



# FINANCIAL LITERACY, INVESTMENT BEHAVIOR AND DECISION- MAKING: A STUDY AMONG PENSIONERS IN SULTANATE OF OMAN

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**Abstract:** Financial literacy is one of the crucial step for proper and intelligent planning of funds in order to secure life after retirement. This paper examines the financial literacy of pensioners about awareness of financial products, current investments and the problems encountered during investment. Data are obtained from pensioners using a structured online bilingual questionnaire. The findings showed that the pensioners' financial literacy is low, and mainly they invest in traditional investment portfolios such as savings account, gold and chit funds. Investments are not supported by financial knowledge and literacy. We suggest that institutional support be provided to pensioners on available investment avenues through workshops and other modes of information sharing for better investment behavior and better decision-making.

**Index Terms** - Financial Literacy, Investment Behaviors, Pension benefits and Investment Decisions.

## 1.INTRODUCTION

Advancements in health care services and introduction of newly technology driven health systems has enhanced the life of humans at a rapid rate since few decades. According to a survey reported by OECD the average life of men and women has hiked now up to 83.1 years and 86.6 years respectively. Besides this, according to survey reported by United Nations, there will be a hike of approximately 20 % by 2050 in population of people above 60 years. It shows that long life and lesser working lives have drastically increased retirement life years. Individuals were given the responsibly of securing their life after retirement in terms of financial stability (Lusardi, 2009). Better financial decisions are the outcome of financial literacy. OECD (2005) considered financial literacy as essential for planning retirement life. It certainly affect retirement planning behavior, entailing planning, saving and investment management (Hauf et al. 2020).

A number of studies had done in the context of financial literacy in terms of various strata of society, for instance, students (Abdullah et al. 2017; Karaa & Kugu, 2015; Thapa & Nepal, 2015) and entrepreneurs (Sucuahi, 2013). Financial literacy can be written in other words that everyone is free and capable to take their decisions related to finance. OECD (2005) explained that financial literacy is not limited to the knowledge, risks, and understanding of financial concepts. Lusardi (2019) mentioned about financial literacy as a skill to strongly take financial decisions, thereby improving the individuals' financial well-being, of the society and empowering involvement in economic life. Individuals with adequate financial literacy can make effective

decisions regarding the utilization of financial products and services since they know how to evaluate the risk and enhance the return of their investment.

It is gathered that financial literacy has deep correlation with the preferences of salaried persons for investment purposes. Cecchi (2016), pointed out that individuals' knowledge of risks and returns can also affect their decision to invest and spend their pensions. Again a strong and positive relationship was gathered between literacy of finance and decisions of investments by Al Tamimi & Anood (2009). In addition to this, Carlsson Hauf et al. (2014) found that pension systems were greatly encouraged on global level and source of income after retirement found to dependent on individual savings. The savings and investment depend on the financial knowledge, attitude and availability of various saving and investments options. Lusardi and Olivia (2011) found that on the basis of empirical research financial literacy and retirement fortune build were deeply connected.

The lower financial literacy among low-paid and less educated people makes them more vulnerable to bad financial decisions. It leads to more significant strain on the families and personal finance, resulting in weak investments, retirement and spending. Making unwise financial decisions affects the individual and will lead to unpleasant consequences for society as well. Lack of financial literacy is dissuading stock ownership. Van Rooij et. al. (2011) gathered that, when the number of workers retiring from jobs increases, sound financial knowledge is essential to decide on the savings required for retirement and know the investment methods. Along this background, this paper also checks knowledge of pensioners about financial decisions in private establishments in Sultanate of Oman. Financial literacy is measured using their knowledge of various investment avenues, current investment behavior, and pensioners' concerns during investment.

