) this research attempted to examine indebtedness of rural and urban households in terms of their major characteristics in 1981 and 1991. The results showed the proportion of rural households reporting debt increased from 19.4 percent in 1981 to 32 % in 1991.

### **Importance**

Barros and Botelho (2012) the aim of the study was to investigate the relationships among hope, risk and perception related to purchasing and consumption and propensity for indebtedness by conducting two empirical studies. The results showed that higher levels of hope predicted an increase in the propensity to accept mortgage loans independent of actual risk, and the propensity of college students to get indebted

to pay for their studies. It was noted that hope can lead to decrease in risk perception. Chotewattanakul, Sharpe, and Chand (2018) this research explored the nature and dangers posed by household indebtedness in Thailand. It was found that secured income and sufficient savings allowed households to improve their debt performance and reduced their chances of being over-indebted. On the other hand, a higher probability of being over-indebted. It was also found that higher financial literacy was correlated with superior debt performance. Turunen and Hiilamo (2014) commented that indebtedness may impair well-being of those affected by it for years. This study focused on the long-term consequences of indebtedness on health. Results showed that unpaid debt led to serious health effects, such as suicidal idealism, depression, poor physical health and health related behavior.

## Dimensions

### **Hedonism**

It can also be as a result of poor accounting skills and bill payment skills. The consumer may also be hedonistic or simply unable to resist the seduction of the market of advertisers or the urges of emulative consumption. Casaló, Flavián, and Ibáñez-Sánchez (2017). The purpose of this study was to examine the role of perceived hedonism and satisfaction in determining consumers' intentions to interact and their actual interaction behaviors in a brand's official Instagram account. The results showed that perceived hedonism was found to affect both satisfaction and the intention to interact in Instagram, which in turn influenced actual behavior. Raymen and Smith (2017) commented that capitalism's basis in dissatisfaction, the loss of money through gambling

and easy access to debt can be the root cause for issues of anxiety and lack. Subsequently, issues of indebtedness and anxiety contribute to a fear of missing out on the youthful hedonism of the consumer culture, resulting in a vicious cycle which proves very difficult to exit.

### **Austerity**

Klein (2017) the study showed that the effects of fiscal consolidations crucially depended on the level of private indebtedness. It was found that austerity led to significant contractions in periods of private- debt overhang. In contrast, when private debt was low fiscal consolidations had no significant impact on economic activity. Barnes, et al. (2017) reported that self-harm and suicide increased in times of economic recession, but it is not clear why people self-harm when faced with financial difficulty and in what circumstances self-harm occurs. The results revealed that severe economic hardship, current and past difficulties contributed to their sense of despair and worthlessness and increased their likelihood to self-harm. Frade and Coelho (2015) concluded that Portuguese families' well-being had been severely hit by the harsh effects of the economic crisis. It was found that households were still able to meet most of their contractual obligations. Their relatively moderate figures for credit and utility bill arrears and even for bankruptcy of individuals were mostly due to informal and inconspicuous adjustment procedures, the empirical research revealed a predisposition toward certain austerity measures, Families appeared very willing to sacrifice consumption, even with basic needs.



## **Use of Credit**

Schooley and Worden (2010) this study identified life cycle and credit attitude as key determinants of who uses debt. It was found that younger household were more likely to borrow for consumption as were those who believed that it was ok to borrow to purchase luxury goods or to cover living expenses. It was found that households that borrowed for those purposes had a higher consumer debt burden. Debt capacity and financial discipline were also significant factors in determining household debt use. Stiglitz (2013) commented that student debt and how higher education was financed was a crisis in the making. It was reported that student debt for seniors graduating with loans exceeded \$ 26, 000.00, about a 40 percent increase in just seven years. Rohlfing, Navarro, Maniya, Hughes, and Rogalsky (2014) results of study revealed that students with higher aggregate amounts of medical student loan debt were more likely to report high levels of stress from their educational debt, to delay getting married and that would not choose to be physician again, if given the opportunity to resist the choice. Delay in having children, buying a house, concerns about managing and paying back educational debt, and worrying that educational debt will influence one's specialty choice.

## **Types of Credit**

Jiang and Dunn (2013) in this research the patterns of credit card use for both borrowing and payoff was examined. Results showed that younger consumers were found to be borrowing more heavily and repaying and repaying at lower rates than older generations. Over the life cycle the accumulation of credit card debt continued. Johnson, O'Neill, Worthy, Lown and Bowen (2016) this study involved participants in an

online focus group. The purpose was to gain insight into students' decision-making processes when they were borrowing money to finance their education. Results revealed that students relied very much on advice from parents, guidance counselors and friends. Attending college was not possible without taking out student loans and the students knew very little about the loans that they had to repay.

## **Financial Satisfaction**

### Concept

Hysmith (2017) said that financial satisfaction is defined as a person's contentment with his or her personal financial situation or an individual's subjective perception of the adequacy of his or her financial resources. Hira and Mugenda (1998) stated that financial satisfaction is the satisfaction evaluation of each individual against personal financial condition. Ali, Rahman, and Bakar (2015) stated that financial satisfaction is an individual's perception of their current financial situation. Joo and Grable (2004) defined financial satisfaction as satisfaction with one's present financial situation.

### Importance

Yap, et al. (2016) commented that finance is one of the most important matter in family life, Heads of households should be able to manage the stability and development of family finance with the intent of attaining financial satisfaction. The research examined the effect of financial literacy and financial attitudes of financial management behavior and financial satisfaction of married individuals. The results showed financial attitude was the influencing variable toward financial management behavior, also financial management behavior was the most influencing variable towards financial

satisfaction. Arifin (2018) this research sought to examine the influence financial knowledge, and financial attitude toward financial satisfaction with financial behavior as an intervening variable. The result suggested the following: (a) financial knowledge and financial attitude had positive influence on financial behavior, and (b) financial behavior was mediating the relationship between financial knowledge and financial attitude toward financial satisfaction. Aboagye and Jung (2018) this research examined factors associated with financial satisfaction and it was found that financial behaviors, financial attitudes provided the strongest explanation for the total variance in financial satisfaction. While overspending had a strong negative association with financial satisfaction, having a higher risk tolerance, no difficulty with monthly bill payments, and savings in an emergency fund, were all positively associated with financial satisfaction.

## Dimensions

### **Optimism**

Grable, Cupples, Fernatt, and Anderson (2013) the intent of the study was to determine if there existed any association between objectively measured income and perceived income adequacy, how well income adequacy was assessed by individuals, and if any bias existed, can these estimates be used to describe a person's overall level of financial satisfaction. The concept of perceived income adequacy (PIA) optimism/pessimism bias as a possible predictor of financial satisfaction. Donnelly, Iyer, and Howell (2012) claimed that need theory proposes that increased income and wealth can lead to increased well-being in poverty because money is used to satisfy basic psychological needs. This study tested the tenets of need theory by positing that money

could buy happiness beyond poverty if the money satisfied higher order needs. Results showed that for older adults ( $n = 1,284$ ), as their economic standing rose their individual perceptions of financial security also, which in turn increased overall life satisfaction. Dawson (2017) commented that the optimists are attracted to entrepreneurship. It was found that prior financial optimism has detrimental consequences for entrepreneurial pay satisfaction. Generally, the optimist over-estimate the likelihood of positive events and that's why prospects of profit tend to be overestimated. Results of the study showed that optimism reduced employee pay satisfaction. The research examined how prior financial optimism affected entrepreneurial pay satisfaction.

## **Gratitude**

Puente-Diaz and Meixueiro (2016) in a study of Mexican adults, the influence of gratitude on life satisfaction and importance given to helping others were examined. Results showed that gratitude had a positive relationship with life satisfaction while controlling for financial satisfaction. Gratitude was also positively related to importance given to helping others. Tsang, Carpenter, Roberts, Frisch, and Carlisle (2014) commented that materialism has been consistently related to lower levels of life satisfaction. It was posited that a materialistic person found it harder to be grateful and lower levels of gratitude may be related to unmet psychological needs. Results revealed that gratitude and need satisfaction mediated the relationship between materialism and decreased life satisfaction in- sequence. While gratitude played a direct mediator role, need satisfaction played an indirect role through gratitude. Froh, Emmons, Card, Bono, and Wilson (2010) a study was conducted of high school students completed measures

of materialism, gratitude, academic functioning, envy, depression, life satisfaction, social interaction and absorption. It was found that gratitude, controlling for materialism, predicted all outcomes considered, compared with materialism controlling for gratitude that predicted only three of six. Gratitude was a greater predictor of all six outcomes.

### **Contentment/pleasantness**

Grable, Park, and Joo (2009) commented that income is not the only factor that instills perceived financial security and financial satisfaction. It is a person's perception of their income adequacy that leads to a sense of contentment or dissatisfaction. Grable, et al. (2009) commented that it was not only income that gives one a sense of perceived security and accompanying financial satisfaction, but it is a person's perception of their income adequacy that leads to contentment or dissatisfaction. Lavalley, Hatch, Michalos, and McKinley (2007) commented that the Contentment with Life Assessment Scale (CLAS) was used to assess people's existing feelings of dissatisfaction. The scale looks at the following components: (a) feelings of contentment, (b) sense of fulfillment, and (c) discrepancies between one's actual life and one's wants and aspirations.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

This study seeks to explore the relationship of causality between the variables of financial literacy, financial attitude, financial behavior, and financial indebtedness on members' financial satisfaction of the Seventh-day Adventist churches in Edmonton, Alberta, Canada.

This chapter focuses on and outlines the description of the methodology used during the investigation of the research. It also addresses the design of the study which includes the following: (a) the type of research, (b) the study population, (c) the sample, (d) the measuring instrument, (e) the null hypothesis, (f) the data collection, and (g) the data analysis.

#### **Type of Investigation**

The research is a quantitative investigation, because according to Hernández Sampieri, Fernández Collado, and Baptista Lucio (2014), a research has a quantitative approach if data collection is used to test a hypothesis while considering numerical measurements and statistical analysis to establish patterns of behavior and test the theory. This method of investigating a phenomenon involves the collection and analysis of quantitative data. This refers to any data that is in numerical form. Quantitative research is, therefore,

an empirical investigation of observable phenomena using statistical, mathematical and computational techniques.

The research is also explanatory because it is an attempt to identify the causal relationships between variables, both directly and indirectly, by providing explanation for the interrelationships between the different variables (Hernández Sampieri, et al., 2014). It is an effort to connect ideas, to understand the cause and effect, in order to determine what variables, explain the level of financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton, Alberta, Canada. It has, therefore, increased the author's understanding of what drives the financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton, Alberta, Canada.

The investigation is transversal or cross-sectional in nature (Hernández Sampieri, et al., 2014), because data was collected in a single moment in time. This observational study analyzes data from a representative subset of the members of the Seventh-day Adventist churches in Edmonton Alberta, Canada at a specific point in time. The instruments were administered in a single moment between the months of September to December 2019.

The main objective of this research was the description of a phenomenon. The research is therefore descriptive (Malhotra, 2004), because descriptive research is the type of conclusive research whose main objective is to describe generally the characteristics or functions of the problem in question. The research seeks to find differences between the groups of variables for age, gender, education, line of work, ethnicity, employment, marital status, and number in household.

Finally, the investigation is field research because the data was collected among

the members of the Seventh-day Adventist churches in Edmonton, Alberta, Canada.

### **Population**

The population or universe is a set of all the cases that agree with certain specifications (Hernández Sampieri, et al., 2014). The population that was used in this research consisted of approximately 2000 members of the Seventh-day Adventist churches in Edmonton Alberta, Canada.

### **Sample**

According to Hernández Sampieri, et al. (2014), the sample is a representative subset of the population. Two non-probabilistic ways of selecting the sample was employed, namely purposive sampling and convenience sampling. Non-probability sampling represents a group of sampling techniques that helps a researcher select units from a population that is of interest to the researcher in the study. Purposive sampling employs the technique of using the judgment of the researcher in selecting the units of the population that is being studied. Convenience sampling is used when the units that are selected and included in the sample are available and are the easiest to access. Direct sampling is the term used when a sample is taken from the actual population.

The type of sampling conducted in this investigation is non-probabilistic, direct, purposive and convenience. This means that the members of the Seventh-day Adventist churches in Edmonton Alberta, Canada were intentionally selected. The total population was approximately 2,000 members. The recommended sample was 323 members. The real sample was 322. After revising the atypical and extreme data of the multivariate test of normality, the database was made up of 295.



## **Measuring Instruments**

This section presents the different variables used in the study, the development of the instrument, the content validity, the construct validity and the reliability of the instruments.

### **Variables**

A variable is any factor that can fluctuate and whose variation can be measured or observed (Hernández Sampieri, et al., 2014). The variables used in this research are as follows: (a) independent (financial literacy, financial attitude, financial behavior, financial indebtedness), and (b) control or dependent variable (financial satisfaction).

### **Instrument Development**

A measuring instrument, according to Hernández Sampieri, et al. (2014), is any resource that the researcher uses to approach the phenomena and extract information. Testing the theories of this research require measuring these constructs accurately, correctly and in a scientific manner before the strength of this relationship can be tested. Measurement is the careful, deliberate observations of the real world by selecting data that corresponds to the indicators and the variable or concepts used.

Below is a description of the process used in the conceptualization and operationalization for creating and selecting the measures for the instruments used in this study.

1. A conceptual definition of the variables, financial literacy, financial attitude, financial behavior, financial indebtedness, and financial satisfaction were made.
2. The variables financial literacy, financial attitude, financial behavior, financial indebtedness, and financial satisfaction were put into dimensions.

