Does Demography & Socio-Economic Status Influence Investment Motives?

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Research Article

Keywords: Demography, Socio-economic status, Investment motives

DOI: https://doi.org/10.21203/rs.3.rs-431860/v1

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Abstract

Research studies in the past have analyzed the significance of demographic and socioeconomic status influencing investment preference and behavior. However, no study has focused on analyzing their impact on ‘Investment motives’. Hence, this study examines the investment motives and analyzes the significance of the impact of demographic and socioeconomic factors on investment motives. The study uses factor analysis and Multivariate analysis of variance (MANOVA) for this purpose. The data are collected from 753 investors through a structured questionnaire. Results of the study show that investment motives are grouped into six categories i.e., nature of the investment, future financial needs, investor characteristics, safety and stability, investor behavior, and investor options. Further, there exists a main effect of employment, marital status, location, and the number of earning members on investment motives. Likewise, there exists an interaction effect of age and location, gender and income, and age and income on investment motives. The study adds to the existing literature by comprehensively analyzing all the demographic, socioeconomic status with the investment motives.

Introduction

Investors widely differ in investment motives. This is primarily due to the inherent heterogeneity in the demographic and socio-economic factors like gender, age, employment, education, marital status, income, and other related socio-economic aspects like family and earning members (Campell 2006; Curcuru et al. 2009). Research studies in the past have examined the impact of demographic and socio-economic status on ‘Investment preference’ (Shafi 2014; Sarkar & Sahu 2018). Likewise, research studies have individually analyzed the impact of demographic variables like age (Maheswari & Mittla 2017), gender (Jamil & Khan 2016), education (Fachrudin KR & Fachrudin KA 2016), marital status (Lyons, Neelakantan & Scherpf 2008), and income (Bairagi & Chakraborty 2018) on investment preference. However, no study has been found to the knowledge of the researcher that examines the impact of demographic and socio-economic factors on investment motives. Hence this study adds to the existing literature by comprehensively analyzing the impact of demographic and socio-economic factors on investment motives. Investors’ demographic, socio-economic information, and the level of importance towards various investment objectives are collected through a structured questionnaire. The collected data regarding the level of importance towards various investment objectives are then analyzed using factor analysis, to aggregate it as related investment motives. Further, the aggregated investment motives are then analyzed using Multivariate analysis of variance (MANOVA) to examine for any main effect as well interaction effect of demographic and socioeconomic factors exist on the investment motives.

The paper is divided into the following sections. Section 2 discusses literature review and hypothesis development. Section 3 about research methodology. Section 4 discusses the results of the analysis and section 5 concludes with the findings of the study.

Literature Review & Hypotheses Development
**Investment Motives**

A research study by Bhuvaneswari (2012) found that liquidity, risk, and return on investment are the primary motives of investors. Likewise, Shukla (2016) found that investors give significant importance to future security. Further, investment avenue-related aspects like safety and security, periodic returns, time frame, capital gain are also considered to be very important (Harikanth & Pragathi 2012; Parmalganthi & Kumar 2015). Likewise, tax benefits are also considered important (Srividya 2009; Vijayakumar 2015). Further, a research study by Riyazahmed and Saravanaraj (2016) found that behavioral aspects like herd mentality and mental accounting significantly influences investment preference. Personality-related aspects like self-belief, confidence in managing an investment, knowledge about an investment also play a crucial role (Jiang, Peng & Yan 2020). Likewise, financial goals like children's future, retirement planning, health care, house purchase are the other factors considered by investors (Chaurasia & Vijay 2017).

**Demographic and Socio-economic factors**

Several research studies have found that gender, age, marital status, and education level have a significant influence on ‘investment preference’ (Anbar & Eker 2009; Collard 2009; Mittal & Vyas 2007; Vidya & Satheesh 2019; Shafi 2014; Sarkar & Sahu 2018). Besides, research studies of Collard (2009), Eckel and Grossmen (2008), and Croson and Gneezy (2009) found that women are risk-averse than men while choosing an investment. In contrast to this, Save (2012) found that the overall gender difference in risky investments is insignificant. Furthermore, Bajtelsmit and Bernasek (2001) add that risk aversion increases between men and women with increasing age.

