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Research Article

Mediation Effect Of The Savings Behavior Between Investment Pattern And Orientation Towards Finance (ORTOFIN): A Structural Equation Modeling Approach

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ABSTRACT

Purpose: The aim and objective of this research paper was to find the mediation effect of Savings Behavior-Savings & Investment (SBSI), Saving Behavior-Cash Management (SBCSM), Saving Behavior-Credit Management (SBCRDM), and Saving Behavior-Insurance (SBINS) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN).

Design/methodology/approach: All the working people who save and invest money were the population for this study. The primary data were collected using web-based structured questionnaire. Under the pilot study 42 respondents, whereas for the main study 424 respondents were finalised. The sub constructs of Saving Behaviour were considered as mediation latent variables, Investment Pattern was taken as independent latent variable whereas Orientation Towards Finance was taken as dependent latent variable. The Structural Equation Modeling Approach was used to examine the relationship between mediating, independent and dependent latent variables. Before Applying the SEM approach, Reliability, Validity, Sampling Adequacy, and Confirmatory Factor Analysis were performed under the measurement of variables and scale development. All the model fit indices were also checked for good fit model of this study.

Findings- The study reveals that SBSI has no mediation between IPRP and ORTOFIN whereas all the other three construct SBCSM, SBCRDM, and SBINS have the partial mediation between IPRP and ORTOFIN. Since the highest change in the regression weight is 0.140 for the SBCSM, hence it can be concluded that SBCSM is the most influencing mediating latent variable in between IPRP and ORTOFIN.

Research limitations- The limitation in this research paper was the sample size which was collected during the COVID 19 pandemic period; therefore, it may be possible that results may vary after the COVID 19 pandemic.

Originality/value- This research paper analysis results were derived with the help of statistical package SPSS AMOS 23.0.

Keywords- Saving Behaviour, Investment Pattern, Orientation Towards Finance, Mediation, Structural Equation Model

1.0 Introduction

People work very hard to earn money and then enjoy its benefits in various ways, but simply spending their entire earnings is not a good idea. As we don't know what happens in future, like some uncertainty takes place such as you lose your job or go bankrupt, or you or your family got some serious health issues, or you want your own house, car or anything or any could happen. So we should be ready for it, we should have some money kept aside to cover to cover or meet these expenses. And this money which is kept aside is called as savings. Saving is the portion of one's income that is not spent on current expenses. In other words, it is money set aside for future use rather than being spent immediately. If we save for the future, we can face uncertainty and live a less stressful life. People can save money in a variety of ways, including controlling extraneous and unnecessary expenses during the movement. Thinking before spending is always preferable to impulsive purchasing. They should save money for a variety of reasons, including emergencies, retirement, future medical bills, children's education (which is becoming increasingly expensive), building or purchasing a home,

vacationing for fun, purchasing luxury items, purchasing a car, and sinking funds (funds set aside for future improvements or repairs to a home, car, or other possessions). They can plan ahead of time how much to save for how many years and how much they should set aside each month for those specific reasons (Sood, 2015). Saving Behavior is an understanding of how people save money in order to meet their financial needs. The more they save, the higher their personal disposable income and, consequently, their standard of living (Finance, 2017).

Investment refers to spending on goods and services that are not 'consumed' but have a long life. Saving equals investment; income equals output for the global economy (TEAM, 2022) . Investment is defined as the rate at which financial intermediaries and others pay out on items destined to become capital that directly creates values, such as durable goods, human capital, and physical capital (Monetarist). Investment can also be defined as the use of funds with the intention of achieving additional value or income growth. It is the allocation of monetary resources to financial assets that are expected to generate a profit or positive return after a specified time period. Its goal is to generate future income in the form of dividends, interest, rent, pension benefits, premiums, or capital appreciation. An investment pattern is a one-of-a-kind investment strategy developed by different people using various investment avenues. It refers to a set of actions that is followed by an investor's investment decision (P. Rao, G. Chalam, 2014). Individuals' savings, which they invest in a specific company's stock, directly contribute to economic development by providing risk capital (N J Lovell-Greene, 2015). Individuals' perceptions of the market differ. An investor who believes that the market overreacts to news may develop a strategy of purchasing stock after large negative earnings and selling stock after positive earnings. Similarly, another type of investor who believes in markets may make general errors, but uses methodological indicators to determine whether the market is oversold and takes a diverse position. Another type of investor who believes that market mistakes are more likely when information is ambiguous may seek out stocks that are not owned by institutional investors or tracked by analysts. As a result, understanding the behavioral psyche of individual investors through the lens of behavioral finance becomes critical.

ORTOFIN is defined as "an individual behavioural disposition characterized by personal interests and skills relating to effectively managing one's own finances"(Loix et al., 2010). They also investigated how people organise their income with various financial situations in their day-to-day financial matters. They also investigated the financial behavior of the general public, ranging from risk taking to risk aversion, as well as the factors that influence their behavior. He developed and validated an ORTOFIN scale in the European population using rigorous procedures, and it has been standardized in the Asian population by (Sulphey & Nisa, 2014). This ORTOFIN consists of two factors: financial information, which is somewhat in line with Tigges and Jonitz (2000), and interest factor, which is related to an individual's interest factor, for example, activities looking for financial (& economic) knowledge. The second factor is Personal Financial Planning, which is applicable to standard financial management logic and focuses on planning-related behavioral competencies (Sulphey & Nisa, 2014).

The objective of this study are as follows:

- To find the direct effect of Investment Pattern-Risk Profiling (IPRP) towards Orientation Towards Finance (ORTOFIN).
- To know the mediation effect of Savings Behavior-Savings & Investment (SBSI) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN).
- To know the mediation effect of Saving Behavior-Cash Management (SBCSM) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN).
- To know the mediation effect of Saving Behavior-Credit Management (SBCRDM) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)
- To know the mediation effect of Saving Behavior-Insurance (SBINS) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)
- To find the most influencing mediation variables among Savings Behavior-Savings & Investment (SBSI), Saving Behavior-Cash Management (SBCSM), Saving Behavior-Credit Management (SBCRDM), and Saving Behavior-Insurance (SBINS) in between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)

The null hypothesis can be formulated based on the objectives as

- $H0_1$: There is no significant effect of Investment Pattern-Risk Profiling (IPRP) on the Orientation Towards Finance (ORTOFIN)
- $H0_2$: Savings Behavior-Savings & Investment (SBSI) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)
- $H0_3$: Saving Behavior-Cash Management (SBCSM) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)
- $H0_4$: Saving Behavior-Credit Management (SBCRDM) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)
- $H0_5$: Saving Behavior-Insurance (SBINS) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN)

2.0 Literature review

Researchers were more fascinated by individual financial behaviour, even before behavioural finance had emerged as a separated discipline. There were some studies in the field include debt (Lea et al., 1995), gambling (Walker, 1995), taxation (Andreoni et al., 1998), savings (Warneryd, 1999), investment behaviour (Lewis and Mackenzie, 2000).