3. Once the instruments were created, the help of writing experts was requested for their correction.

4. Six Doctor in Philosophy Professors from two major universities in the United States and one major university in Mexico and one major university in Canada were provided with an evaluation tool. This tool listed the name of each variable along with the indicators for the variable. Each indicator or item had a seven-point Likert scale to assess relevance and clarity. The writing experts were actively engaged in and assisted in validating the content of each question for relevance and clarity.

5. After the checks for relevance and clarity were completed, the resulting instruments used in this study were derived and consisted of seven sections: (a) general instructions and demographic data, (b) variable financial literacy, with 14 statements, (c) variable financial attitude, with 11 statements; (d) variable financial behavior, with 12 statements, (e) financial indebtedness, with 12 statements, and (f) financial satisfaction, with 14 statements.

6. Once the instruments were approved by the advisor, permission for distribution of the instruments was requested and obtained from the pastors of the Seventh-day Adventist churches in Edmonton Alberta, Canada. The instruments were then distributed to the members of the Seventh-day Adventist churches in Edmonton, Alberta, and the data was collected.

The instrument used in the study is shown in Appendix A.

### Instrument Validity

This section discusses the content validity and the construct validity of the

variables used in the research.

### **Content Validity**

According to Brown, et al. (1996), content validity is used to determine the extent to which the items in an instrument are a representative sample of the content of the objectives or specifications the test was originally designed to measure. In determining the content validity, the validation process of the content of the instruments was as follows:

1. Several interviews were conducted with the advisors to get their opinion on the measurement of the variables, and to make judgements about the degree to which the test items matched the test objectives and specifications.

2. A review of the literature in different databases on the variables financial literacy, financial attitude, financial behavior, financial indebtedness and financial satisfaction, was done.

3. In agreement with the advisor, the items that would be used in the instrument were selected. These were selected by taking into account the list of dimensions, and the criteria of the instrument to be proposed.

4. Consultations and reviews of the research were carried out by the advisors.

5. Clarity and relevance were evaluated with the help of six experts in the subject area.

### **Construct Validity**

The factorial analysis procedure was used to evaluate the validity of the constructs of financial literacy, financial attitude, financial behavior, financial

indebtedness, and financial satisfaction. The results of the validation of each variable are presented in Appendix B. Next, the statistical tests of the factor analysis for the constructs are presented.

### *Financial Literacy*

The instrument of financial literacy was made up of three dimensions: (a) financial personality/knowledge (FL1-FL5), (b) financial skills (FL6-FL11) and (c) technical financial skills (FL12-FL14).

The factorial analysis procedure was used to evaluate the validity of the financial literacy construct (see Appendix B). In the analysis of the correlation matrix, it was found that the 14 statements have a positive correlation coefficient greater than .3. Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .927) was found. This is indicative of enough correlation between the items of the construct. For the Bartlett sphericity test, the results ( $X^2 = 1511.005$ ,  $df = 91$ ,  $p = .000$ ) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero (all greater than .6). This means that there is good correlation between the items of the construct and therefore factor analysis can be applied to the data.

For the extraction statistics by main components, it was found that the communality values (Com<sub>min</sub> = .715; Com<sub>max</sub> = .901), the fourteen items left are superior to the extraction criteria (Com = .300). This means that there is enough communality between the items of the construct. In relation to the total variance explained, a confirmatory analysis was carried out with four factors explaining 81.83% of the total variance; this value is greater than 50%. The four factors explained 82% of the construct.

For the rotated factorial solution, the Varimax method was used. Table 1 presents information comparing the relative saturations of each indicator for the four factors of financial literacy.

The first factor constituted five indicators and was assigned the name "financial personality/knowledge". The indicators were the following: "The development of a personality oriented to seeking the best financial deals (FL1)", "The development of a personality oriented to financial planning (FL2)", "The development of a personality oriented to resource economics (FL3)", "Development of financial abilities utilizing technology (FL4)", "Development of financial abilities through accounting (FL5)",

The second factor constituted six indicators and was assigned the name "financial skills". The indicators were the following: "The development of a personality oriented to resource economics (FL6)", "Financial education from a special institution (s) (FL7)", "Development of financial abilities utilizing technology (FL8)" Development of financial abilities through accounting (FL9)". "Development of financial abilities through information analysis (FL10)", "Development of financial abilities through credit history management (FL11).

The third factor constituted three indicators and was assigned the name "technical financial skills". The indicators were the following: "understanding the way compound interest (the interest of each period is added to the principal, generating new interests) works (FL12)", "Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) (FL13)", "Understanding the way inflation (increase in the cost of living) works (FL14)".

Table 1

*Rotated Component Matrix for Financial Literacy*

	Component		
	1	2	3
SMEAN(FL6)	,834		
SMEAN(FL1)	,773	,339	,343
SMEAN(FL2)	,733	,438	,308
SMEAN(FL8)	,697	,351	,397
SMEAN(FL9)	,686	,416	,417
SMEAN(FL18)		,848	,346
SMEAN(FL14)	,435	,795	
SMEAN(FL17)	,316	,755	,400
SMEAN(FL19)		,655	,552
SMEAN(FL15)	,590	,643	
SMEAN(FL3)	,467	,556	,434
SMEAN(FL5)	,401	,344	,763
SMEAN(FL4)	,564		,720
SMEAN(FL7)	,597	,317	,617

*Financial Attitude*

The instrument of financial attitude was made up of two dimensions: (a) values (FA1 - FA9), (b) Beliefs (FA10 - FA11).

The factorial analysis procedure was used to evaluate the validity of the financial attitude construct (see Appendix B). In the analysis of the correlation matrix, it was found that the eleven statements have a positive correlation coefficient greater than .3. Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .874) was found. This is indicative of enough correlation between the items of the construct. For the Bartlett sphericity test, the results ( $X^2 = 1226,119$ ,  $df = 55$ ,  $p = .000$ ) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero (all greater than .6). This means that there is good correlation between the items of the construct and therefore factor analysis can be applied to the data.

For the extraction statistics by main components, it was found that the communality values ( $Com_{min} = .718$ ;  $Com_{max} = .924$ ), the nine items left are superior to the extraction criteria ( $Com = .300$ ). This means that there is enough communality between the items of the construct. In relation to the total variance explained, a confirmatory analysis was carried out with two factors explaining 81.67% of the total variance; this value is greater than 50%. The four factors explained 82% of the construct.

For the rotated factorial solution, the Varimax method was used. Table 2 presents information comparing the relative saturations of each indicator for the two factors of financial attitude.

The first factor constituted nine indicators and was assigned the name "Values". The indicators were the following: "Being honest in your personal savings (FA1)", "Being honest in your personal investments (FA2)", "Being honest in your personal credit management (FA3)", "Being responsible for your personal savings (FA4)", "Being responsible for your personal investments (FA5)", "Being responsible for your personal credit management (FA6)", "Being persistent in your personal savings (FA7)", "Being persistent in your personal investments (FA8)", "Being persistent in your personal credit management (FA9)".

The second factor constituted two indicators and was assigned the name "beliefs". The indicators were the following: "Believing in the holy scriptures as the

standard of character that guides you in financial decisions (FA10)", "Believing in financial stewardship as the correct use of God's gifts (FA11)".

### *Financial Behavior*

The instrument of financial behavior was made up of four dimensions: (a) motivation (FB1 to FB3), (b) Self- esteem (FB4 to FB6), (c) flexibility (FB7 to FB9), (d) resilience (FB10 to FB12).

Table 2

### *Rotated Component Matrix for Financial Attitude*

	Component	
	1	2
FA4	,910	
FA2	,883	
FA8	,871	
FA5	,869	
FA1	,868	
FA3	,839	
FA7	,832	,324
FA9	,828	,366
FA6	,798	
FA11		,944
FA10		,929

The factorial analysis procedure was used to evaluate the validity of the financial behavior construct (see Appendix B). In the analysis of the correlation matrix, it was found that the seven statements have a positive correlation coefficient greater than .3. Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .875)



was found. This is indicative of enough correlation between the items of the construct. For the Bartlett sphericity test, the results ( $X^2 = 1416.803$ ,  $df = 66$ ,  $p = .000$ ) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero (all greater than .6). This means that there is good correlation between the items of the construct and therefore factor analysis can be applied to the data.

For the extraction statistics by main components, it was found that the communality values ( $Com_{min} = .818$ ;  $Com_{max} = .952$ ), the seven items are superior to the extraction criteria ( $Com = .300$ ). This means that there is enough communality between the items of the construct. In relation to the total variance explained, a confirmatory analysis was carried out with four factors explaining 90.09% of the total variance; this value is greater than 50%. The four factors explained 90.1% of the construct.

For the rotated factorial solution, the Varimax method was used. Table 3 presents information comparing the relative saturations of each indicator for the four factors of financial behavior.

The first factor constituted three indicators and was assigned the name "motivation". The indicators were the following: "motivation influences a personal savings plan (FB1)", "Motivation influences a personal investment plan (FB2)", "Motivation influences a good credit history (FB3)".

The second factor constituted three indicators and was assigned the name "self-esteem". The indicators were the following: "Self-esteem contributes to having a personal savings plan (FB4)", "Self-esteem contributes to having a personal

investment plan (FB5)", "Self-esteem contributes to having a good credit history (FB6)".

The third factor constituted three indicators and was assigned the name "flexibility".

The indicators were the following: "Being adaptable to financial circumstances influences having a personal savings plan (FB7)", "Being adaptable to financial circumstance influences having a personal investment plan (FB8)", "Being flexible to financial circumstances influences having a good credit history (FB9)".

The fourth factor constituted three indicators and was assigned the name "resilience". The indicators were the following: "Overcoming adverse financial circumstances influences having a personal savings plan (FB10)", "Overcoming adverse financial circumstances influences having a personal investment plan (FB11)", "Overcoming adverse financial circumstances influences having a good credit history (FB12)".

Table 3

*Rotated Component Matrix for Financial Behavior*

	Component 1	2	3	4
SMEAN(FB12)	,890			
SMEAN(FB11)	,847		,346	
SMEAN(FB10)	,832			,330
SMEAN(FB9)	,673		,322	,447
SMEAN(FB5)		,911		
SMEAN(FB4)		,893		
SMEAN(FB6)		,857		
SMEAN(FB1)			,856	
SMEAN(FB2)			,820	,311
SMEAN(FB3)	,475	,303	,698	
SMEAN(FB8)	,307	,330		,824
SMEAN(FB7)	,311	,374	,316	,754

### *Financial Indebtedness*

The instrument of financial indebtedness was made up of four dimensions: (a) hedonism (FI, FI2, FI9), (b) Austerity (FI3, FI4), (c) use of credit (FI5 to FI8). (d) types of credit (FI10 to FI12).

The factorial analysis procedure was used to evaluate the validity of the financial indebtedness construct (see Appendix B). In the analysis of the correlation matrix, it was found that the seven statements have a positive correlation coefficient greater than .3. Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .782) was found. This is indicative of enough correlation between the items of the construct. For the Bartlett sphericity test, the results ( $X^2 = 639.635$ ,  $df = 66$ ,  $p = .000$ ) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero (all greater than .6). This means that there is good correlation between the items of the construct and therefore factor analysis can be applied to the data.

For the extraction statistics by main components, it was found that the communality values ( $Com_{min} = .591$ ;  $Com_{max} = .893$ ), the seven items are superior to the extraction criteria ( $Com = .300$ ). This means that there is enough communality between the items of the construct. In relation to the total variance explained, a confirmatory analysis was carried out with two factors explaining 73.93% of the total variance; this value is greater than 50%. The four factors explained 74% of the construct.

For the rotated factorial solution, the Varimax method was used. Table 4 presents information comparing the relative saturations of each indicator for the four factors of Financial indebtedness.

The first factor constituted three indicators and was assigned the name "hedonism". The indicators were the following: "Buying something now and paying for it later is a good idea (FI1)", "I find it more gratifying to prioritize my wants over my needs (FI2)", "The use of credit allows me to have a better quality of life (FI9)".

The second factor constituted two indicators and was assigned the name "austerity". The indicators were the following: "I try to live according to the money that I have (FI3)", "Pay debts as quickly as possible, be careful in the use of money (FI4)".

The third factor constituted four indicators and was assigned the name "use of credit". The indicators were the following: "I believe its ok to get in debt to buy a house (FI5)", "I believe its ok to get in debt to buy an automobile (FI6)". "I believe its ok to get in debt for health care reasons (FI7)" and "I believe it is ok to get in debt to finance education (FI8)".

### *Financial Satisfaction*

The instrument of financial satisfaction was made up of five dimensions: (a) optimism (FS, FS1 to FS2), (b) gratitude (FS3 to FS5), (c) contentment (FS6 to FS8), (d) pleasantness (FS9 to FS11), (e) patience (FS12 to FS14).

Table 4

*Rotated Component Matrix for Financial Indebtedness*

	Component			
	1	2	3	4
SMEAN(FI7)	,760	,409		
SMEAN(FI10)	,755		,385	
SMEAN(FI8)	,634			,406
SMEAN(FI9)	,593	,303	,451	
SMEAN(FI1)	,588			,490
SMEAN(FI6)		,922		
SMEAN(FI5)		,915		
SMEAN(FI14)			,786	
SMEAN(FI13)			,775	
SMEAN(FI12)		,435	,625	
SMEAN(FI3)				,816
SMEAN(FI2)	,356			,751

The factorial analysis procedure was used to evaluate the validity of the financial; satisfaction construct (see Appendix B). In the analysis of the correlation matrix, it was found that the seven statements have a positive correlation coefficient greater than .3. Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .872) was found. This is indicative of enough correlation between the items of the construct. For the Bartlett sphericity test, the results ( $X^2 = 1413,387$ ,  $df = 91$ ,  $p = .000$ ) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero (all greater than .6). This means

that there is good correlation between the items of the construct and therefore factor analysis can be applied to the data.

