

## An Empirical Analysis Of Economic Literacy Determinants In Northern India Using Structural Equation Modeling

Dr. Saurabh Kant<sup>1</sup>, Ms. Aakansha Dahiya<sup>2</sup>

<sup>1</sup>Assistant Professor, IMSAR, MDU, Rohtak, 124001

Email ID : [saurabhkant.rana@gmail.com](mailto:saurabhkant.rana@gmail.com)

<https://orcid.org/0000-0002-4606-1541>

<sup>2</sup>Research Scholar, IMSAR, MDU, Rohtak, 124001

Email ID : [aakanshadahiya1227@gmail.com](mailto:aakanshadahiya1227@gmail.com)

<https://orcid.org/0009-0008-6576-6142>

### Corresponding Author

Ms. Aakansha Dahiya

Research Scholar, IMSAR, MDU, Rohtak, 124001

Email ID : [aakanshadahiya1227@gmail.com](mailto:aakanshadahiya1227@gmail.com)

<https://orcid.org/0009-0008-6576-6142>

### ABSTRACT

Economic literacy is the ability to use economic concepts to make rational decisions about various aspects. The study highlighted the importance of understanding economics in order to make rational decisions. It stresses how important different factors are in affecting people's levels of economic literacy. These factors include the belief in the benefits of economic literacy, economic knowledge, economic rationality, individual economic planning, and social economic reflections. The study surveyed 514 individuals and the data collected were analyzed using smart PLS. The outcomes of the study determined that economic knowledge, economic rationality, and individual economic planning significantly influence economic literacy. However, the belief in the benefits of economic literacy and social economic reflections did not significantly impact economic literacy. These findings underscore the necessity for targeted initiatives to enhance economic education, especially in developing nations. The study helps people understand how important economic literacy is for individuals as well as for the nation..

**Keywords:** Economic Literacy, Economic Knowledge, Economic Rationality...

### 1. INTRODUCTION:

Economic literacy is a vital skill that enables individuals to make logical decisions about personal finances, societal issues, and public policies. In today's complex economic environment, where global economic trends, government fiscal policies, and market fluctuations directly affect individual lives, a better understanding of fundamental economic principles is crucial. These principles, including concepts such as inflation, interest rates, taxation, budgeting, and opportunity cost, help individuals navigate their personal financial decisions and contribute meaningfully to the broader economic landscape. Economic literacy, therefore, serves as the foundation for making rational choices in the marketplace, engaging in political discourse, and understanding the economic forces that shape society (OECD, 2022; Lusardi & Mitchell, 2014).

As defined by OECD (2022), economic literacy involves the ability to utilize basic economic knowledge and skills to make sound judgments and decisions regarding personal finances and public policies. This encompasses not only understanding core economic principles but also developing the analytical skills necessary to evaluate economic data, understand market dynamics, and interpret the implications of economic policies (Yayar & Karaca, 2017). Moreover, economic literacy has become a crucial

factor in fostering informed, active participation in democratic societies. Citizens equipped with economic knowledge can better assess policy proposals, make informed voting decisions, and advocate for policies that align with their personal and societal interests (McCowage & Dwyer, 2022).

The importance of economic literacy extends beyond individual financial decisions. Research by Lusardi and Mitchell (2014) demonstrates that higher levels of economic literacy contribute to managing debt. Furthermore, understanding economic concepts enables individuals to interpret how broader economic policies, such as taxation and monetary policy, influence their lives. Economic literacy is also integral to organizational success, as companies with economically literate managers are better positioned to make strategic financial decisions, respond to market changes, and optimize organizational performance (Lusardi & Mitchell, 2014; Bamiro et al., 2024).

However, despite its significance, economic literacy remains a challenge in many educational systems, particularly in developing nations where access to quality economic education is limited. Scholars like Gerek and Kurt (2008) and Yayar & Karaca (2017) argue that economic literacy is essential not only for personal decision-making but also for the economic well-being of societies. A well-informed public is better equipped to

understand the impacts of economic policies, which in turn fosters public trust and support for government initiatives. Furthermore, studies by McCowage and Dwyer (2022) highlight that economic literacy contributes to societal welfare by enabling individuals to engage in more informed and productive discussions about fiscal policy, market regulations, and social issues.