They found the relation between their income, bargaining power and their saving, which is all positive. They concluded it as working women's income increases and their bargaining power increases, so their saving also increases **(Stephanie Seguino & Maria Sagrario Floro, 2010)**. Then in 2012 **(Rani, 2012)** stated that women play significant role in their family's financial management irrespective of their working or economic status. But working women were more consulted compared to non-working. In this way it was found that working women played more significant role in family's financial management than that of non-working women by carrying out dual role both at home as well as at workplace. In 2013 (Bashir et al., 2013) coined that female are more likely to invest for short term whereas males likely to invest in almost all, short term, long-term, medium-term purposes. So, they have significant difference in their saving behaviour. They have found that men save more than women where as women spend more than men. In same year (Singh, 2015) found that in today's scenario also an individual investor prefers to invest in risk free financial products that also gives good return. Even high-income individuals, financially independent and well-educated people are conservative and prefer to invest safe. They are keen to invest in midterm products. Marital status doesn't have significant effect on Personal Financial Planning **(Sulphey & Nisa, 2014)** In the same year (**Workineh Ayenew, 2014)** also found that with the increases in income saving also increases and age and education have negative but insignificant effect on their saving behaviour and with increase in family there is decrease in saving as they have to spend more on the new member. **(Jain Rajeshwari, 2014)** found that there is a relationship between income and investment pattern. She also studied that most of the women preferred to invest in fixed deposit or in gold. In 2015 **(Gaikwad Renuka Ashok 2015)** propounded that rural woman do have significant awareness but does not have satisfactory understanding about lot of things related to investment like risk factor, rate of return, risk and return relationship, lock in period of investment and profit related to past experience of investment. They mostly invest in gold, bank deposits and insurance. It was also noticed that women don't prefer websites, financial advisors for choosing investment avenues instead take advise from family or friends. In 2016 (**Shahla, Mahammad Thauseef P, 2016)** highlighted that the respondents were mostly nuclear families in Mangalore. The authors found that their savings were low because of the expenses of household, children's education etc. They prefer medium returns with minimum risk on their investments. **(Remigius Mary S, 2016)** in the same year concluded that women's age plays a dominant role for investment in different financial avenues. Most of them use traditional investment avenues like FD, incurrence, PPF and National saving certificate. They try to play safe in various investment avenues and only some are ready to take risk in modern investment avenues. Then in 2017 **(Kamboj Samriti, 2017)** found that there is poor investment behaviour amongst Haryana women. Only 36% of the respondents showed positive investment behaviour which indicates that others do not watch out their investment decision carefully which will lead to financial problems in future. Afterword in 2018 (**Kumari Krishna, 2018)** advocated that there are different investment avenues for different needs like if they are planning for regular income even after their retirement, then they can go for pension plan, investing in mutual fund etc. If they want liquidity in finance they will go for financial security and instruments like government securities due to strong secondary market. These financial instruments are tradable and can get cash at any point of time. And if they want long term benefits, then they can opt for fixed deposits and all. He found that there are lots of consideration required at the time of investing, like investment safety, tax planning retirement income etc. and accordingly they take decision for investment. In 2019 (**Kaur Inderbir, 2019)** found that women are less confidence while making financial decisions. They are hesitant to make these choices and see it as a man's world. He asserted that as exposure, knowledge, and mentality among women rise, they will become more financially independent. **(Manchanda Pooja, 2019)** noted that factors influencing the investing pattern include education, organisation, occupation, and income in addition to age. They came to the conclusion that women in the private sector are more concerned about money and treat various investment opportunities more seriously than women in the public sector. Then, in 2020, a number of studies in this sector were completed by numerous researchers. **(Abdulrahman et al., 2020)** The University of Saudi Arabia discovered a substantial positive association between financial orientation and working women's saving and investing habits. The authors also emphasised that Financial Management Behaviour is a key factor in financial orientation. Another significant component that affects ORTOFIN is personal planning. **(Shwetha and Swathi, 2020)** discovered that there is no correlation between rural women's saving habits and various age groups. **(Ansari &Yadav, 2020)** discovered a link between people's income and savings. It was also discovered that gender has an impact on financial awareness and literacy. Additionally, it was shown that investors prefer safe, liquid investments that offer tax advantages, larger returns, and fewer lock-in periods. (**Bhatt & Soni, 2020)** emphasised with their research that investors are cautious with their money and construct their portfolios in accordance with their level of risk tolerance. They primarily behave this way due to a lack of information, practise, and practice-related skills, as well as knowledge regarding portfolio diversification. **(Agarwal Priyanka,2020)**

emphasised the fact that the majority of working women participate in daily household decision-making. However, in Bundelkhand, where this survey was conducted, the majority of women are unaware of several financial options, such as the advantages of diversification, the impact of inflation on investments, the relationship between risk and return, investment options, and investment preferences. The study's findings indicated that investor behaviour has an inverse relationship with investment limitation. **(Devi Suman,2020)** The majority of working women are not aware of the many contemporary investment options and only know about the traditional ones, such as bank deposits, PPFs, insurance, and post offices, among others. This lack of knowledge is caused by low levels of education, risk-taking habits and cultures, lack of confidence, and other factors.

3.0 Materials and Methods

3.1 Data collection

With 42 respondents, it was decided to conduct the pilot study. This represents approximately 10% of the total sample size (424) for this investigation. Primary data was gathered from a sample of 424 respondents using a web-based structured questionnaire, which was administered to them. The population N was taken to be 2500 in total. An acceptable margin of sampling error for the survey was set at 0.05, which was considered acceptable. With the help of Slovin's formula, $n = N / (1 + Ne^2)$, where n denotes the sample size, N denotes the total population, and e denotes the error tolerance. **(Ellen Stephanie, 2021)** If $n = 2500 / (1+2500*0.05^2)$ equals 344.8, As a result, we calculated that the sample size should be approximately 345, but we received a total of 424 responses. The sample included all the salaried people, who were from various occupations like private sectors, public sectors, professionals (professors, doctors, etc.). The respondents were related to a wide range of demographic backgrounds.

3.2 Latent Variables/ Constructs

There was total six latent variables such as Savings Behavior- Savings & Investment (SBSI), Saving Behavior- Cash Management (SBCSM), Saving Behavior- Credit Management (SBCRDM), Saving Behavior- Insurance (SBINS), Investment Pattern- Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN).

3.2.1 Mediating Latent Variables

Total four mediating latent variables were selected as Savings Behavior- Savings & Investment (SBSI), Saving Behavior- Cash Management (SBCSM), Saving behavior- Credit Management (SBCRDM), Saving Behavior- Insurance (SBINS).

3.2.1 Independent Variable

The independent latent variable was Investment Pattern- Risk Profiling (IPRP).

3.2.2 Dependent Variable

The dependent variable in this study was Orientation Towards Finance (ORTOFIN)

3.3 Research Design

Specifically, in this case, the exploratory as well as descriptive research designs were utilised, such as for the discovery of new facts and knowledge, more in-depth study, and formulation of null hypothesis; the exploratory research design was utilised, and for the testing of the null hypothesis, the descriptive research design was utilised for more conclusive oriented research for decision-making.