Contrastingly, Aren and Aydemir (2015) found that age and marital status have no impact on investment preference. Collard (2009) found a significant impact of age and claims that investors nearing the retirement period prefer less risk while choosing an investment avenue. Likewise, Bajtelsmit and Bernasek (2001) found an increase in income level reduces risk aversion among investors. Kristjanpollar and Olson (2014) found that risk-taking decreases with age and increases with income level. Furthermore, Halko et al. (2012), Arona et al (2010), and Rooij et al (2011) found that marital status and its interaction with gender have a significant influence on investment preference. On the other hand, few research studies have found that marital status does not significantly affect investment preference (Rooij et al 2011; Halko et al 2012). Likewise, Dwyer et al. (2002) found that age has a significant influence on investment choice, while aged investors reduce risky investments like equity.

A research study by Mathanika et al. (2017) found that age, marital status, and monthly income have significant influence whereas gender and the educational level do not have a significant influence on investment preference. Like investment preference, few research studies have examined ‘Investor risk tolerance’. Subramanian and Athiyaman (2016) analyzed the impact of demographic factors on risk tolerance and found that age, education, past investment experience, and income have a significant influence on risk tolerance and gender, occupation does not have significant influence. Further, Das and Jain (2014) add that gender and occupation are the most influential factors on the objectives of the
investment. Poh and Yuen (2007) found that income, investment experience, and self-perceived skills have a significant influence on ‘Investor behavior’.

Chandra (2017) found that gender, age, education, income, and investment level determine ‘Investor behavior’, and marital status and occupation are found to be insignificant. Besides, quite a few research studies have found the significance of specific demographic factors such as risk-seeking (Barber & Odean 2001; Barber & Odean 2008), longevity (Mas & Rull 2014), income premium (Light 2004) to be significant influencers on investor behavior.

It is observed from the past literature that demographic and socio-economic factors have a significant influence on investment decisions concerning preference and behavior. However, no research work examined the level of impact on ‘Investment motive’. Hence, in this study factors like gender, employment, education, age, marital status, family type, location, ownership of the residence, family size, earning members and income level are considered to examine the level of influence on the investment motives. Further, the interaction effect of demographic and socioeconomic variables is also tested to examine the significance in influencing investment motives.

The following hypotheses are framed for the analysis purpose:

\[ H_{01} : \text{There is no significant main effect of demographic and socioeconomic variables on each of the investment motives.} \]

\[ H_{02} : \text{There is no two-way interaction effect among demographic and socioeconomic variables on each of the investment motives.} \]

**Methodology**

A Structured questionnaire is used to collect responses from 753 investors during the year 2020. The first section of the questionnaire consists of demographic information i.e., Gender, employment, education, age, marital status, location, and residence. The next section about the socio-economic status i.e., monthly income, earning members, family type, and family size. The third section collected the level of importance that investors give towards twenty-five investment objectives (Table A1) on a six-point scale (1 Strongly disagree to 5 Strongly agree).

**Results & Discussions**

*Demographic profile*

Many of the investors considered for the study are educated male, private employees aged between 26 to 55. Nearly 82% of them are married and live in the urban area. Further, the investors belong to a nuclear family with 4 members and 1 earning member with an average income ranging from ₹10000 to ₹30000 (Table 1).
Hence, the respondents' profile best represents a standard demographic and socio-economic scenario of investors in the Indian context (Bloom, 2011; Securities Exchange Board of India, 2016).

Table 1 Demographic and Socioeconomic Profile of the respondents
| Demographic - socio-economic       | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| **Gender**                        |           |            |
| Male                              | 581       | 77.2%      |
| Female                            | 172       | 22.8%      |
| Total                             | 753       | 100.0%     |
| **Employment**                    |           |            |
| Private employee                  | 338       | 44.9%      |
| Government employee               | 116       | 15.4%      |
| Business                          | 218       | 29.0%      |
| Agriculture                        | 81        | 10.8%      |
| Total                             | 753       | 100.0%     |
| **Education**                     |           |            |
| 10th Std                          | 197       | 26.2%      |
| Higher Secondary                  | 126       | 16.7%      |
| under graduation                  | 196       | 26.0%      |
| post-graduation                   | 234       | 31.1%      |
| Total                             | 753       | 100.0%     |
| **Age (in years)**                |           |            |
| Up to 25                          | 69        | 9.2%       |
| 26 to 35                          | 217       | 28.8%      |
| 36 to 45                          | 190       | 25.2%      |
| 46 to 55                          | 212       | 28.2%      |
| Above 55                          | 65        | 8.6%       |
| Total                             | 753       | 100.0%     |
| **Marital status**                |           |            |
| Married                           | 624       | 82.9%      |
| Single                            | 129       | 17.1%      |
| Divorced                          | 0         | 0.0%       |
| Total                             | 753       | 100.0%     |
| **Family type**                   |           |            |
| Nuclear family                     | 549       | 72.9%      |
| Joint family                      | 204       | 27.1%      |
| Total                             | 753       | 100.0%     |
| **Location**                      |           |            |
| Rural                             | 277       | 36.8%      |
| Semi-Urban                        | 121       | 16.1%      |
### Importance to investment objectives

