
Subjective variables of Financial Well-being and Individual Economic Behavior: Pre-and Post-Financial Literacy Intervention

Rajni Rajan Chauhan¹, Dr. Jasdeep Kaur Dhami²

¹Research Scholar, IKG Panjab Technical University Kapurthala, Jalandhar, Punjab
India

²Professor, CT Institute Management & Information Technology, Punjab, India
Email: rajni03rajan@gmail.com

Abstract: *Financial wellbeing is usually objectively measured and also views as a subjective concept that refers to "How people feel or evaluate themselves related to money matters". Personal economic well-being is a multifaceted subjective concept that includes subjective variables of Financial Well-being like financial satisfaction, financial behaviour, attitude, and perceptions of Individual related to financial decisions. In this multi-disciplinary experimental research, the paper focused on two objectives: 1) to study the relationship between subjective variables of Financial-wellbeing and 2) on observing variation in the subjective variables of Financial-wellbeing in both situations of Pre-and Post-Financial Literacy intervention. The sample of the study consists of 308 working people as respondents in tri-city Chandigarh. The questionnaire covers subjective variables of Financial-wellbeing, i.e., 1) Individual Economic Behaviour, 2) Financial-Awareness, 3) Financial-Perception, 4) Financial-Attitude, and 5) Socio-economic-demographic characteristics of respondents. The study reveals that: 1) a significant relationship between other subjective variables of Financial-wellbeing and Individual Economic Behavior among, 2) a significant relationship exists between Individual Economic Behaviour and socio-economic demographic variables, i.e., Income and employment level, 3) The paired t-test reveals that a substantial improvement in subjective variables of Financial-wellbeing and Individual Economic Behaviour in Post-Financial Literacy Intervention situation among working people in tri-city Chandigarh in Pre- and Post- Financial Literacy Intervention. Thus, Financial Literacy has a positive impact on Economic Behaviour and subjective variables of Financial-wellbeing among Individuals.*

Keywords: *Financial Awareness, Financial Perception, Financial Attitude, Financial Behaviour*

1. INTRODUCTION

Economic psychologists observed specific behavioural patterns of human psychology that influence financial decision behaviour of Individuals. According to OECD, Behavioral Insight as one discipline, along with Behavioral Science and Behavioral Economics, "which mix traditional economics strategies with the insight from psychological, cognitive sciences and other Social sciences to discover the many 'irrational' factors that influence decision making (OECD, 2017)". Application of Behavioral Insights aims to improve the consumers' decisions through policy and regulatory Intervention. These interventions must be based on empirical evidence through efficient and full-proven experimental methods (Meier et al., 2008). The economic psychologists aim to understand what influence or motivate a human being to behave in a certain way on the basis collected data and to develop theories to explain Individual economic Behaviour. Locke propounds the Goal-setting Theory of Motivation and Financial Management Behavior. The focus of approach on finding an answer to the question: *'what is driving a human being to perform better than others?'* The study emphasized the notion that human beings have the power of consciousness, a capacity to reason. Through this power of consciousness, they can conceptualize specific goals and motivate themselves to achieve them. (Locke, E.A and Latham, G.P., 1991) According to Goal setting and task performance, People regulate and motivate to act themselves by goal-setting. Thus, Goal setting is a self-management mechanism.

Most of the time, People think of becoming rich and wealthy but still, they don't manage financial matter. The reason could be the phenomenon of 'Low need of cognition' (Cacioppo and Petty, 1982), which means the low motivation to think for financial products. Consumption inadequacy leads to dependence on others and lack of autonomy (Martin and Paul, 2012). Insufficient money management leads to the stressed financial position and further ends up at debt burden. People may aware that financial planning is essential, but they are hardly interested in understanding financial products and improving financial skills. People find financial matters as 'low involvement' matters like insurance policy may be less attractive financial products till the time uncertainty happens.

Various studies in the field of financial Literacy revealed that people possess a low level of Financial Literacy and lack enough financial skills, knowledge, or interest in rational financial decisions that affect future financial planning. The evidences of low money management are found in different studies like poor retirement planning and under-saving (Lusardi and Mitchell, 2011; Atkinson and Messy, 2012; Mahdzan and Tabiani, 2013). Financial-illiteracy affects financial wellbeing adversely at the Individual level. It can have alarming consequences for an economy's economic system at a mass level due to the population's accumulation effect.

A great attempt has been made at the Global level and at domestic level different studies to develop Financial Literacy programme and initiatives by OCED (INFE) and its member countries and other public stakeholders. Various studies approved the existence of significant relationship between Financial Literacy and Individual Economic Behavior. Financial Literacy plays a significant role in saving behaviour and portfolio choices. Financial Literacy is considered as an effective tool that empowers people to make efficient economic decisions for the present and long-term financial wellbeing (Maria, 2013; Lusardi & Tufano, 2015).

Financial Literacy encourages investors' welfare to take accurate financial decisions. Individuals' economic decision includes consumption, saving, investment avenues, and appropriate use of credit and also risk-assessment. Financial Literacy is an essential element that makes people efficient money manager and enables them to measure risk and uncertainty.

