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Determinants of Financial Attitude and Preparedness of Information Technology Professionals in Bengaluru City

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Abstract: ***Employees' attitudes towards financial planning and management and deriving benefits from proper management planning lead satisfaction among them. Their personal and job satisfaction is an important factor for their active involvement and their decision to contribute to innovation. The study examined the main underlying factors determining the financial attitude and financial preparedness of Information Technology (IT) professionals in Bengaluru city. Bengaluru is one of the largest tech hubs in India having 1.5 million employees in the IT/ITES, out of nearly four million employees across India. In order to achieve the objective of the study, primary data were collected from 792 respondents in 2018 using stratified sampling method. Questionnaire was designed to identify the key factors of financial attitude and financial preparedness. For reducing the number of variables from large data set and to find the main underlying financial attitude and financial preparedness, factor analysis was carried out. The study found that the two main components such as financial perspective and financial propensity determined the financial attitude and the factors grouping under three main components such as financial control, financial competence and financial philosophy contributing the financial preparedness of employees in IT sector.***

Keywords : attitude, factor analysis, financial control, financial perspective, financial preparedness, IT professionals

I. INTRODUCTION

Finance is an integral part of each one's life. Managing personal finance is the ability to take financially intelligent decisions and understand its impact on net worth to achieve short-term and long-term financial goals including financial security. Sometimes financial illiteracy impacts financial decision making of an individual. Financial planning gives the power and the knowledge to take control of the money. It is also concerned with procurement and use of funds. Monster Salary Index survey in 2016 found that Information Technology (IT) sector is the highest paid sector in India.

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Their median gross hourly salary is Rs.346 which is higher than Rs.300 in Banking, Financial Services and Insurances (BFSI) sector [1]. Effective financial management in the areas of cash and credit management, investments, insurance, financial planning, tax planning and retirement planning solves various problems of employees. Hence, it is essential to examine the employee's financial attitude, financial preparedness, financial decision making and their spending avenues especially in IT sector and also it is necessary to identify the factors which determine these attributes of financial management and planning of employees.

II. REVIEW OF LITERATURE

The main indicators of perceived financial well-being of employees were saving of income, current financial situation, money owed, financial preparedness to meet emergencies, financial management skills, and ability to meet long-term goals [2], [3]. In the area of economics research, employee's attitude towards money and their financial planning are an important study area and a large number of research studies found that there was a significant relationship between financial attitudes and level of financial problems of employees [4]. The areas such as cash and credit management, financial planning, and investments, insurance, tax and retirement planning are the set of behaviours in financial management [5], [6]. The critical management tool in finance is acquiring adequate financial knowledge [7].

Few research studies [8], [9] found that gender differences exist in financial planning where internet and software for financial planning accessed by women were less likely than men. Women employees should understand the best way to achieve their financial goals at an early age of their employment. Numbers of financial education resources are available for women to gain confidence, to empower themselves and to face the challenges of retirement planning [10]. These studies also observed that women were perceived low risk and their risk perception differed on financial literacy level; and low income of employees were hold low risk portfolio over higher income groups.

Personal finance management varied among employees and they may be conservative, risk aversive, very cautious and follow their gut feelings [11]. Psychological factors of employees towards financial management and planning are important in behavioral finance as it improve employees' knowledge about financial investments and spending [12].

Only few studies were conducted in the area of financial literacy among employees of IT sector in India. This research study was conducted to fill the gap in the area of examining most underlying factors in determining the financial attitudes and financial preparedness of IT professionals in India.

III. OBJECTIVE OF THE STUDY

The present study was conducted with the following objective:

- To identify the main factors of financial attitude and financial preparedness of IT Professionals in Bengaluru City.