## 2. LITERATURE REVIEW

Economic literacy has emerged as a crucial factor for making informed personal and societal decisions in today's complex economic environment. Over the years, scholars have explored the concept of economic literacy from multiple perspectives, highlighting its significance not only for individual financial decisions but also for the functioning of democratic societies and economic systems at large. The literature presents various dimensions of economic literacy, including foundational knowledge, rational decision-making, social reflections, and individual financial planning, each contributing to a deeper understanding of how individuals interact with and navigate economic systems.

McCowage and Dwyer (2022) highlights that economically literate individuals are more likely to participate in public debates, make informed voting decisions, and engage with policy discussions. This aligns with the findings of Lusardi and Mitchell (2014), who argue that economic literacy is essential for understanding how government policies, such as taxation and public spending, affect individual lives. Furthermore, research by Gerek and Kurt (2008) suggests that a lack of economic literacy can contribute to poor decision-making, both at the individual and societal levels, leading to economic inefficiencies and decreased public welfare. Furthermore, individuals with a deep understanding of economic processes are more likely to engage in productive economic behaviors, such as seeking higher education, making informed career choices, and participating in investments (Happ, et. al. 2023).

Scholars like Hansen (1976) introduced additional dimensions of economic literacy, emphasizing the importance of "thinking at the margin" and recognizing comparative advantage. These behaviors are essential for making rational decisions in a world with limited resources. "Thinking at the margin" encourages individuals to analyze the incremental benefits and costs of decisions, while "recognizing comparative advantage" promotes efficient resource allocation and decision-making in trade and production (Kustiandi, et. al. 2024).

Nizam et. al. (2020) emphasize that economic education should be integrated into school curriculum and adult education programs to ensure that individuals, regardless of age, have the necessary knowledge to make informed decisions. They argue that improving economic literacy is not just a matter of individual financial gain but also a societal imperative, as it leads to a more informed electorate and fosters greater public trust in economic policies. In particular, efforts to raise economic literacy in developing nations have gained traction, with interventions aimed at improving access to economic education and promoting financial inclusion (Pristine, et.

al. (2021) and Happ, et. al. 2023).

*Belief in the benefit of economic literacy affects the economic literacy level:* **Belief in the benefit of economic knowledge refers to the perception of individual that understanding economic concepts will result in personal advantages such as better money management, profit generation, savings management and financial independence. Generally, individual believe that economic literacy leads to better profits, better decision making, better investment of time and efforts (Lusardi & Mitchell, 2014), but this belief varies with various individual factors. This perception of benefit plays a significant role in shaping the motivation to gain more economic knowledge and more likely be the reason for adopting higher education in economics.** To study the same, we have framed the below hypothesis:

H1: Belief in the benefit of economic literacy significantly affects the economic literacy level.

*Economic knowledge affects the economic literacy level:* Economics includes the production, consumption, exchange and distribution of resources in the economy (Gills & Morgan, 2022). Over the time, economics became most popular subject in higher education (Kustiandi, et. al., 2024) as economic knowledge leads to better understanding of casual relationships while having decisions (Walstad & Soper, 2010). It also helps in gaining knowledge, understanding and reasoning how a system works and predicting the possible associations (Legg & Hutter, 2007). This depicts the relationship between economic knowledge and economic literacy as people will be able to take decisions logically while have knowledge of various economic concepts (Salemi, 2005). To examine the same, we have framed the below hypothesis:

H2: Economic knowledge significantly affects the economic literacy level.

*Economic rationality affects the economic literacy level:* Economic rationality is related with the act of choosing the best option among the available alternatives by weighing cost, benefits and long term outcomes (Budiwati & Hilmiatussadiah, 2020), whereas, Kustiandi, et. al., (2024) stated that economic rationality did not impact the economic literacy level. While taking decisions, economic principles, priorities and specific motives proved helpful in having right and effective decisions (Dilek, et. al., 2018). Making rational choices help individuals in surviving well and help in achieving the goal of bringing prosperity (Rifki, et. al., 2023). Also, economic rationality and financial experience will combine to develop effective economic literacy (Rifki, et. al., 2023; Gerek & Kurt, 2011). To determine the same, we have framed the below hypothesis:

H3: Economic rationality significantly affects the economic literacy level.