2. OBJECTIVE OF THE STUDY

The present study has the following objectives:

1. To study the relationship between Individuals' Economic Behavior and other subjective variables of Financial Wellbeing.
2. To observe variations in subjective variables of Financial wellbeing under study like Individuals Economic Behaviour, Financial Awareness, Financial Perception and Financial Attitude among working people in tri-city Chandigarh Pre-and Post- Financial Literacy Intervention.

Literature review

The various studies have been conducted to understand the Individual Economic Behaviour in diverse areas like microeconomics, behavioural finance and marketing. The study conducted under Behavioural finance has shifted the focus of the research from Individual rational economic behaviour to irrationality exists in human economic behaviour related to financial matters (Thaler, 1991).

Financial Literacy is defined as managing financial resources efficiently by acquiring knowledge and using the cognitive ability. Thus, this involves numeracy knowledge and cognitive ability to understand the situation and make rational financial decisions as per the existing circumstances or situations around. Financial Literacy is considered a useful tool to enable an investor to measure the risk and help control human behaviour irregularities during financial decisions.

The OECD has defined financial Literacy as "*A combination of awareness, acquaintance skill, attitude and behaviour necessary to make sound financial decisions.*" With a growing magnitude of Financial Literacy worldwide to achieve financial stability among countries, stakeholders and agencies like OCED at international level & other organizations like National Centre of Financial Education (NCFE), RBI, IRDA, SEBI at domestic level in India eagerly focusing on developing Financial Literacy environment through financial education initiatives among countries at large. Financial Literacy refers to a combination of delivering knowledge or information, skill-building practices and motivation to bring the desired change in behaviour (Hilgert et al., 2003) related to money management. Various studies experienced a low level of financial Literacy (Chen and Volpe, 1998; Volpe et al. 2006; Lusardi et al., 2007) and other observed the positive impact of financial literacy on financial decision behaviour. OCED and Researchers highlight the importance of imparting Financial Literacy to strengthen the financial system of Nations and also for developing efficient economic activities among masses from top-level to the grassroots level.

Individual Economic Behavior referred to as decision behaviour related to money matters (Xiao, 2008) and financial decision behaviour includes spending, borrowing, saving and investing and Personal money management. Financial management has gained importance

nowadays as it covers a wide range of skills and knowledge required for efficient financial decision behaviour.

In Financial Management Behavior, the nine behaviours are observed. The first four behaviours are related to planning actions and the next five activities are related to implementing behaviours. These nine behaviours are as:

- 1) Setting financial goals;
- 2) Estimating expenditure daily correctly;
- 3) Budgeting and planning own spending;
- 4) Estimate incomes rightly;
- 5) Consider the alternatives while financial decisions;
- 6) Create contingencies for emergencies;
- 7) Payment of bills timely;
- 8) Achieving set financial goals;
- 9) Spend according to planned budget (Heck, 1984).

For efficient Financial Management Behavior, Goal setting can be considered as primary behaviour. Though money management is not a goal for a person, it is an instrument to make ends meet and avoid the problematic financial situation. The existing studies emphasized the fact of observing the subjective aspect of economic behaviour among Individuals. The decisions behaviour depends on demand and availability of resources and shows variation depending upon knowledge, attitude, and traits.

Thus, Individuals Economic Behavior can be referred to as

1. Execution financial activities like spending, saving, borrowing, Investing, Insurance, retirement planning, and tax behaviour including lawful activities;
2. Possessing skills like financial planning, financial literacy, knowledge, computational skills to make efficient economic decisions
3. Overall, money management skills are based on both objective as well as subjective skills to make both ends meet for financial wellbeing.

Psychological variables, is known as subjective variables of Financial Wellbeing such; Perception, attitude and awareness towards financial decisions affect the Individuals economic behaviour. According to the Cambridge English Dictionary "*Perception is a belief or opinion, often held by many people and based on how things seem. Also, it is the quality of being aware of things through the physical senses, especially sight. Someone can notice and understand things that are not obvious to other people.*" Individuals' financial behaviour may vary at the differing level of perception, attitude, preferences and personality traits. Non-cognitive factors of economic behaviour have been discussed under different studies such as Self-control (Antonides et al., 2011), gender-based risk-taking behavior (Bayrnes et al., 1999), Big five personality traits (Brown et al., 2011): 1) Extraversion (Oehler et al., 2018) versus Introversion 2) Emotional instability (versus stability), 3) Agreeableness, 4) Conscientiousness, 5) openness. Usually, Investment decisions depend on perceptions,

attitude and skill among Individuals in processing the available information. Various were conducted on gender-based difference in preferences and attitude for saving and investment decisions. And it was found that male and female exhibit different behavioural biases that affect their investment decisions. Another study related to managing financial matters by (Ameroks et al., 2003) observed that people are not concerned with managing their financial issues and remain less anxious on conscious spending. People demonstrate impulsive buying behaviour and leisure spending habits. Such people can be termed as 'Absent-minded.'