3.4 Statistical Tools & Software

The Structural Equation Modeling Approach was used to test the Total, Direct, and Indirect effect among the constructs. The simple analysis was performed using SPSS 23.0 whereas complex analysis was performed using AMOS 23.0 version.

4.0 Results

4.1 Data Analysis

4.1.1 Preliminary data analysis

In the preliminary data analysis for the pilot study on 42 respondents, the following results were achieved for the internal consistency of the construct. The test retest and inter rator test were also used in this study. The reliability and factor analysis results confirmed that, the final data collection and analysis was performed on 424 respondents.

Table 1: Summary Results of Reliability & Factor Analysis

Construct/Factor/Latent Variable	KMO	% of Variance	No of items	Cronbach
Savings Behavior- Savings & Investment (SBSI)	0.842	63.007	5	0.851
Saving Behavior- Cash Management (SBCSM)	0.806	68.425	4	0.843
Saving behavior- Credit Management (SBCRDM)	0.803	67.610	4	0.837
Saving Behavior- Insurance (SBINS)	0.814	68.800	4	0.846
Investment Pattern- Risk Profiling (IPRP)	0.795	53.206	6	0.819
Orientation Towards Finance (ORTOFIN)	0.861	56.483	7	0.859

Source: SPSS23.0 output

From the summary results of reliability & factor analysis table 1, it can be concluded that all the that Construct/Factor/Latent Variables are reliable for the further statistical analysis.

4.1.2 Second Stage Analysis

The confirmatory factor analysis was employed for the finalization of the different constructs which was further used in the Structural model. For the hypothesis testing, the techniques of Structural Equation Modeling were employed. SEM is a combination of factor analysis and regression analysis. The SEM model is a powerful tool for data analysis. SEM techniques can be used in direct path analysis, mediating analysis, and moderator (group) analysis as follows:

4.1.2.1 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. For good model fit, all of the required model fit indices such as GFI (Goodness-of-Fit), AGFI (Adjusted Goodness-of-Fit), TLI (Tucker Lewis Index), CFI (Comparative Fit Index), NFI (Normed Fit Index), and RMSEA (Root Mean Square Error of Approximation) are used. Each construct is subjected to confirmatory factor analysis to ensure that it has the lowest possible CMIN/DF (Chi-square Mean/Degree of Freedom). All the model fit indices under CFA and structural model are under acceptable range. **(Hooper et al., 2008)**

4.2.2.1.1 CFA Savings Behavior- Savings & Investment (SBSI)

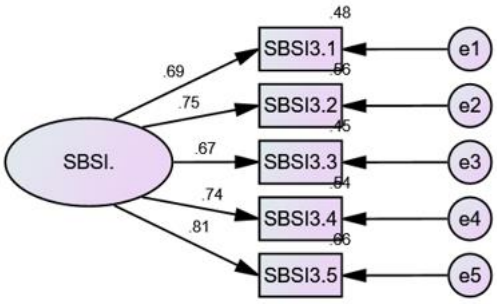

Figure 1: CFA Savings Behavior- Savings & Investment (SBSI)

CMIN		DF	P		CMIN/DF
17.581		5	.004		3.516
GFI	AGFI	TLI	CFI	NFI	RMSEA
.965	.894	.941	.970	.960	.109

Source: AMOS 23.0 output

The figure depicts that the Savings Behavior- Savings & Investment (SBSI) having five items (SBSI 3.1 I save from every pay check, SBSI 3.2 I save for a long-term goal other than retirement

SBSI3.3 I save for retirement, SBSI3.4I invest money in different buckets, and SBSI3.5 I maintain or create an emergency fund) represented by the rectangular shape also known as observed variables and the latent variable Savings Behavior- Savings & Investment (SBSI) is represented by oval shape. e1 to e5 are the error variables represented by circle. All the model fit indices are near to acceptable range.

The model fit indices show that the CFA model for Savings Behavior- Savings & Investment (SBSI) is a good fit model, therefore it can be further used in the Structural Equation Model. The results validate the Savings Behavior- Savings & Investment (SBSI) construct. (See ***Figure 1:*** *CFA Savings Behavior- Savings & Investment (SBSI)*)

Table 2: Regression Weights: Savings Behavior- Savings & Investment (SBSI)

Path			Unstandardised Estimate	Standardised Estimate	S.E.	C.R.	P
SBSI3.1	<---	SBSI.	1.000	.690			
SBSI3.2	<---	SBSI.	1.036	.749	.109	9.481	***
SBSI3.3	<---	SBSI.	.998	.672	.116	8.628	***
SBSI3.4	<---	SBSI.	.983	.738	.105	9.357	***
SBSI3.5	<---	SBSI.	1.091	.814	.108	10.098	***

Source: AMOS 23.0 output

From the Regression Weights: Savings Behavior- Savings & Investment (SBSI)table, it is clear that all the standardised regression weight is above 0.300, hence all the five items of SBSI is the good representation Savings Behavior- Savings & Investment (SBSI) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 2:** Regression Weights: Savings Behavior- Savings & Investment (SBSI))

4.2.2.1.2 CFA Saving Behavior- Cash Management (SBCSM)

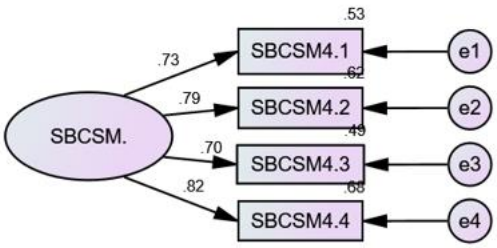

Figure 2: CFA Saving Behavior- Cash Management (SBCSM)

The figure depicts that the Saving Behavior- Cash Management (SBCSM) having four items (SBCSM4.1 I stay within budget, SBCSM4.2 I pay bills on time, SBCSM4.3 I keep a financial record, and SBCSM4.4 I compare the price of products before buying) represented by the rectangular shape also known as observed variables and the latent variable Saving Behavior- Cash Management (SBCSM) is represented by oval shape. e1 to e4 are the error variables represented by circle. All the model fit indices are near to acceptable range.