## 2. Literature Review

Financial literacy refers to that knowledge which makes any individual aware as well as independent enough to plan and execute decisions of finance and investments especially in later stage of life (Nolan & Doorley, 2019). Financial literacy provides information about the type of investment plans and the actions necessary concerning each option (OECD, 2005). Sound Financial literacy positively relates to investing in the stock market or investing in job training, and so on (Li et al. 2019; Balachandra Suri, 2017; Prast&Soest, 2016; Rob Alessie, 2011). Sound financial knowledge and experience help investors invest in risky investment, yielding them high returns. Furthermore, knowledge about inflation and diversification assist in making bold and sound decisions related to investments (Mustabiret al. 2016).

In the realm of financial literacy, Goyal and Kumar (2021) found that for the purpose of retirement planning, financial literacy is a crucial factor. In other investigation, Klapper et al.(2012) found that in absence of financial knowledge, chances of early retirement increases. In addition to this, Angelici et al. (2020) found gender difference in relation to financial knowledge was another factor which leads to difference in retirements between males and females.

A study conducted by Hauff et.al. (2020) shows that retirement planning and investment management heavily depend on financial knowledge. This study is in line with (Lusardi, A.2006; Bucher-Koenen & Lusardi, 2011), wherein financial literacy positively correlates with retirement planning. Pension management effectiveness depends on many factors, for instance, knowledge on chances of survival, rates of investments, expected values, compound interest, risk management, rate of return and opportunity cost. Lusardi (2006), pointed out that lesser than one-third of fifty-plus age groups ever tried to plan for retirement. Only one-fifth of them feel that they were involved in positive retirement planning. Hammond et al. (2017) pointed out that making financial decisions more complicated when people grow older. Agarwal et al. (2009) argued that less financial knowledge is more likely that young and older people will pay higher interest rates on loans, mortgages, and credit card debts. Lusardi et al. (2009) indicate that financial knowledge among older adults is significantly less, and they also lack the knowledge of decreasing the risk. Cabral, et.al. (2022) disclosed that financial knowledge is crucial for college students in Sultanate of Oman for them to make them aware of saving money for securing future. Saving pattern of students were also dependent of other parameters such as friends and family persons. The determinants of savings behavior are future concern, their gender and age as well as allowances they have received.

Developing countries were facing a serious problem of an aging population. To ensure the well-being of older people, governments are taking several measures. Financial products are increasing in number, and often individuals invest their savings and pension benefits in various investments to secure their post-retirement life. Over the past few decades, the discussion on the financial literacy of elderly individuals while planning their post-retirement life centered on investment behavior, choices of investments options, and the motivation to invest. A majority of empirical literature argued that people in general, especially women and the less educated group, lack basic financial knowledge (Lusardi, 2011; Al-Tamimi & Anood, 2009). Specifically, Kumar et al. (2019) reviewed the existing literature on financial planning among women pensioners. They gathered due to inadequate knowledge of financial matters among women the chances of poverty increases after retirement. It is gathered by Purdamet et al. (2021) that divorced women and separated women face more financial problems as compared to old men. In this context again women of the age group of 55 to 64 years were found to have more chances of financial expenditure and bank-corrupt. In addition to this, Mushtaq et. al. found that elderly persons were parallel facing other problems such as discrimination, reduced social interaction, verbal and physical abuse, economic dependency, reduced social interaction and acts of neglect and maltreatment from families. The root cause of all these problems was found to be the breakdown of traditional and combined family system. They suggested that the government provide alternative means of living by setting elderly homes and increasing their pension allowances.

Mitchel (2006) found that persons such as women with poor education and poor income were found to face financial problems after retirement due to lack of awareness. As observed, the general trend shows a poor knowledge of financial matters among older adults. A survey conducted among old age groups of people aged 60 years and above showed that more than one-half of the respondents have admitted to having made a bad investment. Older investors depend on the financial advice of relatives, friends, family, neighbors and co-workers. More than 70% of older investors were reported of scams in their investments (Lusardi, 2012). Palmer et al. (2020) found that persons with pessimistic approach towards life also having poor knowledge of financial matters. Due to this reason, such type of persons invest only in low risk financial products for retirement purpose.