IV. RESEARCH METHODOLOGY

A. Participants and data collection

Bengaluru is one of the largest tech hubs in India having 1.5 million employees in the IT/ITES, out of nearly four million employees across India [13]. In order to solve various issues of IT/IT-enabled services sectors (ITES) employees, Karnataka State government has approved the Karnataka State IT/ITES Employees Union (KITU) under the Trade Union Act, 1926 and Karnataka Trade Unions Regulations, 1958. More number of Generation Y (Millennial) and Generation Z employees from across the country are working in IT sectors at Bengaluru. Bengaluru, the capital city of Karnataka was chosen as the study area because large number of IT professionals is working here.

In order to achieve the objectives of the study, primary data were collected through a well framed questionnaire. A pilot study was conducted with 15 IT professionals who belong to IT/ITES sector. Based on their feedbacks and discussions with the academic experts, the questionnaire was restructured. The population was divided into different sub groups in IT industry IT, ITES and BPO and sample was chosen based on proportion from each sub group. Totally 900 questionnaires were distributed among the IT professionals using stratified sampling method.

The data for the questionnaire were collected through offline as well as online mode using Google forms in Google Docs. Among all, only 792 questionnaires were complete in all aspects in both offline and online which are considered for the study. Data was collected in the year 2018 designed to identify the key factors of financial attitude and financial preparedness of IT Professionals in Bengaluru City. The questionnaire consisted of three sections namely the demographic variables, questions on financial attitude and financial preparedness. Articles were reviewed though secondary data collected from various sources like journals, dissertations and newspapers.

B. Instruments and measures

In order to measure the variables for factor analysis, Kaiser-Meyer-Olkin (KMO) sampling adequacy test and Bartlett test of sphericity was made. For reducing the number of variables and to find the main underlying financial attitude and financial preparedness, factor analysis was carried out. The rotated component matrix was employed for grouping the variables by applying the methods of principal components analysis and varimax with Kaiser normalization. SPSS Version 22 and AMOS Version 20.0 were used for data analysis.

V. RESULT AND DISCUSSION

A. Factor analysis for financial attitude

Factor analysis was used to reduce the number of variables contributing financial attitude and financial preparedness of IT professionals in Bengaluru city. The study included as many as ten variables influencing the financial attitude of the IT professionals and in order to reduce the number of variables and to find the main underlying determinants of financial attitude of IT professionals, factor analysis was carried out. To ensure before undergoing the factor analysis, whether the variable taken in the study are eligible to do factor analysis, KMO sampling adequacy test and Barlett test of sphericity was made.

Table I results evidenced that all the 10 variables considered for financial attitudes are eligible to admit for the further analysis of this study. The results of KMO and Bartlett's test in Table I indicates that a factor analysis can be applied to the data as the value of KMO statistics for 10 items is greater than 0.8 which is a good measure and the approximate Chi square value for test of sphericity is 4.531E3 for financial attitude, 1.342E4 for financial preparedness and the P value is significant ($p<.001$).

The main factors extracted from the whole data set are displayed in Table II and III along with the percentage of variance explained by each of them. The internal consistency of items within each factor is determined through Cronbanch's alpha and it is generally accepted by researcher to have a coefficient of above 0.6 as appropriate, above 0.7 as good, above 0.8 as very good and above 0.9 as excellent.

It can be seen from the Table III that two extracted factors (financial attitude) appropriately named in the table such as financial perspective and financial propensity have satisfied the norms of internal consistency as the reliability coefficient is more than 0.6. After establishing the individual item reliability of the factors, the validity of each factor is also verified. Also the AVEs for the factors in Table IV are near to 0.5 and above for all the factors and hence all the measurable items meet the desirable validity. Hence it has been decided to take the average values of variables for each factor to carry out further statistical analysis.