CMIN		DF	P		CMIN/DF
4.137		2	.126		2.068
GFI	AGFI	TLI	CFI	NFI	RMSEA
.991	.953	.981	.994	.988	.071

Source: AMOS 23.0 output

The model fit indices show that the CFA model for Savings Behavior- Savings & Investment (SBSI) is a good fit model, therefore it can be further used in the Structural Equation Model. The results validate the Savings Behavior- Savings & Investment (SBSI) construct

Table 3: Regression Weights: Saving Behavior- Cash Management (SBCSM)

			Unstandardised Estimate	Standardised Estimate	S.E.	C.R.	P
SBCSM4.1	<---	SBCSM.	1.000	.728			
SBCSM4.2	<---	SBCSM.	.918	.788	.089	10.346	***
SBCSM4.3	<---	SBCSM.	.960	.702	.103	9.338	***
SBCSM4.4	<---	SBCSM.	1.032	.825	.097	10.660	***

Source: AMOS 23.0 output

From the Regression Weights: Saving Behavior- Cash Management (SBCSM) table, it is clear that all the standardised regression weight is above 0.300, hence all the four items of SBCSM is the good representation Saving Behavior- Cash Management (SBCSM) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 3:** Regression Weights: Saving Behavior- Cash Management (SBCSM))

4.2.2.1.3 CFA Saving Behavior- Credit Management (SBCRDM)

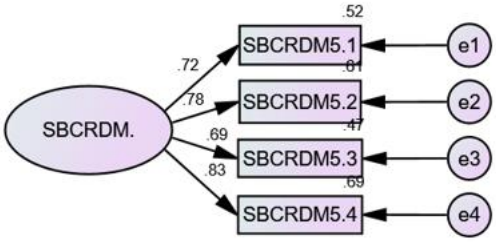

Figure 3: CFA Saving Behavior- Credit Management (SBCRDM)

The figure depicts that the Saving Behavior- Credit Management (SBCRDM) having four items (SBCRDM5.1 I pay Credit card bills on time, SBCRDM5.2 I exhaust my credit card limit easily, SBCRDM5.3 I make minimum payment on loans and cards, and SBCRDM5.4 I make minimum payment on credit cards) represented by the rectangular shape also known as observed variables and the latent variable Saving Behavior- Credit Management (SBCRDM) is represented by oval shape. e1 to e4 are the error variables represented by circle. All the model fit indices are near to acceptable range.

CMIN		DF	P		CMIN/DF
3.854		2	.146		1.927
GFI	AGFI	TLI	CFI	NFI	RMSEA
.991	.955	.983	.994	.988	.066

Table 4: Regression Weights: Saving behavior- Credit Management (SBCRDM)

			Unstandardised Estimate	Standardised Estimate	S.E.	C.R.	P
SBCRDM5.1	<---	SBCRDM.	1.000	.720			
SBCRDM5.2	<---	SBCRDM.	.920	.781	.091	10.091	***
SBCRDM5.3	<---	SBCRDM.	.929	.686	.103	9.006	***
SBCRDM5.4	<---	SBCRDM.	1.052	.828	.101	10.453	***

Source: AMOS 23.0 output

From the Regression Weights: Saving behavior- Credit Management (SBCRDM) table, it is clear that all the standardised regression weight is above 0.300, hence all the four items of SBCRDM is the good

representation Saving behavior- Credit Management (SBCRDM) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 4:** Regression Weights: Saving behavior- Credit Management (SBCRDM))

4.2.2.1.4 CFA Saving Behavior- Insurance (SBINS)

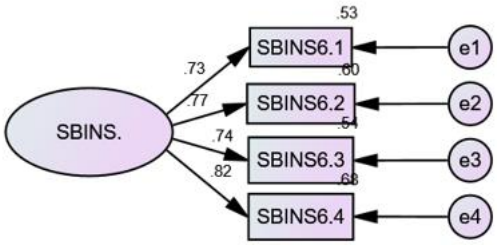

Figure 4: CFA Saving Behavior- Insurance (SBINS)

The figure depicts that the Saving Behavior- Insurance (SBINS) having four items (SBINS6.1 I obtain or maintain adequate health insurance, SBINS6.2 I obtain or maintain adequate property insurance, SBINS6.3 I obtain or maintain adequate life insurance, and SBINS6.4 I obtain or maintain adequate medical insurance) represented by the rectangular shape also known as observed variables and the latent variable Saving Behavior- Insurance (SBINS)is represented by oval shape. e1 to e4 are the error variables represented by circle. All the model fit indices are near to acceptable range.

CMIN		DF	P		CMIN/DF
2.608		2	.271		1.304
GFI	AGFI	TLI	CFI	NFI	RMSEA
.994	.970	.995	.998	.993	.038

Table 5: Regression Weights: Saving Behavior- Insurance (SBINS)

Path			**Unstandardised Estimate**	**Standardised Estimate**	**S.E.**	**C.R.**	**P**
SBINS6.1	<---	SBINS.	1.000	.725			
SBINS6.2	<---	SBINS.	.878	.772	.087	10.124	***
SBINS6.3	<---	SBINS.	.998	.737	.103	9.728	***
SBINS6.4	<---	SBINS.	1.034	.822	.098	10.588	***

Source: AMOS 23.0 output

From the Regression Weights: Saving Behavior- Insurance (SBINS) table, it is clear that all the standardised regression weight is above 0.300, hence all the four items of SBINS is the good representation Saving Behavior- Insurance (SBINS) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 5:** Regression Weights: Saving Behavior- Insurance (SBINS))

4.2.2.1.5 CFA Investment Pattern- Risk Profiling (IPRP)

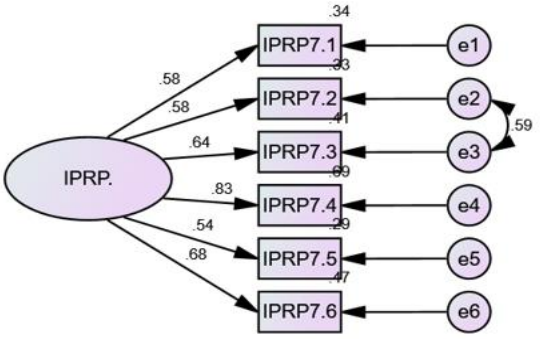

Figure 5: CFA Investment Pattern- Risk Profiling (IPRP)

The figure depicts that the Investment Pattern- Risk Profiling (IPRP) having six items (IPRP7.1 I would go for the best possible return even if there were risks involved, IPRP7.2 I prefer an investment which is safe and grow slowly but steadily, IPRP7.3 I would prefer small certain gains to large uncertain ones, IPRP7.4I would enjoy exploring investment opportunities for my money, IPRP7.5 I prefer to invest in gold and real estate over financial products, and IPRP7.6 I invest in market related products) represented by the rectangular shape also known as observed variables and the latent variable Investment Pattern- Risk Profiling (IPRP) is represented by oval shape. e1 to e6 are the error variables represented by circle. All the model fit indices are near to acceptable range.

