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Financial Knowledge among Police and Defence Personnel of Haryana

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ABSTRACT

Financial knowledge becomes the essence for financial management of an individual. Every person has to manage its finance in such a way so that they can get benefit in future. Management of money is not so easy that everyone can easily tackle with its issues rather than, it needs proper planning and education. Financial knowledge is one of the basic required for money management. This paper presents the level of financial knowledge among Police and Defence personnel of Haryana where data were collected from the different administrative division of Haryana i.e. Ambala, Faridabad, Gurugram, Hisar, Rohtak and Karnal. A sample of 651 Police and Defence personnel is taken where collection of data is done with the help of a structured questionnaire through personal contact with the respondents. Analysis of data is done with the help of EFA, CFA, ANOVA and T-test. This paper presents the significant differences in the level of financial knowledge on the basis of demographic variables like: age, gender, marital status, education qualification, type of family, working status and income. It was observed that married women at the age of 25 are more financial knowledgeable than the other Police and Defence Personnel. But, there are no significant differences on the basis of family type and working status of the force.

Keywords: Financial Knowledge, Financial education, Police and Defence Personnel, Money Management, Financial Decisions

1. INTRODUCTION

As India is a developing country and the development phase is at a very fast pace so, there is drastic change in the market as well. More and more goods and services are produced for the betterment of the people. In the current scenario, people are moving towards the investments rather than just saving or keeping the money in their bank account. Whenever, an individual supposed to consume, save or invest money then the financial decision making arises. Money matters require a lot of thinking and proper planning which is possible only through the financial knowledge. Financial knowledge is considered as the ability to understand the financial concepts and using that ability to take financial decisions. Sometimes, financial knowledge is taken as synonym of the financial education but it is a supporting element to the financial knowledge. Financial education is a major factor to improve the financial literacy and financial inclusion in a country.

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Financial education is considered as one of the major predictor for the higher level of financial knowledge (Lucic et al., 2020). The study of education level of the people is very important while assessing the financial knowledge as literate people has high level of financial knowledge as compared to the illiterate or less educated people (Koh et al., 2020). Here, both type of education i.e. formal education and informal education are required to improve the level of financial knowledge. Formal financial education is provided through the various schools, colleges, universities or other educational institutions. But, it is also necessary to provide the financial education programmes in the workplaces, societies and communities. This type of informal financial educations also helps to improve the financial knowledge and financial capabilities of a person (Chen et al, 2022). So, it can be said that both type of financial education is important for improving the level of financial knowledge in a country. Further, Financial knowledge acquired by the way of seminar, workshop and any other financial literacy programme has significant effect on the financial decision making (Lucic et al., 2020).

Most of the financial decisions of a person are influenced through his level of financial knowledge. If any person is not good at financial decision making then it will be a great loss to individual as well as the whole society. It became important for the society to teach the financial concepts to their younger ones at a very early age because age and gender are two key factors responsible for inculcating financial knowledge (Palomo et al., 2023; Murugiah et al., 2023). In many studies, it was shown that there is low level of financial knowledge among students of schools, college and universities. One of the major reason behind for this is parental role as parents plays vital role to enhance the level of financial knowledge of students as it was reported that the students who do not discuss the financial matters with the parents has low level of financial knowledge and vice-versa (wee et al., 2022; Murugiah et al., 2023; Amagir et al., 2020).

In many countries, women are less financially knowledgeable as compared to men and this may be due to a number of reasons like- lacks of education, low self-confidence or occupational structure, etc. Another major reason may be due to the fact that men uses their existing financial knowledge to deal with the financial management but women tries to learn the concepts of finance only when they are not familiar with those concepts (Aristei et al., 2022; Danes et al., 2007; Wee et al., 2022; Koh et al., 2020). It can be noticed that overall financial knowledge is really helpful for the every person who is managing the money. Recently, financial market is also showing drastic growth as people are taking interest in the financial products and services regarding investing and trading purpose. It was seen in the previous studies that people having higher level of financial knowledge shows more trust in financial institutions, insurance companies and pension funds (Cruijsen et al., 2021). In addition to that retirement planning is also positively and significantly affected by the financial knowledge of a person. This is due to the fact that retirement planning requires financial planning for future which is not possible without knowledge regarding financial concepts (Alhawamdeh et al., 2023).

According to the above discussion and available literature financial knowledge can be defined as:

a) The ability to understand the money and its related concepts;
b) Capability of a person to read, write and understand the financial terminology
c) The understanding of a person regarding financial products and financial services;
d) Awareness of personal financial matters and dealing with the monetary issues of an individual.

2. REVIEW OF LITERATURE

Financial knowledge can be studied with different aspects as authors divide it on the basis of the different variables and factors. Some of the author focus on the overall financial knowledge and some

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of the author focus the major sections of the society. For the deep understanding of the financial knowledge, researcher divides it according the demographic factors of the study i.e. age, gender, education level, income level, type of family, working status and marital status.

Table No. 1: Review of Literature

Sr. No.	Demographic Factor	Authors	Conclusion
1.	Age	carter et al., (1986); Keown, (2011); Hung et al., (2009); Lusardi et al., (2010); Chen & Volpe (1998); Koh et al., 2020; Cucinelli & Soana (2023); Murugiah et al., (2023)	Financial knowledge of the respondents will expand with the growing age of the respondents. Whenever the age crosses 40 then there is high level of financial knowledge. It can be said that older people are more knowledgeable as compared to younger ones. As it is already stated, when people reach at the 46-65 age bracket, then there will be less possibility for wrong answer to financial knowledge question.
2.	Gender	Ali et al., (2014); Robb & James III (2010); Keown, (2011); Goldsmith & Goldsmith (2006); Hung et al., (2009); Lusardi et al., (2010); Chen & Volpe (1998); Sekar & Gowri (2015); Cucinelli & Soana (2023); Palomo, 2023; Wee & Goy, (2022);	Financial Knowledge of male students is higher than the female students. Most of the studies prove that women knew less about the financial concepts as compared to men. Whenever, women are asked about financial knowledge then they tend to choose "do not know" option as compared to men which means women are less aware about the financial knowledge.
3.	Education	carter et al., (1986); Keown, (2011); Hung et al., (2009); Chen & Volpe (1998); Sekar & Gowri (2015); Koh et al., 2020; Cucinelli & Soana (2023)	An increase in the education level leads to increase in the Financial knowledge of the respondents. Education and financial education are directly associated with each other as university students score more in financial knowledge test as compared to school students or less educated people. More educated people give correct response to the financial knowledge questions in contrast to the less educated people.
4.	Income	carter et al., (1986); Bernheim, 1998; Zhan et al., (2006); Keown, (2011); Hung et al., (2009); Chen & Volpe (1998); Sekar & Gowri (2015); Cucinelli & Soana (2023)	Higher level of income results into higher level of financial knowledge. Moreover, it was also found that poor or low income people have low level of financial knowledge. Financial knowledge and High level of income are positively associated with each other and the reason. Low income group do not uses the financial services as compared to high income group which may be the reason for this association. Higher income also minimizes the possibility for wrong answer to financial knowledge questions.
5.	Type of Family	Cucinelli & Soana (2023); Wee & Goy, (2022); Murugiah et al., (2023)	People living with two children i.e. nuclear family tend to have high level of financial knowledge. Parental socialization is very important factor to