Table – I: KMO and Bartlett's test

Construct	Kaiser-Meyer-Olkin Measure of sampling Adequacy	Bartlett's test of sphericity		
		Approx. Chi-square	Degrees of freedom	Significance
Financial Attitude	.883	4.531E3	45	0.000
Financial Preparedness	.949	1.342E4	171	0.000

After performing the factor analysis through Principal Component method in Table II,

the number of components extracted with significant Eigen values is two and cumulative variance explained by those two factors collectively represented as 62.434% in the entire data set. The percentages of variation explained by the two factors are 36.156 and 26.278 respectively after Varimax rotation is performed. These factors are further grouped based on the return Eigen value and combination of different variables under the group are identified and named properly.

Table – II: Total variance explained (Financial Attitude)

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.058	50.579	50.579	5.058	50.579	50.579	3.616	36.156	36.156
2	1.186	11.856	62.434	1.186	11.856	62.434	2.628	26.278	62.434
3	.997	9.970	72.405						
4	.745	7.448	79.852						
5	.588	5.880	85.732						
6	.522	5.218	90.951						
7	.292	2.918	93.869						
8	.261	2.605	96.474						
9	.203	2.027	98.502						
10	.150	1.498	100.000						

Note: Extraction method: principal component analysis Source: Primary data

Table – III: Rotated component matrix (Financial Attitude)

Factor	Items	Factor Loadings		% of Variance explained	Cumulative % of Variance explained
		Component			
		1	2		
Financial perspective	Money gives me a sense of power	.824		36.156	36.156
	I don't bother if I am rich or poor	.763			
	I envy friends with more money	.745			
	A successful person is always a wealthy person	.713			
	I value money very highly	.713			
Financial propensity	I make attempts to learn more and understand financial matters		.722	26.278	62.434
	I discuss finance with my family		.722		
	I have seen my parents expressing concern for money		.686		
	I enjoy talking and discussing about money		.628		

Note: Rotation method: varimax with Kaiser normalization Source: Primary data

Table – IV: Validity of factors extracted (Financial attitude)

Factor	Factor Loading	Sum of Factor Loading	Squared Factor Loading	Error	Construct Reliability	Average Variance Extracted (AVE)
Financial Perspective	.824	3.758	0.679	0.321	0.8k67	0.566
	.763		0.582	0.418		
	.745		0.555	0.445		
	.713		0.508	0.492		
	.713		0.508	0.492		
Financial propensity	.722	2.758	0.521	0.479	0.784	0.477
	.722		0.521	0.479		
	.686		0.471	0.529		
	.628		0.394	0.606		

Source: Primary data

Table - V: Total variance explained (Financial Preparedness)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.641	56.005	56.005	10.641	56.005	56.005	6.741	35.480	35.480
2	2.060	10.844	66.849	2.060	10.844	66.849	4.681	24.636	60.116
3	1.064	5.602	72.452	1.064	5.602	72.452	2.344	12.336	72.452
4	.818	4.303	76.755						
5	.578	3.042	79.797						
6	.516	2.717	82.514						
7	.458	2.409	84.923						
8	.385	2.024	86.947						
9	.373	1.965	88.912						
10	.338	1.778	90.690						
11	.285	1.502	92.192						
12	.266	1.400	93.592						
13	.237	1.248	94.840						
14	.231	1.216	96.057						
15	.192	1.012	97.069						
16	.166	.872	97.941						
17	.162	.852	98.793						
18	.127	.666	99.459						
19	.103	.541	100.000						

Note: Extraction method: principal component analysis Source: Primary data

Table – VI: Rotated component matrix (Financial Preparedness)

Factor	Item	Factor Loadings Component			% of Variance explained	Cumulative % of Variance explained
		1	2	3		
Financial control	My personal finances are completely under my control	.812			35.480	35.480
	I am prepared and alert to the worst outcome	.805				
	I am financially independent	.805				
	I have set specific financial goals	.786				
	I don't have time for planning my finances	.731				
	I am satisfied with my current financial situation	.710				
	I have financial problems that are negatively impacting my life	.705				
	I review my financial goals periodically	.658				
	I have an emergency fund	.648				
	I know 'what will be will be', so there is no point in planning now	.646				
	I worry about my finances often	.646				
	I do not want temporary fun and happiness in exchange for future financial success	.567				
Financial compe-tence	I am fully aware of the various deductions under the Income Tax act		.886		24.636	60.116
	I formulate a tax plan every year		.869			
	I always utilize the maximum deductions available		.832			
	I have never experienced a 'hand to mouth 'situation		.829			
	I am stress free regarding my finances		.713			
Financial philosophy	I know almost to the penny how much I have in my purse wallet or pocket all the time			.808	12.336	72.452
	Proper financial planning improves quality of my life. I get irritated with people who don't plan for their future			.780		