CMIN		DF	P		CMIN/DF
18.201		8	.020		2.275
GFI	AGFI	TLI	CFI	NFI	RMSEA
.974	.931	.958	.978	.962	.078

Source: AMOS 23.0 output

Table 6: Regression Weights: Investment Pattern- Risk Profiling (IPRP)

Path			**Unstandardised Estimate**	**Standardised Estimate**	**S.E.**	**C.R.**	**P**
IPRP7.1	<---	IPRP.	1.000	.583			
IPRP7.2	<---	IPRP.	.906	.576	.140	6.465	***
IPRP7.3	<---	IPRP.	1.058	.640	.152	6.972	***
IPRP7.4	<---	IPRP.	1.320	.830	.167	7.911	***
IPRP7.5	<---	IPRP.	.949	.539	.153	6.184	***
IPRP7.6	<---	IPRP.	1.180	.684	.162	7.289	***

From the Regression Weights: Investment Pattern- Risk Profiling (IPRP) table, it is clear that all the standardised regression weight is above 0.300, hence all the sis items of IPRP is the good representation Investment Pattern- Risk Profiling (IPRP) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 6:** Regression Weights: Investment Pattern- Risk Profiling (IPRP))

4.2.2.1.6 CFA Orientation Towards Finance (ORTOFIN)

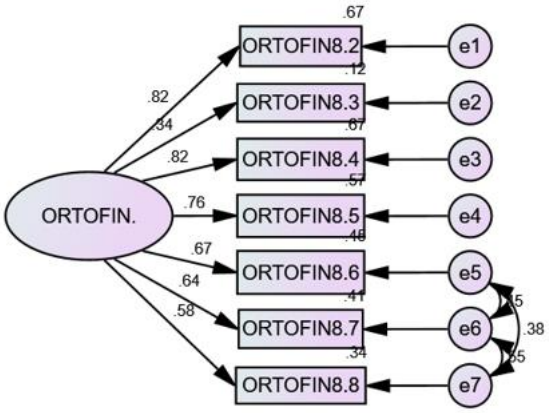

Figure 6: CFA Orientation Towards Finance (ORTOFIN)

The figure depicts that the Orientation Towards Finance (ORTOFIN) having seven items (ORTOFIN8.2 I try to keep track of general economic trends, ORTOFIN8.3I am not attracted by the financial part of my life, ORTOFIN8.4 I regularly look for interesting investment opportunities for my money, ORTOFIN8.5 I am interested in the evaluation of currency rates
ORTOFIN8.6 I accurately plan my expenses, ORTOFIN8.7 I keep track of my personal expenses in a systematic way, and ORTOFIN8.8 I like to plan things) represented by the rectangular shape also known as observed variables and the latent variable Orientation Towards Finance (ORTOFIN) is represented by oval shape. e1 to e7 are the error variables represented by circle. All the model fit indices are near to acceptable range.

CMIN		DF	P		CMIN/DF
14.280		11	.218		1.298
GFI	AGFI	TLI	CFI	NFI	RMSEA
.982	.953	.991	.995	.980	.038

Source: AMOS 23.0 output

Table 7: Regression Weights: Orientation Towards Finance (ORTOFIN)

Path			Unstandardised Estimate	Standardised Estimate	S.E.	C.R.	P
ORTOFIN8.2	<---	ORTOFIN.	1.000	.816			
ORTOFIN8.3	<---	ORTOFIN.	.486	.340	.103	4.704	***
ORTOFIN8.4	<---	ORTOFIN.	1.034	.819	.084	12.366	***
ORTOFIN8.5	<---	ORTOFIN.	.966	.756	.085	11.385	***
ORTOFIN8.6	<---	ORTOFIN.	.840	.672	.085	9.883	***
ORTOFIN8.7	<---	ORTOFIN.	.799	.641	.086	9.332	***
ORTOFIN8.8	<---	ORTOFIN.	.701	.585	.084	8.382	***

Source: AMOS 23.0 output

From the Regression Weights: Orientation Towards Finance (ORTOFIN) table, it is clear that all the standardised regression weight is above 0.300, hence all the seven items of OTROFIN is the good representation Orientation Towards Finance (ORTOFIN) construct. P value is *** (Significant), hence the internal consistency is existed among the items. (See **Table 7:** Regression Weights: Orientation Towards Finance (ORTOFIN))

4.1.2.2 Structural Model: Mediation Analysis : Baron & Kenny's Method

The Baron and Kenny (1986) method is an analysis strategy for testing mediation hypotheses. In this method for mediation, there are two paths to the dependent variable. One is direct and other is indirect.

4.2.2.2.1 Direct Path between IPRP and ORTOFIN

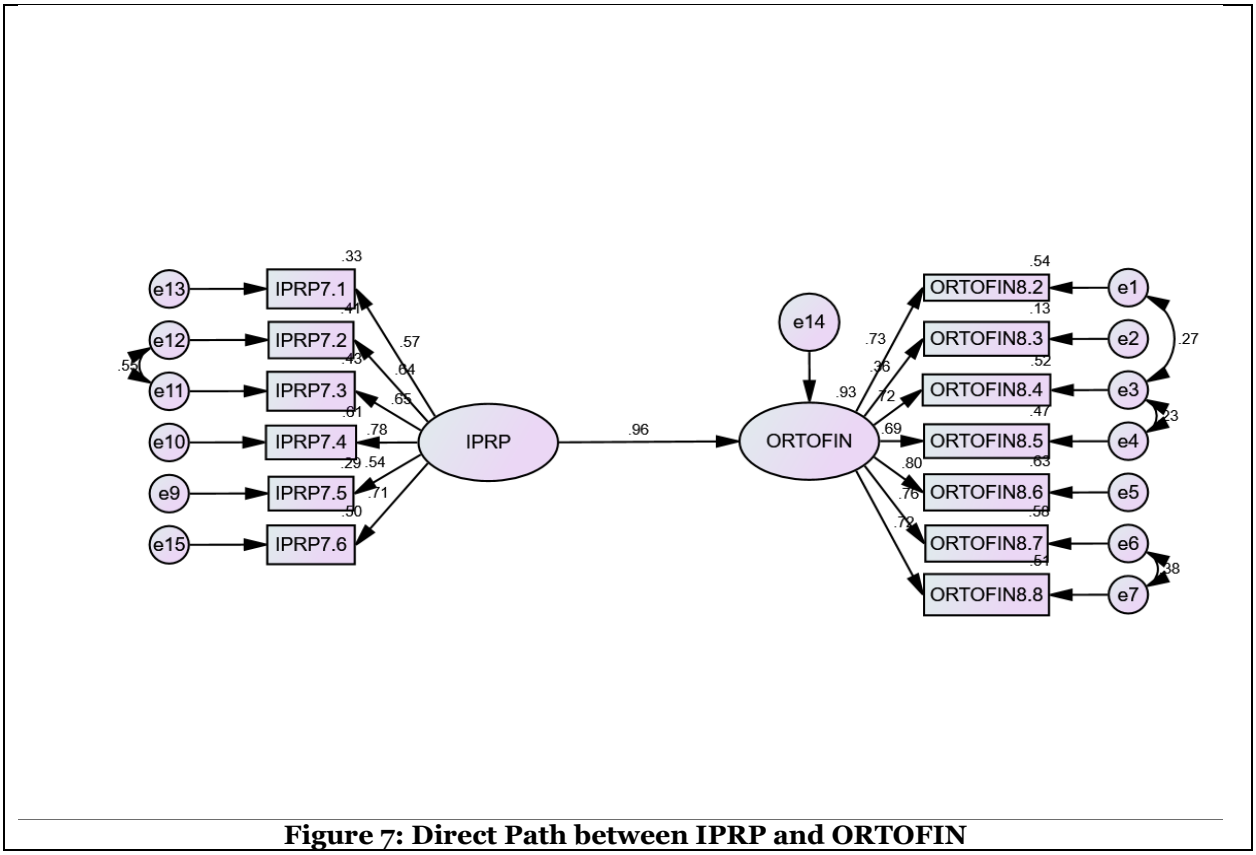

Figure 7: Direct Path between IPRP and ORTOFIN

Source: AMOS 23.0 output

Table 8: Regression Weights: IPRP and ORTOFIN

Direct Path			**Unstandardised Estimate**	**Standardised Estimate**	**S.E.**	**C.R.**	**P**	**Results**
ORTOFIN	<---	IPRP	1.205	.963	.110	10.970	***	Significant Rejected $H0_1$

