Financial risk profiling of millennials

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Abstract

Purpose – This study aims to assess the risk profile of millennial investors residing in the Delhi NCR region. In addition, the relationship between the risk profile and demographic traits of millennial investors was also analyzed.

Design/methodology/approach – Data was collected using a structured questionnaire segregated into two sections. In the first section, millennials were asked questions on socio-demographic factors, and the second section contained ten Likert-type statements to cover the multidimensionality of financial risk. Factor analysis and one-way ANOVA were used to analyze the primary data collected for this study.

Findings – The findings indicate that the risk profile of millennials is mainly affected by three factors: risk-taking capacity, risk attitude and risk propensity. Except for educational qualification and occupation, all other demographic features, such as age, gender, marital status, income and family size, seem to significantly influence the factors defining millennials’ risk profile.

Originality/value – Uncertainty is inherent in any financial decision, and an investor’s willingness to deal with these variations determines their investment risk profile. To make sound financial decisions, it is mandatory to understand one’s risk profile. The awareness of millennials’ distinctive risk profile will come in handy to financial stakeholders because they account for one-third of India’s population, and their financial decisions will shape the financial world for the decades to come.

Keywords Gen Y, Risk capacity, Risk composure, Risk profile, Risk tolerance

Paper type Research paper

Introduction

Investors’ decisions are frequently influenced by their risk and return preferences (Rai et al., 2021). The general belief is that to earn more one needs to take more risks but the likelihood of loss also increases (Anbar and Eker, 2019). Modern portfolio theory postulates that a rational investor is risk inverse and can be convinced to take higher risk if they are equivalently rewarded for it (Tahir et al., 2023). Investors are unwilling to take risk, although when faced with uncertain circumstances, risk taking becomes necessary (Lam, 2015). However, those with higher risk tolerances are more likely to receive larger rewards, in exchange for taking on more risk (Reddy and Mahapatra, 2017; Grable and Rabbani, 2023). Risk plays an eminent role in determining an investor’s choice of investment when saving for retirement, deciding on a personal or home loan from a bank, investing in physical and financial assets and portfolio diversification (Kannadhasan et al., 2016; Ahmad and Shah, 2022) (Harahap et al., 2022). Lack of knowledge of one’s risk profile could lead to suboptimal financial choices, which would prove detrimental to one’s financial future. The financial services industry and academic researchers are interested in understanding investors financial risk tolerance as financial advisors use investors risk tolerance as a basis for

The authors have no known conflict of interest to disclose.
guiding their clients in designing an investment portfolio that helps them earn optimum return (Rahman, 2020; Lawrenson and Dickason-Koekemoer, 2020). The increasing complexity of financial markets and irreversible nature of these investment decisions necessitate investors’ risk profiling.

Investors mindset with respect to risk can be thought of as residing on a continuum between two end points: people who take risk (risk-takers) and people who stay away from risk (risk averse) (Tahir et al., 2023). Risk tolerance is the maximum amount of volatility one is willing to accept when making a financial or investment decision (Sulaiman, 2012; Bannier and Neubert, 2016; Hermansson and Jonsson, 2021; Kumar et al., 2023). As defined by Werner (2008) risk aversion is:

The tendency of people to prefer outcomes with low uncertainty to those outcomes with high uncertainty, even if the average outcome of the latter is equal to or higher in monetary value than the more certain outcome. 

Risk aversion is defined as the hesitancy to accept an uncertain alternative when a certain outcome is available (Grable, 2016). Often, risk is treated as a one-dimensional concept, while in reality; it is multi-dimensional and comprises multiple elements of risk (Kannadhasan et al., 2016). In previous literature, the words profile, tolerance, capacity and attitude are often used interchangeably when assessing risk; however, all of these combinations constitute the risk profile of investors. Cordell (2001) coined the acronym RiskPACK, which comprises four elements of risk (propensity, attitude, capacity and knowledge), and has been used to assess investors’ overall risk tolerance. Thus, when assessing the risk profile, each dimension of risk must be evaluated to obtain a fair picture.