*Individual economic planning affects the economic literacy level:* Individual economic planning refers to the establishing short and long-term goals, making appropriate decisions while considering income, expenses, savings and investments to adapt financial and

economic stability and security (Boon, et. al., 2011). It is said that individual who engage in strategic planning are better at managing debt and accumulating wealth (Yoganandham, 2025) and this planning behaviour requires economic knowledge particularly related to budgeting, inflation, interest rates and future financial implications (Safari, et. al., 2021). Economic planning promotes self-efficacy helps in building confidence to make better economic decisions (Tanbum & Cahyati, 2023) which serves as an outcome as well as contributor to economic literacy. To explore the same, we have framed the below hypothesis:

H4: Individual economic planning significantly affects the economic literacy level.

*Social economic reflections affects the economic literacy level:* Economic knowledge is not only gained by formal education; it is also significantly influenced by the social environment in which an individual resides. Social economic reflections refers to the way an individual interpret and respond to economic problems, events and policies based on their social interaction with friends, families and other members of the society (Komsu, et. al., 2018). Various activities such as news analysis, social media debates and communities discussions with which individuals regularly engage includes economic topics which help developing interest as well as basic competence in understanding economic systems and general relationships. According to the study conducted by Yurekli & Solak (2025), the statistical significance of social economic reflections was different among respondents of different countries, it was significant for Kazakhstan whereas, insignificant for Kyrgyzstan. Also, Kamer, et. al., (2022) in their study determined the significance of social economic reflections in examining the economic literacy level of workers. To understand the same, we have framed the below hypothesis:

H5: Social economic reflections significantly affects the economic literacy level.

While there is a substantial body of literature on economic literacy, the relationships between individual belief systems, economic knowledge, rationality, planning, and social reflections, and their collective impact on economic literacy levels, remain under-researched in Indian context. Addressing these gaps will help in developing more effective interventions and strategies to enhance economic literacy across diverse populations as well as to make individuals understand them.

### 3. METHODS

#### Research Variables

Data were gathered through a questionnaire-based survey technique. The framework includes the following latent variables: Belief in the Benefit of Economic Literacy (BEL) (four items); Economic Knowledge (EK) (four items); Economic Literacy Level (ELL) (four items); Economic Rationality (ER) (four items); Individual Economic Planning (IEP) (four items) and Social Economic Reflections (SER) (four items).

#### Data collection

The data collection process involved circulating questionnaire among respondents in Northern India. The sampling strategy employed in this study was simple random sampling to select respondents. These methods were chosen to ensure that each individual in the population had an equal chance of being included in the sample, minimizing selection bias (Mweshi and Sakyi, 2020). A total of 514 responses were found to be relevant and accurate for further analysis. The sample size for the study was verified through G\*Power analysis, which recommended a minimum of 153 respondents according to the selective predictive variable. This indicates that the research has suitable samples for further analysis.

#### Data Analysis

We utilized IBM SPSS 26 to examine the demographic features of the Respondents. Male respondents represented the majority (65.61%), followed by female respondents (34.39%); of the education credentials, 41.61% were in graduate courses, while the remainder were in senior secondary or below, and 20.60 were post-graduate courses.

**Table 1: Reliability and Validity**

	<b>Cronbac h's alpha</b>	<b>Composi te reliabilit y (rho_a)</b>	<b>Composi te reliabilit y (rho_c)</b>	<b>Averag e varianc e extract ed (AVE)</b>
<b>BEL</b>	0.767	0.791	0.845	0.578
<b>EK</b>	0.757	0.763	0.845	0.577
<b>ELL</b>	0.838	0.855	0.890	0.670
<b>ER</b>	0.868	0.928	0.907	0.711
<b>IEP</b>	0.821	0.835	0.879	0.644
<b>SER</b>	0.858	0.869	0.903	0.701

*Belief in the Benefit of Economic Literacy (BEL); Economic Knowledge (EK); Economic Literacy Level (ELL); Economic Rationality (ER); Individual Economic Planning (IEP) and Social Economic Reflections (SER).*