Source: AMOS 23.0 output

It is clear that the sig value is *** (0.000) (less than 0.05), hence direct path between IPRP and ORTOFIN is significant, therefore the first null hypothesis H01 is rejected. As a results, it can be concluded that there is a significant effect of Investment Pattern-Risk Profiling (IPRP) on the Orientation Towards Finance (ORTOFIN). *(See **Table 8:** Regression Weights: IPRP and ORTOFIN)*

4.2.2.2.2.1 Case I On the introduction of SBSI in between IPRP and ORTOFIN

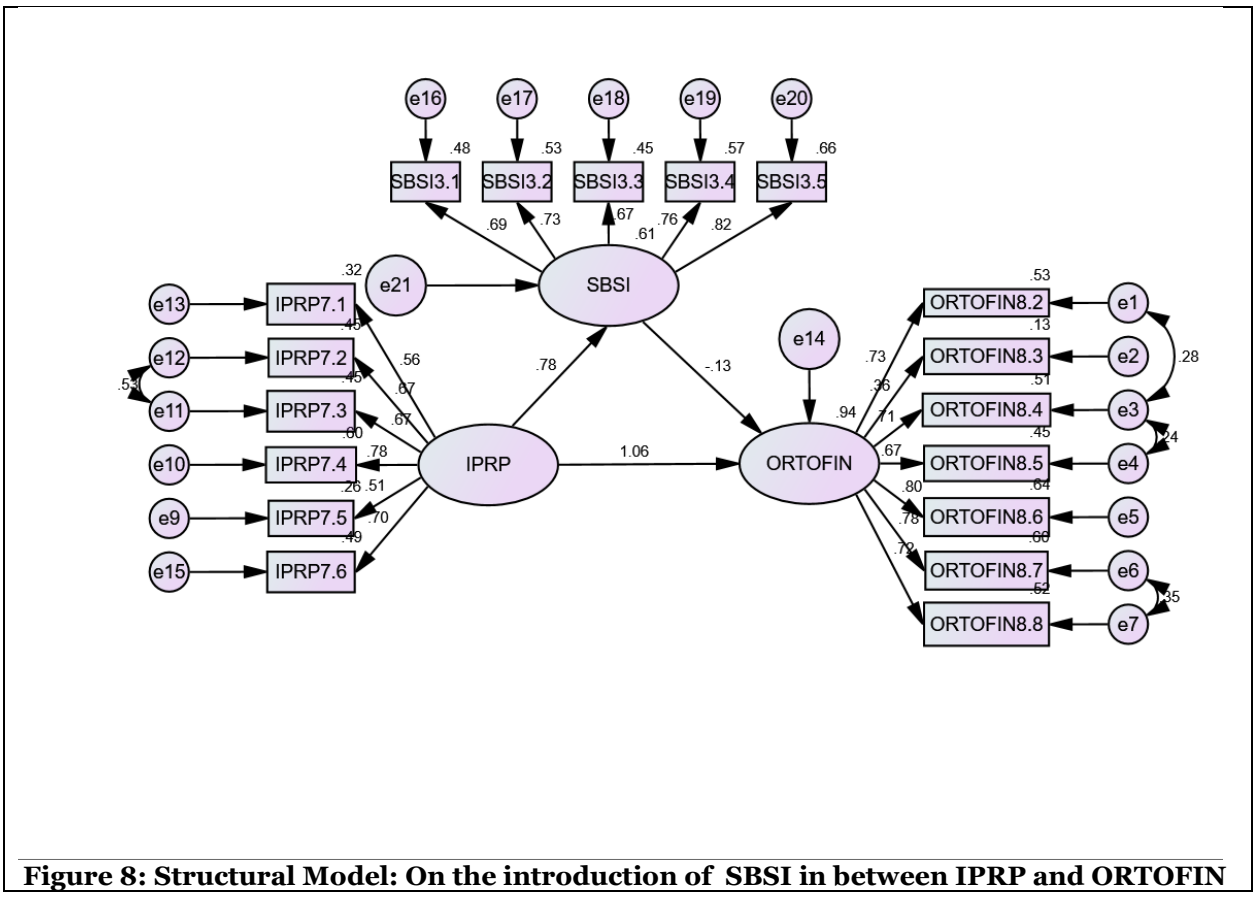

Figure 8: Structural Model: On the introduction of SBSI in between IPRP and ORTOFIN

Source: AMOS 23.0 output

Table 9: Final Results Case I On the introduction of SBSI in between IPRP and ORTOFIN

Effect	Standardised Estimation	P Value	Results	Mediation Results
Total Effect	0.964	0.006	Significant	No Mediation
Direct Effect	1.064 (Increased from 0.964 to 1.064)	0.006	Significant	Accepted Ho_2
Indirect Effect	-0.100 (0.964-1.064)	0.064	Near to significant	

Source: AMOS 23.0 output

It is clear from the table 9 that on the introduction of SBSI in between IPRP and ORTOFIN, the still the direct effect between IPRP and ORTOFIN is significant, therefore it can be concluded that there is no mediation of SBSI in between IPRP and ORTOFIN. The second point to be noted that regression weight should be reduced but here it is increased, therefore negative regression weight in the indirect effect row. Since the second null hypothesis Ho_2: Savings Behavior-Savings & Investment (SBSI) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN), hence it is safe to accept second null hypothesis, therefore it can be concluded that Savings Behavior-Savings & Investment (SBSI) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN) *(**Table 9:** Final Results Case I On the introduction of SBSI in between IPRP and ORTOFIN)*