People born after the 1980s, who reached adulthood with the turn of the 21st century, are known as millennials, a generation of unique characteristics. Often referred to as digital natives, as they have seen the transition phase of the world, the shift from the market dominance of Nokia foldable phones in the 1990s to the introduction of androids in 2008, the 360° turn from the Internet being a scarce resource available only at internet cafés to it being a necessity available at just one click on your phone, and the social media dominance they have seen it all. They not only saw the ups of the Internet age but also had to live through the downturn of the financial world (Alexander and Sysko, 2013). Just when they were about to enter their working lives came the 2008 financial crisis, the unemployment rate soared, and this internet generation was left scavenging for jobs in an economy that had hit its rock bottom. This became a defining moment for their financial lives ahead as they became risk-averse (Barua and Hogan, 2018). By 2025, Gen Y will be the largest adult cohort in the market (Schawbel, 2012). Given their sheer size, millennials will have a transformative impact on the world economy (Yakoboski et al., 2018). Millennials are in their prime earning years and their personal finances are of great significance to the economy as a whole. An in-depth understanding of millennials’ risk profiles could prove advantageous for introducing financial products in line with the needs of new generations.

As per a report by Computer Age Management Services Limited (CAMS) around 7.65 million new millennial investors have entered the Indian financial market in the past five years (Dhoke, 2023). A recent upsurge in FinTech startups has made a wide range of financial products easily available through smartphones or digital platforms to this tech-savvy generation (Rodrigues and V., 2023). This changing financial landscape has shifted the risk of investment to individual investors (Thanki and Baser, 2019), and given their young age, millennials have the ability to take risk. Millennials have a higher risk tolerance than their preceding generation, Generation X and Baby Boomers (Rodrigues and V., 2023).
Consequently, knowledge of millennials risk profile is a prerequisite for financial service providers to cater efficiently to the unique investment needs of these latest entrants.

To the best of our knowledge very few studies have explored the factors influencing the risk profile of millennials, while hardly any research has been conducted in a developing country like India. The researcher raises the following research questions:

**RQ1.** What factors influence millennial investors’ risk profile?

**RQ2.** Do the factors influencing millennial investors’ risk profile vary according to their demographic characteristics?

The researcher attempted to answer the aforementioned question by collecting data from millennial investors residing in Delhi NCR region. The information was then analyzed using exploratory factor analysis and ANOVA. Our findings show three primary components of risk – risk propensity, risk attitude and risk capacity – explain the differences in the risk profiles of millennials. The risk capacity accounted for the largest difference. All other demographic characteristics, such as age, gender, marital status, income and family size, appear to have a major impact on the parameters characterizing millennials’ risk profile, with the exception of occupation and educational background.

This study contributes in the following ways. First, this study is a unique attempt to map the various factors influencing millennials’ risk profile and thus educates on the multidimensionality of risk. Second, it illustrates the impact of millennial investors’ socio-demographic characteristics on their risk profile from the perspective of a developing country, such as India. Third, the study results increase awareness of the millennials risk profile, which will prove extremely beneficial to portfolio managers and financial advisors in better serving their customers individualistically as well as aid investors in making changes in their investing habits for efficient wealth management.

The rest of this paper is structured as follows. The second section provides a theoretical foundation and a detailed review of the literature. Thereafter, the research methodology, clarifying the scale, and data collection technique used for the study are detailed. The analysis and results are presented, followed by the discussion. Finally, the conclusion of the study, along with the implications, limitations and scope for future research, are elaborated.