For the extraction statistics by main components, it was found that the communality values ( $Com_{min} = .803$ ;  $Com_{max} = .915$ ), the seven items are superior to the extraction criteria ( $Com = .300$ ). This means that there is enough communality between the items of the construct. In relation to the total variance explained, a confirmatory analysis was carried out with two factors explaining 88.43% of the total variance; this value is greater than 50%. The four factors explained 88% of the construct.

For the rotated factorial solution, the Varimax method was used. Table 4 presents information comparing the relative saturations of each indicator for the four factors of Financial indebtedness.

The first factor constituted two indicators and was assigned the name "optimism". The indicators were the following: "Maintaining a personal savings plan to deal with financial circumstances (FS1)", "Maintaining a personal investment plan to deal with financial circumstances (FS2)".

The second factor constituted three indicators and was assigned the name "gratitude". The indicators were the following: "Your gratitude for God's help with a personal savings plan (FS3)", "Your gratitude for God's help with a personal investment plan (FS4)".

The third factor constituted three indicators and was assigned the name "contentment". The indicators were the following: "The personal savings plan that you have compared to that of others (FS6)", "The personal investment plan that you have compared to that of others (FS7)". "The credit history that you have compared to that of

others (FS8)".

The fourth factor constituted three indicators and was assigned the name "pleasantness". The indicators were the following: "The accomplishments of objectives with a "slow, but safe" "Focus in your personal savings plan (FS9)", "The accomplishments of objectives with a "slow, but safe" focus in your personal investment plan (FS10)", "The accomplishments of objectives with a "slow, but safe" focus in your credit history (FS11)",

The fifth factor constituted three indicators and was assigned the name "patience" The indicators were the following: "Consistent accomplishment of your personal savings (FS12)", "Consistent accomplishment of your personal investment plan (FS13)", "Consistent accomplishment of your personal credit obligations (FS14)".

Table 5

*Rotated Component Matrix for Financial Satisfaction*

	Component				
	1	2	3	4	5
SMEAN(FS6)	,878				
SMEAN(FS5)	,868				
SMEAN(FS4)	,831				,334
SMEAN(FS14)		,824	,319		
SMEAN(FS13)		,787	,327		
SMEAN(FS15)	,347	,705		,413	
SMEAN(FS10)			,798		
SMEAN(FS11)		,383	,786		
SMEAN(FS12)	,425	,341	,645		
SMEAN(FS18)	,350			,806	
SMEAN(FS17)		,355		,721	,377
SMEAN(FS16)		,416		,682	,412
SMEAN(FS1)					,856
SMEAN(FS2)	,329				,823

### **Reliability of the Instruments**

The instruments were subjected to reliability analysis to determine their internal consistency by obtaining the Cronbach alpha coefficient for each scale. The Cronbach alpha coefficients obtained for the variables are the following: (a) financial literacy .967, (b) financial attitude, .950, (c) financial behavior, .950, (d) financial indebtedness, .869 and (e) financial satisfaction, .948.

All Cronbach's alpha values were considered as corresponding to very acceptable reliability measures for each of the variables (see Appendix B).

### **Operationalization of the Variables**

Table 6 shows, as an example, the operationalization of the financial literacy variable, in which its conceptual definitions are included as instrumental and operational, in the first column the name of the variable can be seen, in the second column, the conceptual definition appears, in the third one, the instrumental definition that specifies how the variable will be observed, and in the last column each variable is codified. The full operationalization is found in Appendix C.

### **Null Hypothesis**

Hernández Sampieri et al. (2014) mention that null hypotheses are propositions about the relationship between variables, which serve to deny what the research hypothesis affirms. In this investigation, the following hypotheses were formulated: confirmatory, alternate and complementary.



Table 6

*Operationalization of the Variable Financial Literacy*

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial literacy	Is the acquisition of knowledge, skills, confidence, and motivation necessary to effectively manage financial matters..	<p>The degree to which knowledge, skills, confidence, and motivation affect financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 14 items, under the scale:</p> <p>1 = Awful  2 = Very bad  3 = Somewhat bad  4 = Undecided  5 = Somewhat good  6 = Very good  7 = Excellent</p> <p>1. The development of a personality oriented to seeking the best financial deals.  2. The development of a personality oriented to financial planning.  3. Understanding that one-dollar today is not the same value of one-dollar tomorrow.  4. Understanding the way investments work.  5. Understanding the system of personal finance.  6. The development of a personality oriented to resource economics.  7. Financial education from a special institution (s).  8. Development of financial abilities utilizing technology.  9. Development of financial abilities through accounting.  10. Development of financial abilities through information analysis  11. Development of financial abilities through credit history management.  12. Understanding the way compound interest (the interest of each period is added to the principal, generating new interest) works.  13. Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) works.  14. Understanding the way inflation (increase in the cost of living) works.</p>	<p>To measure quality of the financial literacy, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 14 items.</p> <p>The variable was considered as metric.</p> <p>To make the approach of the conclusions of this study, the following equivalence was determined for the scale used:</p> <p>1 = Awful  2 = Very bad  3 = Somewhat bad  4 = Undecided  5 = Somewhat good  6 = Very good  7 = Excellent</p>

## Main Null Hypothesis

H<sub>0</sub>. The empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) do not influence directly financial satisfaction (FS) and financial literacy (FL) do not influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta.

## Operationalization of Null Hypotheses

Table 7 shows the operationalization of one of the null hypotheses of this investigation are presented.

Table 7

### *Operationalization of Hypotheses*

Hypothesis	Variables	Level of Measurement	Statistical Test
H <sub>04</sub> : The empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) do not influence directly financial satisfaction (FS) and financial literacy (FL) do not influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta	Independents		For the analysis of this hypothesis, the structural equation model was used. For the rejection criterion of the null hypothesis were the following indices were selected: the Chi squared (X <sup>2</sup> less than 3), the comparative fit index (CFI ≥ .95), the goodness of fit index (GFI ≥ .95) and the root mean squared error of approximation (RMSEA close to 0).
	A. financial literacy.	Metrics	
	B. financial attitude.	Metrics	
	C. financial behavior.	Metrics	
	D. financial indebtedness.	Metrics	
	E. financial satisfaction	Metrics	

## Goodness of Fit Indices

Adjustment indexes for structural models through goodness-of-fit measures, incremental measures of adjustment and measures of parsimony adjustment were presented by Huerta Wong and Espinoza Montiel (2012) and Reyes Riquelme (2008). They are summarized below.

### Absolute Adjustment Measures

The degree to which the model predicts the matrix of initial data is determined

by the absolute adjustment measures. The following indicators were selected for the model.

1. Chi square: corresponds to the best-known index of the maximum method verisimilitude. The model will have a better fit the smaller the value.

2. Chi square/degrees of freedom: compares models with different degrees of freedom. A quotient of 5 is considered a reasonable adjustment while 2 represents an excellent fit.

3. Goodness of fit index (GFI): this analyses the adjustment in all cases which is in-dependent of the size of the sample and establishes firm deviations from normality. Its value is between 0 (poor adjustment) and 1 (perfect adjustment).

4. Tucker-Lewis Index (TLI): must be equal to or greater than .90.

5. Mean square approximation error (RMSEA): values less than .05 are ideal; however, values less than .10 are also considered favorable. For this investigation, values less than or equal to .08 will be taken as parameters.

#### Incremental Adjustment Measures

The incremental adjustment measures seek to compare the proposed model with a null model to determine if there is a direct association between the variables. Below are the indicators:

1. Normative index of adjustment (NFI): seeks to compare the incremental adjustment with the null model. Its range is between 0 and 1. An NFI score equal to .9 indicates that the model proposed is 90% superior the null model.

2. Tucker-Lewis Index (TLI): the assumption made is that the best model is not the one for which the chi square is equal to zero, but the one for which the value expected from the chi square, divided by its degrees of freedom is equal to one. The formula follows:  $TLI = [(chi\ square\ null / zero\ degrees\ of\ freedom) - (chi\ square\ model / model\ degrees\ of\ freedom)] / [(chi\ square\ null / degrees\ of\ freedom\ null) - 1]$ .

3. Index of incremental adjustment (IFI): acts as a relative comparison of the proposed model to the null model. It considers the degrees of freedom becoming less sensitive to the sample size when compared to other measures of incremental adjustment such as NFI. If the model exposed is as bad as the worst possible model, the value presented will be 0; however, if the model is good, it will be 1.

### Measures of Adjustment of Parsimony

This measure allows estimating the degree to which adjustment is achieved for each coefficient or estimated parameter. The indicators are presented below for each adjustment:

1. General index of parsimony (PGFI): this index ranges between 0 and 1. High values establish greater goodness of fit and parsimony. Despite this, there are no criteria regarding how high each index should be to establish the best parsimonial adjustment. The measure becomes useful as it allows for the comparison of models.

2. Akaike comparative index (AIC): allows comparison between two models to determine which fits with greater parsimony. While this is the case, neither a scale nor guide criteria is established. Its interpretation lies with investigating the mode with the lower value.

### Adjustment Criteria

The below indices were criteria to evaluate the goodness of fit used to test the model. (a) likelihood ratio of the chi square ( $\chi^2$ ), as small as possible and its significance level  $p$  greater or equal to .05, (b) standardized chi square ( $\chi^2/df$ ) less than 3, (c) goodness of fit index (GFI) equal to or greater than .90, (d) goodness of comparison index (CFI) equal or greater than .90, (e) root of the average quadratic residual (RMSEA) equal to or less than .08, (f) (NFI) greater than or equal to .90 and (g) (TLI) greater than or equal to .90.

### Data Collection

Data collection will begin when potential participants receive electronic and paper surveys from the researcher. Once the researcher receives the surveys back from potential participants, the researcher will review the demographic information. The researcher will send the survey to the participants. The participants will take the assessment return the results to the researcher for analysis. This process will take 5 months from the initial time researching the literature to recruiting participants via authorization of the Seventh-day Adventist church pastors. Following that time, the participants will complete the survey and the researcher will complete data analysis, which will take another 3 months (Cameron, Coe, Watanabe, Stroman and Munoz, 2009).

### Data Analysis

The database was formed in the SPSS for Windows in version 22, in order to perform the analysis of the variables in that program. Subsequently, the scores for each of the variables were obtained, following the process indicated in the operationalization

of the variables. After having completed the database, descriptive statistics (measures of central tendency, variability, normality and detection of atypical and absent data) were used to clean the database and obtain demographic information, as well as to evaluate the behavior of the main variables.

## **CHAPTER IV**

### **ANALYSIS OF THE RESULTS**

#### **Introduction**

The focus of this research is to study if the empirical model of financial attitude (FA), financial behaviour (FB) and financial indebtedness (FI) influence directly financial satisfaction (FS) and financial literacy (FL) influence indirectly within the seventh-day Adventist churches in Edmonton, Alberta Canada to the theoretical model identified in chapter one.

The investigation was considered quantitative, exploratory, cross-sectional, explanatory and descriptive.

The exogenous variable was financial literacy and the endogenous variables were financial attitude, financial behavior, financial indebtedness and financial satisfaction. Demographic variables were the following: age, gender, education, line of work, ethnicity, employment, marital status and number in household.

The outline of this chapter is as follows: (a) demographic description of the subjects, (b) central tendency measurements, (c) null hypotheses of the structural models, (d) other null hypotheses, (e) summary of the chapter.

#### **Sample**

The research targeted the members of the Seventh-day Adventist churches in Edmonton, Alberta Canada. A survey was prepared and distributed among the

members of the Seventh-day Adventist churches in Edmonton, Alberta Canada. The field work was conducted during the months of February through July of 2019, and responses from 322 were received. After the cleaning process of the database, 295 samples remained.

The research focused on the financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton Alberta, Canada. The population consisted of fourteen churches in Edmonton, Alberta Canada with a membership of approximately 2000.

A questionnaire has been prepared and copies have been distributed to the members of the different churches. Only members of the Seventh-day Adventist churches in Edmonton, Alberta Canada answered the instruments. They were 322 members.

### **Demographic Description**

This section contains demographic description of the subjects participating in this study.

In the following section the demographic results such as age, gender, education, line of work, ethnicity, employment, marital status and number in household are presented (see Appendix D).

#### **Age**

The results demonstrated that the majority (31.3%) of the participants were between the age of (36-45years old). While the minority was (6.1%) between the age of (66 and up) (see table 8).



Table 8

*Distribution of Population by Age*

Age	<i>f</i>	%
18-25	55	47.0
26-36	25	21.4
37-47	26	22.2
48-up	11	9.4
Total	117	100.0

### Gender

The results demonstrated that the female group participants represented 59.4% ( $n = 165$ ) of the research, while the male group was 39.6% ( $n = 110$ ).

### Education

The results demonstrated that the highest group was the bachelor 39.2% ( $n = 109$ ), while the lowest was post graduate 1.8% ( $n = 5$ ) (see Table 9).

### Line of Work

The results demonstrated that the highest group was others 38.8% ( $n = 108$ ), while the lowest was law 1.1% ( $n = 5$ ) (see Table 10).

### Ethnicity

For ethnicity, the percentage of black respondents was 55.0% ( $n=153$ ). While the percentage of white respondents was 18.1% ( $n = 52$ ). The percentage of Latino respondents was 11.5% ( $n = 32$ ) (see Table 11).