This study evaluated the "construct validity" (convergent validity and discriminant validity) and "reliability" of the measurement items to ensure their adequacy for analysis. Reliability and internal consistency were examined using Composite reliability (CR) and Cronbach's alpha (Fornell and Larcker 1981). Convergent validity was assessed through the Average Variance Extracted (AVE) (Hair et al., 2017). Prior literature recommends acceptable thresholds for CR between 0.6 and 0.95 Cronbach's alpha around 0.6 and 0.95, and for AVE to be higher than 0.5 (Bagozzi and Yi (1988), Joseph F. Hair, William C. Black (2010) As shown in Table 1, all obtained values lie within

the specified limit, thereby confirming the reliability and validity of the measurement constructs.

**Table 2: Discriminant validity (HTMT)**

	BEL	EK	ELL	ER	IEP	SE R
BE L						
EK	0.74 7					
EL L	0.45 6	0.57 0				
ER	0.07 7	0.08 0	0.14 7			
IEP	0.58 8	0.63 0	0.44 7	0.08 0		
SE R	0.56 5	0.62 6	0.39 5	0.15 9	0.45 1	

*Belief in the Benefit of Economic Literacy (BEL); Economic Knowledge (EK); Economic Literacy Level (ELL); Economic Rationality (ER); Individual Economic Planning (IEP) and Social Economic Reflections (SER).*

The Heterotrait-Monotrait ratio (HTMT) and Fornell-Larcker criterion are used to evaluate Discriminant validity assessment (Hair et al., 2019). The HTMT values less than 0.85 (Table 2) were applied to determined the discriminant validity (Roemer et al., 2021).

**Table 3: Fornell and Larcker**

	BEL	EK	ELL	ER	IEP	SER
BE L	0.76 0					
EK	0.77 1	0.75 9				
EL L	0.40 6	0.47 6	0.81 9			
ER	- 0.04 9	- 0.06 5	- 0.13 7	0.84 3		
IEP	0.50 0	0.52 7	0.40 2	0.05 3	0.80 3	
SE R	0.45 4	0.50 8	0.36 1	- 0.14 2	0.39 8	0.83 7

*Belief in the Benefit of Economic Literacy (BEL); Economic Knowledge (EK); Economic Literacy Level (ELL); Economic Rationality (ER); Individual Economic Planning (IEP) and Social Economic Reflections (SER).*

According to Fornell-Larcker criterion, the value of AVE (Table 3) is higher than the squared latent variable correlations that are compatible with the results of study (Voorhees et al., 2016). This indicates the validity and reliability of the scale utilized for the study.

#### Bias Analysis

To reduce common method bias (CMB), several measures were employed to get the best results. For this, Independent variables are evaluated followed by dependent variables. Potential respondents were assured about the confidentiality of their responses and its usage for attaining the research objectives only. Also, respondents were asked to provide answer based on facts instead of emotions and informed that there is no correct answer to any question (Podsakoff et al., 2003). According to the results of Harman's single-factor test, CMB only explains 44.47 per cent of total variation which is acceptable (Podsakoff et al., 2003). There is no concern regarding multi-collinearity as all the values of VIF (Table 7) are below (Hair, Hult, Ringle, and Sarstedt, 2017) and the same is depicted by Figure 1. Therefore, CMB is an issue for the investigation.

**Table 4: Variance inflation factor and factor loading**

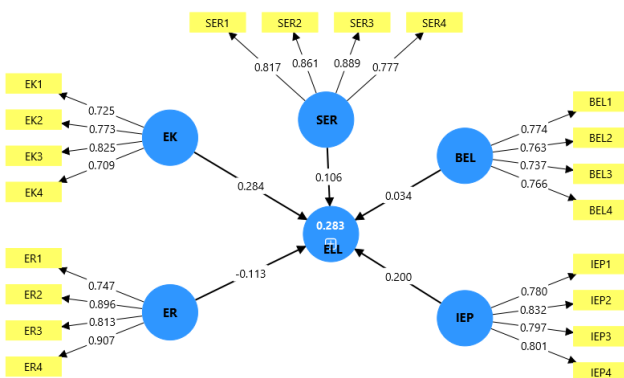
Construct	Factor Loading	Items	VIF
Belief in the Benefit of Economic Literacy	0.774	BEL1	1.577
	0.763	BEL2	1.480
	0.737	BEL3	1.515
	0.766	BEL4	1.206
Economic Knowledge	0.725	EK1	1.799
	0.773	EK2	1.452
	0.825	EK3	2.120
	0.709	EK4	1.170
Economic Literacy Level	0.818	ELL1	1.819
	0.787	ELL2	1.551
	0.887	ELL3	3.855
	0.777	ELL4	2.992
Economic Rationality	0.747	ER1	1.728
	0.896	ER2	2.353
	0.813	ER3	2.790
	0.907	ER4	1.840
Individual Economic Planning	0.780	IEP1	1.427
	0.832	IEP2	2.957