**Review of literature**

*Theoretical foundation*

Traditional saving and investment theories presumed investor rationality, while behavioral finance claims that investors hardly act rationally and are influenced by various behavioral biases (Zahera and Bansal, 2017; Rai et al., 2021). The prospect theory developed by Kahneman and Tversky (1979) is premised on behavioral bias, loss aversion or risk aversion, which suggests that investors behave differently when faced with the prospect of identical gains and losses. “The value function is concave for gains, convex for losses, and is generally steeper for losses than for gains indicating that losses outweigh gains” (Hon et al., 2021). The theory suggests that investors weigh the same amount of losses and gains differently, rather than considering possible gains or losses in their absolute terms they assess them from their reference point (e.g. current wealth) (Selim et al., 2015). Thus, prospect theory forms the basis for behavioral finance and finance theory by providing meaningful insights into investors’ irrationality. Previous studies document that behavioral biases (risk aversion) significantly impact irrationalities in investment decision-making (Bhatia et al., 2022; Bhuvaneswari et al., 2023). Investment decisions are predominantly influenced by risk aversion and risk perception (Hossain and Siddiqua, 2022). The study of
Nosic and Weber (2010) reported that investors’ finance-related risk mindset is shaped by their risk-taking behavior. A person’s willingness to take on risk influences the kind of assets they choose to invest in, making it a crucial predicate of their financial behavior (Hemrajani and Dhiman, 2024; Mathew et al., 2024). Thus, assessing investors’ risk profile is a prerequisite for accurately predicting their investment behavior.

Risk tolerance is “An investor’s willingness to accept uncertainty” (Grable, 2000); “An individual’s financial ability to bear losses” (Beer and Wellman, 2021). An investor’s financial decision making is significantly influenced by their risk behavior (Dohme et al., 2011; Kasoga, 2021), which indicates an investor’s willingness to partake in a decision that might have a negative or positive outcome (Boyer, 2006). An investor’s risk tolerance is influenced by multiple factors, including financial knowledge (Lusardi, 2008; Hermansson and Jonsson, 2021), economic factors (Kannadhasan et al., 2016) and personality traits (Lawrenson and Dickason-Koekemoer, 2020). In addition to financial abilities, investors’ demographic features also have a significant influence on their risk profile (Amromin and Sharpe, 2014; Bannier and Neubert, 2016).

Risk profile and demographic characteristics
Some evidence from past research concerning the influence of demographic features on the risk profile has been cited below.

Age
Age is one of the main demographic features that influence the risk profile of individual investors. The literature provides ample evidence of the negative relationship between age and financial risk tolerance. Younger respondents are more risk-tolerant than older ones (Grable and Roszkowski, 2008). Similar findings have been reported by Hallahan et al. (2004), Jianakoplos and Bernase (2006), Ahmad et al. (2011), Irandoust (2017), Anbar and Eker (2019), and Grable et al. (2020). Junior-aged millennials were identified as risk-takers because they were more likely to have an investment account or unit than senior-aged millennials (Kunafi and Akbar, 2019). Older investors are hesitant to take risks because they feel that future losses will have a detrimental effect on the financial corpus during retirement (Subramaniam and Athiyaman, 2016). Sulaiman (2012), Reddy and Mahapatra (2017), and T.S and Kumar (2020) found that with increasing age, the financial risk tolerance of individual investors also increases, thus finding evidence contrary to the common belief that age and risk are inversely related. Grable (2000) found that when it comes to financial matters, younger people are less risk tolerant than older people. Similar results have been reported by Larkin et al. (2011), and Tanyolac and Karan (2015). However, some studies find no relationship between age and investors’ risk tolerance (Geetha and Selvakumar, 2016) (Nosita et al., 2020; Muktadir-Al-Mukit, 2022):

H1. Age has a significant influence on factors affecting millennials’ risk profile.