4.2.2.2.2.2 Case II On the introduction of SBCSM in between IPRP and ORTOFIN

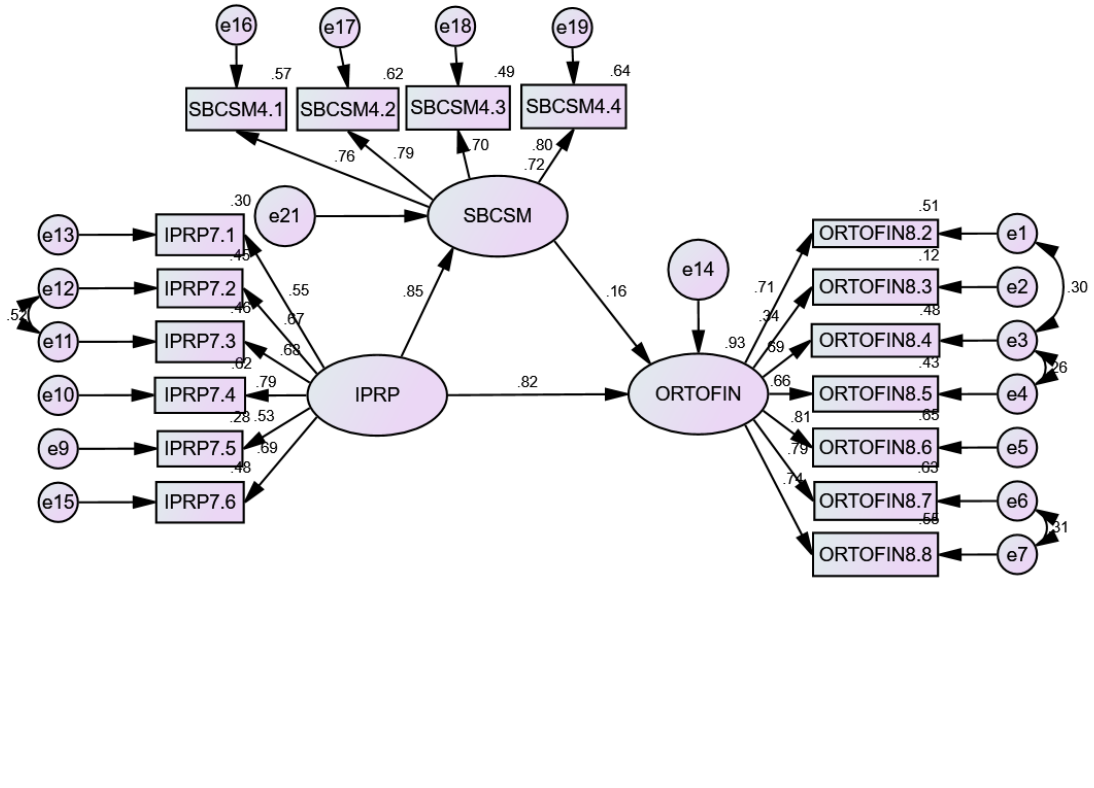

Figure 9: Structural Model: On the introduction of SBCSM in between IPRP and ORTOFIN

Source: AMOS 23.0 output

Table 10: Final Results Case II On the introduction of SBCSM in between IPRP and ORTOFIN

Effect	Standardised Estimation	P Value	Results	Mediation Results
Total Effect	.959	0.005	Significant	Partial Mediation
Direct Effect	.819(reduced from 0.959 to 0.819)	0.007	Significant	
Indirect Effect	.140 (0.959-0.819)	0.257	Insignificant	Rejected Ho_3

Source: AMOS 23.0 output

It is clear from the table 10 that on the introduction of SBCSM in between IPRP and ORTOFIN, the regression weight is reduced from 0.959 to 0.819) and still the direct effect between IPRP and ORTOFIN is significant, therefore it can be concluded that there is a partial mediation of SBSI in between IPRP and ORTOFIN. Since the third null hypothesis Ho_3: Saving Behavior-Cash Management (SBCSM) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN), hence it is safe to reject third null hypothesis, therefore it can be concluded that Behavior-Cash Management (SBCSM) partially mediates between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN). (***Table 10:*** *Final Results Case II On the introduction of SBCSM in between IPRP and ORTOFIN)*

4.2.2.2.2.3 Case III On the introduction of SBCRDM in between IPRP and ORTOFIN

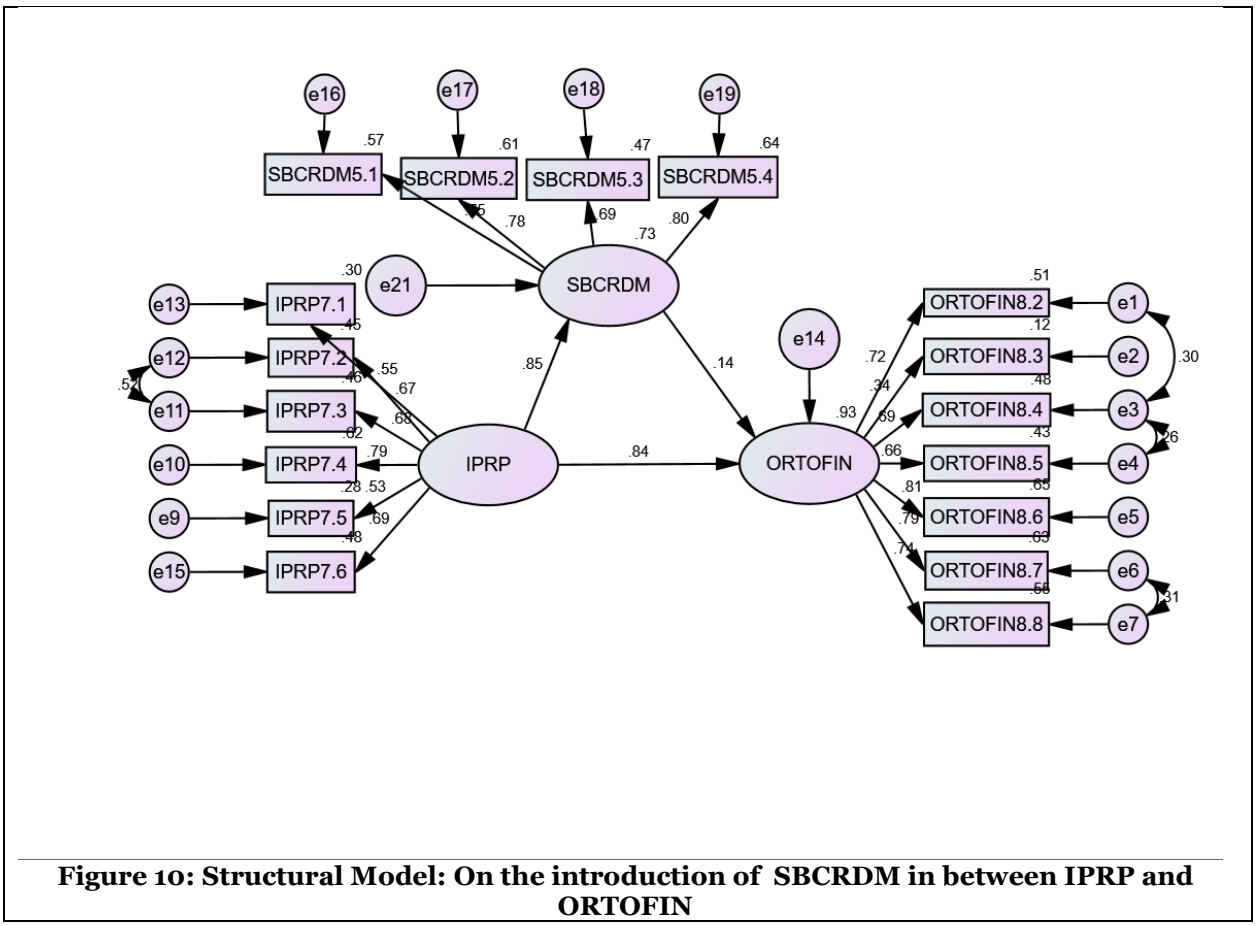

Figure 10: Structural Model: On the introduction of SBCRDM in between IPRP and ORTOFIN