The mean level of importance given by investors towards various investment objectives shows that investors give higher importance to the "safety of investments". Further, the least importance is given towards "consideration of the connection between investment options – mental accounting". Besides analyzing the investment objectives and group them as common investment motives, factor analysis is performed.

#### Table 2 average importance to investment objectives
| Investment objectives                                           | Mean | Std. Dev | Investment objectives                                           | Mean | Std. Dev |
|-----------------------------------------------------------------|------|----------|----------------------------------------------------------------|------|----------|
| Safety of investments                                          | 4.52 | 1.471    | Ability to manage an investment                                | 3.98 | 1.385    |
| Investing for Children Future                                  | 4.49 | 1.577    | Knowledge about an investment                                  | 3.97 | 1.267    |
| Investing based on Financial Responsibility                     | 4.38 | 1.313    | Stability of the return from an investment                    | 3.96 | 1.029    |
| Experience of Prior loss                                       | 4.28 | 1.685    | Riskiness of an investment                                     | 3.92 | 1.352    |
| Return on Investment                                           | 4.26 | 1.358    | Liquidity of an investment                                     | 3.9  | 1.234    |
| Tax benefits of an investment                                  | 4.21 | 1.589    | Retirement Planning purpose                                   | 3.68 | 1.658    |
| Self Confidence in Managing investments                        | 4.19 | 1.314    | Previous Investment Experience                                 | 3.65 | 1.552    |
| Periodical Returns from an investment                          | 4.19 | 1.306    | Going with Majority Decision                                   | 3.56 | 1.564    |
| Timeframe of investments                                       | 4.14 | 1.212    | Healthcare                                                     | 3.41 | 1.69     |
| Growth of an investment                                        | 4.12 | 1.467    | Uncertain Events                                               | 3.18 | 1.859    |
| Expert advice for an investment                                | 4.08 | 1.5      | House Purchase                                                | 3.12 | 1.916    |
| Self-belief in managing investments                            | 4.06 | 1.549    | Mental accounting – connection between investments            | 2.67 | 1.737    |
| Convenience of an investment                                   | 4.04 | 1.444    |                                                                 |      |          |

**Factor Analysis**

Factor analysis reduces the collected data into a few underlying dimensions. To reduce the dimensions of the investment objectives, principal component analysis is performed. The initial analysis with all the twenty-five objectives resulted in a Measure of Sampling Adequacy of .846, which indicates that factor analysis can be applied to the collected data. Only six factors have eigenvalues greater than 1. Hence, the six investment motives i.e., nature of the investment, future financial needs, investor characteristics, safety and stability, investor behavior, investor options are aggregated through factor analysis (Table 3).