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			improve the financial knowledge of children as they discuss financial matter within the family.
6.	Working Status	Mahdavi & Horton (2014); Baker et al., (2018)	Retired people are more knowledgeable than the working or unemployed people. In fact, it was also proved that retired people who invest their money are more financially knowledgeable than the others.
7.	Marital Status	Zhan & Scott, (2006); Baker et al., (2018)	Married couples were found less financial knowledgeable than the unmarried couples. This may be due to the fact that married couples are dependent on the spouse for financial assistance. In case of investment, unmarried investor had higher level of financial knowledge than the married investor.
		Sekar & Gowri (2015); Becker, 1973; Koh et al., 2020; Cucinelli & Soana (2023)	Unmarried people are less financially literate as compared to married people. Level of financial knowledge of non-married persons is very less as compared to the married couples. High level of financial knowledge among married couples may be due to the responsibilities and future planning. Unmarried people or single person gives more wrong answers to the questions for financial knowledge in comparison to the married person.

This review of literature provides a detailed study regarding the demographic factors and their relationship with the financial knowledge. Three major factors like: age, income and education are directly and positively associated with the financial knowledge because the level of financial knowledge increases with the increase in age, income and education level. Gender is also considered as significant demographic factor because in most of the study gender plays a distinct role. It was seen in the previous research that male are more financially knowledgeable than the females. There are very few studies which can clarify the role of family type and working status of the individuals. This may be due to different meaning of family structure in different countries as in some of the countries there is single and joint family, nuclear or blended family, blended or single family, joint and nuclear family, etc. In western countries, blended family means parents and their separate biological children but in India, Joint family includes children, parents, grandparents and other family members. Due to this fact, there are very few studies in India which exactly define the role of family type as demographic factor. Similarly, when working status is measured then there is different categorization like: self-employed, other employed, working, non-working, searching for job and retired. So, there are very less studies which exactly define the working and retired persons in India and other countries as well.

In spite of the above factors, there is a contradictory situation when marital status is studied. Marital status is significantly associated with the level of financial knowledge but the problem arises when some of the previous studies are of the view that level of financial knowledge of married people is higher rather than unmarried people and some the studies are of the view that level of financial knowledge of unmarried people is higher as compared to married people.

After reviewing the above mentioned literature regarding financial knowledge and impact of the demographic factors on it, researcher reach to the conclusion that these are important factor of discussion and require further research. Moreover, there is no such study which can define impact of

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demographic factors in respect of financial knowledge of police and defence personnel in Haryana. So, researcher is going to work on the **"Assessment of Financial Knowledge among Police and Defence Personnel in Haryana"**.

3. RESEARCH OBJECTIVE

Main objective of the study is to assess the level of financial knowledge among police and defence personnel in Haryana. Financial knowledge is one of the major dimensions of financial literacy and it is emerging concept in India. Most of the previous studies present the financial knowledge among students, teachers, rural people, etc. but there is no study found which can explain financial knowledge of police and Defence personnel in Haryana. Moreover, many study focus on gender and age of the respondents but there is lack of studies on the basis of income, marital status and working status. So, researcher tries to compile all the areas where the research can be done in the area of financial knowledge with all the demographic features.

4. RESEARCH METHODOLOGY

This was a primary and descriptive study where data were taken from five administrative division of Haryana i.e. Ambala, Faridabad, Gurugram, Hisar, Karnal, Rohtak. For achieving the purpose of the study, data were collected from 651 respondents through a structured questionnaire. Croanbach alpha, discriminant validity and composite reliability are checked before applying the other tools for analysis. Descriptive as well as inferential statistics used for the detail investigation. For assessment of financial knowledge confirmatory factor analysis, exploratory factor analysis, t-test and Anova were used. Further various hypotheses are framed according to the research objective:

Ho_1: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of age.
Ho_2: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of gender.
Ho_3: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of education qualification.
Ho_4: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of marital status.
Ho_5: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of type of family.
Ho_6: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of current working status.
Ho_7: There is no significant difference in the level of financial knowledge among police and Defence personnel on the basis of family income.

5. RESULTS & DISCUSSION

Before the discussion and applying the tests for analysis, it is important to check the adequacy of the sample as well as normality of the data. In the Table 2, sampling adequacy was tested through the KMO (Kaiser-Meyer-Olkin) and Bartlett's test where KMO value is 0.912 which is marvelous value for the test (Hutcheson & Sofroniou, 1999) and the values greater than equal to 0.8 are considered as execellent (Backhaus, *et al.*, 2006). Similarly, value for the Bartlett's Test of Sphericity is also adequate at the .05 level of significance because it was proven fact that correlation matrix should not be identity matrix (Malhotra & Dash; Zikmund et al., 2016). Further, it is also important to check the normality of data for applying the t-test and ANOVA. Normality of data means to find out whether or not data come under the normal distribution and it was found that the value of skewness and kurtosis

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is within the specified range of -2 to +2. So, it can be concluded that data are normally distributed according to the descriptive statistics mentioned in the Table 3.