Gender
Gender is another demographic feature most commonly used by practitioners to classify investors into different risk-profile categories. Women are less likely to take risks than their male counterparts (Aren and Zengin, 2016; Dickason and Ferreira, 2018; Lawrenson and Dickason-Koekemoer, 2020; Heo et al., 2021) (Bollen and Posavac, 2018; Rolison and Shenton, 2020). Women’s low level of risk tolerance could be attributed to their attention to detail, that is, considering each and every relevant factor when making investment decisions. In
addition, females have a tendency to prioritize the fulfillment of family needs over their personal needs, which makes them more risk-averse, so they are likely to shy away from investments that have a probability of negative pay-off (Eckel and Grossman, 2002) and would rather invest in bank deposits (Aren and Canikli, 2019). In contrast, male investors have a higher risk tolerance level (Reddy and Mahapatra, 2017; Suherman et al., 2023) and prefer stocks (Aren and Canikli, 2019). Although their overconfidence encourages them to overtrade (Barber and Odean, 2001) and thus, they are investing without giving much thought to the future consequences of undertaking risky and challenging investments (Ahmad et al., 2021). Men are more risk tolerant in comparison to women (Grable and Roszkowski, 2008; Ahmad et al., 2011; Kannadhasan, 2015; Irandoust, 2017; Somma et al., 2023). Financial risk tolerance levels do not vary significantly according to gender (Anbar and Eker, 2019; Lam, 2015; Subramaniam and Athiyaman, 2016; Karki and Kafle, 2020; Nosita et al., 2020; Muktadir-Al-Mukit, 2022):

\[ H2. \text{ Gender has a significant influence on factors affecting millennials risk profile.} \]

**Education**

Education plays a significant role in retail investors risk profiling (Larkin et al., 2011; Subramaniam and Athiyaman, 2016). Yao et al. (2005) and Sulaiman (2012) found that higher education is associated with an improved ability to appraise risk using various techniques, and thus show sophistication in differentiating between risky choices (Grable et al., 2020). Respondents with associate graduate or bachelor’s degrees had higher financial risk tolerance scores than those with undergraduate degrees (Grable and Roszkowski, 2008; Anbar and Eker, 2019). Previous literature have also reported a positive relationship between education and risk tolerance (Grable, 2000; Ahmad et al., 2011; Larkin et al., 2011; Tanyolac and Karan, 2015; Irandoust, 2017; Reddy and Mahapatra, 2017; Grable et al., 2020; Grable and Rabbani, 2023). Education does not necessarily define a person’s level of risk tolerance (Hallahan et al., 2003; Gibson et al., 2013; Karki and Kafle, 2020) (Geetha and Selvakumar, 2016):

\[ H3. \text{ Education has a significant influence on factors affecting millennials risk profile.} \]

**Occupation**

As per Anbar and Eker (2010) and Emfevid and Nyquist (2018), occupation significantly impacts one’s level of risk tolerance. Working people have a higher risk tolerance because they have discretionary income to bear losses, while unemployed people do not have such liberty (Bucciol and Zarri, 2017; Brooks et al., 2018). People working in the private sector, professionals, and self-employed people have a higher risk tolerance than those employed in the government sector (Yao et al., 2011). Studies have shown that occupation and risk tolerance are not significantly related (Subramaniam and Athiyaman, 2016; Muktadir-Al-Mukit, 2022):

\[ H4. \text{ Occupation has a significant influence on factors affecting millennials risk profile.} \]

**Marital status**

Studies concerning both aspects, that is, those showing an association between marital status and the risk tolerance/profile of individual investors, and vice versa, can be found in the literature. Sulaiman (2012) investigated the dependence/interdependence of demographic traits on risk tolerance among university employees using the FinaMetrica questionnaire.
and found that marital status was significantly associated with the risk tolerance of individual investors. Kannadhasan (2015), Tanyolac and Karan (2015), Irandoust (2017), Thanki et al. (2022) found that single people have a higher risk tolerance level than married people, whereas the exact opposite has been reported by Grable (2000), Ahmad et al. (2011) and Muktadir-Al-Mukit (2022). Aren and Zengin (2016) reported that although risk appetite is not affected by marital status alone, married women are prone to take less risk than single women, whereas married men are likely to be high-risk takers (Heo et al., 2021). Being married or single does not significantly influence the financial risk tolerance level (Hallahan et al., 2003; Larkin et al., 2011; Subramaniam and Athiyaman, 2016; Anbar and Eker, 2019):

\[ H5. \text{ Marital status has a significant influence on factors affecting millennials risk profile.} \]