Contrary to the above empirical findings, few literatures pointed out the old-age individuals hold sound investment decision-making knowledge. For instance, [Korniotis & Kumar \(2011\)](#) found that old age individuals have more excellent investment knowledge. Their choices of investment show greater investment knowledge. Xiao et al. (2015) also expressed a similar view. According to Hershey et al. (2015), aging increases the complications of financial decisions. Older people have good financial knowledge, but their cognitive capacity decreases when they age, hindering them from making an excellent financial investment.

Butt et al. (2018) highlighted that pension providers have default strategies; retirees' expectations somehow do not match what they are providing since their strategies do not vary based on income, family size, or health conditions. Salamanca et al. (2020) got that there were various factors which greatly influence the investment decision. The changes in pension funds, like funding ratio, there is consideration of risk, which later affects the individual's decision to save. Harlow et al. (2020) found that advice of professional will effectively in better planning of retirement in terms of financial decisions. So retirement inequalities reduce if retirees consider help of financial advisors. Hershfield et al. (2011) mentioned that those who plan their post-retirement life get monetary rewards. Brown et al. (2016) also recognized that late decision making will ruin the financial management and hence it was necessary to plan accordingly to mitigate financial problems after retirement.

Investors prefer low-risk investments, and relatively high returns are expected (Jothilingam & Kannan, 2013). Eberhardt et al. (2021) observed that people spent less time for planning of retirement and lacked engagement. Hastings et al. (2020), in their study on factors causing poor financial decisions, found impatience as a financial predictor and deep relation between financial knowledge and funds generation. The obstacles to better financial planning include a lack of understanding in computing compound interest and a lack of understanding in simple economic concepts that could cause sub-optimal financial decisions. However, it isn't easy to achieve better financial returns without proper knowledge of financial markets and investments. Kavitha (2015) gathered that by spreading ample awareness with proper regulations helped investors to invest more in stock exchange. Empirical research findings also highlight that financial literacy impacts borrowing behavior; mortgages were generally resulted due to lack of literacy (Moore, 2003).

Komadaet al. (2019), in their study on views of future retirees, found that their investment decisions are shaped primarily by other factors and include the financial advice from their spouses or friends. It was found that both weak saving schemes and low age of retirement will eventually have resulted in poverty stricken

circumstances. Buchholtz et al. (2021) revealed that pension awareness in Poland is low; they lack knowledge on the contribution rates and how the system works. The main reason of low investment of retirees was late starting habit of persons. Future retirees have less long-term savings, do not use dedicated instruments, and start to save additionally far too late. Wealthier and better-educated groups are the ones having savings

The empirical literature on pensioners' investment decisions showed several important observations having policy implications. For instance, Byrne et al. (2010) gathered that persons are generally got stick themselves with the stereo-typed investment schemes. Due to this response of the customers, corporate sponsors had to plan innovatively to help pensioners to invest wisely and create more wealth through such plans. The empirical review highlights the significance of the financial literacy of pensioners. It is gathered that lack of financial knowledge were adversely affected the wealth creation of pensioners. Less number of investigations were conducted especially in middle east region in this regard.

### 3. Research Methodology

Present work of research was conducted among Public Authority for Social Insurance (PASI) pensioners in the Sultanate of Oman. PASI is a governmental organization that provides social insurance schemes for Omanis in the private sector, self-employed and employed abroad. Survey method was implemented for the purpose of data collection in the present study.

A structured questionnaire, prepared bilingual both in Arabic and English, was prepared and shared with the pensioners online, using google forms. Also, the questionnaire link has been shared with the respondents through their WhatsApp and email accounts. This study had 150 respondents.

The questionnaire included five sections. The first section focused on the demographic profile of respondents (age, location, gender, type of organization, job title, years of experience and number of dependents). Section two focused on information related to respondents' current investment. A five-point Likert scale was used to obtain information about the respondents' financial literacy in Section three. Similarly, section four focused on the investment behavior, and in section 5, the strategies to leverage investment opportunities were addressed.