Table 2 Sampling Adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.912
Bartlett's Test of Sphericity	Approx. Chi-Square	17079.590
	Df	378
	Sig.	.000

Source: Primary Data

Table 3 Normality of the Data

Descriptive Statistics							
Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FK1	651	3.9846	.60236	-1.731	.096	7.372	.191
FK2	651	3.9785	.61980	-1.775	.096	7.190	.191
FK3	651	3.9247	.71394	-1.823	.096	5.606	.191
FK4	651	3.6037	.95091	-.558	.096	.517	.191
FK5	651	3.7803	.87142	-1.112	.096	1.439	.191
FK6	651	3.4977	1.24576	-.189	.096	-1.486	.191
FK7	651	3.8018	.84256	-1.145	.096	1.687	.191
FK8	651	3.0384	1.20387	-.053	.096	-.737	.191
FK9	651	3.0814	1.17845	-.068	.096	-.632	.191
FK10	651	3.0553	1.18192	-.051	.096	-.632	.191
FK11	651	3.0860	1.17223	-.064	.096	-.592	.191
FK12	651	3.0614	1.18811	-.058	.096	-.665	.191
FK13	651	3.0891	1.15214	-.084	.096	-.514	.191
FK14	651	3.0983	1.14469	-.082	.096	-.518	.191
FK15	651	3.0829	1.15260	-.072	.096	-.519	.191
FK16	651	3.8126	.82195	-1.142	.096	1.765	.191
FK17	651	3.8280	.80835	-1.167	.096	1.994	.191
FK18	651	3.1459	1.39402	-.433	.096	-1.179	.191
FK19	651	2.8203	1.06985	.386	.096	-.952	.191
FK20	651	3.1167	1.38959	-.410	.096	-1.192	.191
FK21	651	2.6605	1.15956	-.073	.096	-.770	.191
FK22	651	2.6912	1.23097	-.150	.096	-1.155	.191
FK23	651	3.1229	1.39348	-.409	.096	-1.191	.191
FK24	651	3.0753	1.17755	-.073	.096	-.632	.191
FK25	651	2.7819	1.23850	.006	.096	-.865	.191
FK26	651	2.7588	1.24970	-.148	.096	-1.104	.191
FK27	651	3.1045	1.38058	-.410	.096	-1.196	.191
FK28	651	2.6882	1.26229	.055	.096	-.994	.191
FK29	651	2.7573	1.25860	-.106	.096	-1.095	.191
FK30	651	2.7558	1.24045	.011	.096	-.868	.191
FK31	651	2.7250	1.25256	-.110	.096	-1.126	.191

Source: Primary Data

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5.1 Exploratory Factor Analysis

Factor analysis is a data reduction technique used to compile data in such a manageable form so that it can provide result as original data. We have two types of factor analysis; one is exploratory factor analysis and other is confirmatory factor analysis. Exploratoty factor analysis is used to define the number of factors on the basis of items in the study (Zikmund et al., 2002). There are 29 items in the questionnaire which are used for assessing the level of financial knowledge and it became necessary to make cluster from these data through sub-construct of financial knowledge. Principal component analysis with varimax rotation is also shown. Further, factor loading are also within the range which is acceptable at 0.50 factor loadings if the sample size is greater than 350 (Hair et al., 2014; Guadagnoli & Velicer, 1998). Here, four sub-construct of the data were made for further analysis and their eigen values are greater than 1. All the values related with factor loadings, eigen values, variance and croanbach alpha are shown in the table 4 which are suitable for analysis of data. Four major extracted factors or sub-scales for the additional data procession are shown below:

1. **Knowledge of Interest Rate (KIR)**
2. **Financial Awareness (FA)**
3. **Investing Planning (IP)**
4. **Financial Planning**

We will define all these factors in detail so that all the items under these factors can be clearly studied in the additional processing. The explanations are as under:

Factor 1: Knowledge of Interest Rate (KIR)
Knowledge of interest rate is taken as the first factor for assessing the financial knowledge as most of the previous studies used interest rate as key factor. This factor includes 9 items of questionnaire i.e. ***"Interest rate on personal loan is high (FK8), Interest rate on house loan is low (FK9), Interest rate on vehicle loan is high (FK10), Interest rate on PPF and Fixed Deposit is almost equal (FK11), Interest rate on short term loans is high (FK12), Interest rate on Fixed Deposit is generally higher than PPF (FK13), Interest rate on Current account is nil (FK14), Interest rate on Saving Deposits is high (FK15) and The highest interest rate is paid by Post Office Saving Account (FK24)".*** Values for the factor loadings ranges between 0.750 to 0.916 which is acceptable value because the minimum value for the factor loading is 0.50 (Malhotra and Dash, 2016; Guadagnoli & Velicer, 1998). It shows that the factor is able to represent all the items and there is significant relationship of factor with items. In addition to that other values such as eigenvalue (7.420) and croanbach alpha (0.968) are also within the range which should be greater than 1 in case of eigenvalue and greater than 0.7 for croanbach alpha. So, the factor clearly represents the higher reliability and internal consistency as per the results of the table 4.

Factor 2: Financial Awareness (FA)
Financial awareness is a situation where an individual possess the knowledge regarding financial services and products and that knowledge is used for improving the financial outcomes (Pahlevi & Nashrullah, 2020). This is also one of the key factors in measurement of financial knowledge. This factor includes 12 items i.e., ***"There is a minor difference between Pledge and Mortgage (FK18), A budget is a list of planned expenses and revenue (FK20), Risk is a situation where actual returns are less than expected returns (FK21), The value of car starts depreciating from the date of purchase (FK22), An ATM is used for withdrawing cash and for making payment from balance in your bank account (FK23), Health insurance covers medical expenses of a person (FK25), First time offered securities to the public are the part of IPO market (FK26), Existing securities are traded in the Stock Market (FK27), Credit card is used when we have shortage of cash (FK28), We can invest***

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small amount in mutual fund (FK29), Google Pay and Paytm are used for mobile banking (FK30) and Employer and employee both contribute to NPS (FK31).” Minimum acceptable value for the factor loading is 0.50 (Malhotra and Dash, 2016) and obtained value for the factor loadings in the table 3 for this factor ranges from 0.603 to 0.900. So, it can be said that the factor is able to represent all the items. In addition to that other values such as eigenvalue (6.954) and croanbach alpha (0.931) are also within the range which should be greater than 1 in case of eigenvalue and greater than 0.7 for croanbach alpha. So, the factor clearly represents the higher reliability and internal consistency as per the results of the table 4.