	0.797	IEP3	2.799
	0.801	IEP4	1.581
Social Economic Reflections	0.817	SER1	1.883
	0.861	SER2	4.523
	0.889	SER3	2.571
	0.777	SER4	3.984

Sources: Original

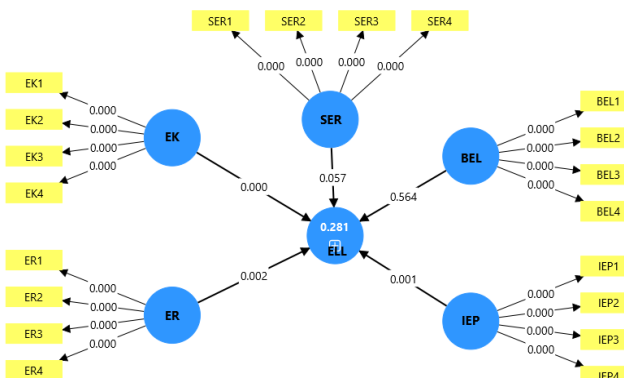
Figure 1: Structural model



Sources: Original

## Result

Figure 2: Research model with path analysis value



Sources: Original

A structural model evaluation was performed after the measurement model provided reliable results (Fig. 2 and Table 2). The PLS-SEM bootstrapping approach was used at a 5% level of significance. Bootstrapping is a non-parametric approach for evaluating structural model productiveness, including R2 and path coefficients (J. Hair & Alamer, 2022). Figure 2 displays the R2 value for Economic literacy level which is 49.9%. R2 shows a substantial coefficient of determination (J. Hair & Alamer, 2022) and excellent predictive capacity (Vinzi, 2010).

Table 5: Summary of hypothesis testing

	Original sample (O)	Sample mean (M)	Standard deviation (ST DEV)	T statistics ( O/ST DEV )	P values	Result
BEL -> ELL	0.032	0.036	0.056	0.577	0.564	Not Supported
EK -> ELL	0.285	0.286	0.068	4.171	0.000	Supported
ER -> ELL	-0.112	-0.116	0.037	3.071	0.002	Supported
IEP -> ELL	0.199	0.205	0.059	3.386	0.001	Supported
SER -> ELL	0.104	0.099	0.055	1.908	0.057	Not Supported

Sources: Original

Table 5 explains the findings of the hypothesis in which the relationship between various indicators of the economic literacy level (ELL is the dependent variable), with each indicator, the belief in economic literacy (BEL), has a sample mean of 0.036, a standard deviation of 0.056, t-statistic of 0.577, having a p-value of 0.564, indicates no statistically significant impact of BEL on ELL, while, Economic knowledge (EK) shows a strong positive effect on EF, with a mean value of 0.286, a standard deviation of 0.068, a t-statistic of 4.171, and a p-value of 0.000, indicating a strong significance. Economic rationality (ER) and Individual economic planning (IEP) with a mean of -0.116, standard deviation of 0.037, t-statistic of 3.071, and p-value of 0.002 and with a mean of 0.205, standard deviation of 0.059, and a t-statistic of 3.386, with a p-value of 0.001 respectively show positive significant influence on ELL, whereas, social economic reflections (SER) with a mean of 0.099, standard deviation of 0.055, and a t-statistic of 1.908, with a p-value of 0.057 respectively depicts statistically positive impact on ELL.