Table 9

*Distribution of Population by Education*

Education Level	<i>f</i>	%
High School	21	17.9
College	79	67.5
Graduate	14	12.0
Postgraduate	3	2.6
Total	117	100.0

## Employment

The results demonstrated that the highest group was full time 62.2% ( $n = 173$ ), while the lowest was unemployed 16.5% ( $n = 46$ ) (see Table 12).

Table 10

*Distribution of Population by Line of Work*

Education Level	<i>f</i>	%
High School	21	17.9
College	79	67.5
Graduate	14	12.0
Postgraduate	3	2.6
Total	117	100.0

Table 11

*Distribution of Population by Ethnicity*

Ethnicity	<i>f</i>	%
White	7	6.0
Latino	8	6.8
Others	7	6.0
Total	117	100.0

Table 12

*Distribution of Population by Employment*

Employment	<i>f</i>	%
Full Time	173	62,2
Part Time	58	20,9
Unemployed	46	16,5
Total	277	99,6
Lost data	1	,4
Total	278	100,0

## Marital Status

The results demonstrated that the highest group was married 64.0% ( $n = 178$ ), while the lowest was unemployed 16.5% ( $n = 46$ ) (see Table 13).

## Number in Household

The results demonstrated that the highest group was four 25.9% ( $n = 72$ ), while the lowest was one 13.3% ( $n = 37$ ) (see Table 14).

Table 13

*Distribution of Population by Marital Status*

Marital Status	<i>f</i>	%
Married	178	64,0
Divorced	19	6,8
Single	65	23,4
Other	15	5,4
Total	277	99,6
Lost data	1	,4
Total	278	100,0

Table 14

*Distribution of Population by Number in Household*

Number in Household	<i>f</i>	%
One	37	13,3
Two	58	20,9
Three	57	20,5
Four	72	25,9
Other	52	18,7
Total	276	99,3
Lost data	2	,7
Total	278	100,0

### Arithmetic Means

This section presents the results of the three highest arithmetic means, and the three lowest arithmetic means

#### Financial Literacy

The three highest arithmetic means were: “Understanding that one dollar today is not the same value as one dollar tomorrow (FL3)” with 5.60, “Understanding the system of personal finance (FL5)” with 5.09, “The development of a personality oriented to seeking the best financial deals (FL1)” with 5.01. While the three lowest arithmetic means were: “Development of financial abilities through accounting (FL9)2 with 4.23, “Financial education from a special institution(s) (FL7)” with 4.28, “Development of financial abilities through information analysis (FL10)” with 4.38 (see Table 15).

#### Financial Attitude

The highest arithmetic means were: “Believing in financial stewardship as the correct use of God’s gifts (FA11)” with 5.68, “Believing in the Holy Scriptures as the

standard of character that guides you in financial decisions (FA10)” with 5.53, “Being responsible for your personal credit management (FA)” with 5.16, While the three lowest were: “Being persistent in your personal investments (FA)” with 4.59, “Being persistent in your personal savings (FA7)” with 4.66, and “Being responsible for your personal investments (FA5)” with 4.83 (see Table 16).

Table 15

*Arithmetic Means for Financial Literacy*

Item	<i>M</i>	<i>SD</i>
The development of a personality oriented to seeking the best financial deals	5.0	1.118
The development of a personality oriented to financial planning	4.93	1.171
Understanding that one dollar today is not the same value as one-dollar tomorrow	5.59	1.253
Understanding the way investments work	4.74	1.339
Understanding the system of personal finance	5.08	1.200
The development of a personality oriented to resource economics.	4.63	1.145
Financial education from a special institution(s)	4.28	1.497
Development of financial abilities utilizing technology	4.50	1.336
Development of financial abilities through accounting	4.22	1.442
Development of financial abilities through information analysis	4.37	1.335
Development of financial abilities through credit history management	4.60	1.390
Understanding the way compound interest (the interest of each period is added to the principal, generating new interests) works.	4.55	1.606
Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) works	4.52	1.537
Understanding the way inflation (increase in the cost of living) works	4.96	1.450

### Financial Behavior

The three highest arithmetic means were: “Motivation influences a personal savings plan (FB1)” with 5.78, “Motivation influences a personal investment plan (FB2)” with 5.72, “Being adaptable to financial circumstances influences having a personal savings plan (FB7)” with 5.63. While the three lowest were: “Self-esteem contributes to

having a personal investment plan (FA5)” with 5.32, “Self-esteem contributes to having a good credit history (FA6)” with 5.33, “Self-esteem contributes to having a personal savings plan (FA4)” with 5.39 (see Table 17).

### Financial Indebtedness

The three highest arithmetic means were: “Pay debts as quickly as possible, be careful in the use of money (FI4)” with 6.11, “I try to live according to the money that I have (FI3)” with 5.80, “I believe it is ok to get in debt to finance education (FI8)” with 4.60. While the three lowest arithmetic means were: “Buying something now and paying for it later is a good idea (FI1)” with 2.61, “I find it more gratifying to prioritize my wants over my needs (FI2)” with 3.15, “I believe it is ok to get in debt to buy an automobile (FI6)” with 3.95 (see Table 18).

Table 16

#### *Arithmetic Means for Financial Attitude*

Financial Attitude	<i>M</i>	<i>SD</i>
Being honest in your personal savings	4.95	1.479
Being honest in your personal investments	4.88	1.331
Being honest in your personal credit management	5.10	1.329
Being responsible for your personal savings	5.08	1.375
Being responsible for your personal investments	4.82	1.465
Being responsible for your personal credit management	5.16	1.322
Being persistent in your personal savings	4.65	1.537
Being persistent in your personal investments	4.59	1.497
Being persistent in your personal credit management	5.02	1.309
Believing in the Holy Scriptures as the standard of character that guides you in financial decisions	5.53	1.293
Believing in financial stewardship as the correct use of God’s gifts	5.68	1.288

Table 17

*Arithmetic Mean for Financial Behavior*

Items	<i>M</i>	<i>SD</i>
Motivation influences a personal savings plan	5.78	1.153
Motivation influences a personal investment plan	5.71	1.140
Motivation influences a good credit history	5.54	1.218
Self-esteem contributes to having a personal savings plan	5.39	1.254
Self-esteem contributes to having a personal investment plan	5.32	1.251
Self-esteem contributes to having a good credit history	5.33	1.316
Being adaptable to financial circumstances influences having a personal savings plan	5.63	.986
Being adaptable to financial circumstances influences having a personal investment plan	5.52	1.023
Being flexible to financial circumstances influences having a good credit history	5.47	1.141
Overcoming adverse financial circumstances influences having a personal savings plan	5.61	1.068
Overcoming adverse financial circumstances influences having a personal investment plan	5.45	1.110
Overcoming adverse financial circumstances influences having a good credit history	5.49	1.216

Table 18

*Arithmetic Means for Financial Indebtedness*

Items	<i>M</i>	<i>SD</i>
Buying something now and paying for it later is a good idea.	2.60	1.533
I find it more gratifying to prioritize my wants over my needs	3.15	2.034
I try to live according to the money that I have	5.80	1.332
Pay debts as quickly as possible, be careful in the use of money	6.10	1.156
I believe it is ok to get in debt to buy a house	4.57	1.742
I believe it is ok to get in debt to buy an automobile.	3.33	1.784
I believe it is ok to get in debt for health care reasons	4.57	1.693
I believe it is ok to get in debt to finance education	4.60	1.580
The use of credit allows me to have a better quality of life	3.48	1.775
Having business credit is ok	4.41	1.512
Having credit from a financial institution is ok	4.41	1.610
Having a loan from family is ok	3.67	1.796

## Financial Satisfaction

The three highest arithmetic means were: “Your gratitude for God’s help with a personal savings plan (FS3)” with 5.79, “Your gratitude for God’s help with a good credit history (FS5)” with 5.68. “Your gratitude for God’s help with a personal investment plan”

(FS4) with 5.60. While the three lowest arithmetic means were: “The personal investment plan that you have compared to that of others (FS7)” with 4.43, “The personal savings plan that you have compared to that of others (FS6)” with 4.57, “Consistent accomplishment of your personal investment plan (FS13)” with 3.83 (see Table 19).

Table 19

*Arithmetic Means for Financial Satisfaction*

Items	<i>M</i>	<i>SD</i>
Maintaining a personal savings plan to deal with financial circumstances	4.96	1.421
Maintaining a personal investment plan to deal with financial circumstances	4.77	1.402
Your gratitude for God's help with a personal savings plan	5.79	1.129
Your gratitude for God's help with a personal investment plan	5.60	1.204
Your gratitude for God's help with a good credit history	5.68	1.243
The personal savings plan that you have compared to that of others	4.57	1.496
The personal investment plan that you have compared to that of others	4.42	1.506
The credit history that you have compared to that of others	4.83	1.453
The accomplishments of objectives with a “slow, but safe” focus in your personal savings plan	5.05	1.246
The accomplishment of objectives with a “slow, but safe” focus in your personal investment plan	4.94	1.281
The accomplishment of objectives with a “slow, but safe” focus in your credit history	5.10	1.209
Consistent accomplishment of your personal savings.	4.77	1.446
Consistent accomplishment of your personal investment plan	4.67	1.460
Consistent accomplishment of your personal credit obligations	5.11	1.294

### Null Hypothesis

In this section the null hypothesis will be analyzed.

Regarding the specification of the model, the intent is to prove the following: the empirical model of financial indebtedness (FI), financial attitude (FA) and financial behavior (FB) influence directly financial satisfaction (FS) and financial literacy (FL)



influence indirectly within the members of the Seventh-day Adventist churches in Edmonton, Alberta Canada. Does the theoretical model fit with the empirical data?

Hair, Anderson, Tatham and Black (1999) note that the goodness of fit index can be used to evaluate the fit of the model (see Table 20). The criteria that are used most often were selected from the list and are the following: The Chi squared ( $X^2$ ), the comparative fit index (CFI), the goodness of fit index (GFI) and the root mean squared error of approximation (RMSEA).

Table 20

*Goodness of Fit Statistics*

Statistic	Abbreviation	Criterion
Absolute fit		
Chi-squared	$X^2$	Significance level >
Ratio chi-squared/degrees of freedom	$X^2/df$	Less than 3
Comparative fit		
Comparative fit index	CFI	$\geq .95$
Tucker-Lewis index	TLI	$\geq .95$
Normed fit index	NFI	$\geq .95$
Parsimonious fit		
Parsimonious normed fit index	PNFI	Close to 1
Other		
Goodness of fit index	GFI	$\geq .90$
Adjusted goodness of fit index	AGFI	$\geq .90$
Root mean squared residual	RMR	Close to zero
Root mean squared error of approximation	RMSEA	< .08

## Assumptions

Before the statistical tests are carried out, it is necessary to examine the data to ensure that the normality criterion was met. The Mahalanobis distance criterion was used to remove outliers. The dataset was cleaned to ensure normality and 27 outliers were eliminated, which left a dataset with 295 responses. The Kolmogorov-Smirnov test showed a result of  $p$  is equal to .200 that is higher than .05 (see Table 21 and the Appendix E).

Table 21

### *Kolmogorov-Smirnov Test*

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Standardized Residual	.044	278	.200*	.982	278	.001

## Previous Analysis

A linear regression was utilized to do a previous test to the research hypothesis whereby financial satisfaction was the dependent variable and financial literacy, financial attitude, financial behavior, and financial indebtedness the independent variables.

The null hypothesis was:

H<sub>0</sub>: The empirical model in which financial literacy, financial attitude, financial behavior and financial indebtedness are not predictors of financial satisfaction among the members of the Seventh-day Adventist churches in Edmonton, Alberta Canada.

When applying the method of stepwise in the regression analysis, it shows that the best predictor was the independent variable financial attitude, because it explained 53.4% of the variance of the dependent variable, financial satisfaction. The results showed a  $F$  value equal to 318.974 and  $p$  value equal to .000. As it can be observed the  $p$  value is less than .05, therefore, there is a positive and significant lineal correlation. Thus, the null hypothesis is rejected.

The multiple regression also shows that the best model to predict financial satisfaction are financial attitude, financial Behavior, and financial indebtedness, because they explain 62.5% a  $F$  value equal to 155.072 and  $p$  value equal to .000. As it can be observed the  $p$  value is less than .05, therefore, there is a positive and significant lineal correlation. Thus, the null hypothesis is rejected (see Appendix E).

### **Structural Equation Analysis**

$H_0$ : The empirical model of financial attitude (FA), financial behavior (FB), and financial indebtedness (FI) do not influence directly financial satisfaction (FS) and financial literacy (FL) do not influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta.

The structural equations and the Amos software were used on the null hypothesis and a good fit was found for the theoretical and empirical model, and the results are as follows:  $X^2 = 7.633$ ,  $p = .054$ , RMSEA = .072, GFI = .990, NFI = .984, and CFI = .990 (See Figure 2). The proportion of explained variance in the model was acceptable since 53% of the variability of financial satisfaction was explained.

## Summary of Chapter

This chapter has presented the results of the investigation following statistical data analysis. It showed the demographic data and the extent of its behavior. All the respective tests relevant to the confirmatory model were presented and the complementary questions were answered with descriptive statistics.