Factor 3: Investment Planning

Third major factor for measuring the financial knowledge is investment planning. It consist of 4 items of the financial knowledge i.e., **“*It is important to study all the terms and conditions about investment before investing (FK5), By investing in a wide range of financial product leads to minimization of risk in stock market (FK7), A high return investment is likely to be at high risk (FK16) and Investment risk can be reduced by investing in different assets (FK17)”*.** Values for the factor loadings ranges between 0.740 to 0.853 which is acceptable value because the minimum value for the factor loading is 0.50 (Malhotra and Dash, 2016; Guadagnoli & Velicer, 1998). It shows that the there is significant relationship between the observed item and the factor. In addition to that other values such as eigenvalue (3.422) and croanbach alpha (0.928) are also within the range which should be greater than 1 in case of eigenvalue and greater than 0.7 for croanbach alpha. So, the factor clearly represents the higher reliability and internal consistency as per the results of the table 4. This factor accounted for 12.335 percent of the variation in financial knowledge.

Factor 4: Financial Planning

Financial planning refers to the planning regarding the financial objectives of an individual (Hallman & Rosenbloom, 2003). This is the fourth important key factor of financial knowledge which consists of three items i.e., **“*Financial plans once setup is being used throughout my life (FK1), financial plans should bring possible changes in my life (FK2) and financial planning gives emphasis on investment only (F3)”*.** Values for the factor loadings ranges between 0.697 to 0.775 which is acceptable value because the minimum value for the factor loading is 0.50 (Malhotra and Dash, 2016; Guadagnoli & Velicer, 1998). It shows that all the items significantly reflected by the latent factor of financial knowledge. In addition to that other values such as eigenvalue (2.143) and croanbach alpha (0.827) are also within the range which should be greater than 1 in case of eigenvalue and greater than 0.7 for croanbach alpha. So, the factor clearly represents the higher reliability and internal consistency as per the results of the table 4.

Table 4 Exploratory Factor analysis of Financial Knowledge

Variables	Communalities	Factor loading	Eigen Value	Variance Explained	Cronbach Alpha
Factors 1 Knowledge of Interest Rate (KIR)			7.420	25.964	.968
FK15	.891	.916			
FK14	.859	.905			
FK13	.868	.900			
FK11	.818	.884			
FK24	.838	.883			
FK9	.786	.858			
FK12	.779	.845			

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FK10	.750	.837			
FK8	.584	.750			
Factor 2 Financial Awareness (FA)			6.954	24.807	.931
FK22	.819	.900			
FK31	.770	.872			
FK29	.706	.835			
FK26	.694	.830			
FK21	.697	.789			
FK23	.609	.693			
FK20	.571	.691			
FK28	.514	.684			
FK27	.522	.666			
FK18	.514	.646			
FK30	.468	.634			
FK25	.413	.603			
FK22	.819	.900			
Factor 3 Investment Planning (IP)			3.422	12.335	.928
FK16	.853	.865			
FK5	.802	.861			
FK17	.837	.851			
FK7	.740	.805			
Factor 4 Financial Planning (FP)			2.143	8.107	.827
FK1	.775	.825			
FK2	.764	.801			
FK3	.697	.773			
			Total	71.213	.890
Extraction Method: Principal Component Analysis.					

Source: Primary Data

5.2 Confirmatory factor analysis

After exploring the number of factors in exploratory factor analysis, now it's time for checking how well the variable reflects all the items of the study or not. For this purpose, confirmatory factor analysis is used which is a multivariate statistical tool. This is further processing of exploratory factor analysis because CFA process the factors which are already found in the EFA. In confirmatory factor analysis (CFA), data factors and which measured variable is related with which latent variable may be specified. Confirmatory factor analysis validates the measurement variable pattern discovered by exploratory factor analysis. Confirmatory factory is basically verifies the measurement model of the study. There are four latent variable found in the EFA which are further constructed in AMOS 21.0 confirmatory factor analysis. First order confirmatory analysis used for assessment of financial knowledge and it also tested the validity and reliability. Model fit is also ensured to find out the factors which are not suitable for additional processing because it is important to eliminate such type of factors. For detailed analysis of CFA various model fit indicators are used like: regression weights, correlations, variances, etc.

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Figure 1 will show the measurement model and Table 5 shows the goodness of fit indices. Figure 1 shows the major 4 factors of financial knowledge i.e. FA- Financial Awareness, KIR- Knowledge of Interest Rate, IP- Investment Planning and FP- Financial Planning. The values of regression weights lie 0.505 to 0.936. These values are higher than the acceptable limit as it is proved fact that the value for standardize regression weights should be more than 0.5 (Hair et al., 2014). So, these values are enough good to represent the greater amount of variance. Higher standardize regression weights imply that all the items are reflected by the latent variables.