**Table 3 Extracted Factors (Investment motives)**
| Factor                              | Items                                                      | % of variance exp | Factor                              | Items                                                      | % of variance exp |
|------------------------------------|------------------------------------------------------------|-------------------|------------------------------------|------------------------------------------------------------|-------------------|
| 1 Nature of investment             | · Periodical return                                       | 18.643            | 4 Safety and Stability of investments | · Timeframe                                                | 10.239            |
|                                    | · Expert advice                                           |                   |                                    |                                                            |                   |
|                                    | · Convenience                                             |                   |                                    |                                                            |                   |
|                                    | · Tax benefits                                            |                   |                                    |                                                            |                   |
|                                    | · Return                                                  |                   |                                    |                                                            |                   |
|                                    | · Growth                                                  |                   |                                    |                                                            |                   |
|                                    | · Riskiness                                               |                   |                                    |                                                            |                   |
| 2 Future financial needs           | · Uncertain events                                       | 16.223            | 5 Investors’ behavior             | · Previous experience                                      | 8.008             |
|                                    |                                                           |                   |                                    | · Prior loss                                               |                   |
|                                    |                                                           |                   |                                    | · Majority decision                                        |                   |
|                                    |                                                           |                   |                                    |                                                            |                   |
|                                    |                                                           |                   |                                    |                                                            |                   |
|                                    |                                                           |                   |                                    |                                                            |                   |
| 3 Investors’ characteristics       | · Knowledge                                               | 11.639            | 6 Investors’ options              |                                                            | 4.928             |
|                                    | · Confidence                                              |                   |                                    |                                                            |                   |
|                                    | · Ability                                                 |                   |                                    |                                                            |                   |
|                                    | · Responsibility                                          |                   |                                    |                                                            |                   |
|                                    | · Belief                                                  |                   |                                    |                                                            |                   |

Multivariate analysis of variance (MANOVA)
Investors significantly differ in the level of importance given to various investment motives. Hence, the mean level of importance expressed by the investors on each of the six factors, viz. Nature of investment, Future financial needs, Investors' Characteristics, Safety and Stability of investments, Investors' behavior aspects, and Investors' options were tested for equality among each demographic and socioeconomic variable taken for study. MANOVA is used to examine the effect of one or more independent variables on multiple dependent variables (Allen 2017).

Further, the research questions examined through MANOVA are:

1) Is there any main effect of the independent variables (demographic and socio-economic factors) on dependent variables (investment motives)?

2) Is there any interaction effect among the independent variables (demographic and socio-economic factors) on dependent variables (investment motives)?

The results on testing both the interaction and main effects show that there are significant main effects of Employment, Marital status, Location, and Number of earning members on investment motives.

Likewise, the interaction effect between Age*Location, Gender*Income, and Age*Income had a significant multivariate impact on the investment motives.

**Table 4 Multivariate Tests**
| Effect                  | Value | F      | Hypothesis df | Error df | Sig. |
|-------------------------|-------|--------|---------------|----------|------|
| Gender                  | 0.009 | 1.039\(^b\) | 6             | 657      | 0.399|
| Employment              | 0.031 | 3.418\(^c\) | 6             | 659      | .002*|
| Education               | 0.024 | 0.903  | 18            | 1977     | 0.575|
| Age                     | 0.052 | 1.458  | 24            | 2640     | 0.07 |
| Marital status          | 0.038 | 4.280\(^b\) | 6             | 657      | .000*|
| Family type             | 0.011 | 1.204\(^b\) | 6             | 657      | 0.302|
| Location                | 0.045 | 2.534  | 12            | 1316     | .003*|
| Residence               | 0.006 | .690\(^b\) | 6             | 657      | 0.658|
| Family size             | 0.041 | 1.148  | 24            | 2640     | 0.28 |
| Earning members         | 0.051 | 2.895  | 12            | 1316     | .001*|
| Income                  | 0.057 | 1.276  | 30            | 3305     | 0.144|
| Account Holding Years   | 0.036 | 1.335  | 18            | 1977     | 0.156|
| Gender \* Age           | 0.017 | 0.632  | 18            | 1977     | 0.877|
| Age \* Family type      | 0.046 | 1.281  | 24            | 2640     | 0.162|
| Marital status \* Family type | 0.015 | 1.684\(^b\) | 6             | 657      | 0.122|
| Age \* Location         | 0.153 | 2.169  | 48            | 3972     | .000*|
| Gender \* Location      | 0.014 | 0.787  | 12            | 1316     | 0.664|
| Gender \* Residence     | 0.014 | 1.566\(^b\) | 6             | 657      | 0.154|
| Gender \* Income        | 0.066 | 1.48   | 30            | 3305     | .045*|
| Age \* Income           | 0.266 | 1.534  | 120           | 3972     | .000*|

* Significant at 5% level of significance

a. Design: Intercept + gender + emp + educ + Age\(_C\) + maritalstatus + familytype + location + residence + familysize + earningmem + Income\(_C\) + gender \* Age\(_C\) + Age\(_C\) \* familytype + maritalstatus \* familytype + Age\(_C\) \* location + gender \* location + gender \* residence + gender \* Income\(_C\) + Age\(_C\) \* Income\(_C\)

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.
Although the multivariate tests show that the investment motives significantly differ across different groups of Employment, Marital status, Location, and Number of earning members, it is also needed to examine each independent variable separately for analyzing the differences across investment motives. (Kraemer & Blasey 2016).