Source: Primary data

B. Factor Analysis for Financial Preparedness

The rotated component matrix in Table III results with the extracted two components along with its respective variables under each group after 22 iterations converged as the result of Principal components analysis. These two factors are further classified and named as 'Financial perspective' consists of five variables and 'Financial Propensity' consists of four variables determining the financial attitudes of IT professionals in Bengaluru city. Out of 10 admitted variables, one of the variables in financial propensity has low loading factor i.e less than 0.5. Hence, it is not considered in Table III and IV.

The higher value of KMO test (0.949) satisfies the sampling adequacy and the significance level 0.000 of Bartlett's test of sphericity shows the interdependency of the items under the construct. The construct 'Financial Preparedness' consists of 19 items which were subjected to factor analysis with varimax rotation for reducing the dimension of this construct for further analysis. Table V gives the details of the variance explained by each factor and also the items falling under each of these three factors along with their corresponding factor loadings.

After performing the factor analysis through Principal Component method in Table V, the number of components extracted with significant Eigen values obtained is three and cumulative variance explained by them collectively represented as 72.452%. The percentages of variation explained by the three factors are 35.480, 24.636 and 12.336 respectively after Varimax rotation is performed. These factors are further grouped based on the return Eigen value and combination of different variables under the group are identified and named properly in Table VI. These three factors are further classified and named as financial control consists of 12 variables, financial competence consists of five variables and financial philosophy consists of two variables determining the financial preparedness of IT professionals in Bengaluru city.

Table - VII: Validity of factors extracted (Financial Preparedness)

Factor	Factor Loading	Sum of Factor Loading	Squared Factor Loading	Error	Construct Reliability	Average Variance Extracted (AVE)
Financial control	0.812 0.805 0.805 0.786 0.731 0.710 0.705 0.658 0.648 0.646 0.646 0.567	8.519	0.659 0.648 0.648 0.618 0.534 0.504 0.497 0.433 0.420 0.417 0.417 0.321	0.341 0.352 0.352 0.382 0.466 0.496 0.503 0.567 0.58 0.583 0.583 0.679	0.925	0.401
Financial competence	0.886 0.869 0.832 0.829 0.713	4.129	0.785 0.755 0.692 0.687 0.508	0.215 0.245 0.308 0.313 0.492	0.916	0.685
Financial philosophy	0.808	1.588	0.653	0.347	0.773	0.631

VI. CONCLUSION

Financial management and planning are a part of employees' everyday life. Employees' attitudes towards financial planning and management and getting benefits out of it lead satisfaction among them. Their personal and job satisfaction is an important factor for their active involvement and their decision to contribute to innovation. Information Technology sector is an important industry where employees are contributing more innovations in computing technology and it is one among the highly paid sector where more number of cash flows is involved. Understanding of the main underlying factors that influence financial management, planning and decision making of IT professionals will help the various service sector institutions to frame their policies and strategies effectively. The present study was conducted with the aim of identifying the determinants of financial attitudes and financial preparedness of IT professionals in the selected city.

The study found that the two main components such as financial perspective and financial propensity determined the financial attitude and the factors clustered under three main components such as financial control, financial competence and financial philosophy influencing the financial preparedness of employees in IT sector. The study also provides the scope for further researches in the area of gender differences in financial management and planning in other sectors employees and comparative studies can be made among the employees across India.

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