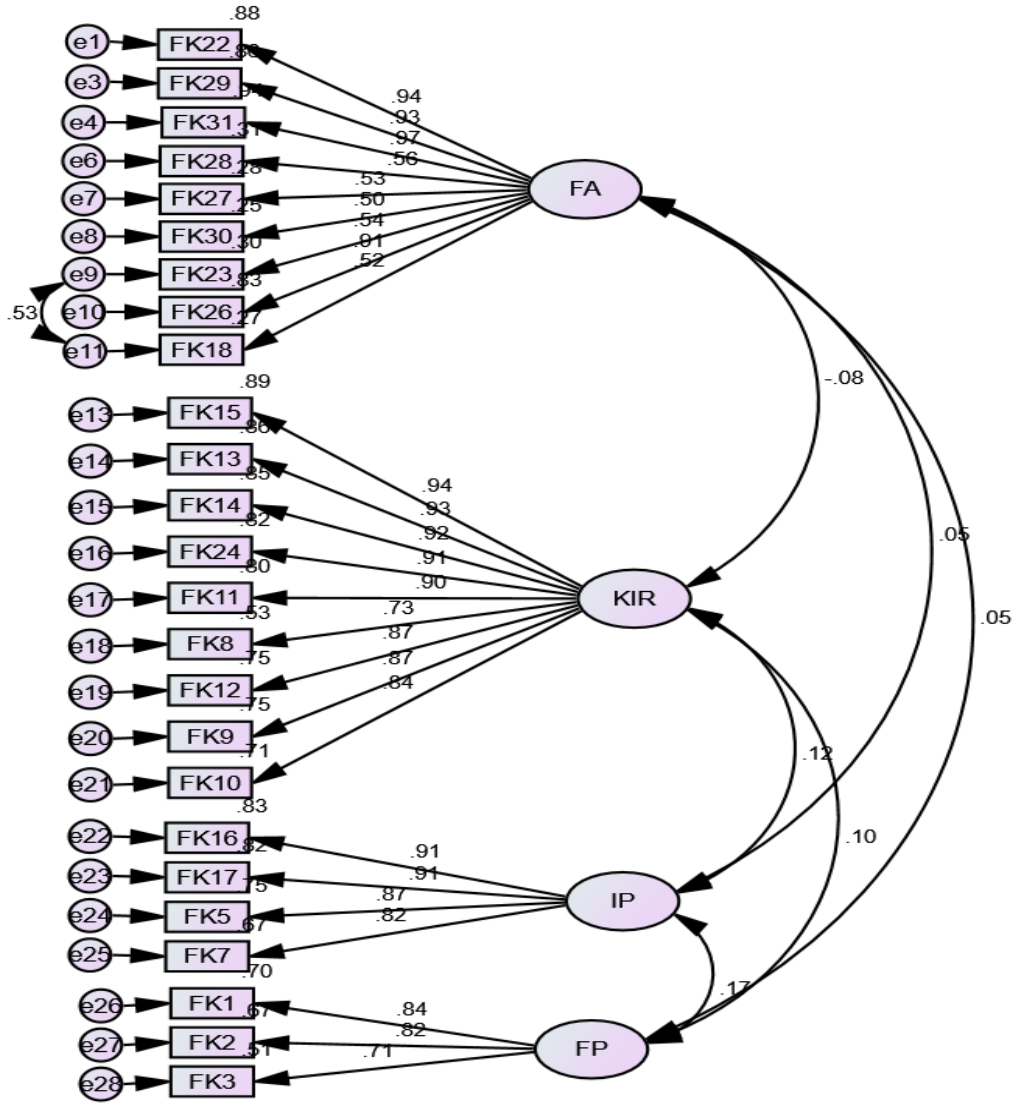

Figure no. 1

Table 5 Model Fit Indices

CMIN	DF	CMIN/DF	GFI	NFI	IFI	CFI	TLI	RMSEA
1161.841	**268**	**4.335**	**.872**	**.925**	**.941**	**.941**	**.934**	**.072**

Table 5 shows various indices which are required for checking the proposed model fitness. These are Chi-square minimum (CMIN), Degree of freedom (DF), ratio of chi-square minimum and DF (CMIN/DF), Goodness of Fit Index (GFI), Normed fit index (NFI), Incremental Fit Index (IFI),

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Comparative Fit Index (CFI), Trucker Lewis Index (TLI) and root mean square error of approximation (RMSEA). This table represents that value if chi-square is 1161.841 at degree of freedom 368 and probability level 0.000. Ratio of chi-square minimum to DF is less than 5 which represents the magnificent fitness of the model (Byrne, 2016; Hair et al., 2012). Value for the GFI (0.872), NFI (0.925), CFI (0.941), IFI (0.941) and TLI (0.934) are also greater than 0.8 which is significant for the model fit and clearly stated that model is suitable for the study. Minimum Acceptable threshold value for all these indices is 0.8 (Moolla and Bisschoff, 2013; Baumgartner & Homburg, 1996; Hair et al., 2016). Value for the RMSEA is 0.072 which is significantly acceptable as the value is less than the acceptance threshold limit 0.10 (Browne and Cudek, 1993). So, it can be concluded that all the 25 items of financial knowledge are clearly reflected by the latent factors (Interest Rate Knowledge, Financial Awareness, Investment Planning and Financial Planning) chosen for the financial knowledge.

Table 6 Model Validity Measures

Factors	CR	AVE	MSV	MaxR(H)	FA	KIR	IP	FP
financial awareness **(FA)**	0.909	0.546	0.006	0.972	**0.739**			
knowledge of interest rate **(KIR)**	0.968	0.774	0.015	0.974	-0.077	**0.880**		
investment planning (**IP)**	0.929	0.767	0.028	0.936	0.051	0.122**	**0.876**	
financial planning **(FP)**	0.834	0.628	0.028	0.845	0.052	0.097*	0.168***	**0.792**

Source: Primary Data

With the intention to enhance the internal consistency and construct validity, value for Composite Reliability (CR) must be greater than critical value 0.70 (Hair et al., 2010; Nunnally & Bernstein, 1976). The values of CR for all the factors is higher than the 0.70 i.e. for Financial Awareness is 0.909, for Interest Rate Knowledge is 0.968, for Investment Planning is 0.929 and for Financial Planning is 0.834. It means the scale is valid and reliable. Further, CR, MSV (Maximum Shared Variance) and AVE (Average Variance Extracted) are related with each other as AVE should be more than 0.5 and CR>AVE>MSV. The values for proposed model are suitable fit shown in the table 6 which means that this model is valid. Discriminant validity is also reported by all the factors of financial knowledge. Discriminant validity shows the diversion of construct variable from its latent construct (Sekaran, 2000). Cross loadings between the factors are also checked through discriminant validity and it was found that there is absence of cross loading within the construct that leads to discriminant validity of the model (Hair et al., 2006). Thus, it can be stated that the model is valid on the basis of discriminant validity and the current scales of financial knowledge are justified.

5.3 Financial Knowledge of Police and Defence Personnel on the basis of demographic variables

In order to assess the level of financial knowledge among police and defence two types of test are used i.e. ANOVA (Analysis of Variance) and T-test. These tests are helpful to check the significant difference in the level of financial knowledge in association of demographic factors. Here, the respondents were categorized in accordance with the gender, marital status, type of family and current working status for conducting the T-test. Furthermore, One-way ANOVA is conducted for rest of the categories like: age, education qualification and annual income of the respondents.