This study addresses the research gap and evaluates the financial literacy of pensioners in the Sultanate of Oman. Specifically, this paper explains financial literacy by examining the investment behavior of pensioners, their knowledge about the various investment products, the problems encountered during investment.



Figure 1 shows the conceptual framework indicating different factors that are responsible to increase the financial literacy of pensioners.

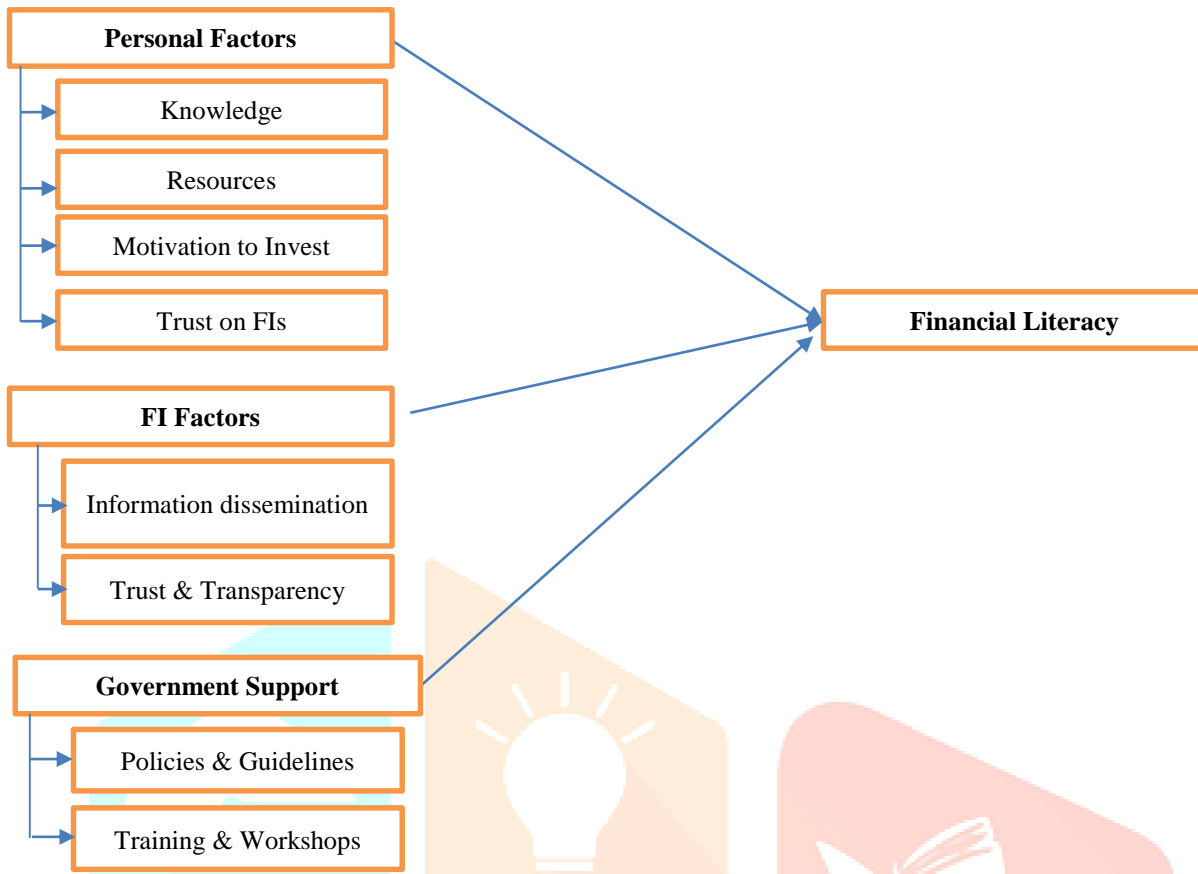


Figure 1: Conceptual Framework

## 4. Results and discussion

### a. Characteristics of Respondents

Table 1 depicts 39.29% of pensioners belong to 51-60 years. 56.36% of the pensioners were male, and the remaining 43.64% were female. The highest percentage of pensioners (35.19%) holds a secondary school certificate; the remaining hold a diploma (14.81%), bachelor (16.67%), master's (16.67%) and other qualifications (16.67%). 80% of the pensioners were employed in private organizations, while the remaining were self-employed (13.33%) and employed abroad (6.67%). 44.19% of the pensioners worked in lower-level management positions, while 34.88% were in middle management and 20.93% were in top management positions. Consistent with this, the highest percentage of pensioners (48.21%) received pension between OMR200 and OMR700, while 28.57% received pension between OMR701 and OMR1,200. 63.16% of the respondents are currently engaged in private jobs, while 36.84% are in the business now. An overall evaluation of the demographic profile shows that they represent the overall characteristics of the population in terms of their age profile, pension benefits, occupation history, etc.,

Table 1: Demographic Profile

Age Group	Frequency	Percentage
<b>Less than 41 years</b>	12	19.64
<b>41-50 Years</b>	8	12.50
<b>51-60 Years</b>	24	39.29
<b>61-70 Years</b>	16	25.00
<b>above 70 Years</b>	2	3.57
Gender		
<b>Male</b>	35	56.36
<b>Female</b>	27	43.64
Qualification		
<b>Secondary</b>	22	35.19
<b>Diploma</b>	9	14.81
<b>Bachelor</b>	10	16.67
<b>Master</b>	10	16.67
<b>Other Qualification</b>	10	16.67
Employment History		
<b>Private</b>	50	80.00
<b>Business</b>	8	13.33
<b>GCC</b>	4	6.67
Position before retirement		
<b>Top Management</b>	13	20.93
<b>Middle Management</b>	22	34.88
<b>Lower Level position</b>	27	44.19
Pension benefit (in OMR)		
<b>200-700</b>	30	48.21
<b>701-1200</b>	18	28.57