3. RESEARCH METHODOLOGY

Observing a behavioural change among human beings takes a long time. The present study attempts to study two objectives

- 1) To observe the relationship between Individual Economic Behavior and other subjective variables of Financial-wellbeing and
- 2) To examine variations in subjective components of financial wellness in light of Financial Literacy Intervention.

The present study is multi-disciplinary. The study was conducted in the tri-city Chandigarh with a representative sample size of 308 working people in tri-city Chandigarh in the age-group of 21 to 60. The present study is an experimental research and responses collected from the working people in tri-city Chandigarh Pre- and Post- the Financial Literacy Intervention. The financial intervention has been introduced a lecture of 90 minutes adapted from available resources Investor Education programs and other financial literacy programs available on the National Centre of Financial Education (NCFE) official website under RBI, SEBI, IRDA and PFRDA.

The subjective variables under the study include Financial Awareness, Financial Perceptions, Financial Attitude, and Individuals Economic Behaviour. The socio-economic-demographic characteristics of the sample, under the study, are gender, age, income level, educational level, employment, religion and social status. The statistical tools on data such as correlation and paired-t test are used to determine the results.

4. HYPOTHESES

The hypotheses are framed, under the study, to examine the existence of a significant relationship between the variables and to observe variation with the introduction Financial Literacy Intervention on subjective variables of Financial Well-being. The hypotheses under the survey are:

H1: There is no relationship between Financial Perceptions of Individuals and Individuals' Economic Behaviour.

H1a: There is no relationship between the Financial Attitude of Individuals and Individuals' Economic Behaviour.

H1b: There is no relationship between Financial Awareness of Individuals and Individuals' Economic Behaviour.

H1c: There is no relationship between socio characteristics of respondents and Individuals' Economic Behaviour.

H1d: There is no relationship between the demographic factors of Individuals and

Individuals' Economic Behaviour.

H1e: There is no relationship between the Financial Literacy Level and Individuals' Economic Behaviour.

H1f: To observe the variations in subjective variables of Financial Wellbeing among working people in the light of Financial Literacy Intervention.

Measuring of Variables

From figure-1, it can be observed that variables under the study are categorized in two:

- 1) Socio-economic demographics characteristics of respondents and
- 2) Subjective variables of Financial Wellbeing; Financial Awareness, Financial Perceptions, Financial Attitude, and Individuals Economic Behaviour.

Correlation is used to test the relationship between Individuals' Economic Behavior and other subjective variables of Financial Well-being. Paired t-test has been used to observe the variations in subjective variables of Financial Well-being in the light of Financial Literacy Intervention.

Individuals' Economic Behavior (IEB): The responses are taken for 22 statements related to financial habits and preferences like budgeting, saving, spending, risk & return analysis and investment decisions. The scale has 22 items rated on the scores ranging from 1- never to 5= Always for the Individuals' Economic Behaviour. The reliability scale of IEB i.e., cronbach alpha is found to be adequate in both Pre-and Post-Financial Literacy, i.e., $\alpha_{pre}=0.738$ and $\alpha_{post}=0.866$.

Financial Perception: To measure Financial perception, the questionnaire contains 8-statement related to respondents' perception related the authenticity of financial transaction and conceptual understanding. The scale is measured on 8 items at 5-Likert Scale ranging from 1=never true to 5= Always true from the same group of respondents in the questionnaire for Pre- and Post- Financial Literacy Intervention. Reliability scale of Cronbach alpha for Financial Perception variable is found to be adequate in both situation Pre-and Post-Financial Literacy, i.e., $\alpha_{pre}=0.672$ and $\alpha_{post}=0.739$ respectively.

Financial attitude is measured on ten statements at 5-point Likert Scale from 1= strongly disagree to 5=strongly agree through collecting responses on the questionnaire from working people tri-city Chandigarh. The items for measuring financial attitude include Individuals' attitude towards their financial goals related to planning for the post-retirement annuity, unexpected future expense, spending for upgrading the living standard, generating passive Income, accumulating wealth for kids' education/ marriage/kids' future, tax-saving investments, creating assets or wealth. Reliability scale of Cronbach alpha for financial attitude found to be adequate in situations, Pre-and Post-Financial Literacy, i.e., $\alpha_{pre}=0.742$ and $\alpha_{post}=0.815$.

Financial Awareness is measured on 14 items for responses from working people scaled on the 5-point Likert scale ranging from 1= Never true to 5=Always true in the questionnaire. Individuals' Awareness refers to Individuals understanding of basic financial terms and

concepts, financial transactions and aspects for making efficient Individual Economic Behavior. The statements for the variable include; their conceptual understanding of financial concepts and transactions like saving vs. investments, inflation, liquidity vis-a-vis risk, the impact of inflation on the value of assets, hedging, the association of time horizon with wealth accumulation, compounding interest, variable rate of interest etc. The responses for statements were recorded in both situations Pre-and Post-Financial Literacy Intervention. Reliability scale of Cronbach alpha of financial awareness is found to be adequate in both Pre-and Post-Financial Literacy, i.e., $\alpha_{pre}=0.646$ and $\alpha_{post}=0.663$.