Source: AMOS 23.0 output

Table 11: Final Results Case III On the introduction of SBCRDM in between IPRP and ORTOFIN

	Standardised Estimation	P Value	Results	Mediation Results
Total Effect	.959	0.005	Significant	Partial Mediation Rejected Ho_4
Direct Effect	.838(reduced from 0.959 to 0.838)	0.008	Significant	
Indirect Effect	.121 (0.959-0.838)	0.354	Insignificant	

Source: AMOS 23.0 output

It is clear from the table 11 that on the introduction of SBCRDM in between IPRP and ORTOFIN, the regression weight is reduced from 0.959 to 0.838) and still the direct effect between IPRP and ORTOFIN is significant, therefore it can be concluded that there is a partial mediation of SBCRDM in between IPRP and ORTOFIN. Since the fourth null hypothesis Ho_4: Saving Behavior-Credit Management (SBCRDM) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN), hence it is safe to reject fourth null hypothesis, therefore it can be concluded that Saving Behavior-Credit Management (SBCRDM) partially mediates between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN). (***Table 11:*** *Final Results Case III On the introduction of SBCRDM in between IPRP and ORTOFIN)*

4.2.2.2.2.4 Case IV On the introduction of SBINS in between IPRP and ORTOFIN

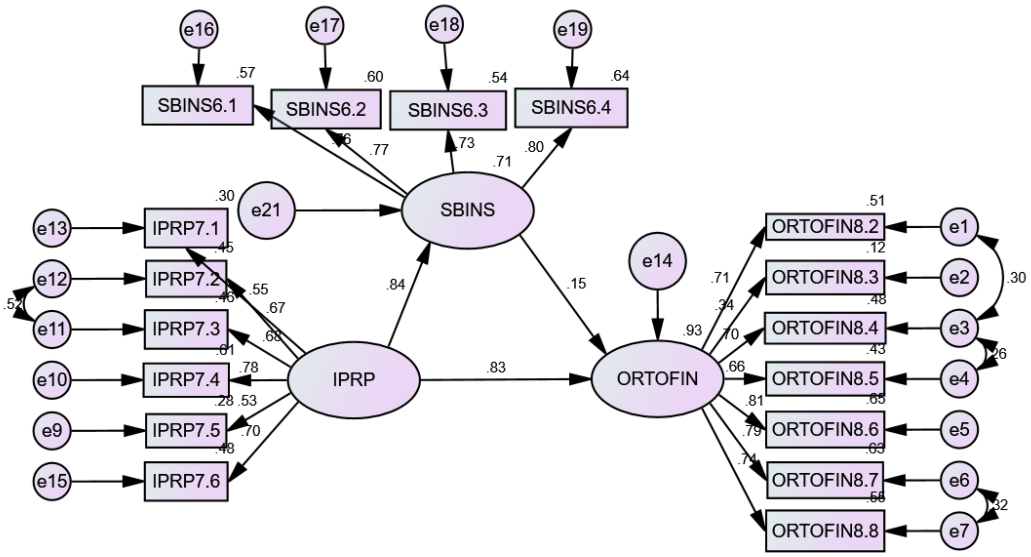

Figure 11:Structural Model : On the introduction of SBINS in between IPRP and ORTOFIN
Source: AMOS 23.0 output

Table 12: Final Results Case IV On the introduction of SBINS in between IPRP and ORTOFIN

Effect	Standardised Estimation	P Value	Results	Mediation Results
Total Effect	.959	0.005	Significant	Partial Mediation Rejected Ho_5
Direct Effect	.829(reduced from 0.959 to 0.829)	0.007	Significant	
Indirect Effect	.130 (0.959-0.829)	0.321	Insignificant	

Source: AMOS 23.0 output

It is clear that on the introduction of SBINS in between IPRP and ORTOFIN, the regression weight is reduced from 0.959 to 0. 829) and still the direct effect between IPRP and ORTOFIN is significant, therefore it can be concluded that there is a partial mediation of SBINS in between IPRP and ORTOFIN. Since the fifth null hypothesis Ho_5:Saving Behavior-Insurance (SBINS) does not mediate between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN), hence it is safe to reject fourth null hypothesis, therefore it can be concluded that Saving Behavior-Insurance partially mediates between Investment Pattern-Risk Profiling (IPRP), and Orientation Towards Finance (ORTOFIN). (***Table 12:*** *Final Results Case IV On the introduction of SBINS in between IPRP and ORTOFIN)*

Table 13: Comparison of the Four Mediation Effect

Cases	Effect	Change in Regression Weight	P Value	Results	Mediation Results
Case I Mediation of SBSI in between IPRP and ORTOFIN	Indirect Effect	-0.100	0.064	Near to significant	No Mediation
Case II: Mediation of SBCSM in between IPRP and ORTOFIN	Indirect Effect	.140	0.257	Insignificant	Partial Mediation
Case III: Mediation of SBCRDM in between IPRP and ORTOFIN	Indirect Effect	.121	0.354	Insignificant	Partial Mediation

Case IV: Mediation of SBINS in between IPRP and ORTOFIN	Indirect Effect	.130	0.321	Insignificant	Partial Mediation

Source: AMOS 23.0 output

It is clear that SBSI has no mediation between IPRP and ORTOFIN whereas all the other three construct SBCSM, SBCRDM, and SBINS have the partial mediation between IPRP and ORTOFIN. Since the highest change in the regression weight is 0.140 for the SBCSM, hence it can be concluded that SBCSM is the most influencing mediating latent variable in between IPRP and ORTOFIN. (***Table 13:*** *Comparison of the Four Mediation Effect*)

6.0 Conclusion

Finally, this study concluded that SBSI has no mediation effect between IPRP and ORTOFIN whereas all the other three construct SBCSM, SBCRDM, and SBINS have the partial mediation effect between IPRP and ORTOFIN. Since the highest change in the regression weight is 0.140 for the SBCSM, hence it can be concluded that SBCSM is the most influencing mediating latent variable in between IPRP and ORTOFIN.

Conflict of interest

The authors declare that they have no competing interests.

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Authors contributions section

This work was carried out in collaboration with all authors. All the authors contributed to the paper equally. The literature review, methodology, data analysis, discussion, and conclusion are written by .....and ..... The introduction of the study, data collection, and formatting of the paper is done by ..... All authors read and approved the final manuscript.

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