**Test of equality of means**

**Employment**

The results of the test of the between-subject effect show that the factor Employment has a significant impact only on the Nature of investment. This implies that the investors in different employment categories have not expressed the same level of importance on the factor Nature of investment i.e., periodical return, availability of expert advice, convenience, tax benefits, rate of return, growth, and the riskiness of an investment. Government employees are attaching more importance (4.32) to these objectives than the investors in other employment categories. Research works of Gopi et al. (2018) and Geetha and Marimuthu (2019) support the findings and claim that salaried employees give more importance to the nature of investments.

**Table 5a Mean level of importance Vs Employment.**

| Factors                  | Employment |
|--------------------------|------------|
|                          | Private employee | Govt employee | Business | Agriculture |
| Nature of investment     | 4.22       | 4.32           | 3.88     | 4.01        |
| Future financial needs   | 3.68       | 3.65           | 3.48     | 3.26        |
| Investors’ characteristics | 4.15     | 4.26           | 3.94     | 4.24        |
| Safety and Stability     | 4.08       | 4.27           | 4.17     | 4.06        |
| Investors’ behavior      | 3.92       | 3.78           | 3.72     | 3.83        |
| Investors’ options       | 2.71       | 2.44           | 2.6      | 3.04        |
### Table 5b Tests of Between-Subjects Effects – Employment

| Employment                  | Type III Sum of Squares | df | Mean Square | F    | Sig. |
|-----------------------------|-------------------------|----|-------------|------|------|
| Nature of investment        | 10.672                  | 3  | 3.557       | 2.732| .043*|
| Future financial needs      | 3.417                   | 3  | 1.139       | 0.484| 0.693|
| Investors’ characteristics  | 7.131                   | 3  | 2.377       | 2.558| 0.054|
| Safety and Stability        | 1.558                   | 3  | 0.519       | 0.602| 0.614|
| Investor behavior           | 9.828                   | 3  | 3.276       | 2.284| 0.078|
| Investors’ options          | 8.838                   | 3  | 2.946       | 1.105| 0.346|

* Significant at 5% level of significance

### Marital status

Marital status has a significant impact on the investors’ characteristics and investor behavior. This implies that the investors in the two Marital status categories have not expressed the same level of importance on the factors Investors’ characteristics and Behavior aspects. Married investors are attaching more importance to these factors Investors’ characteristics (4.18) and Investor behavior (3.87) than Unmarried investors. The research work of Collard (2009) supports the findings of the study, that marital status influences the understanding and attitudes among couples towards investments and the related risk. Hence, there is a significant difference in giving importance to individual characteristics i.e., knowledge, confidence, ability, responsibility, and belief, and behavioral aspects i.e., prior loss, previous experience, and going with majority decisions.

### Table 6a Mean Level of Importance vs Marital status.

| Factors                  | Marital status |
|--------------------------|----------------|
|                          | Married  | Unmarried |
| Nature of investment     | 4.11     | 4.16      |
| Future financial needs   | 3.6      | 3.48      |
| Investors’ characteristics| 4.18    | 3.79      |
| Safety and Stability     | 4.12     | 4.17      |
| Investors’ behavior      | 3.87     | 3.62      |
| Investors’ options       | 2.72     | 2.43      |

### Table 6b Tests of Between-Subjects Effects – Marital status
| Marital status | Type III Sum of Squares | Df | Mean Square | F   | Sig. |
|----------------|-------------------------|----|-------------|-----|------|
| Nature of investment | 0.133                   | 1  | 0.133       | 0.1 | 0.75 |
| Future financial needs | 0.985                   | 1  | 0.985       | 0.42| 0.52 |
| Investors’ characteristics | 8.962                  | 1  | 8.962       | 9.64| .002*|
| Safety and Stability   | 1.574                   | 1  | 1.574       | 1.82| 0.18 |
| Investors’ behavior    | 10.186                  | 1  | 10.186      | 7.1 | .008*|
| Investors’ options     | 0.014                   | 1  | 0.014       | 0.01| 0.94 |

* Significant at 5% level of significance

**Location**

The location has a significant impact only on the Investors’ options (Mental accounting or Psychological accounting). Investor options refer to mental accounting, which is an investment bias that makes investors consider the other options available and take a less optimal decision while investing. A research study by Sachan and Chugan (2020) claims there exists a difference in bias between rural and urban investors. Hence, investors in urban areas are attaching slightly higher importance (2.84) to Investors’ options than the investors in other locations. The least importance is given by semi-urban investors (2.45).