**Income**

Income is another demographic trait that can be used to differentiate among individuals’ levels of risk tolerance (Sulaiman, 2012; Tanyolac and Karan, 2015; Subramaniam and Athiyaman, 2016; Irandoust, 2017; Emfevid and Nyquist, 2018). A positive relationship exists between income levels and the financial risk tolerance level of individual investors (Geetha and Selvakumar, 2016; Bayar et al., 2020) (Thanki et al., 2022; Grable and Rabbani, 2023). Grable (2000) and Hallahan et al. (2004) found that the higher the income level, the higher the risk tolerance, as one’s ability to withstand losses increases. Prior studies also report that income is not significant in determining an investor’s financial risk tolerance level (Kannadhasan, 2015; Anbar and Eker, 2019; Muktadir-Al-Mukit, 2022):

\[ H6. \text{ Income has a significant influence on factors affecting millennials risk profile.} \]

From the above literature, it is evident that researchers have studied the association between demographic features and the risk profile of retail investors in depth, but no study has focused on assessing millennials’ risk profile and its association with their demographic features, thus acting as a gap for the present study. The purpose of this study is to identify the factors constituting the risk profile of millennial investors and study the variation in these factors attributed to demographic characteristics.

**Research methodology**

The study adopted statements from Grable and Lytton (1999), Wood and Zaichkowsky (2004) and Kannadhasan et al. (2016) to design a multidimensional risk assessment instrument for assessing the different domains of risk that make up the risk profile of millennial investors. The data collection instrument consisted of a structured questionnaire divided into two segments. In the first segment, respondents were asked questions related to their socio-demographic characteristics, such as age, gender, occupation, marital status, family size, educational qualification and income. The second segment of the questionnaire focused on measuring different aspects of risk via ten Likert scale statements ranging from Strongly Disagree to Strongly Agree, which are widely used to record the respondents’ perceptions (Malhotra, 2019). Millennials residing in the Delhi NCR region formed the population for this study. Delhi is not just the capital of India, but also the first in the list of top five metropolitan cities in India. As this area is flooded with millennials from all over the country who are in search of better work and a means for upgrading their living standards, it provides a good picture of Indian Millennials. No official data were available on the number of millennials living in this region; thus, a convenience sample of 318 respondents was collected from July 2020 to December 2020. Data was collected using both online and
offline methods. For online method a google form was created and circulated to prospective respondents through various social media sites such as WhatsApp, Gmail and LinkedIn. For offline method prospective respondents were approached near their residents, workplace, malls, etc.

Data analysis
The analysis part of this study was divided into three segments. The first segment gives an overview of the socio-demographic characteristics of Gen Y. In the second segment, exploratory factor analysis (EFA) was used to identify the factors influencing the risk profile of millennials. The third segment explains how the factors identified in the second segment vary based on the demographic characteristics of Gen Y. A one-way ANOVA test was used, and the identified factors were considered as dependent variables, whereas the demographic traits were considered as independent variables for the purpose of the study.

Millennials demographic characteristics
Table S1 provides details of the millennials’ demographic characteristics. Of the respondents, 279 (88%) were in the 21–30 years age group, and 39 (12%) were in the 31–39 years age group. In total, 100 (31%) were female, and 218 (69%) were male; 132 (42%) had postgraduate degree, 98 (31%) had professional qualifications and 88 (28%) were graduates. In addition, 206 (65%) were employed in the private sector, 65 (20%) were professionals, 31 (10%) had their own business, and 16 (5%) were employed in the government sector. Of the total sample, 270 (85%) were unmarried, and 48 (15%) were married. Three-quarters (270) of the respondents lived in a nuclear family and one-fourth (81) lived in a joint family. All four categories of income had somewhat equal representation from the participants.

Millennials risk profile
The ten-Likert scale risk profile statements were coded as RP1-RP10. The reliability of these statements was verified, and the details are provided in Table S2. After obtaining satisfactory results, an exploratory factor analysis was applied to identify the factors that had an impact on the risk profile of millennials. Principal component analysis and varimax rotation were used to identify the factors that determine the risk profile of millennial investors in the Delhi NCR. The KMO and Sig values of Bartlett’s Test of Sphericity for the factor analysis were 0.689 and 0.000, respectively, thus providing evidence for the adequacy of the sample for applying factor analysis. The three extracted factors explained 60.907% of the variation in the risk profile of the millennials.