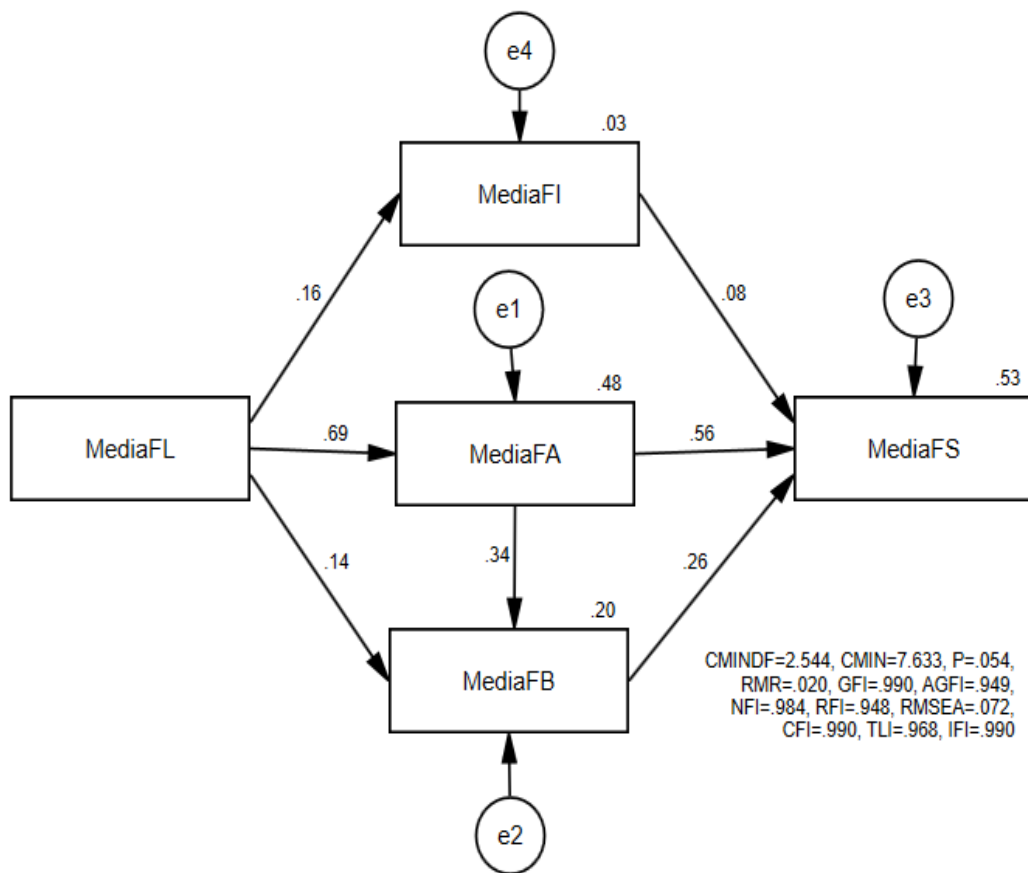


Figure 2. Research Model With Results.

## **CHAPTER V**

### **CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS**

#### **Introduction**

The ultimate aim of this research was to determine the empirical model of financial attitude, financial behavior and financial indebtedness influence directly financial satisfaction and financial literacy influence indirectly within the Seventh-day Adventist churches in Edmonton, Alberta Canada. The investigation was considered quantitative, cross- sectional, correlational, explanatory and descriptive.

The exogenous variable was financial literacy, and the endogenous variables were financial attitude, financial behavior, financial indebtedness, and financial satisfaction. The demographic variables were the following: age, gender, education, line of work, ethnicity, employment, marital status, and number in household. The study consisted of 295 respondents from 14 churches in Edmonton Alberta Canada. For the analysis of the main hypothesis, the statistical technique of structural equation modeling was used.

#### **Conclusions**

This section provided the conclusions that result from this research. It includes conclusions made on arithmetic mean and the null hypothesis.

The direct effect and coefficient of determination of each endogenous variable shows the following: financial literacy is a significant predictor of financial attitude;

however, this was different for financial indebtedness and financial behavior because they showed a low influence. Another important aspect of the model is that financial attitude is the best moderated variable according to the standardize coefficient. Overall, the model has a good fit because the variable explains a significant influence on financial satisfaction. In other words, the analysis has a good fit for both the theoretical and empirical models. Thus, financial indebtedness (FI); financial attitude (FA) and financial behavior (FB) have a direct influence on financial satisfaction (FS). While financial literacy (FL) construct has an indirect influence on financial satisfaction.

## **Discussion**

In this section, the results are discussed, answers to the questions and initial objectives of the research by construct are presented, including conclusions regarding arithmetic means.

### **Financial Literacy**

Xiao and Porto (2017) indicated that financial education may affect financial satisfaction, a measure of subjective financial well-being, through financial literacy, financial behavior, and financial capability variables. Škreblin Kirbiš, et al. (2017) commented that regarding the relationship between financial literacy and financial satisfaction, existing literature generally assumes a positive relationship between the two, even though it was not always direct and was observed to be somewhat different for men and women. Compared to this previous research on the subject the results of this research showed similar outcomes.

Another point worthy of note is that the three highest arithmetic means for financial satisfaction were: "Understanding that one dollar today is not the same value as one dollar tomorrow", "Understanding the system of personal finance", "The development of a personality oriented to seeking the best financial deals". While the three lowest arithmetic means were: "Development of financial abilities through accounting", "Financial education from a special institution(s)", "Development of financial abilities through information analysis". The three highest arithmetic means showed that the respondents had a fair understanding of financial matters, while the three lowest arithmetic means showed the need for further financial orientation and education.

#### Financial Attitude

Škreblin Kirbiš, et al. (2017) commented that financial attitude component explained some financial satisfaction variance for men, but not for women. Financial knowledge was not found to be a significant predictor of financial satisfaction of both men and women. Arifin (2018) analysis of data showed that financial Behavior was mediating the relation between financial knowledge and financial attitude towards financial satisfaction. Compared to previous research on the subject the results of this research showed similar outcomes.

Another point worthy of note is that the three highest arithmetic means for financial attitude were: "Believing in financial stewardship as the correct use of God's gifts", "Believing in the Holy Scriptures as the standard of character that guides you in financial decisions", "Being responsible for your personal credit management", While the three lowest were: "Being persistent in your personal investments", "Being persistent

in your personal savings”, and “Being responsible for your personal investments”. The three highest arithmetic means showed that the respondents believed in financial stewardship and the key role that the sacred scriptures play in shaping beliefs and actions concerning financial matters, while the three lowest arithmetic means showed that the respondents lacked the necessary motivation to be persistent and responsible when it comes to matters of savings and investment.

### Financial Behavior

Arifin (2018) indicated that both financial knowledge and financial attitude have a positive influence on financial behavior. Aboagye and Jung (2018) commented that the findings underscored the important role of positive savings and spending behavior on overall financial satisfaction and the opportunity for financial counselors, educators, and coaches to focus on the motivation of clients to save and plan for the future. Compared to previous research on the subject the results of this research showed similar outcomes.

Another point worthy of note is that the three highest arithmetic means for financial behavior were: “Motivation influences a personal savings plan”, “Motivation influences a personal investment plan”, “Being adaptable to financial circumstances influences having a personal savings plan”. While the three lowest were: “Self-esteem contributes to having a personal investment plan”, “Self-esteem contributes to having a good credit history”, “Self-esteem contributes to having a personal savings plan”. The three highest arithmetic means showed that the respondents believed that both motivation and adaptability are essential qualities for sound financial behaviors, while the



three lowest arithmetic means showed that the respondents did not think that self-esteem plays a central role in matters of having a good credit history, a good savings plan, and a good investment plan.

### Financial Indebtedness

Lown and Ju (1992) reported that respondents' feelings about their credit obligations was the greatest predictor of financial satisfaction, the higher the level of concern about credit the lower the level of Satisfaction. The subjective assessment of credit obligations was more important in explaining financial satisfaction than the objective reality of family debt burden. Kennedy (2013) showed that financial literacy failed to predict intention to use credit cards. However, a positive correlation was found between attitudes toward credit cards and amount of credit card debt. Compared to previous research on the subject the results of this research showed similar outcomes.

Another point worthy of note is that the three highest arithmetic means were: "Pay debts as quickly as possible, be careful in the use of money", "I try to live according to the money that I have", "I believe it is ok to get in debt to finance education". While the three lowest arithmetic means were: "Buying something now and paying for it later is a good idea", "I find it more gratifying to prioritize my wants over my needs", "I believe it is ok to get in debt to buy an automobile." The three highest arithmetic means showed that the respondents believed that it is both important to be responsible with money management and that debt could be secured to finance education, while the three lowest arithmetic means showed that the respondents believed that debt should be used for non- essential purposes.

## Financial Satisfaction

Škreblin Kirbiš, et al. (2017) Defines financial satisfaction, as satisfaction with one's current financial situation and it is considered to be a sub-component of general wellbeing. Woodyard and Robb (2016) associated financial satisfaction with personal well-being and life satisfaction as a subconstruct of financial well-being financial satisfaction is a subjective assessment of the adequacy of one's financial resources or financial situation. Compared to previous research on the subject the results of this research showed similar outcomes

Another point worthy of note is that the three highest arithmetic means for financial satisfaction were: "Your gratitude for God's help with a personal savings plan", "Your gratitude for God's help with a good credit history". "Your gratitude for God's help with a personal investment plan". While the three lowest arithmetic means were: "The personal investment plan that you have compared to that of others", "The personal savings plan that you have compared to that of others", "Consistent accomplishment of your personal investment plan. The three highest arithmetic means showed that the participants that they believed that God plays a central role in their financial lives, while the three lowest arithmetic means showed that the participants were undecided when asked about satisfaction with how they did, with their investments, savings and consistency in achieving goals, in comparison with others

## Recommendations

The results of this research led to some recommendations:

To Pastors and church members of the Seventh-day Adventist churches in Edmonton, Alberta Canada.

1. The pastors and members of the Seventh-day Adventist churches in Edmonton Alberta must recognized the need for financial education. The churches can organize financial literacy seminars that will help its pastors and members to be more knowledgeable about financial matters.

2. Given the fact that financial attitude was proven by this research to be the major contributor to one's financial satisfaction, seminars can be conducted that deal specifically with the elements of financial attitude with a view of creating greater awareness of the importance of having the right attitude, when it comes to financial matters, and having savings and investments.

3. Financial behavior is a significant contributor to one's financial satisfaction, hence the need to highlight the importance of adopting sound financial behaviors that will result in the pastors and members, of the Seventh-day Adventist churches in Edmonton Alberta, experiencing better financial health.

4. Given the prevalence of indebtedness and over-indebtedness in the church and the community at large, it is absolutely critical that members be made aware of the dangers of debt and its negative impact on the individual, the family and the society. The leadership of the Seventh-day Adventist churches in Edmonton Alberta should organize seminars to help members understand and manage debt with a view of gaining financial freedom.

5. The Pastors and church members of the Seventh-day Adventist churches in Edmonton Alberta must recognize the value of financial satisfaction to their overall

well-being. The research revealed the need for orientation on the value of having a personal financial plan. It is recommended that sermons and seminars be presented to enable member to develop the necessary skills to achieve this objective.

#### For Future Research

This section presents recommendations for future studies.

1. Replicate the study at other local churches in the Alberta Conference of Seventh-day Adventist to help members gain better financial health.
2. Formulate new models where new constructs are contemplated for measuring financial satisfaction.
3. Examine the relationship between Christian stewardship and financial satisfaction.

## **APPENDIX A**

### **INSTRUMENTS**

## Survey Questionnaire

Dear Participant,

My name is Reynold A. Ferary, I am a PhD student in Business Administration at the University of Morelos, Mexico. Currently, I am writing my doctoral dissertation entitled, "Predictive factors of Financial Satisfaction."

In order to collect data for my research, I have selected the members of the Seventh-day Adventist Churches in Edmonton, of the Alberta Conference of Seventh-day Adventist. This survey is designed to solicit your participation in the study of the predictive factors of Financial Satisfaction, which can be used by local church members, church leadership, and the community at large. The research examines the correlations that exist between Financial Literacy, Financial Attitude, Financial Behavior, Financial Indebtedness and Financial Satisfaction.

I would appreciate if you would participate in this very important study by completing the anonymous questionnaire below. I am certain that the results of this study, will add value to our faith community, the community at large, and my own professional development as a researcher and pastor.

It is important that all the questions be answered to the best of your knowledge and understanding. Your responses to this survey will be kept confidential and will only be presented as part of the overall responses of the participants.

Thanks for your kind consideration and participation in this very important research project.

Sincerely  
Reynold A. Ferary

Email: rferary@gmail.com

Phone: (403) 460-4555

### Demographics

Please place an "X" in the box of the response that applies to you.

<b>Age</b>	<input type="checkbox"/> 25 & Under <input type="checkbox"/> 26-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> 56-65 <input type="checkbox"/> 66 & up
<b>Gender</b>	<input type="checkbox"/> Male <input type="checkbox"/> Female
<b>Education</b>	<input type="checkbox"/> High School <input type="checkbox"/> Certificate <input type="checkbox"/> Associate <input type="checkbox"/> Bachelor <input type="checkbox"/> Masters <input type="checkbox"/> Doctorate <input type="checkbox"/> Other
<b>Line of Work</b>	<input type="checkbox"/> Healthcare <input type="checkbox"/> Financial <input type="checkbox"/> Education <input type="checkbox"/> IT <input type="checkbox"/> Law <input type="checkbox"/> Others _____
<b>Ethnicity</b>	<input type="checkbox"/> Black <input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Latino <input type="checkbox"/> Others _____



11. Development of financial abilities through credit history management.						
12. Understanding the way compound interest (the interest of each period is added to the principal, generating new interests) works.						
13. Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) works						
14. Understanding the way inflation (increase in the cost of living) works.						

## 2. Financial Attitude

Utilizing the following scale, analyze each of the following statements and mark an "X" in the space that indicates your perception of the level of your Financial Attitude.