## 4. DISCUSSIONS

Economic literacy refers to an individual's ability to understand, interpret and apply economic information for decision making. It goes beyond theoretical understanding as it includes practical solutions to problems based on economic policies and principles. The level of economic literacy among individuals depends on various determinants and five among those determinants have

been analyzed during the study. The statistical results of the study depicts that three out of five analyzed determinants had significant impact on the economic literacy level of the respondents, while two determinants did not have significant impact. At first, Belief in the benefit of economic literacy is one of the determinants which does not have any significant impact on economic literacy. These results align with the existing research such as Dilek, et. al. (2018), which studied various factors affecting economic literacy and revealed that belief in the benefit of economic literacy is one of the factors which has low correlation with economic literacy indicating that beliefs alone can not be a factor to motivate individuals to be economic literate. It was stated that the belief of individual in the benefit of economic literacy will be able to increase economic literacy level to some limited extent only. Second, Economic knowledge is another determinant which has significantly positive impact on the economic literacy. The results are in line with the previous studies which established relationship between economic education and economic literacy including Modig (2021) identified that economic education through casual diagrams helps in enhancing the economic literacy among the students, whereas, Akhadi et. al. (2025) found significant relationship between economic knowledge with personal motivation and spiritual development on economic literacy, while, Kamer, et. al., 2022 stated that economic knowledge positively impacted the economic literacy level of employees. Dilek et. al. (2018) stated a positive and strong association between economic education given as economic courses in universities and economic literacy, while, the same has been supported by Japelli (2010) during the study determining positive impact of knowledge and skills on the economic competency of individuals and Schuhman & Mcgldrick (2005) observed the impact of mathematical and quantitative skills on the higher performance on economic education. Moreover, the teachers economic literacy highly depends on their economic education level (Walstad and Soper, 1988), whereas, Lusardi and Mitchell (2005) published that the economic literacy highly depends on the schooling rates. Third, Economic rationality also emerged as a significant determinant having positive impact on the economic literacy. These findings are supported by available research such as Mazidah, et. al. (2025) described in their study that the concept of economic rationality was better understood by the high school economics teachers having high economic literacy, while, Kustiandi, et. al. (2024) and (Kamer, et. al., 2022) proved that economic rationality mediates the relationship between economic literacy and economic behavior. Also, it was determined that with age the economic rationality increases resulting in the increase in economic literacy (Yayar & Karaca (2017) and the same

has been determined by Yurekli & Solak (2025) in relation with the economic literacy of the faculties. Fourth, Individual Economic Planning was found as another significant determinant of economic literacy. This aligns with the prior research such as Tambun & Cahyati (2023) and (Kamer, et. al., 2022) supported that financial planning and economic literacy are inter related, an individual who engages in economic and financial practices like budgeting, investing, saving, etc. exhibits the impact of economic literacy while applying economic knowledge in practical contexts, whereas, Swetha & Ramanjaneyulu (2024) established a positive relationship between financial planning and financial literacy revealing better financial planning indicates high financial literacy and the was supported by the results of Berber & Nakiboglu (2022) stating that individual economic planning positively impacted the economic literacy level of bank employees. At last as per the results of the study, social economic reflections has no significant on the economic literacy level of the individuals. The same result was published by Yurekli & Solak (2025), they determined that this factor did not significantly impacted the economic literacy level among the individuals of Kyrgyzstan. Yayar & Karaca (2017) also supported the results and proved that social economic reflections had no significant impact on the economic literacy level of the individuals.

## 5. CONCLUSION

In today's complicated economy, it's important to know how the economy works so you can make rational choices for yourself and for society. This study shows that being economically rational, knowing about economics, and making individual economic plans can all help you understand economics better as these are the factors which had significant impact on the economic literacy level of the individuals, whereas, belief in economic literacy and social economic reflections are the factors which didn't have a significant impact on the economic literacy level of the individuals. This means that just knowing about the possible benefits of learning about economics or talking about social issues isn't enough to help someone make better economic decisions. Teaching people more about how the economy works and how to make good choices can help societies become more economically literate. This will help people better understand how to handle their money and be more informed when they talk about public policy. It can be said that teaching people more about economics is good for their own power and the economy as a whole. Also, it is needed to be a priority of the policymakers and educators to help people learn more about economic concepts so that they are ready to deal with the problems of the modern economy

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