Socio-demographic Variables: Under the present study, the social-demographic characteristics of respondents include Income, employment status, employment-level, education qualification.

Relationship between Financial Perception and Individual Economic Behavior:

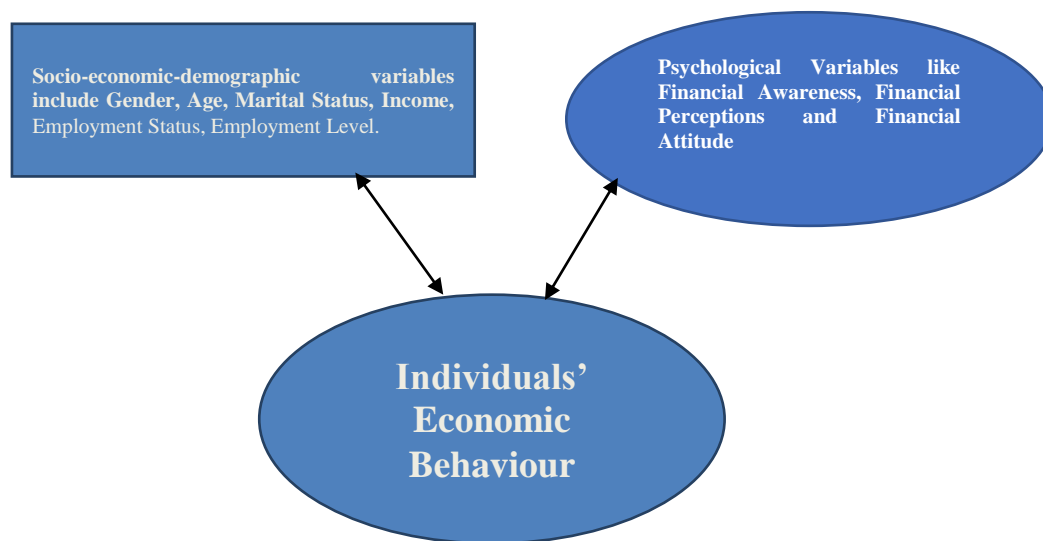


Figure-1: Showing framing relationship between variables under the study in both conditions of Pre and Post Intervention of Financial Literacy

5. RESULTS AND DISCUSSIONS

H1: There is no relationship between Financial-Perceptions among Individuals and Individuals' Economic Behaviour.

The null hypothesis states that there is no significant relationship exists between Individuals Economic Behaviour and their Financial-Perceptions in both situations i.e., Pre-and Post-Financial Literacy Intervention. It can be observed from table-1(1). The null hypothesis stands accepted at a 0.05% significance level, $r(pre)=.076$ and $p>0.05$ that states, there is no significant relationship between Individuals Economic Behaviour their Financial-Perceptions in Pre-financial Literacy intervention. Whereas, in Post-Financial Literacy Intervention, the null hypothesis stands not-accepted with value of $r_{(post)}=.307$ at significance level of $p<.05$, which shows a significant relationship between Individual Economic Behavior and Financial Perception.

Table 1: Relationship between Subjective variables of Financial-wellbeing and Individual Economic Behaviour

Sr.no	Variable	Condition	Correlation	p-value	Significance	Remarks
1.	Financial Perception	Pre-Intervention	.076	.185	NS	H ₀ : Accepted
		Post-Intervention	.307	.000	S	H ₀ : Not Accepted
2.	Financial Attitude	Pre-Intervention	.132	.021	S	H ₀ : Not Accepted
		Post-Intervention	.335	.002	S	H ₀ : Not Accepted
3.	Financial Awareness	Pre-Intervention	.232	.001	S	H ₀ : Not Accepted
		Post-Intervention	.380	.001	S	H ₀ : Not Accepted

H1a: There is no relationship between the Financial-Attitude of Individual and Individual Economic Behaviour.

The null hypothesis states that there is no significant relationship exists between Individuals Economic Behaviour and Financial-Attitude among working people in both situations i.e., Pre-and Post-Financial Literacy Intervention. It can be observed from table-1(2) that the null hypothesis stands not accepted for both situations that are Pre-and Post- Financial Literacy Intervention. It means that there is a significant relationship between Individuals' Economic Behaviour and Financial Attitude in both Pre-and Post-Financial Literacy Intervention cases. The coefficient correlation value has been improved from $r_{(pre)}=.132$ to $r_{(post)}=.335$ in Post-FL Intervention.

H1b: There is no relationship between Financial-Awareness among Individual and Individual Economic Behaviour.

The null hypothesis states that there is no significant relationship exists between Individuals Economic Behaviour and Financial-Awareness among working people in both situations i.e., Pre-and Post-Financial Literacy Intervention. Results from table-1(3) show that the null hypotheses stand not-accepted in both situations of Pre-and Post-Financial Literacy. Thus, a significant relationship exists between Individuals' Economic Behavior and Financial Awareness among working people in tri-city Chandigarh as, $r_{(pre)}=.232$, $p<0.05$ and $r_{(post)}=0.380$, $p_{(post)}<0.05$ in both situations, Pre-and Post-Financial Literacy Intervention respectively.