Please use the following scale						
Awful	Very Bad	Somewhat Bad	Undecided	Somewhat Good	Very Good	Excellent
1	2	3	4	5	6	7

	Statement			Rate						
What has been your experience in ...?	1	2	3	4	5	6	7			
1. Being honest in your personal savings.										
2. Being honest in your personal investments.										
3. Being honest in your personal credit management.										
4. Being responsible for your personal savings.										
5. Being responsible for your personal investments.										
6. Being responsible for your personal credit management.										
7. Being persistent in your personal savings.										
8. Being persistent in your personal investments.										
9. Being persistent in your personal credit management.										
10. Believing in the Holy Scriptures as the standard of character that guides you in financial decisions.										
11. Believing in financial stewardship as the correct use of God's gifts.										



3. Financial Behavior
-----------------------

Please use the following scale						
Awful	Very Bad	Somewhat Bad	Undecided	Somewhat Good	Very Good	Excellent
1	2	3	4	5	6	7

	Statement	Rate						
Do you agree that ...?		1	2	3	4	5	6	7
1.	Motivation influences a personal savings plan.							
2.	Motivation influences a personal investment plan.							
3.	Motivation influences a good credit history.							
4.	Self-esteem contributes to having a personal savings plan							
5.	Self-esteem contributes to having a personal investment plan.							
6.	Self-esteem contributes to having a good credit history.							
7.	Being adaptable to financial circumstances influences having a personal savings plan							
8.	Being adaptable to financial circumstances influences having a personal investment plan.							
9.	Being flexible to financial circumstances influences having a good credit history.							
10.	Overcoming adverse financial circumstances influences having a personal savings plan.							
11.	Overcoming adverse financial circumstances influences having a personal investment plan.							
12.	Overcoming adverse financial circumstances influences having a good credit history.							

4. Financial Satisfaction
---------------------------

Please use the following scale						
Awful	Very Bad	Somewhat Bad	Undecided	Somewhat Good	Very Good	Excellent
1	2	3	4	5	6	7

Statement			Rate						
How satisfied are you with ...?			1	2	3	4	5	6	7
1. Maintaining a personal savings plan to deal with financial circumstances									
2. Maintaining a personal investment plan to deal with financial circumstances.									
3. Your gratitude for God's help with a personal savings plan.									
4. Your gratitude for God's help with a personal investment plan.									
5. Your gratitude for God's help with a good credit history.									
6. The personal savings plan that you have compared to that of others.									
7. The personal investment plan that you have compared to that of others.									
8. The credit history that you have compared to that of others.									
9. The accomplishments of objectives with a "slow, but safe" focus in your personal savings plan.									
10. The accomplishment of objectives with a "slow, but safe" focus in your personal investment plan.									
11. The accomplishment of objectives with a "slow, but safe" focus in your credit history.									
12. Consistent accomplishment of your personal savings.									
13. Consistent accomplishment of your personal investment plan.									
14. Consistent accomplishment of your personal credit obligations									

## 5. Financial Indebtedness

Utilizing the following scale, analyze each of the following statements and mark an "X" in the space that indicates your perception of the level of your Financial Indebtedness.

Please use the following scale							
Awful	Very Bad	Somewhat Bad	Undecided	Somewhat Good	Very Good	Excellent	
1	2	3	4	5	6	7	
		<b>Statement</b>				<b>Rate</b>	
<b>I agree with the following ...?</b>					<b>1</b>	<b>2</b>	<b>3</b>
1. Buying something now and paying for it later is a good idea.							
2. I find it more gratifying to prioritize my wants over my needs.							
3. I try to live according to the money that I have.							
4. Pay debts as quickly as possible, be careful in the use of money.							
5. I believe it is ok to get in debt to buy a house.							
6. I believe it is ok to get in debt to buy an automobile.							
7. I believe it is ok to get in debt for health care reasons							
8. I believe it is ok to get in debt to finance education.							
9. The use of credit allows me to have a better quality of life.							
10. Having business credit is ok.							
11. Having credit from a financial institution is ok.							
12. Having a loan from family is ok.							

## **APPENDIX B**

### **FACTORIAL ANALYSIS**

## 1.Financial Literacy

### Estadísticas de fiabilidad

Alfa de Cronbach	N de elementos
,967	14

### Prueba de KMO y Bartlett

Medida Kaiser-Meyer-Olkin de adecuación de muestreo		,927
Prueba de esfericidad de	Aprox. Chi-cuadrado	1511,005
Bartlett	gl	91
	Sig.	,000

### Comunalidades

	Inicial	Extracción
The development of a personality oriented to seeking the best financial deals (FL1)	1,000	,830
The development of a personality oriented to financial planning (FL2)	1,000	,824
Understanding that one dollar today is not the same value as one dollar tomorrow (FL3)	1,000	,715
Understanding the way investments work (FL4)	1,000	,901
Understanding the system of personal finance (FL5)	1,000	,861
The development of a personality oriented to resource economics (FL6)	1,000	,808
Financial education from a special institution(s) (FL7)	1,000	,838
Development of financial abilities utilizing technology (FL8)	1,000	,767
Development of financial abilities through accounting (FL9)	1,000	,818
Development of financial abilities through information analysis (FL10)	1,000	,826
Development of financial abilities through credit history management (FL11)	1,000	,786
Understanding the way compound interest (the interest of each period is added to the principal, generating new interests) works (FL12)	1,000	,829
Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) works (FL13)	1,000	,863
Understanding the way inflation (increase in the cost of living) works (FL14)	1,000	,790

Método de extracción: análisis de componentes principales.

## Varianza total explicada

Component	Autovalores iniciales			Sumas de cargas al cuadrado de la extracción			Sumas de cargas al cuadrado de la rotación		
	Total	% de vari- anza	% acu- mulado	Total	% de varianza	% acu- mulado	Total	% de varianza	% acumu- lado
1	9,815	70,107	70,107	9,815	70,107	70,107	4,558	32,555	32,555
2	1,046	7,469	77,576	1,046	7,469	77,576	3,986	28,473	61,029
3	,595	4,250	81,826	,595	4,250	81,826	2,912	20,797	81,826
4	,477	3,408	85,233						
5	,429	3,062	88,295						
6	,329	2,353	90,649						
7	,260	1,854	92,503						
8	,247	1,765	94,268						
9	,220	1,569	95,836						
10	,176	1,257	97,094						
11	,143	1,025	98,118						
12	,100	,717	98,835						
13	,093	,662	99,497						
14	,070	,503	100,000						

Método de extracción: análisis de componentes principales.

## 2. Financial Attitude

### Estadísticas de fiabilidad

Alfa de Cronbach	N de elementos
,950	11

### Prueba de KMO y Bartlett

Medida Kaiser-Meyer-Olkin de adecuación de muestreo	,874
Prueba de esfericidad de Bartlett	Aprox. Chi-cuadrado
	1226,119
	gl
	55

Sig.	,000
------	------

## Comunalidades

	Inicial	Extrac- ción
Being honest in your personal savings (FA1)	1,000	,754
Being honest in your personal investments (FA2)	1,000	,780
Being honest in your personal credit management (FA3)	1,000	,753
Being responsible for your personal savings (FA4)	1,000	,887
Being responsible for your personal investments (FA5)	1,000	,805
Being responsible for your personal credit management (FA6)	1,000	,718
Being persistent in your personal savings (FA7)	1,000	,797
Being persistent in your personal investments (FA8)	1,000	,842
Being persistent in your personal credit management (FA9)	1,000	,820
Believing in the Holy Scriptures as the standard of character that guides you in financial decisions (FA10)	1,000	,904
Believing in financial stewardship as the correct use of God's gifts (FA11)	1,000	,924

Método de extracción: análisis de componentes principales.

### Varianza total explicada

Component	Autovalores iniciales			Sumas de cargas al cuadrado de la extracción			Sumas de cargas al cuadrado de la rotación		
	Total	% de varianza	% acumulado	Total	% de varianza	% acumulado	Total	% de varianza	% acumulado
1	7,483	68,024	68,024	7,483	68,024	68,024	6,670	60,640	60,640
2	1,501	13,646	81,670	1,501	13,646	81,670	2,313	21,030	81,670
3	,510	4,636	86,306						
4	,418	3,797	90,103						
5	,277	2,519	92,622						
6	,231	2,102	94,724						
7	,169	1,533	96,257						
8	,137	1,246	97,503						
9	,130	1,185	98,688						
10	,086	,781	99,469						
11	,058	,531	100,000						

Método de extracción: análisis de componentes principales.

### 3. Financial Behavior

#### Estadísticas de fiabilidad

Alfa de Cronbach	N de elementos
,950	12

#### Prueba de KMO y Bartlett

Medida Kaiser-Meyer-Olkin de adecuación de muestreo		,875
Prueba de esfericidad de Bartlett	Aprox. Chi-cuadrado	1416,803
	gl	66
	Sig.	,000

#### Comunalidades

	Ini- cial	Extrac- ción



Motivation influences a personal savings plan (FB1)	1,00 0	,948
Motivation influences a personal investment plan. (FB2)	1,00 0	,927
Motivation influences a good credit history (FB3)	1,00 0	,836
Self-esteem contributes to having a personal savings plan (FB4)	1,00 0	,933
Self-esteem contributes to having a personal investment plan (FB5)	1,00 0	,948
Self-esteem contributes to having a good credit history (FB6)	1,00 0	,884
Being adaptable to financial circumstances influences having a personal savings plan (FB7)	1,00 0	,906
Being adaptable to financial circumstances influences having a personal investment plan (FB8)	1,00 0	,952
Being flexible to financial circumstances influences having a good credit history (FB9)	1,00 0	,818
Overcoming adverse financial circumstances influences having a personal savings plan (FB10)	1,00 0	,904
Overcoming adverse financial circumstances influences having a personal investment plan (FB11)	1,00 0	,883
Overcoming adverse financial circumstances influences having a good credit history (FB12)	1,00 0	,872

Método de extracción: análisis de componentes principales.

#### Varianza total explicada

Component	Autovalores iniciales			Sumas de cargas al cuadrado de la extracción			Sumas de cargas al cuadrado de la rotación		
	% de		% acumulado	% de vari-		% acumulado	% de vari-		% acumulado
	Total	varianza		Total	anza		Total	anza	
1	7,760	64,664	64,664	7,760	64,664	64,664	3,334	27,786	27,786
2	1,588	13,230	77,894	1,588	13,230	77,894	3,004	25,036	52,822
3	,807	6,722	84,616	,807	6,722	84,616	2,550	21,251	74,073
4	,657	5,471	90,088	,657	5,471	90,088	1,922	16,015	90,088
5	,393	3,272	93,359						
6	,216	1,797	95,156						
7	,180	1,501	96,657						
8	,106	,885	97,542						
9	,094	,782	98,324						
10	,077	,641	98,965						
11	,067	,559	99,524						
12	,057	,476	100,000						

Método de extracción: análisis de componentes principales.

#### 4. Financial Indebtedness

##### Estadísticas de fiabilidad

Alfa de Cronbach	N de elementos
,869	12

##### Prueba de KMO y Bartlett

Medida Kaiser-Meyer-Olkin de adecuación de muestreo	,782
Prueba de esfericidad de Aprox. Chi-cuadrado	639,635
Bartlett gl	66
Sig.	,000

##### Comunalidades

	Inicial	Extracción
Buying something now and paying for it later is a good idea (FI1)	1,000	,591
I find it more gratifying to prioritize my wants over my needs (FI2)	1,000	,699

I try to live according to the money that I have (FI3)	1,000	,778
Pay debts as quickly as possible, be careful in the use of money. (FI4)	1,000	,893
I believe it is ok to get in debt to buy a house (FI5)	1,000	,890
I believe it is ok to get in debt to buy an automobile (FI6)	1,000	,813
I believe it is ok to get in debt for health care reasons (FI7)	1,000	,594
I believe it is ok to get in debt to finance education (FI8)	1,000	,647
The use of credit allows me to have a better quality of life (FI9)	1,000	,796
Having business credit is ok (FI10)	1,000	,672
Having credit from a financial institution is ok (FI11)	1,000	,757
Having a loan from family is ok (FI12)	1,000	,741

Método de extracción: análisis de componentes principales.

### Varianza total explicada

Compo- nente	Autovalores iniciales			Sumas de cargas al cua- drado de la extracción			Sumas de cargas al cuadrado de la rota- ción		
	Total	% de vari- anza	% acu- mulado	Total	% de varianza	% acumu- lado	Total	% de vari- anza	% acumu- lado
1	5,115	42,624	42,624	5,115	42,624	42,624	2,628	21,902	21,902
2	1,753	14,610	57,235	1,753	14,610	57,235	2,391	19,925	41,827
3	1,144	9,536	66,771	1,144	9,536	66,771	2,140	17,830	59,657
4	,859	7,158	73,929	,859	7,158	73,929	1,713	14,272	73,929
5	,785	6,543	80,473						
6	,557	4,639	85,112						
7	,505	4,205	89,317						
8	,460	3,830	93,147						
9	,321	2,673	95,819						
10	,218	1,819	97,638						
11	,188	1,567	99,205						
12	,095	,795	100,000						

Método de extracción: análisis de componentes principales.