<b>1201-1700</b>	4	7.14
<b>1701-2200</b>	4	7.14
<b>Above 2200</b>	6	8.93

The demographic characteristics of pensioners help to gauge their financial literacy. For instance, Sucuahi (2013) found that educational attainment determines financial literacy, while gender is not a significant predictor. Karaa and Kugu (2016) confirmed the influence of educational attainment; however, they asserted that gender is also a significant predictor of knowledge of finance management. Yong and Tan (2010) also confirmed that gender is a significant predictor of the financial literacy of individuals. Similarly, several literatures argue that people in general, especially women and the less educated group, lack basic financial knowledge (Lusardi, 2011; Al-Tamimi & Anood, 2009).

#### 4.2 Investment decision of pensioners in terms of different types of financial products

Table 2: Types of financial products and investment decisions

Investment	% of total pensioners	Investment (last two years) % of total pensioners
<b>Stocks and Shares</b>	12.90	11.29
<b>Savings Account</b>	38.71	14.52
<b>Credit Card</b>	27.42	8.06
<b>Insurance</b>	19.35	14.52
<b>Chit Funds</b>	12.90	12.90
<b>Mutual Funds</b>	11.29	11.29
<b>Gold</b>	17.74	12.90
<b>FOREX</b>	6.45	6.45
<b>Real Estate</b>	20.97	19.35
<b>Other Investments</b>	14.52	6.45

Table 2 shows that most pensioners invest in typical portfolios such as saving account 38.30%, gold (17.02%) and real estate 21.28%. At the same time, 27.66% of respondents hold a credit card or took bank loans for different purposes. Therefore, it indicates that most pensioners still use banking and real estate products, while is not much aware of other investment avenues such as forex that got lowest frequency percentage of 6.38%, followed by mutual funds, which is 10.64% which indicated a low level of awareness on capital market and other investment avenues. The percentage of pensioners with bank loans and credit cards (27.66%) is significant. In addition, the majority of the pensioners have their funds in a savings account, which is not fetching any returns. Therefore, the analysis shows that the pensioners need awareness of various investment types that can fetch regular returns or results in capital appreciation in a more extended period.

### 4.3 Financial Knowledge

Table 3 shows the pensioners' knowledge of various financial products and services.