H1c: There is no relationship between social influences and Individual Economic Decision Behavior.

1. The null hypothesis states that there is no relationship between Income and Individual Economic Decision Behavior in both situations Pre-and Post-Financial Literacy Intervention. From the table-2 (1), it can be observed that the null hypotheses stand not accepted as, $r_{(pre)}=.230$ with value $p_{(pre)}<0.05$ and $r_{(post)}=0.370$ with value $p_{(post)}<0.05$ for the both situation Pre-and Post- FL Intervention respectively. Thus, there is the existence of a significant relationship between Income and Individuals' Economic Behavior.

2. The null hypothesis states that there is no relationship between employment status and Individual Economic Decision Behavior in both situations Pre-and Post-Financial Literacy Intervention. As observed in table-2(2), the null hypothesis is not accepted, which means there is a significant relationship between employment status and Individuals' Economic Behavior in the Pre-FL Intervention situation with $r_{(pre)}=.126$ at $p<0.05$. Whereas Post-FL Intervention, the null hypothesis stands accepted that shows there is no significant exists between employment status and Individuals' Economic Behavior with $r_{(post)}=.034$ at $p>0.05$ if working people acquire Financial Literacy.

Table-2: Relationship between Social Variables and Individual Economic Behavior

Social Variables	Condition	Correlation	p-value	Significance	Remarks
1. Income	Pre- Intervention	.230	.001	S	H ₀ : Not Accepted
	Post- Intervention	.370	.025	S	H ₀ : Not Accepted
2. Employment Status	Pre- Intervention	.126	.027	S	H ₀ : Not Accepted
	Post- Intervention	.034	.549	NS	H ₀ : Accepted
3. Employment Level	Pre- Intervention	.264	.001	S	H ₀ : Not Accepted
	Post- Intervention	.118	.038	S	H ₀ : Not Accepted
4. Education	Pre- Intervention	.107	.060	NS	H ₀ : Accepted
	Post- Intervention	.112	.050	NS	H ₀ : Accepted

3. The null hypothesis states that there is no relationship between employment level and Individual Economic Decision Behavior in both Pre-and Post-Financial Literacy Intervention situations. From table-2(3), it can be observed that the null hypotheses stand not accepted for employment level and Individuals' Economic Behavior in both situations Pre-and Post-FL Intervention. It means that there is a significant relationship between employment level and Individuals' Economic Behavior in both Pre-and Post-Financial Literacy Intervention at $r_{(pre)}=.264$ at $p_{(pre)}<0.05$ and $r_{(post)}=.118$ at $p_{(post)}<0.05$ respectively.

4. The null hypothesis states that there is no relationship between education level among Individuals and Individuals Economic Decision Behavior in both situations Pre-and Post-

Financial Literacy Intervention. From table-2(4) value, it can be concluded that the null hypothesis stands accepted in both cases. Pre- and Post-Financial Literacy Intervention states that there is no significant relationship between education level and Individuals' Economic Behavior in both situations Pre-and Post-Financial Literacy Intervention.

H1d: There is no relationship between the demographic factor of Individuals and Individuals' Economic Decision Behavior.

Table-3: Relationship between Demographic Variables and Individual Economic Behaviour

Demographic Variable	Conditions	Correlation (r)	p-value	Significance	Remarks
1. Gender	Pre-Intervention	-.037	.519	NS	H ₀ : Accept
	Post-Intervention	.083	.203	NS	H ₀ : Accepted
2. Age	Pre-Intervention	.167	.003	S	H ₀ : Not Accepted
	Post-Intervention	.107	.060	NS	H ₀ : Accepted
3. Marital Status	Pre-Intervention	-.174	.002	S	H ₀ : Not Accepted
	Post-Intervention	-.20	.954	NS	H ₀ : Accepted

1. To study the relationship between gender-based features and Individuals' Economic Behavior in both situations Pre-and Post-Financial Literacy Intervention. As shown in Table-3(1) for Pre- and Post-FL Intervention, there is no significant relationship between gender and Individuals' Economic Behavior in both situation Pre-and Post-Financial Literacy Intervention.

2. The null hypothesis state that there is no significant relationship exists between respondents' age and Individuals' Economic Behavior in Pre- and Post-Financial Literacy Intervention. As per results shown in table 3(2) it can be observed that the null hypothesis stands not accepted as Pre-FL Intervention with $r_{(pre)}=.167$ and $p_{(pre)} < 0.05$. Thus, it is found that there is significant relationship exists between respondents' age and Individuals' Economic Behaviour. Whereas, in Post-Financial Literacy Intervention the null hypothesis stands accepted, there is no significant relationship exists between age and Individuals' Economic Behavior with $r_{(post)}=0.107$ and $p_{(post)} > 0.05$.