## 5. Financial Satisfaction

### Estadísticas de fiabilidad

Alfa de Cronbach	N de elementos
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,948	14
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### Prueba de KMO y Bartlett

Medida Kaiser-Meyer-Olkin de adecuación de muestreo		,872
Prueba de esfericidad de Bartlett	Aprox. Chi-cuadrado gl	1413,387
	Sig.	,000

### Comunalidades

	Inicial	Extracción
Maintaining a personal savings plan to deal with financial circumstances (FS1)	1,000	,906
Maintaining a personal investment plan to deal with financial circumstances (FS2)	1,000	,884
Your gratitude for God's help with a personal savings plan (FS3)	1,000	,876
Your gratitude for God's help with a personal investment plan (FS4)	1,000	,909
Your gratitude for God's help with a good credit history (FS5)	1,000	,914
The personal savings plan that you have compared to that of others (FS6)	1,000	,886
The personal investment plan that you have compared to that of others (FS7)	1,000	,865
The credit history that you have compared to that of others (FS8)	1,000	,803
The accomplishments of objectives with a "slow, but safe" focus in your personal savings plan (FS9)	1,000	,913
The accomplishment of objectives with a "slow, but safe" focus in your personal investment plan (FS10)	1,000	,915
The accomplishment of objectives with a "slow, but safe" focus in your credit history (FS11)	1,000	,862
Consistent accomplishment of your personal savings (FS12)	1,000	,871
Consistent accomplishment of your personal investment plan (FS13)	1,000	,880
Consistent accomplishment of your personal credit obligations (FS14)	1,000	,896

Método de extracción: análisis de componentes principales.

### Varianza total explicada

Component	Autovalores iniciales			Sumas de cargas al cuadrado de la extracción			Sumas de cargas al cuadrado de la rotación		
	Total	% de varianza	% acumulado	Total	% de varianza	% acumulado	Total	% de varianza	% acumulado
1	8,468	60,488	60,488	8,468	60,488	60,488	3,010	21,498	21,498
2	1,510	10,784	71,272	1,510	10,784	71,272	2,598	18,555	40,053
3	1,059	7,568	78,839	1,059	7,568	78,839	2,320	16,574	56,627
4	,711	5,076	83,916	,711	5,076	83,916	2,280	16,286	72,913
5	,632	4,517	88,433	,632	4,517	88,433	2,173	15,520	88,433

6	,435	3,107	91,540
7	,270	1,931	93,471
8	,224	1,601	95,072
9	,168	1,202	96,273
10	,145	1,038	97,311
11	,126	,902	98,213
12	,105	,749	98,962
13	,079	,562	99,524
14	,067	,476	100,000

Método de extracción: análisis de componentes principales.

## **APPENDIX C**

### **OPERATIONALIZATION OF THE VARIABLES**

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial literacy	Is the acquisition of knowledge, skills, confidence, and motivation necessary to effectively manage financial matters.	<p>The degree to which knowledge, skills, confidence, and motivation affect financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 14 items, under the scale:</p> <p>1 = Awful 2 = Very bad 3 = Somewhat bad 4 = Undecided 5 = Somewhat good 6 = Very good 7 = Excellent</p> <p>1. The development of a personality oriented to seeking the best financial deals. 2. The development of a personality oriented to financial planning. 3. Understanding that one-dollar today is not the same value of one-dollar tomorrow. 4. Understanding the way investments work. 5. Understanding the system of personal finance. 6. The development of a personality oriented to resource economics. 7. Financial education from a special institution (s). 8. Development of financial abilities utilizing technology. 9. Development of financial abilities through accounting. 10. Development of financial abilities through information analysis 11. Development of financial abilities through credit history management. 12. Understanding the way compound interest (the interest of each period is added to the principal, generating new interest) works. 13. Understanding the way simple interest (the interest of each period is not added to the principal, and it does not generate new interest) works. 14. Understanding the way inflation (increase in the cost of living) works.</p>	<p>To measure quality of the financial literacy, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 14 items.</p> <p>The variable was considered as metric.</p> <p>To make the approach of the conclusions of this study, the following equivalence was determined for the scale used:</p> <p>1 = Awful 2 = Very bad 3 = Somewhat bad 4 = Undecided 5 = Somewhat good 6 = Very good 7 = Excellent</p>

### *Operationalization of the Variable financial attitude*

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial attitude	Is the extent to which values and beliefs influence financial decision making.	<p>The extent to which values and beliefs affect the financial attitude of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 11 items, under the scale:</p> <p>1 = Awful 2 = Very bad 3 = Somewhat bad 4 = Undecided 5 = Somewhat good 6 = Very good 7 = Excellent</p> <p>1. Being honest in your personal savings.</p>	<p>To measure quality of the financial attitude, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 11 items.</p>

	2. Being honest in your personal investment. 3. Being honest in your personal credit management. 4. Being responsible for your personal savings. 5. Being responsible for your personal investments. 6. Being responsible for your personal credit management. 7. Being persistent in your personal savings. 8. Being persistent in your personal investments. 9. Being persistent in your personal credit management. 10. Believing in the Holy Scriptures as the standard of character that guides you in financial decisions. 11. Believing in financial stewardship as the correct use of God's gift.	The variable was considered as metric. To make the approach of the conclusions of this study, the following equivalence was determined for the scale used: 1 = Awful 2 = Very bad 3 = Somewhat bad 4 = Undecided 5 = Somewhat good 6 = Very good 7 = Excellent
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### *Operationalization of the Variable financial behavior*

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial behavior	Is the psychological characteristics that determine how people make financial decisions	<p>The degree to which psychological characteristics affect the financial behavior of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 12 items, under the scale:</p> <p>1 = Totally disagree  2 = Disagree  3 = Somewhat disagree  4 = Undecided  5 = Somewhat agree  6 = Agree  7 = Totally Agree</p> <p>1. Motivation influences a personal savings plan.  2. Motivation influences a personal investment plan.  3. Motivation influences a good credit history.  4. Self-esteem contributes to having a personal savings plan.  5. Self-esteem contributes to having a personal investment plan.  6. Self-esteem contributes to having a good credit history.  7. Being adaptable to financial circumstances influences having a personal savings plan.  8. Being adaptable to financial circumstances influences having a personal investment plan.  9. Being flexible to financial circumstances influences having a good credit history.  10. Overcoming adverse financial circumstances influences having a personal savings plan.  11. Overcoming adverse financial circumstances influences having a personal investment plan.</p>	<p>To measure quality of the financial behavior, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 12 items.</p> <p>The variable was considered as metric.  To make the approach of the conclusions of this study, the following equivalence was determined for the scale used:  1 = Totally disagree  2 = Disagree  3 = Somewhat disagree  4 = Undecided  5 = Somewhat agree  6 = Agree</p>



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	12 Overcoming adverse financial circumstances influences having a good credit history.	7 = Totally Agree
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### *Operationalization of the Variable financial indebtedness*

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial indebtedness	Is the extent to which an individual has incurred debt to the point of encountering challenges in meeting all his/her obligations	<p>The extent to which inability to meet all credit obligations affect the financial indebtedness of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 12 items, under the scale:</p> <p>1 = Totally disagree  2 = Disagree  3 = Somewhat disagree  4 = Undecided  5 = Somewhat agree  6 = Agree  7 = Totally Agree</p> <p>1. Buying something now and paying for it later is a good idea.  2. I find it more gratifying to prioritize my wants over my needs.  3. I try to live according to the money that I have.  4. Pay debts as quickly as possible, be careful in the use of money.  5. I believe it is ok to get in debt to buy a house.  6. I believe it is ok to get in debt to buy an automobile.  7. I believe it is ok to get in debt for health care reasons.  8 I believe it is ok to get in debt to finance education.  9. The use of credit allows me to have a better quality of life.  10. Having business credit is ok.  11. Having credit from a financial institution is ok.  12. Having a loan from family is ok.</p>	<p>To measure quality of the financial indebtedness, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 12 items.</p> <p>The variable was considered as metric.</p> <p>To make the approach of the conclusions of this study, the following equivalence was determined for the scale used:</p> <p>1 = Totally disagree  2 = Disagree  3 = Somewhat disagree  4 = Undecided  5 = Somewhat agree  6 = Agree  7 = Totally Agree</p>

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### *Operationalization of the Variable financial satisfaction*

Variables	Conceptual definition	Instrumental definition	Operational definition
Financial satisfaction	Relates to what people do and how they feel, given their objective and subjective knowledge of financial matters.	<p>The degree to how feelings and actions affect the financial satisfaction of the members of the Seventh-day Adventist churches in Edmonton, Alberta, was determined by means of the following 14 items, under the scale:</p> <p>1 = Totally dissatisfied  2 = Dissatisfied  3 = Somewhat dissatisfied  5 = Somewhat satisfied  6 = Very satisfied  7 = Totally satisfied</p> <p>1. Maintaining a personal savings plan to deal with financial circumstances.  2. Maintaining a personal investment plan to deal with financial circumstances.  3. Your gratitude for God's help with a personal savings plan.  4. Your gratitude for God's help with a personal investment plan.  5. Your gratitude for God's help with a good credit history  6. The personal savings plan that you have compared to that of others.  7. The personal investment plan that you have compared to that of others.  8. The credit history that you have compared to others.  9. The accomplishment of objectives with a "slow, but safe" focus in your personal savings plan.  10. The accomplishment of objectives with a "slow, but safe" focus in your personal investment plan  11 The accomplishment of objectives with a "slow, but safe" focus in your credit history.  12. Consistent accomplishment of your personal savings.  13. Consistent accomplishment of your personal investment plan.  14. Consistent accomplishment of your personal credit obligations.</p>	<p>To measure quality of the financial literacy, data was obtained from members of the Seventh-day Adventist churches in Edmonton, Alberta, through the measure of 14 items.</p> <p>The variable was considered as metric.</p> <p>To make the approach of the conclusions of this study, the following equivalence was determined for the scale used:</p> <p>1 = Totally dissatisfied  2 = Dissatisfied  3 = Somewhat dissatisfied  5= Somewhat satisfied  6 = Very satisfied  7= Totally satisfied</p>

## **APPENDIX D**

### **DESCRIPTIVE TABLES**

## Frequencies

### Statistics

		Age	Gender	Education	Line of work	Ethnicity	Employment	Marital Status	Number in household
N	Válido	278	275	278	277	278	277	277	276
	Perdidos	0	3	0	1	0	1	1	2
Mínimo		1,00	1,00	1,00	1,0	1,00	1,00	1,00	1,00
Máximo		6,00	2,00	7,00	6,0	5,00	3,00	4,00	5,00

## Table of Frequency

### Age

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	25 & under	32	11,5	11,5	11,5
	26- 35	51	18,3	18,3	29,9
	36 - 45	87	31,3	31,3	61,2
	46 - 55	55	19,8	19,8	80,9
	56 - 65	36	12,9	12,9	93,9
	66 & up	17	6,1	6,1	100,0
	Total	278	100,0	100,0	

### Gender

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	Male	110	39,6	40,0	40,0
	Female	165	59,4	60,0	100,0
	Total	275	98,9	100,0	
Perdidos	Sistema	3	1,1		
Total		278	100,0		

### Education

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	High School	51	18,3	18,3	18,3

Certificate	34	12,2	12,2	30,6
Associate	15	5,4	5,4	36,0
Bachelor	109	39,2	39,2	75,2
Masters	51	18,3	18,3	93,5
Doctorate	5	1,8	1,8	95,3
other	13	4,7	4,7	100,0
Total	278	100,0	100,0	

### Line of work

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	Health care	91	32,7	32,9	32,9
	Financial	24	8,6	8,7	41,5
	Education	38	13,7	13,7	55,2
	IT	13	4,7	4,7	59,9
	Law	3	1,1	1,1	61,0
	Others	108	38,8	39,0	100,0
	Total	277	99,6	100,0	
Perdidos	Sistema	1	,4		
Total		278	100,0		

### Ethnicity

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	Black	153	55,0	55,0	55,0
	White	31	11,2	11,2	66,2
	Asian	52	18,7	18,7	84,9
	Latino	32	11,5	11,5	96,4
	Others	10	3,6	3,6	100,0
	Total	278	100,0	100,0	

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	Full Time	173	62,2	62,5	62,5
	Part Time	58	20,9	20,9	83,4
	Unemployed	46	16,5	16,6	100,0
	Total	277	99,6	100,0	
Perdidos	Sistema	1	,4		
Total		278	100,0		

### Marital Status

		Frecuencia	Porcentaje	Porcentaje vál- ido	Porcentaje acumulado
Válido	Married	178	64,0	64,3	64,3
	Divorced	19	6,8	6,9	71,1
	Single	65	23,4	23,5	94,6
	Other	15	5,4	5,4	100,0
	Total	277	99,6	100,0	
Perdidos	Sistema	1	,4		
Total		278	100,0		

### Number in household

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	One	37	13,3	13,4	13,4
	Two	58	20,9	21,0	34,4
	Three	57	20,5	20,7	55,1
	Four	72	25,9	26,1	81,2
	Other	52	18,7	18,8	100,0
	Total	276	99,3	100,0	
Perdidos	Sistema	2	,7		
Total		278	100,0		

Frequencies for Demographic data  
**Gender**

		Frequency	Percent	Valid Percent	Cumulative Per- cent
Valid	Male	52	44.4	44.4	44.4
	Female	65	55.6	55.6	100.0
	Total	117	100.0	100.0	

**Educ**

		Frequency	Percent	Valid Percent	Cumulative Per- cent
Valid	High School	21	17.9	17.9	17.9
	College	79	67.5	67.5	85.5
	Graduate	14	12.0	12.0	97.4
	Post Graduate	3	2.6	2.6	100.0
	Total	117	100.0	100.0	

**Eth**

		Frequency	Percent	Valid Percent	Cumulative Per- cent
Valid	Black	95	81.2	81.2	81.2
	White	7	6.0	6.0	87.2
	Latino	8	6.8	6.8	94.0
	Others	7	6.0	6.0	100.0
	Total	117	100.0	100.0	