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Table 7 Results of T-Test across the gender regarding Financial Knowledge

Factors	Gender	N	Mean	SD	MD	T-Value	Sig. Value
Financial Planning	Male	550	3.9406	.50268	-.14190	-2.358	.019
	Female	101	4.0825	.78656			
Investment Planning	Male	550	3.5605	.56447	-.38014	-5.368	.000
	Female	101	3.9406	1.01375			
Knowledge of Interest Rate	Male	550	2.9188	.97323	-1.01851	-9.457	.000
	Female	101	3.9373	1.10592			
Financial Awareness	Male	550	2.7517	1.08352	-.59817	-5.315	.000
	Female	101	3.3498	.75480			
Overall Financial Knowledge	Male	550	3.2929	.42709	-.53468	-10.465	.000
	Female	101	3.8276	.66649			

Source: Primary Data

This table represents the results of independent T-test which is conducted to find out the gender differences across different components of financial knowledge. If financial planning is studied then mean value for male and female is 3.9406 and 4.0825 with the standard deviation of 0.50268 and 0.78656 respectively. Here, value for t-test is -2.358 which shows significant differences at 5% significance level in the financial planning of male and female.so, this can be interpreted that female respondents are better at financial planning than the male respondents. Similarly, the same results have been interpreted while checking the variances between male and female respondents in case of investment planning. As the value of t-test (-5.368) at 5% level of significance represents that there is a significant difference between male and female respondents across investment planning. It can be concluded that female respondents can do better investment planning than male respondents. Likewise, Interest rate knowledge of male and female respondents also represents significant differences at -9.457 t-test value with 5% level of significance. Therefore, it can be sum up that interest rate knowledge of female respondents are higher than the male respondents. With the same context, there are significant differences among the male and female respondents across the financial awareness. Value of t-test (-5.315) at 5% level of significance shows that female respondents are more financially aware than the male respondents.

In conclusion, it can be seen that overall financial knowledge of male and female respondents has significant differences across different components and females are more financially knowledgeable than the males.

Table 8 Results of T-Test across the marital status regarding Financial Knowledge

Factors	Marital Status	N	Mean	SD	MD	T-Value	Sig. Value
Financial Planning	Married	606	3.9835	.52460	.30202	2.343	.023
	Unmarried	45	3.6815	.85267			
Investment Planning	Married	606	3.6543	.62483	.50429	3.366	.002
	Unmarried	45	3.1500	.99058			
Knowledge of Interest Rate	Married	606	3.0704	1.06590	-.09256	-.602	.550
	Unmarried	45	3.1630	.98973			
Financial	Married	606	2.7968	1.07647	-69028	-7.984	.000

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Awareness	Unmarried	45	3.4870	.50030			
Overall Financial Knowledge	Married	606	3.3762	.50296	.00587	.064	.949
	Unmarried	45	3.3704	.60125			

Source: Primary Data

This table represents the results of independent T-test which is conducted to find out the differences on the basis of marital status across different components of financial knowledge. If financial planning is studied then mean value for married and unmarried is 3.9835 and 3.6815 with the standard deviation of 0.52460 and 0.85267 respectively. Here, value for t-test is 2.343 which shows significant differences at 5% significance level in the financial planning of married and unmarried respondents.so, this can be interpreted that married respondents are better at financial planning than the unmarried respondents. Similarly, the same results have been interpreted while checking the variances between married and unmarried respondents in case of investment planning. As the value of t-test (-5.368) at 5% level of significance represents that there is a significant difference between married and unmarried respondents across investment planning. It can be concluded that married respondents can do better investment planning than unmarried respondents. On the other hand, Interest rate knowledge of respondents does not represent any significant difference at -9.457 t-test value with 5% level of significance across marital status. Therefore, it can be sum up that interest rate knowledge of unmarried respondents is little bit higher than the married respondents. Likewise, financial awareness provides slightly different results as the mean value for the factor is 2.7968 and 3.4870; with the standard deviation of 1.07647 and .50030 for married and unmarried respondents respectively. There are significant differences on the basis of marital status in case of financial awareness. Value of t-test (-5.315) at 5% level of significance shows that unmarried respondents are more financially aware than the married respondents.

In conclusion, it can be seen that overall financial knowledge does not show significant differences at 5% significant level on the basis of marital status. It means married respondents are slightly more financial knowledgeable than the unmarried people.

Table 9 Results of T-Test across the type of family regarding Financial Knowledge

Factors	Type of Family	N	Mean	SD	MD	T-Value	Sig. Value
Financial Planning	Nuclear Family	225	3.9659	.50525	.00505	.115	.909
	Joint Family	426	3.9609	.58436			
Investment Planning	Nuclear Family	225	3.5056	.73438	-.17402	-3.026	.002
	Joint Family	426	3.6796	.62264			
Knowledge of Interest Rate	Nuclear Family	225	2.9570	1.04293	-.18303	-2.114	.035
	Joint Family	426	3.1401	1.06522			
Financial Awareness	Nuclear Family	225	2.8930	1.06913	.07411	.844	.399
	Joint Family	426	2.8189	1.05740			
Overall Financial Knowledge	Nuclear Family	225	3.3332	.462312	-.069	-1.729	.084
	Joint Family	426	3.4023	.532156			

Source: Primary Data

This table represents the results of independent T-test which is conducted to find out the differences on the basis of family type across different components of financial knowledge. If financial planning is studied then mean value for nuclear family and joint family is 3.9659 and 3.9609 with the standard deviation of 0.50525 and .58436 respectively. Here, value for t-test is 0.115 which shows no significant

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differences at 5% significance level in the financial planning of nuclear family and joint family.so, this can be interpreted that respondents from nuclear family are slightly better at financial planning than the respondents from joint family. But, in case of investment planning there is significant differences on the basis of family type of the respondent at 5% level of significance. T-test value is -0.326 which indicate significant difference and resulted that respondents from joint family are better at investment planning than the respondents from nuclear family. Further, moving towards the knowledge of interest rate in which same results are shown at -9.457 t-test value at 5% significant value. There are significant differences between respondents from nuclear family and joint family across knowledge of interest rate. It was depicted from the mean value that knowledge of interest rate in joint family is higher than the nuclear family. On the other hand, financial awareness shows opposite results to the earlier factor. It shows that there is no significant differences among the joint family and nuclear family as the mean values are 2.8930 and 2.8189 respectively. It can be said that respondents from nuclear family are little bit more financially aware than the respondents from joint family.