**Table 7a Mean Level of Importance Vs Location**

| Factors               | Location |
|-----------------------|----------|
|                        | Rural    | Semi-Urban | Urban |
| Nature of investment  | 4.12     | 4.04       | 4.14  |
| Future financial needs| 3.43     | 3.5        | 3.72  |
| Investors’ characteristics | 4.08   | 4.06       | 4.16  |
| Safety and Stability  | 4.08     | 4.33       | 4.1   |
| Investors’ behavior   | 3.67     | 3.75       | 3.98  |
| Investors’ options    | 2.56     | 2.45       | 2.84  |

**Table 7b Tests of Between-Subjects Effects – Location**
No. of earning members.

The number of earning members has a significant impact on the investment motives Safety/Stability and Investors' options (Connection between investments). This implies that the investors with different Numbers of earning members in their family have not expressed the same level of importance on the Safety/Stability and Investors' options. Investors with 1 or 2 number earning members in their family are attaching higher importance (>4.14) to the factor Safety/Stability than the investors with 3 number of earning members in their family. Also, the investors with only one earning member in their family are attaching a lower level of importance (2.61) than the investors with more earning members in their family on the factor Investors' options. There is no supporting literature evidence found to validate this difference.

Table 8a Mean Level of Importance Vs Number of earning members.

| Factors                      | No. of earning members |
|------------------------------|------------------------|
|                              | 1  | 2  | 3  |
| Nature of investment         | 3.99 | 4.24 | 4.25 |
| Future financial needs       | 3.49 | 3.64 | 3.76 |
| Investors' characteristics   | 4.15 | 4.06 | 4.15 |
| Safety and Stability         | 4.14 | 4.16 | 3.99 |
| Investors' behavior          | 3.8  | 3.88 | 3.81 |
| Investors' options           | 2.61 | 2.68 | 2.95 |

Table 8b Tests of Between-Subjects Effects – Number of earning members.

| Location                                     | Type III Sum of Squares | df | Mean Square | F    | Sig.   |
|----------------------------------------------|-------------------------|----|-------------|------|--------|
| Nature of investment                         | 5.866                   | 2  | 2.933       | 2.252| 0.106  |
| Future financial needs                       | 5.131                   | 2  | 2.565       | 1.091| 0.337  |
| Investors' characteristics                   | 2.257                   | 2  | 1.129       | 1.214| 0.298  |
| Safety and Stability                         | 0.397                   | 2  | 0.199       | 0.23 | 0.795  |
| Investors' behavior                          | 8.435                   | 2  | 4.218       | 2.94 | 0.054  |
| Investors' options                           | 31.947                  | 2  | 15.973      | 5.992| .003*  |

* Significant at 5% level of significance
Interaction effects

Further to examining the main effects of demographic, socioeconomic factors, a multivariate test is performed to uncover the interaction effect of independent factors. Multivariate tests revealed that the interaction between the factors Age and Location as well as between Age and Income, Gender, and Income have a significant impact on the level of importance towards investment motives. However, to test whether these interactions have any significant impact on each of the attributes taken for study, separate univariate tests were conducted (Table 9).

Table 9 Tests of Between-Subjects Effects – Interaction effects

| Number of earning members | Type III Sum of Squares | df | Mean Square | F    | Sig. |
|---------------------------|-------------------------|----|-------------|------|------|
| Nature of investment      | 6.258                   | 2  | 3.129       | 2.403| 0.091|
| Future financial needs    | 0.762                   | 2  | 0.381       | 0.162| 0.851|
| Investors' characteristics| 0.595                   | 2  | 0.298       | 0.32 | 0.726|
| Safety and Stability      | 7.839                   | 2  | 3.92        | 4.542| .011*|
| Investors' behavior       | 0.028                   | 2  | 0.014       | 0.01 | 0.99 |
| Investors' options        | 30.674                  | 2  | 15.337      | 5.754| .003*|