**Age**

		Frequency	Percent	Valid Percent	Cumulative Per- cent
Valid	18-25	55	47.0	47.0	47.0
	26-36	25	21.4	21.4	68.4
	37-47	26	22.2	22.2	90.6
	48-up	11	9.4	9.4	100.0
	Total	117	100.0	100.0	

## **APPENDIX E**

### **NULL HYPOTHESIS**

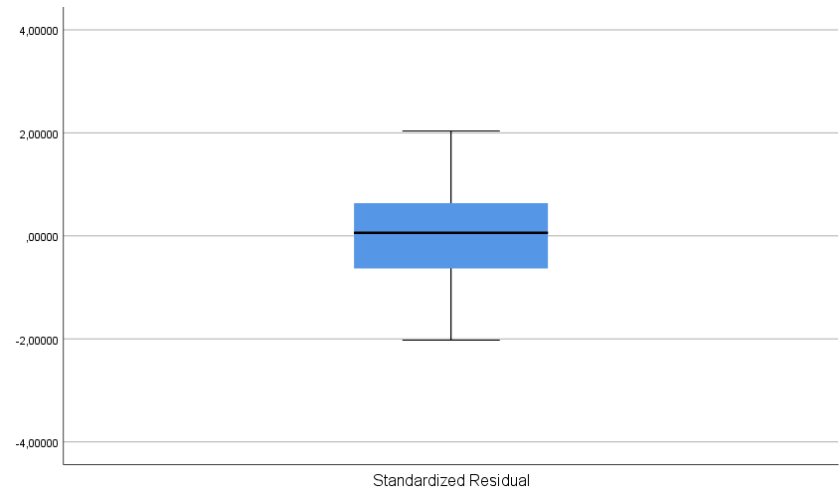
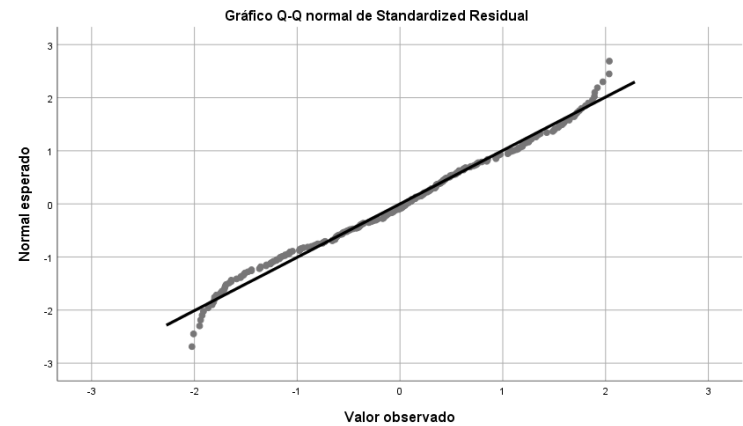


Normality test

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Estadístico	gl	Sig.	Estadístico	gl	Sig.
Standardized Residual	.044	278	.200*	.982	278	.001

\*. Esto es un límite inferior de la significación verdadera.

a. Corrección de significación de Lilliefors



### Resumen del modelo

Modelo	R	R cuadrado	R cuadrado ajustado	Error estándar de la estimación
1	.732 <sup>a</sup>	.536	.534	.53294
2	.790 <sup>b</sup>	.624	.621	.48097
3	.793 <sup>c</sup>	.629	.625	.47813

a. Predictores: (Constante), MediaFA

b. Predictores: (Constante), MediaFA, MediaFB

c. Predictores: (Constante), MediaFA, MediaFB, MediaFI

### ANOVA<sup>a</sup>

Modelo		Suma de cuadrados	gl	Media cuadrática	F	Sig.
1	Regresión	90.597	1	90.597	318.974	.000 <sup>b</sup>
	Residuo	78.391	276	.284		
	Total	168.988	277			
2	Regresión	105.372	2	52.686	227.748	.000 <sup>c</sup>
	Residuo	63.617	275	.231		
	Total	168.988	277			
3	Regresión	106.351	3	35.450	155.072	.000 <sup>d</sup>
	Residuo	62.638	274	.229		
	Total	168.988	277			

a. Variable dependiente: MediaFS

b. Predictores: (Constante), MediaFA

c. Predictores: (Constante), MediaFA, MediaFB

d. Predictores: (Constante), MediaFA, MediaFB, MediaFI

### Coefficientes<sup>a</sup>

Modelo		Coeficientes no estandarizados		Coeficientes estandarizados	t	Sig.
		B	Desv. Error	Beta		
1	(Constante)	2.177	.171		12.769	.000

2	MediaFA	.581	.033	.732	17.860	.000
	(Constante)	.954	.217		4.398	.000
	MediaFA	.472	.032	.595	14.589	.000
	MediaFB	.323	.040	.326	7.992	.000
3	(Constante)	.663	.258		2.574	.011
	MediaFA	.466	.032	.588	14.434	.000
	MediaFB	.326	.040	.329	8.102	.000
	MediaFI	.073	.035	.076	2.070	.039

a. Variable dependiente: MediaFS

Variables excluidas <sup>a</sup>						
Modelo		En beta	t	Sig.	Correlaci <sup>o</sup> n par- cial	Estad <sup>o</sup> sticas de colinealidad Tolerancia
1	MediaFL	.133 <sup>b</sup>	2.473	.014	.147	.568
	MediaFB	.326 <sup>b</sup>	7.992	.000	.434	.823
	MediaFI	.067 <sup>b</sup>	1.627	.105	.098	.993
2	MediaFL	.064 <sup>c</sup>	1.279	.202	.077	.549
	MediaFI	.076 <sup>c</sup>	2.070	.039	.124	.992
3	MediaFL	.052 <sup>d</sup>	1.036	.301	.063	.541

a. Variable dependiente: MediaFS

b. Predictores en el modelo: (Constante), MediaFA

c. Predictores en el modelo: (Constante), MediaFA, MediaFB

d. Predictores en el modelo: (Constante), MediaFA, MediaFB, MediaFI

**Notes for Model (Default model)****Computation of degrees of freedom (Default model)**

Number of distinct sample moments: 15  
 Number of distinct parameters to be estimated: 12  
 Degrees of freedom (15 - 12): 3

**Result (Default model)**

Minimum was achieved  
 Chi-square = 7.633  
 Degrees of freedom = 3  
 Probability level = .054

**Estimates (Group number 1 - Default model)****Scalar Estimates (Group number 1 - Default model)****Maximum Likelihood Estimates****Regression Weights: (Group number 1 - Default model)**

			Estimate	S.E.	C.R.	P	Label
MediaFA	<---	MediaFL	.730	.045	16.334	***	
MediaFB	<---	MediaFL	.115	.059	1.951	.051	
MediaFI	<---	MediaFL	.139	.051	2.750	.006	
MediaFB	<---	MediaFA	.266	.056	4.774	***	
MediaFS	<---	MediaFA	.503	.040	12.497	***	
MediaFS	<---	MediaFB	.299	.052	5.783	***	
MediaFS	<---	MediaFI	.087	.044	2.006	.045	

**Standardized Regression Weights: (Group number 1 - Default model)**

			Estimate
MediaFA	<---	MediaFL	.690
MediaFB	<---	MediaFL	.140
MediaFI	<---	MediaFL	.158
MediaFB	<---	MediaFA	.343
MediaFS	<---	MediaFA	.560
MediaFS	<---	MediaFB	.258
MediaFS	<---	MediaFI	.081

**Variances: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
MediaFL	.814	.067	12.124	***	
e1	.478	.039	12.124	***	
e2	.436	.036	12.124	***	
e4	.615	.051	12.124	***	
e3	.347	.029	12.124	***	

**Squared Multiple Correlations: (Group number 1 - Default model)**

	Estimate
MediaFA	.476
MediaFI	.025
MediaFB	.204
MediaFS	.527

**Matrices (Group number 1 - Default model)**

**Total Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.730	.000	.000	.000
MediaFI	.139	.000	.000	.000
MediaFB	.309	.266	.000	.000
MediaFS	.472	.582	.087	.299

**Standardized Total Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.690	.000	.000	.000
MediaFI	.158	.000	.000	.000
MediaFB	.377	.343	.000	.000
MediaFS	.497	.649	.081	.258

**Direct Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.730	.000	.000	.000
MediaFI	.139	.000	.000	.000
MediaFB	.115	.266	.000	.000
MediaFS	.000	.503	.087	.299

**Standardized Direct Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.690	.000	.000	.000
MediaFI	.158	.000	.000	.000
MediaFB	.140	.343	.000	.000
MediaFS	.000	.560	.081	.258

**Indirect Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.000	.000	.000	.000
MediaFI	.000	.000	.000	.000
MediaFB	.194	.000	.000	.000
MediaFS	.472	.080	.000	.000

**Standardized Indirect Effects (Group number 1 - Default model)**

	MediaFL	MediaFA	MediaFI	MediaFB
MediaFA	.000	.000	.000	.000
MediaFI	.000	.000	.000	.000
MediaFB	.237	.000	.000	.000
MediaFS	.497	.089	.000	.000

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	1		-.019	9999.000	343.164	0	9999.000
1	e*	0	17.663		1.177	31.127	19	.686
2	e	0	8.884		.151	9.605	1	1.123
3	e	0	7.781		.043	7.689	1	1.100
4	e	0	7.932		.009	7.633	1	1.024
5	e	0	7.897		.000	7.633	1	1.001

### Model Fit Summary

#### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	7.633	3	.054	2.544
Saturated model	15	.000	0		
Independence model	5	490.150	10	.000	49.015

#### RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.020	.990	.949	.198
Saturated model	.000	1.000		
Independence model	.275	.569	.354	.379

#### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.984	.948	.990	.968	.990
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

#### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.300	.295	.297
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000



**NCP**

Model	NCP	LO 90	HI 90
Default model	4.633	.000	16.875
Saturated model	.000	.000	.000
Independence model	480.150	411.354	556.357

**FMIN**

Model	FMIN	F0	LO 90	HI 90
Default model	.026	.016	.000	.057
Saturated model	.000	.000	.000	.000
Independence model	1.667	1.633	1.399	1.892

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.072	.000	.138	.219
Independence model	.404	.374	.435	.000

**AIC**

Model	AIC	BCC	BIC	CAIC
Default model	31.633	32.133	75.877	87.877
Saturated model	30.000	30.625	85.305	100.305
Independence model	500.150	500.359	518.585	523.585

**ECVI**

Model	ECVI	LO 90	HI 90	MECVI
Default model	.108	.092	.149	.109
Saturated model	.102	.102	.102	.104
Independence model	1.701	1.467	1.960	1.702

**HOELTER**

Model	HOELTER .05	HOELTER .01
Default model	301	437
Independence model	11	14

**Execution time summary**

Minimization: .001  
Miscellaneous: .163  
Bootstrap: .000  
Total: .164

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**Languages:** Native Language - English; Second Language - Spanish

**Education:** M.A. Family Life Education, Montemorelos University, Mexico, 2001  
B.A. Theology & Social Studies, Caribbean Union College, Trinidad, 1989

Secondary Schools: Caribbean Union College High School  
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**Work Experience:**

2015-Present Associate Stewardship Director, Alberta Conference of SDA.

**Dec 2001- Present** Senior Pastor, Alberta Conference of SDA

Dec. 2001- Dec. 2004, Bridgeland/Calgary Southside, Calgary

Jan. 2005 - Dec. 2006, Bridgeland/Calgary Spanish, Calgary

Jan. 2007- Sept. 2015, Bridgeland, Calgary

Oct.2015 to present, West Edmonton SDA

October 2017 to present African Fellowship Company

- June 1998 – June 2001** English as a Second Language Instructor, Best Institute, Mexico
- English as a Second Language Instructor, William Carter Company, Mexico
- June 1989 – June 1998** Pastor, East Caribbean Conference of SDA  
Pastoral Internship, St. Vincent and St. Lucia  
District Pastor, St. Lucia and Dominica

### **Professional Accomplishments:**

- **Senior Pastor, West Edmonton SDA Church Oct. 2015 to Present**
- **Senior Pastor, African Fellowship Company Oct. 2017 to Present**
- Treasurer of Greater Edmonton Ministerial Association Sept. 2019 to present
- Member of the Alberta Conference church plant committee 2015 to present
- Member, Board, Coralwood Adventist Academy Oct. 2015 to present
- Member, Finance Committee Coralwood SDA Academy Oct. 2015 to present
- Mentorship pastor for Burman University School of Theology 2003 to present
- Chair, Calgary Ministerial Association, Sept. 2012 – Sept. 2015
- Member, Nominating Committee Alberta Conference, Sept. 2008- 2014
- Member, Board Chinook Winds Adventist Academy, Jan. 2002- Sept. 2015
- Completed a Christian Leadership Coaching program in the Alberta Conference, 2010/2011
- Led two guided tours to Israel and Jordan, 2012 and 2013
- Ordination to the Gospel Ministry, 1994
- Secretary-Treasurer, St. Vincent Ministerial Association 1989/1990
- Member, Board of Management, St. Lucia Academy, 1990- 1995
- Vice Chair, Board of Management, Dominica SDA Academy, 1995-1998
- Chair, Board of Management, Bense SDA Primary School Dominica, 1995-1998
- Member, Executive Committee, East Caribbean Conference, 1997-1998
- Member, Board of Education, East Caribbean Conference, 1997- 1998
- Coordinator, Dominica Breath of Life Radio Program, 1995-1998
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Pastor, East Caribbean Conference of Seventh-day Adventist, 1989 to 1998.  
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