In conclusion, it can be seen that overall financial knowledge does not show significant differences at 5% significant level on the basis of family type. It means there is no significant difference but financial knowledge of respondents from joint family is slightly higher than the respondents from nuclear family.

Table 10 Results of T-Test across the type of current working status regarding Financial Knowledge

Factors	Current Status	N	Mean	SD	MD	T-Value	Sig. Value
Financial Planning	Working	594	3.9697	.56622	.08081	1.239	.219
	Retired	57	3.8889	.46004			
Investment Planning	Working	594	3.6208	.68456	.01553	.229	.819
	Retired	57	3.6053	.46519			
Knowledge of Interest Rate	Working	594	3.0918	1.05096	.17177	1.083	.283
	Retired	57	2.9201	1.15198			
Financial Awareness	Working	594	2.8368	1.07827	-.08714	-.707	.482
	Retired	57	2.9240	.86793			
Overall Financial Knowledge	Working	594	3.3826	.51863	.045	.756	.452
	Retired	57	3.3321	.42215			

Source: Primary Data

This table represents the results of independent t-test across the working status of the respondents in relation with financial knowledge. It can be seen that mean value for financial planning among working and retired profession are 3.9697 & 3.8889 respectively and standard deviation for the same is 0.56622 and 0.46004 respectively with the 1.239 t-test value at 5% level of significance. These values depicts that there is no significant difference among respondents on the basis of their working status regarding financial planning. However, it can be concluded that retired personnel can do slightly better financial planning than the working personnel. In case of investment planning, Standard deviation among the working and retires respondents also shows that there is no significant variance at the 5% level of significance. But, on the basis of the t-test value (0.229) and mean values, this can be interpreted that investment planning is slightly better among working respondents than the retired respondents. Similarly, interest rate knowledge also shows the same results as investment planning because the standard deviation values (1.05096 and 1.15198) and t-test value (1.083) represents that there is no significant difference among interest rate knowledge of working and retired

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respondents at 5% level of significance. Moreover, the mean values concluded that knowledge of interest rate among working personnel are a little bit higher as compared with retired personnel. When financial awareness is studied, standard deviation values for working and retired respondents are 1.07827 and 0.86793 and t-test value is -0.707 shows that there is no significant variance at the 5% level of significance. But, mean values concluded that financial awareness of retired respondents is slightly better as compared to working respondents.

In conclusion, it can be seen that overall financial knowledge does not show significant differences at 5% significant level on the basis of working status. It means there is no significant difference among the financial knowledge of working respondents and retired respondents.

Table 11 Results of One-Way ANOVA across age regarding Financial Knowledge

Factors	Age	N	Mean	SD	Levene	Sig. Value	f-value	Sig. Value	Welch	Sig. Value
Financial Planning	Upto 25	51	4.2092	.70541	25.263	.000	15.530	.000	8.796	.000
	26 to 45	267	3.9488	.66563						
	46 to 60	315	3.9778	.34461						
	Above 60	18	3.2037	.71528						
	Total	651	3.9626	.55790						
Investment Planning	Upto 25	51	3.9069	1.11239	24.257	.000	3.647	.013	1.631	.190
	26 to 45	267	3.6077	.69698						
	46 to 60	315	3.5794	.53802						
	Above 60	18	3.6806	.43560						
	Total	651	3.6194	.66798						
Knowledge of Interest Rate	Upto 25	51	3.8519	1.20034	5.291	.001	12.121	.000	10.739	.000
	26 to 45	267	3.0878	1.06918						
	46 to 60	315	2.9273	.99561						
	Above 60	18	3.3333	.51836						
	Total	651	3.0768	1.06035						
Financial Awareness	Upto 25	51	3.6144	.44844	36.865	.000	28.079	.000	55.370	.000
	26 to 45	267	3.0680	.95980						
	46 to 60	315	2.5032	1.11635						
	Above 60	18	3.3194	.27602						
	Total	651	2.8445	1.06123						
Overall Financial Knowledge	Upto 25	51	3.9012	.77865	24.327	.000	28.534	.000	16.582	.000
	26 to 45	267	3.4365	.480231						
	46 to 60	315	3.2512	.424317						
	Above 60	18	3.3845	.262314						
	Total	651	3.3846	.510234						

Source: Primary data

This table no. 11 shows the results for Levene's test for equality of variance for all the factors of financial knowledge i.e. Investment Planning, Financial planning, Knowledge to interest rate and financial awareness across age of the respondents. Levene's test for equality of variance is conducted to check the equality of the sample. In case, if value of this test is >0.05 then we follow the results of ANOVA. But, if the value for this test is below 0.05 then the assumption of homogeneity of variance will be violated and for further analysis Welch test will be applied. In this analysis, significance value

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is < 0.05 so, Welch test is applied. Values for welch test are 8.796, 1.631, 10.739, 55.370 for financial planning, investment planning, knowledge of interest rate and financial awareness respectively. It was found that there is significant variance in financial planning and financial awareness with regard to age of the respondents as values of these two factors were found significant at 0.5% level of significance. Moreover, mean values for the factors shows that respondents at the age upto 25 are better at financial planning than the other respondents and their level of financial awareness is also higher than the other respondents.

In conclusion, it can be seen that overall financial knowledge show significant differences at 5% significant level on the basis of age of the respondents. In case of some of the variables of financial knowledge, it was seen that respondents at the age of 25 are good at financial planning and financial awareness.