Financial products/services	Mean	SD	Description
<b>Bank Loans</b>	2.96	1.36	Minimal Knowledge
<b>Stocks and Shares</b>	2.88	1.21	Minimal Knowledge
<b>Savings Account</b>	3.38	1.24	Adequate Knowledge
<b>Credit Card</b>	2.44	0.97	Lack of Knowledge
<b>Insurance</b>	3.37	1.18	Adequate Knowledge
<b>Chit Funds</b>	3.28	1.34	Adequate Knowledge
<b>Mutual Funds</b>	2.95	1.26	Minimal Knowledge
<b>Gold</b>	3.31	1.17	Minimal Knowledge
<b>FOREX</b>	2.50	1.06	Lack of Knowledge
<b>Real Estate</b>	3.64	1.03	Adequate Knowledge

Two significant inferences are drawn based on this analysis. First and foremost, pensioners' investment decisions are not based on expert knowledge of financial products. The second inference is that the lack of knowledge prevents pensioners from making active investments in various financial products. This result is supported by the study of (Bhushan, 2014) when he revealed the financially literate individuals could make effective decisions regarding the utilization of instruments of finance since they know how to evaluate the risk and enhance their return investment. Danso (2019), using a similar study among pensioners in Ghana, found that the financial knowledge of pensioners is low. This is also evident in the present analysis. On a five-point scale, the highest mean is 3.64 and focuses on pensioners' knowledge in real estate.

**Table 4: Financial literacy and knowledge on economic factor components**

Statements	Mean	SD	Interpretation
<b>I used to compare different investment avenues and decide based on return on investment (ROI)</b>	3.33	1.20	Agree
<b>The bank where I am depositing my money provides regular updates about interest rates they are offering</b>	2.90	1.40	Disagree
<b>Seminar/networking/social media helped me understand the interest rate and expected return of investment.</b>	3.31	1.28	Agree
<b>I monitor the price of basic and essential goods like (food, grocery items, and oil.)</b>	3.70	1.19	Agree
<b>I prefer to invest in low-risk investments, even with a lower return.</b>	3.25	1.42	Agree
<b>I know how to manage the types of risks in my investments</b>	3.06	1.23	Agree

<b>I prefer to receive more updates on investment avenues from investors.</b>	3.66	1.18	Agree
<b>My pension is not enough to avail investment opportunities.</b>	3.61	1.57	Agree
<b>I am aware of the latest offers of the banks regarding loans that I can avail myself.</b>	2.43	1.29	Disagree
<b>I have sufficient knowledge of the various policies offered by insurance companies in Oman.</b>	2.64	1.19	Disagree
<b>I have a different investment in Capital Market.</b>	1.94	1.20	disagree

Inference based on the above result presumes that the lack of knowledge on interest rates and other returns prevents the pensioners from comparing the benefits from different investment avenues. Likewise, pensioners are unsure about regular updates given about interest given by the bank where they deposit their money. Therefore, it implies minimal knowledge about the advertisement bank financial institutions regarding the returns on deposits. Therefore, we suggest offering institutional support to pensioners by providing continuous updates on investment avenues, benefits and risks from various investment avenues.

As presented, it showed that most pensioners agreed that their pension is not sufficient to take advantage of the investment opportunities available, proven by a mean score of 3.61. Furthermore, it showed that most respondents (PASI Pensioners) do not have sufficient knowledge about the latest offers given by the banks on loans they can gain. Likewise, they do not have sufficient knowledge of the various policies offered by insurance companies in Oman. The respondents also disagreed that they have any investment in the capital market. The overall result indicated that respondents have minimal knowledge regarding support from other financial institutions by the weighted mean average score of 2.34. Financial institutions such as banks, insurance companies, MSM, etc., should find ways to disseminate information related to their investment avenues to the general public.