3. As per the null hypothesis, there is no significant relationship exists between respondents' marital status and Individuals' Economic Behavior in both Pre-and Post-Financial Literacy Intervention situations. The result is shown in table-3(3) shows the null hypothesis stands not accepted with $r_{(pre)}=-.176$, $p_{(pre)} < 0.05$ that means, there is the existence of a significant relationship between marital status of respondents and Individuals' Economic Behavior in Pre-FL Intervention. Whereas the result of Post-FL Intervention $r_{(post)}=-.20$,

$p_{(post)} > 0.05$ and null hypothesis stand accepted that means there is no significant relationship exists between the marital status of respondents and Individuals' Economic Behavior.

H1e: There is no relationship between the Financial Literacy Level and Individual Economic Decision Behavior.

To study the null hypothesis, there is no relationship between the Financial Literacy Level and Individual Economic Decision Behavior in both situations Pre-and Post-Financial Literacy Intervention. The Financial Literacy Level is the average Score of the Financial-Perception, Financial Attitude and Financial Awareness. It can be observed from the table-4 that the null hypothesis stands not accepted, thus there is a significant relationship between Financial Literacy Level and Individuals' Economic Behaviour.

Table-4: Relationship between Financial Literacy Level and Individual Economic Behaviour

Variable	Condition	Correlation	p-value	Significance	Remarks
Financial Literacy Level	Pre-Intervention	.21	.016	S	H ₀ : Not Accepted
	Post-Intervention	.69	.036	S	H ₀ : Not Accepted

H1f: To observe the variations in financial psychological variables in the light of Financial Literacy Intervention among Individuals.

The paired t-test is used to observe the variation or the impact of Financial Literacy Intervention on subjective variables of Financial-wellbeing as shown in Table 5.

Table-5: Paired t-test results for Subjective variables of Financial-wellbeing of Financial Wellness with Financial Literacy Intervention

Sr. No.	Subjective variables of Financial-wellbeing	Correlation (r)	Mean difference	S.D. (Σ)	Paired t-value	Significance (2-tailed)	Remarks
1.	Individual Economic Behavior Pre-Post Intervention	$r=.351^{**}$ $p=.001$ $p<.05$	(-).8311	.5977	-24.40	.000	H ₀ : Not accepted Significant difference
2.	Financial Awareness Pre-Post Intervention	$r=.234$ $p=.000$ $p<.05$	-.3209	.6260	-8.998	.000	H ₀ : Not accepted Significant difference
3.	Financial Perception Pre-Post Intervention	$r=.442$ $p=.000$ $p<.05$	-.01339	.7025	-.335	.738	H ₀ : accepted no Significant difference
4.	Financial Attitude Pre-Post Intervention	$r=.436$ $p=.000$ $p<.05$	-.2798	.6523	-7.529	.000	H ₀ : Not accepted Significant difference

Explanation of Table-5 with Hypotheses

1. H₁₀: Pre- Financial Literacy Intervention and Post- Financial Literacy Intervention resilience means of Individuals' Economic Behavior are equal.

The hypothesis states that no significant difference exists in Individuals' economic behaviour Pre-and Post-Financial Literacy Intervention. Paired-samples t-test was performed to observe the variation in Individuals' Economic Behavior with Financial Literacy Intervention. Results showing: Mean and Standard deviation for both Pre- and Post-Financial Literacy are $M=2.9438(\text{Pre})$, $S.D. (\Sigma)=.47320(\text{Pre})$ and $M=3.7749(\text{Post})$, $S.D. (\Sigma)=.56729(\text{Post})$ respectively. The estimated correlation between the two situations was $r = .351$ and $p = .000$, i.e., $p < .01$, suggesting that the dependent samples t-test is appropriate in this case.

The null hypothesis of equal means resilience stands not accepted as two-tailed pair sample t-test revealed an improvement in Individuals' Economic Behavior Post-Financial Literacy Intervention. From table-5(1), mean difference $M=-.831179$, $S.D. (\Sigma)=.59771$, $t=-24.405$, $p = .000$ i.e., $p < .05$, shows that a significant variation is observed in Individual Economic Behavior Post-Financial Literacy Intervention.

2. H₂₀: Pre- Financial Literacy Intervention and Post- Financial Literacy Intervention resilience means for Financial-Awareness among individuals are equal.

The hypothesis states that no significant difference exists in financial Awareness among Individuals in both situations Pre- and Post- Financial Literacy Intervention.

A dependent samples t-test was performed to test the impact of financial literacy intervention on Financial-Awareness among working people of tri-city Chandigarh. For testing the hypothesis as to whether Pre- and Post -Financial Literacy Intervention means and standard deviation are equal, that is, $M=3.1797(\text{Pre})$, $S.D. (\Sigma)=.47898(\text{Pre})$ and $M=3.5007(\text{Post})$, $S.D. (\Sigma)=.53029(\text{post})$ respectively, a dependent samples t-test was performed. Correlation between the two situations was estimated at $r = .234$ and $p = .000$ i.e., $p < .01$ that suggests: the dependent samples t-test is appropriate in this case.