Table 12 Results of One-Way ANOVA across the qualification regarding Financial Knowledge

Factors	Qualification	N	Mean	SD	Levene	Sig. Value	f-value	Sig. Value	Welch	Sig. Value
Financial Planning	Up to 10th	201	3.9834	.38261	15.092	.000	.765	.514	1.042	.378
	12th	219	3.9361	.56753						
	Graduation	210	3.9556	.68487						
	Post-Graduation	21	4.1111	.45134						
	Total	651	3.9626	.55790						
Investment Planning	Up to 10th	201	3.6070	.45249	14.794	.000	1.269	.284	1.248	.297
	12th	219	3.6256	.69869						
	Graduation	210	3.6512	.79588						
	Post-Graduation	21	3.3571	.65465						
	Total	651	3.6194	.66798						
Knowledge of Interest Rate	Up to 10th	201	2.7689	.89693	9.600	.000	10.260	.000	11.785	.000
	12th	219	3.2410	1.04293						
	Graduation	210	3.2370	1.17071						
	Post-Graduation	21	2.7090	.81155						
	Total	651	3.0768	1.06035						
Financial Awareness	Up to 10th	201	2.4701	1.15374	33.708	.000	22.652	.000	38.157	.000
	12th	219	2.7789	1.04885						
	Graduation	210	3.1825	.85359						
	Post-Graduation	21	3.7302	.45484						
	Total	651	2.8445	1.06123						
Overall Financial Knowledge	Up to 10th	201	3.2145	.39878	8.907	.000	12.982	.000	15.201	.000
	12th	219	3.4012	.517123						
	Graduation	210	3.5146	.566789						
	Post-Graduation	21	3.4812	.34697						
	Total	651	3.3845	.51234						

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Source: Primary Data

This table no. 12 shows the results for Levene's test for equality of variance for all the factors of financial knowledge i.e. Investment Planning, Financial planning, Knowledge to interest rate and financial awareness across education qualification of the respondents. In this analysis, value is < 0.05 significance level which breaks the assumption of homogeneity of sample; so, Welch test is conducted to know the variance among respondents on the basis of their education qualification. Values for welch test are 1.042, 1.248, 11.785, 38.157 for financial planning, investment planning, knowledge of interest rate and financial awareness respectively. Here, two factors i.e. knowledge of interest rate and financial awareness were found statistically significant at 0.05 level of significance. It means there is variance in knowledge of interest rate and financial awareness of the respondents on the basis of their education qualification. Moreover, mean values for the factors shows that respondents with the qualification of 12th class have more knowledge of interest rate as compare to the other respondents.

In conclusion, it can be seen that overall financial knowledge show significant differences at 5% significant level on the basis of qualification of the respondents. In case of some of the variables of financial knowledge, it was seen that respondents with qualification upto 12th are more knowledgeable than the others.

Table 13 Results of One-Way ANOVA across the annual income regarding Financial Knowledge

Factors	Annual Income	N	Mean	SD	Levene	Sig. Value	f-value	Sig. Value	Welch	Sig. Value
Financial Planning	Upto 2 Lakh	18	3.8148	.38301	8.102	.000	.841	.432	1.561	.220
	2 to 5 Lakh	321	3.9533	.61765						
	5 to 10 Lakh	312	3.9808	.49829						
	Total	651	3.9626	.55790						
Investment Planning	Upto 2 Lakh	18	3.7222	.61170	8.869	.000	1.015	.363	1.107	.339
	2 to 5 Lakh	321	3.6495	.77651						
	5 to 10 Lakh	312	3.5825	.53739						
	Total	651	3.6194	.66798						
Knowledge Interest Rate	Upto 2 Lakh	18	3.6111	.75959	7.331	.001	7.157	.001	9.329	.000
	2 to 5 Lakh	321	3.1886	1.12103						
	5 to 10 Lakh	312	2.9309	.98718						
	Total	651	3.0768	1.06035						
Financial Awareness	Upto 2 Lakh	18	2.6481	1.22426	9.192	.000	9.312	.000	9.203	.000

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	2 to 5 Lakh	321	3.0241	.98302						
	5 to 10 Lakh	312	2.6709	1.10084						
	Total	651	2.8445	1.06123						
Overall Financial Knowledge	Upto 2 Lakh	18	3.4548	0.53301	19.243	.000	8.427	.000	8.542	.001
	2 to 5 Lakh	321	3.4533	0.58765						
	5 to 10 Lakh	312	3.2908	0.40829						
	Total	651	3.3826	0.51790						

Source: Primary data

This table no. 13 shows the results for Levene's test for equality of variance for all the factors of financial knowledge i.e. Investment Planning, Financial planning, Knowledge to interest rate and financial awareness across annual income of the respondents. In this analysis, value is < 0.05 significance level which breaks the assumption of homogeneity of sample; so, Welch test is conducted to know the variance among respondents on the basis of their annual income. Values for welch test are 1.561, 1.107, 9.329, 3.203 for financial planning, investment planning, knowledge of interest rate and financial awareness respectively. Here, two factors i.e. knowledge of interest rate and financial awareness were found statistically significant at 0.05 level of significance. It means there is variance in knowledge of interest rate and financial awareness of the respondents on the basis of their annual income. Moreover, mean values for the factors shows that respondents with the annual income between 2 to 5 lakh have higher level of financial awareness as compare to the other respondents.

6. CONCLUSION

On the basis of above discussion over financial knowledge of the Police and Defence personnel in Haryana it was concluded that some of the results are in favor of the previous studies but some of the results are totally different from existing one. It was found that there are major five variables of financial knowledge like: Financial Planning (FP), Investing Planning (IP), Knowledge of Interest Rate (KIR) and Financial Awareness (FA). Afterwards, these factors are also confirmed with the help of confirmatory factor analysis. It was concluded that females are more financially knowledgeable than the male respondents and married respondents are slightly better than the unmarried respondents. Further, the age and qualification of the respondents also represents the significant differences as the respondents upto the age of 25 are more financial aware and good at doing financial planning as compared with the other age groups. Similarly, respondents whose qualification is 10th are more knowledgeable regarding interest rate than the other respondents. On the other hand, there is no significant differences were notices on the basis of family type and working status of the respondents because the results were almost same in case of the nuclear family and joint family; working and retired personnel.

On the basis of these results, it can be suggested that government and policy makers should focus on the essential financial awareness and financial literacy of the Police and Defence personnel; and gender gap can be removed with the help of providing equal opportunity of leaning and giving equal responsibilities to male and female. Moreover, it can also be recommended that early age engagement in the financial literacy courses is required but it is also important to provide financial literacy at every level of age. Financial institutions and educational institutions in any economy can enhance the level

of financial knowledge through various seminars, webinars, financial literacy programs and other awareness programs of financial inclusion.

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