Table S3 provides details about the items loaded in each factor as well as their respective factor loadings and Cronbach’s alpha values.

Factor 1
Risk capacity is defined as the quantum of risk that an investor needs to undertake to meet his/her financial and investment objectives statements RP5, RP6, RP7, RP9 and RP10 loaded in factor 1 which has the highest total factor loading of 3.617 among the three factors. Statement RP7 focused on assessing millennials’ attitude toward risk-taking when faced with a time constraint and had the highest loading of 0.794 in the construct. The factor had a Cronbach’s alpha of 0.787 and explained 27.67% of the total variation in millennials’ risk profile.
Factor 2
This factor includes statements about the willingness of an individual to accept risk, which is defined as investors’ risk attitude. Statements RP1, RP2 and RP3 are loaded in factor 2. The total factor loading of the dimensions was 2.162. Statement RP1 had the highest loading of 0.815 in the factor aimed at gauging the respondent’s need for safety in financial terms. The factor had a Cronbach’s alpha value of 0.705 and explained 19% of the variation in millennials’ risk profile.

Factor 3
How an individual behaves when encountering financial loss in real time is referred to as the risk propensity. Statement RP4 and RP8 loaded into this factor which has a total factor loading and Cronbach’s alpha of 1.53 and 0.713, respectively, and explained 14% of the variation in millennials’ risk profile. Statement RP8 has the highest loading of 0.840 in the construct and is aimed at evaluating respondents’ comfort level when investing in risky endeavors.

Risk profile factors and demographic variables
Another question raised by the researcher in this study was whether the factors affecting the risk profile of millennials differed with reference to their demographic profile variables: age, gender, educational qualification, monthly income, family size and occupation. To test this, the mean score of the statement loading in each factor formed the dependent variable, while categorical demographic variables were considered independent variables. Thus the hypotheses proposed in the study are tested using one-way ANOVA analysis. Before applying one-way ANOVA, the assumptions of normality and homogeneity of variance were tested. A skewness value between ± 2 and a kurtosis value between ± 7 signify the normality of the data (Byrne, 2010; Hair et al., 2010). As shown in Table S4, all the variables had skewness and kurtosis values within the threshold range, thus establishing the normality of the data. Homogeneity of variance was tested using the Levene test, and a p-value > 0.05 signifies equality of variance across all categories of demographic variables. Result of Levene test and one-Way ANOVA are detailed in the section below.

Risk capacity and demographic variables
The Levene statistics p-value for all variables was greater than 0.05; thus, the premise of the homogeneity of variance was confirmed. The results of the one-way ANOVA between risk capacity and the demographic profile of the millennials indicate that the risk capacity seems to vary significantly based on the age, gender and monthly income of Gen-Y. The results of post hoc analysis using the Tukey method revealed that millennials earning between ₹50,001 and ₹100,000 (n = 91, M = 0.231, SD = 1.04) and earning above ₹100,000 (n = 57, M = 0.194, SD = 1.03) have a significantly higher risk-taking capacity in comparison to one’s earning below ₹30,000 (n = 86, M = 0.06, SD = 0.90). Table 1 indicates that millennials’ risk capacity did not vary significantly based on their educational qualifications, occupation, marital status or family size, at the 5% significance level.

Risk attitude and demographic variables
The Levene statistics p-value for all variables was greater than 0.05; thus, the premise of homogeneity of variance was confirmed. The results of the one-way ANOVA between risk attitude and the demographic profile of millennials are shown in Table 2, from which it is evident that millennials’ risk attitude did not vary significantly based on their demographic features, as the p-value for every demographic feature was greater than 5%.
Risk propensity and demographic variables

Investors' behavior in the presence of risk is referred to as their risk propensity. The results of the One-way ANOVA between the risk propensity and demographic profile of the millennials are detailed in Table 3. Except for gender, educational qualification and monthly income all variables had Levene statistics value greater than 0.05; thus, the premise of homogeneity of variance was confirmed. In the absence of homogeneity of variance, the Welch test was used as a substitute for the One-Way ANOVA. The table shows that millennials’ marital status and family size have a strong influence on their risk propensity, while the influence of other demographic traits is not statistically significant.