The null hypothesis stands not accepted. From table 5(2) , a two-tailed pair sample t-test revealed that there is improvement in Financial Awareness among individuals Post-Financial Literacy Intervention with mean difference (M) $=-.32096$ and standard deviation $S.D. (\Sigma)=.62601$, $t\text{-value} = -8.998$, $p = .000$ (significant as $p < .05$) (from table 5).

3. H₃₀: Pre- Financial Literacy Intervention and Post- Financial Literacy Intervention resilience means for Financial Perceptions among individuals are equal

The null hypothesis is framed to assess any significant improvement in Financial-Perceptions among individuals Post-Financial Literacy Intervention. From the table-5(3) it can be observed, the correlation between the two situations was estimated at $r = .442$ and $p = .000$, i.e., $p < .01$ which suggest that the dependent samples t-test is appropriate in this case. The null hypothesis of equal means resilience stands accepted. Two-tailed pair sample t-test revealed no significant improvement in financial perceptions among individuals in the light of financial literacy intervention with mean difference, $M=-.013393$, $S.D. (\Sigma)=.6940$, t -

value= -.338, $p = .732$ which is insignificant as $p > .05$.

4. H₄: Pre- Financial Literacy Intervention and Post- Financial Literacy Intervention resilience means that individuals' financial attitude is equal.

The hypothesis states that no significant difference exists in Financial-Awareness among Individuals' in both situations Pre-and Post-Financial Literacy Intervention. Correlation between the two situations, i.e., Pre-and Post- was estimated at $r = .436$ and $p = .000$, i.e., $p < .01$, which suggest that a dependent samples t-test is appropriate in this case.

A paired t-test was performed to test the impact of financial literacy intervention on Individuals' Attitude for Financial Goals. Mean, and Standard deviation for Financial Attitude among Individuals for both situation Pre and Post Financial Literacy intervention are $M=3.746$ (Pre), S.D. (Σ)= .6128(Pre) and $M=4.0256$ (Post), S.D. (Σ)= .54399 (Post). Correlation between the two situations was estimated at $r = .436$ and $p = .000$ i.e., $p < .01$ (Table-1) which suggest that the dependent samples t-test is appropriate in this case

The null hypothesis of equal means resilience stands not accepted. Two tailed pair sample t-test revealed that there is improvement in Financial Attitude among Individuals post financial literacy intervention with mean difference=-.2739, S.D. (Σ)= .6128, t- value= -7.529, $p = .000$ which is $p < .05$.

6. CONCLUSION

In this multi-disciplinary experimental research, the paper examines the relationship between subjective variables of Financial-wellbeing and Individual Economic Behaviour of working people in tri-city Chandigarh in light of Financial Literacy Intervention. The subjective variables of Financial-wellbeing under the study are Financial-Awareness, Financial-Perception, and Financial-Attitude. The study also focused on observing variation in subjective variables of Financial Well-ness Post-Financial Literacy intervention. The sample of the study consists of 308 working people as respondents in tri-city Chandigarh. The questionnaire covers Subjective variables of Financial-wellbeing i.e., 1) Individual Economic Behaviour, 2) Financial-Awareness, 3) Financial-Perception, 4) Financial-Attitude, and 5) Socio-economic-demographic characteristics of respondents. The study's result revealed a significant relationship between subjective variables of Financial-wellbeing and Individual Economic Behavior in working people in tri-city Chandigarh in Pre- and Post- Financial Literacy Intervention. The result also shows a significant relationship between Individual Economic Behaviour and socio-economic demographic variables, i.e., Income and employment level. There is an improvement in Individuals' Economic Behaviour, Financial Awareness and Financial Attitude in Post- Financial Literacy Intervention situation.

7. REFERENCE

- [1] Ameriks, John, Andrew Caplin, John Leahy, and Tom Tyler, 2003c, "*Measuring Self-Control*," Working Paper, New York University.
- [2] Antonides G., I.M. de Groot, W.F. van Raaij, 2011 "*Mental budgeting and the management of household finance*" J. Econ. Psychol., 32 (4) (2011), pp. 546-555