* Significant at 5% level of significance
The results of the univariate test found that the interactions between Age and Location have a significant impact on the Investors' characteristics, Investors' behavior, and Investors' Options. The investors in different age groups living at different locations do not attach the same level of importance to the Investors' characteristics, Investor behavior, and Investors' Options. However, the combined effect of Age and Location does not have any significant impact on the other three investment motives.
The interactions between Gender and Income have a significant impact only on future financial needs. Male and female investors in different income categories do not attach the same level of importance to future financial needs. This is supported by the research study of Hitczenko (2016) which found that there is a significant difference based on gender and income while considering financial responsibility. However, the combined effect of Gender and Income does not have any significant impact on the other five investment motives.

The interactions between Age and Income have a significant impact on Safety/Stability and Investor behavior. Investors in different age groups under different income categories do not attach the same level of importance to the Safety/Stability and Investor behavior. Likewise, Dam and Hotwani (2017) found that there exists a significant relationship between age and income in financial planning. However, the combined effect of Age and Income does not have any significant impact on the other five investment motives.

**Conclusion**

Investors are heterogeneous concerning their demographic status i.e., gender, age, employment, education, marital status, location, residence, and socio-economic status i.e., monthly income, earning members, family type, and family size. Several research studies have analyzed the impact of demographic and socio-economic status on investor preference and behavior and found there exists a significant difference in investor preference and behavior. However, no study has examined the impact on 'Investment motive'. Hence an empirical study is performed in this research work to uncover the impact of the demographic and socioeconomic status on investment motives. Factor analysis found that the investment motives are aggregated as Nature of investments, future financial needs, investor characteristics, safety and stability, investor behavior, and investors’ options.

Further, the results of the Multivariate analysis of variance (MANOVA) found a main effect of employment, marital status, location, and the number of earning members on several investment motives. Likewise, there is a two-way interaction effect between age and location, gender and income, and age and income on the several investment motives. The findings are very much in line with the past works of literature and evidence supports the conclusion. The study adds to the existing literature by analyzing the impact of demographic and socioeconomic status on 'Investment Motives'.

Besides, the study has the following limitation. The empirical findings of the study are based on the data collected from 753 representative investors in India. Hence, it will not be exactly reflecting the empirical scenario in other geographic regions.

**Declarations**

**Participants consent:** Participants of the survey are fully informed about the purpose of the research study and given their consent to use the information for the research.
Competing interests: The authors declare no competing interests.

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**Appendix**

**Table A1**
### Investment Factors

| Investment Factors                                                                 | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------------------------------------------------------------|---|---|---|---|---|---|
| Your ability to manage an investment avenue                                       |   |   |   |   |   |   |
| Your Knowledge about the investment option                                         |   |   |   |   |   |   |
| Your Confidence level in managing the investment                                   |   |   |   |   |   |   |
| Your feeling of Responsibility for investment                                      |   |   |   |   |   |   |
| Your belief in better investment performance in future                             |   |   |   |   |   |   |
| Riskiness of an investment avenue                                                 |   |   |   |   |   |   |
| Return on investment                                                               |   |   |   |   |   |   |
| Stability of returns                                                               |   |   |   |   |   |   |
| Time frame or duration of an investment                                           |   |   |   |   |   |   |
| Safety of the money                                                                |   |   |   |   |   |   |
| Liquidity or easy marketability of an investment                                   |   |   |   |   |   |   |
| Capital appreciation (Growth) on an investment                                     |   |   |   |   |   |   |
| Tax benefits associated with investments                                          |   |   |   |   |   |   |
| Convenience or ease of purchasing an investment                                   |   |   |   |   |   |   |
| Availability of expert advice of an investment.                                    |   |   |   |   |   |   |
| Periodical return from the investment                                              |   |   |   |   |   |   |
| Planning for Children's future (Marriage, education, etc.)                         |   |   |   |   |   |   |
| Retirement planning                                                               |   |   |   |   |   |   |
| purpose |
|---------|
| House Purchase plans |
| Health care |
| Future uncertain events |
| Previous investment experience |

After a prior loss, you will become more risk-averse in choosing an investment.

You are not interested in the connection between different investment options.

You go by the decisions of majority investors while choosing an investment.