Discussion

At the beginning of this study, two research questions were presented that is to identify the factors influencing the millennials risk profile and whether the factors affecting Gen Ys' risk

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<th>Levene statistics</th>
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<th>df</th>
<th>Mean square</th>
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Source: Primary data

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<td>0.395</td>
<td>1.883</td>
<td>3</td>
<td>0.628</td>
<td>0.63</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>0.052</td>
<td>5.417</td>
<td>1</td>
<td>5.417</td>
<td>5.49</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Family size</td>
<td>0.269</td>
<td>8.764</td>
<td>1</td>
<td>8.764</td>
<td>8.99</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Monthly income</td>
<td>0.032</td>
<td>–</td>
<td>3</td>
<td>–</td>
<td>1.986</td>
<td>0.118</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

Financial risk profiling of millennials
profile vary with reference to their demographic characteristics. The findings revealed that of the 318 respondents, 100 were female and 218 were male and 88% were aged 21–30 years. Most of them are employed in the private sector and are unmarried. Approximately two-thirds of the millennials live in nuclear family. All income categories have a somewhat equal representation in the sample.

Sitkin and Pablo (1992) in their study defined three key dimensions of risk i.e. outcome uncertainty, outcome expectations, and outcome potential. Cordell (2001) coined the term RiskPACK to separate multicomponent risk into four categories:

1. risk propensity;
2. attitude;
3. capacity; and
4. knowledge.

Thus, the present study, instead of using the 1D assessment of risk as documented in most of the previous literature, used a multidimensional method to attain awareness of all elements influencing the risk profile and found three factors explaining the variation in the risk profile of Gen Y individuals using factor analysis. A large part of this variation is explained by the risk capacity dimension, which basically tells about the risk that needs to be undertaken to achieve one’s investment goals. Before applying EFA, the reliability of the risk profile statements has been checked and it came out to be 0.718, thus indicating an adequate level of reliability for further analysis.

ANOVA was used to study the influence of demographic features on various dimensions millennial investors’ risk profile. Three of the seven demographic factors (age, gender and income) were found to have a significant influence on millennial investors’ risk-taking capacity.

With increasing age, risk-taking capacity decreases, as older millennials are opposed to parting with their hard-earned money to invest in avenues that do not offer guaranteed returns. Rather, they focus on fulfilling their financial goals as they are nearing retirement. The literature also reports a negative relationship between age and risk tolerance, as older investors have lower confidence in their ability to gauge the financial risk of an investment product efficiently (Brooks et al., 2018). This study mirrored previous findings of Hallahan et al. (2004), Jianakopoulos and Bernase (2006), Ahmad et al. (2011), Irandoust (2017), Anbar and Eker (2019), and Kunafi and Akbar (2019). The study found that males have a higher risk-taking capacity than females, thus withholding previous findings of Ahmad et al. (2011), Larkin et al. (2011), Kannadhasan (2015), Aren and Zengin (2016) and Suherman et al. (2023). Financial advisors should try to educate women who lack investment understanding of all aspects of investing, including the risk and return involved. This will empower women to manage their risk wisely, while ensuring the achievement of their financial goals (Kannadhasan, 2015). The study finding of a positive relationship between income and risk capacity is in line with previous findings (Grable, 2000; Grable and Roszkowski, 2008; Anbar and Eker, 2010; Sulaiman, 2012; Bateman et al., 2015). Post-hoc analysis revealed that millennials earning below ₹30,000 had a significantly lower risk-taking capacity than those earning between ₹50,000 and ₹100,000 and above ₹100,000. An investor’s higher income permits them to stomach more financial losses without fear of immediately running out of money (Bertocchi et al., 2011). The study found that none of the demographic characteristics significantly influenced the risk attitude of millennials.