- [3] Atkinson, A. and F. Messy (2012), "*Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study*", OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k9csfs90fr4-en>
- [4] Brown, Sarah and Karl Taylor. "*Household Finances and the 'Big Five' Personality Traits*." IZA, Discussion Paper (2011)
- [5] Byrnes, James P., Miller, David C., and Schafer, William D., (1999) "*Gender Differences in Risk Taking: Meta-Analysis*", Psychological Bulletin ,125(3), 367-3833: https://www.researchgate.net/publication/271767720_Gender_differences_in_risk_taking_A_meta-analysis
- [6] Cacioppo, J. T., & Petty, R. E., (1982). "*The need for cognition*" Journal of Personality and Social Psychology, 42(1), 116–131. <https://doi.org/10.1037/0022-3514.42.1.116>
- [7] Chen, H. and Volpe, R. P., (1998) "*An analysis of personal financial literacy among college student*" Financial Services Review, 7 (2), 107-128.
- [8] Cole, S. & Shastry, G. K., (2008) "*If You Are So Smart, Why Aren't You Rich? The Effects of Education. Financial Literacy and Cognitive Ability in Financial market Participation*" HBS Working Paper 09-071.
- [9] Heck, Ramona, Z.,(1984) "*The determinant of Financial Management Behaviour Among College Students: Implications for Consumer Education*" The Journal of Consumer Education, Vol.2
- [10] Hilgert, M.A., Hogarth, J.M. & Beverly, S.G., (2003) "*Household financial management: the connection between knowledge and behavior*", Federal Reserve Bulletin, July,333
- [11] Leonard, M. D. L., (2012) "*Risk preferences and expected utility: Evidence from labour supply data*" Economic Inquiry, 50(1), 264–276. <https://doi.org/10.1111/j.1465-7295.2011.00389.x>
- [12] Locke, E.A., (1969) "*Towards a theory of task motivation and incentives*" Organization Behaviour and Human Performance lower-income families. Chicago: Woodstock Institute.
- [13] Locke, E.A and Latham, G.P.,(1991) "Self-regulation through Goal-setting, Organisational behaviour and Human Decision Process 50, page no. 212-247
- [14] Lusardi, A and Mitchell, Olivia,(2007) "*Financial Literacy and Retirement Planning: New Evidence From Rand American Life Panel*", National Bureau of Economic Research pg. 38
- [15] Lusardi, A. & Tufano, P.,(2009) "*Debt Literacy, Financial Experiences and Over-indebtedness*" NBER. Working Paper No. 14808. CFS Working Paper No. 2009/08.<http://dx.doi.org/10.3386/w14808>
- [16] Lusardi, A.,(2008, June) "*Financial Literacy, An Essential Tool for Informed Consumer Choice*" NBER Working Paper No. 14084. Joint Center for Housing Studies, Harvard University. <http://dx.doi.org/10.3386/w14084>.
- [17] Lusardi, A., & Mitchell, O. S., (2011) "*Financial Literacy around the world: an overview*" Journal of Pension Economics and Finance, 10(4), 497–508. <https://doi.org/10.1017/S1474747211000448>

- [18] Lusardi, A., & Mitchell, O. S., (2014) “*The Economic Importance of Financial Literacy: Theory and Evidence*” Journal of Economic Literature, 52(1), 5-44.
doi:10.1257/jel.52.1.5
- [19] Lusardi, A., & Tufano, P.,(2015) “*Debt literacy, financial experiences, and over-indebtedness*” Journal of Pension Economics & Finance, 14(4), 332-368.
doi:10.1017/s1474747215000232
- [20] Mahdzan, N. S., & Tabiani, S., (2013) “*The Impact of Financial Literacy on Individual Saving: An Exploratory Study in the Malaysian Context*” Transformation in Business & Economics, 12(1), 54–69.
- [21] Maria, J. R. G., (2013) “*Financial Education and Behavioral Finance: New Insights into the Role of Information in Financial Decisions*”. Journal of Economic Surveys. Vol. 27(2), 297-315. (SSRN:<http://ssrn.com/abstract=2229645>).
<http://dx.doi.org/10.1111/j.1467-6419.2011.00705.x>.
- [22] Mariger, R., 1987, “*A Life-Cycle Consumption Model with Liquidity Constraints: Theory and Empirical Results.*” Econometrica, vol. 55, 533-557.
- [23] Martin, K., & Paul Hill, R. (2012). “*Life Satisfaction, Self-Determination, and Consumption Adequacy at the Bottom of the Pyramid*”, Journal of Consumer Research, 38(6), 1155-1168.
doi:10.1086/661528
- [24] Meier, S. and C.D. Sprenger, (2008) “*Discounting Financial Literacy: Time Preference and participation in Financial Education Programmes*” Leibniz Information Centre for Economics' Discussion Paper No. 3507.
- [25] OCED, 2017 Organization Economic Co-operation and Development, (2017) “*Use of Behavioural Insights in Consumer Policy*” OECD Science, Technology and Innovation Policy Papers, No 36 OECD Publishing Available at <http://www.oecd-ilibrary.org/industry-and-services/use-of-behavioral-economics-9789264207851-en.htm>
- [26] Oheler, Andreas. , Wendt, Stefan., Wedlich, Florian., and Horn, Matthias,(2018) “*Investors' Personality influences Investment Decisions : Experimental Evidence on Extraversion and Neuroticism*” Journal of Behavioral Finance, vol.19.
<https://doi.org/10.1080/15427560.2017.1366495>
- [27] Thaler, Richard H., Werner F. M. De Bondt, “*Financial Decision-Making in Markets and Firms: A Behavioural Perspective*” The National Bureau of Economic Research, 1991.
- [28] Volpe P. Ronald, Chen, Haiyang., and Liu, Sheen (2006) *An Analysis of the Importance of Personal Finance topics and the level of Knowledge possessed by Working Adults*, Financial Review 15,81-98
- [29] Xiao, J. J. (2008). Handbook of Consumer Finance Research. p. 70.