#### 4.4 Investment behavior

Table 5: Investment Behavior: Motivation to invest

Statements	Mean	SD	Interpretation
<b>I invest my pension funds because of the financial rewards that I will get.</b>	2.79	1.33	Neutral
<b>I invest because of the influence of other successful investors I know.</b>	2.75	1.17	Neutral
<b>I invest because of the security of the investments available.</b>	2.94	1.09	Neutral

Financial rewards, learnings from other investors and security are cited in this research as basic motivations for investment. None of these variables is reported to influence the pensioners in their decision-making. As explained in the previous section, this does not mean that these factors are not necessary at all instead of ,these factors are not contributing any impact as a significant motivating factor among the majority of respondents. The table showed that the respondents are undecided about the level of behavior to invest in terms of motivation is low, and they are less motivated to invest, proven by an overall weighted mean average of 2.83.

Table 6: Investment behavior: Attitude and Perception

Statements	Mean	SD	Interpretation
<b>I believe that investing is beneficial for the future of my family and me.</b>	3.50	1.27	Agree
<b>I am not afraid to invest and take the risk in investing.</b>	2.71	1.23	Neutral
<b>I feel tired of checking and monitoring my investments.</b>	2.96	1.10	Neutral

As presented, it showed that the majority of the pensioners agree that investing is beneficial for the future of their family and themselves, it implies that the participants have optimistic approach and perception about the future effect of investing and they are future-oriented with (3. 50) average mean score. However, they are not



sure whether they are afraid to risk investing, which may be due to their lack of financial literacy on economic variables. Therefore, they are less favorable in checking and monitoring their investments. Therefore, the overall result indicated that respondents Investment Behavior in terms of attitude and perception is less optimistic, with a weighted mean score of 3.06. Rating on the following two statements explains the pensioners' view on the trust in financial institutions. First, the results show that pensioners are not sure whether the financial institutions in Oman are transparent and professional.

**Table 7: Investment behavior: Trust on financial institutions.**

Statements	Mean	SD	Verbal Scale
1 FIs in Oman are transparent; hence I have confidence in investing.	2.60	1.09	Not sure
2 The people whom I invest in are professional and reliable.	3.05	0.98	Agree

This is quite thought-provoking. There should be continuous interaction between the financial institutions and the general public. The overall result indicated that pensioners have low trust in the financial institutions, as explained by the mean score of 2.83.

#### 4.5 Problems encountered by pensioners

The pensioners encountered various challenges in their investment decisions as they revealed it in the questionnaire distributed. The ranking method of top three significant challenges was done based on the respondents responses.

**Table 8: Problems experienced and identified by pensioners.**

Problems identified	%	Rank
<b>Pension is not enough</b>	38.09	1
<b>Lack of guidance in investing</b>	28.57	2
<b>Lack of investment opportunities</b>	19.05	3

As presented in the table, 38.09% of pensioners rated that their pension is inadequate for investments. In addition, 28.57% of pensioners complained about the lack of guidance and support, while 19.05% rated the lack of investment opportunity as the major challenge they faced. Yong & Tan (2021) suggested that more awareness programs are needed to improve financial literacy. Similarly, Danso (2019) found that through organizing different seminars and workshops were found to be highly beneficial for better understanding of financial management and investment of pensioners for their financial stability.

#### 5. Conclusion and Recommendations

It is found that due to increased awareness of investment procedures have led to better financial stability of individuals. In this paper, we examined the investment behavior of pensioners to understand their level of financial literacy and problems encountered in investment. Literacy of pensioners was found to be very low in terms of finance management. Poor financial knowledge influence pensioners' ability to secure future after their retirement; lack of knowledge about financial schemes is related with poor planning of retirement. The pensioners have invested in various investment portfolios; however, their investments are not based on proper market knowledge, interest rates, risks, financial institutions, etc. In addition, pensioners are not adequately guided to take advantage of investment opportunities in the market. Their investments are primarily in chit funds and other traditional investment avenues.

We recommend more workshops and training for pensioners for enhancing financial knowledge to plan retirement life effectively. In addition, this study recommends an institutional framework to support pensioners by providing financial updates and assisting them in their investment decision-making.

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