The third element in the risk profile, risk propensity, was significantly influenced by the millennials’ marital status and family size. Married people have a higher risk propensity, owing to their combined earnings and increased human capital (Thanki and Baser, 2019).
The results also show that married investors are more skilled at managing risk than unmarried ones, as married people are bound by societal expectations and are more experienced in handling responsibility given their family role (Muktadir-Al-Mukit, 2022). This finding contrasts with a common finding in the literature that singles are more risk-tolerant (Kannadhasan, 2015; Irandoust, 2017). The research finding that family size has a significant influence on investors’ risk propensity is in line with the previous finding of Bertocchi et al. (2011). Although an increasing number of households are becoming dual-income households with both males and females working, but still in many households males – husband/father are the sole breadwinners for the family. Thus, joint families have more mouths to feed on a limited income with a low possibility of savings and thus a low risk-taking attitude (Kantor, 2002).

Conclusion and implications
Making sound investment decisions today is no walk in the park; it is tricky and complex, and usually, inconsistency creeps in. One wrong decision could cost your hard-earned savings. To prevent this from happening, it is necessary to understand millennial investors’ risk profile. Doing so has always been arduous, but more so in the case of millennials, as they suffered severe economic disruption early in their financial lives and are thus difficult to predict. This study provides a holistic view of the risk profile of millennial investors, which will aid portfolio managers in better understanding their new clientele and advise them in choosing the right investment products to construct a financial portfolio consistent with their risk preferences and financial goals. Each person has a unique attitude and proclivity towards risk (Tharayil, 2023).

This study initiated an investigation into the risk profile of millennial investors in developing country such as India. The study focused on examining the different domains of risk from the perspective of Gen y investors and found three main elements of risk-risk capacity, risk attitude and risk propensity, elucidating the reason for variations in millennials’ risk profile. The highest variation was explained by the risk capacity. Except for educational qualification and occupation, all other demographic features, including age, gender, marital status, income and family size, seem to significantly influence the factors defining millennials’ risk profile. These discriminating factors can be used to reengineer financial products so that they align perfectly with millennials investment objectives and risk appetites. Thus, the insights provided by discriminating variables will aid portfolio managers in designing appropriate investment portfolio based on investors’ unique individualistic economic features.

The practical implications of this work are even more noteworthy than the literary ones, as it provides insight into the intricate behavioral characteristics of millennials, which will assist policymakers, government, financial service providers, and regulators in safeguarding their interests and introducing financial products in line with Gen Y’s risk profiles. Such customization will prove beneficial not just to the individual investors in achieving optimum returns but also for the financial stakeholders in retention and attraction of new customer through positive word of mouth which will help in maintaining their sustainability and profitability in the long run. The study results will also help individual investors to gain awareness of their risk profile thus enhancing their ability to create appropriate asset allocation model and making sound investment decision. Financial planners should also keep in mind that investors’ risk profile is not constant and change over time (Thanki and Baser, 2019). As shown by the study results, an individual’s socio demographic characteristics are significant in determining their risk profile. Therefore, changes in socio-demographic variables, such as an increase/decrease in income and
marriage of an individual, calls for a re-evaluation of their risk profile. Building a positive relationship between investors and managers is made easier when both parties – the financial planner and investors – are aware of the various factors having an influence on millennials’ risk profiles. This research contributes significantly to scant literature on risk profiling from the standpoint of millennial investors in a developing country.

Limitations and future research
One of the limitations of the study is that its sample consisted of respondents only from India’s capital and the national capital region; thus, the results cannot be generalized to the entire millennial Indian population. This study considered only investors’ socio-demographic characteristics, which is not the only factor influencing investors’ risk profile. Financial risk tolerance is also influenced by investors’ financial literacy (Karki and Kaflé, 2020) and personality traits (Rodrigues and V., 2023). Accordingly, further research should be conducted to study the influence of investors’ financial literacy and personality traits on their risk profile. The interplay between financial literacy, risk behavior and financial/investment behavior can also be investigated.

References


Supplementary material
The supplementary data for this article can be found online.

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