

## PREFACE TO THE EDITION

It gives us immense pleasure to introduce the inaugural issue of the **International Journal of Commerce and Management Research Studies (IJCMRS)**, a platform dedicated to exploring diverse dimensions of commerce, finance, and economics through rigorous research and insightful perspectives. This journal aspires to bridge the gap between academic scholarship and practical applications, providing a valuable resource for academicians, professionals, and policymakers alike.

In this first issue, we are proud to present a collection of articles that delve into contemporary topics of significant relevance in the fields of finance, commerce, and behavioral economics. Each article represents a distinct exploration of critical themes, addressing emerging trends, challenges, and opportunities in a rapidly evolving global economy.

The issue opens with the article, *“Factors Influencing the Individual Donor’s Intention to Donate to Donation-Based Crowd funding Campaigns: An Empirical Study Using the UTAUT Model,”* which examines the factors that shape donor behavior in the digital age, leveraging the Unified Theory of Acceptance and Use of Technology (UTAUT) to provide actionable insights for crowd funding platforms and campaign organizers.

Next, we explore the dynamic and highly competitive pre-owned car market in *“Influence of Financing Options on Purchase Decisions in the Pre-Owned Car Market.”* This study sheds light on the financial tools and strategies that sway consumer decisions, offering implications for dealerships and financiers aiming to optimize their offerings.

Investment performance is a critical aspect of financial planning, and the article *“Investment Performance of ELSS from 2009 to 2021 in India”* provides a comprehensive analysis of Equity-Linked Savings Schemes (ELSS). It evaluates their performance across market cycles, offering a data-driven guide for investors and financial advisors.

Behavioral finance takes center stage in *“The Influence of Spirituality and Religion on Financial Decision-Making: A Behavioral Analysis.”* This thought-provoking study investigates how deeply held beliefs influence economic behaviors, highlighting the interplay between personal values and financial choices.

The article *“The Role of Social Security Systems in Alleviating Poverty among Elderly Populations: An Evaluation of Policy Effectiveness and Challenges”* provides a critical assessment of social security mechanisms and their effectiveness in addressing poverty among the elderly. This comprehensive analysis offers policy recommendations to enhance the welfare of vulnerable populations.

The housing sector in India serves as a cornerstone of the nation's economy, influencing livelihoods, infrastructure development, and societal progress. This article, titled "*Dynamic and Sustainable Growth: A Comprehensive Analysis of the Housing Sector in India*," delves into the multifaceted dimensions of the sector, examining its current state, challenges, and growth potential.

We are grateful to the authors for their invaluable contributions and to the editorial team for their dedication in bringing this issue to fruition. We extend our heartfelt thanks to our readers for their interest and support. It is our hope that this journal will serve as a beacon for scholarly discussion and a source of inspiration for innovative solutions to the challenges of the modern commercial landscape.

We invite you to engage with these articles, share your feedback, and contribute to future editions of the **International Journal of Commerce and Management Research Studies (IJCMRS)**. Together, let us advance the frontiers of knowledge in commerce and Management.

Dr. M.M Bagali

Chief Editor

## CONTENTS

SL. NO	TITLE	AUTHOR	PAGE NO.
1	Factors Influencing the Individual Donor's Intention to Donate to Donation-Based Crowdfunding Campaigns: An Empirical Study Using the UTAUT Model	Dr. Chandrakala G & Dr. Meghana C	1-8
2	Influence of Financing Options on Purchase Decisions in the Pre-Owned Car Market	Remesh N & Dr. Shanmugam N	9-13
3	Investment Performance of ELSS from 2009 to 2021 in India	Dr. Radha Vyas & Dr. Pratik K. Desai	14-20
4	The Influence of Spirituality and Religion on Financial Decision-Making: A Behavioural Analysis	Dr. Bhupendra Kumar	21-25
5	The Role of Social Security Systems in Alleviating Poverty Among Elderly Populations: An Evaluation of Policy Effectiveness and Challenges	Balakrishnan.A Dr. KVM Varambally	26-30
6	Dynamic and Sustainable Growth: A Comprehensive Analysis of the Housing Sector in India	Dr. Aswani T D	31-34



## Factors Influencing the Individual Donor's Intention to Donate to Donation-Based Crowdfunding Campaigns: An Empirical Study Using the UTAUT Model

Dr. Chandrakala G, Associate Professor in Commerce and Management Studies, Dayananda Sagar University, Bengaluru, Karnataka

Dr. Meghana C, Assistant Professor, Dayananda Sagar college of Arts Science and Commerce, Bengaluru, Karnataka

### Article information

Received: 5<sup>th</sup> September 2024

Received in revised form: 11<sup>th</sup> October 2024

Accepted: 15<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume: 1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14546163>

### Abstract

**Purpose** – The objective of this research is to investigate the donor's behaviour by applying the UTAUT (Unified Theory of Acceptance and Use of Technology) and to propose a research pattern that predicts the individual's donor intentions to donate towards donation-based crowdfunding campaigns in India.

**Design/Methodology/Approach** – The Empirical data gathered through an online survey. The facts gathered from actual and potential donors who likely to take part in online philanthropy was analysed using PLS-SEM Model.

**Findings** – The data shows that donor's intentions to contribute to donation-based crowdfunding campaigns are highly influenced by performance expectations, social influence and a sense of trust. The effect of performance expectations and effort expectations have an adverse effect on donors' intentions.

**Research limitations/implications** – The focal point of the present investigation is on the potential donors. In the future scope of research, it will be evident if there are distinctions with respect to the real donors. This study examines the implications for potential donor's intentions to donate towards donation-based crowdfunding campaigns.

**Practical implications** – The study provides suggestions for crowdfunding platforms on how to improve their functions and attract new donors to campaigns and it gives campaign creators insight into the elements that funders take in to account and how to enhance donor's willingness to make monetary donation on platforms for charitable crowdfunding and the campaign's total success rate, which gives a win-win approach to all related parties.

**Originality/value** – The conclusions of this study provide academics, researchers, crowdfunding platforms and campaign creators with a more thorough understanding of the factors that drive individual donor donations. This study further expands the UTAUT in the context of donation crowdfunding, which improves its effectiveness in explaining the behavioural intentions of donors. These theories may be an important part of future information systems and related behavioural science research.

**Keywords:** - Donation based Crowdfunding, Donor's Intention, Donation Factors, Charitable Campaigns, UTUAT Model, India.

JEL Classification: C91, G2, M14, L31.

## I. INTRODUCTION

In recent years, India's digital sector (the Internet) has experienced tremendous growth as users have access to an increasing number of digital services (Theerthaana Panneer, 2021)(Kumra et al., 2021). The Consultation Paper states that, "crowdfunding is the solicitation of funds (generally in small amounts) from multiple investors through a web-based platform or social networking site for a specific project, business venture or social cause." Based on the returns, crowdfunding can be divided into four different types: reward, lending, and equity, and donation-based crowdfunding (Sentanoe & Oktavia, 2022).

Crowdfunding, particularly donation-based crowdfunding, is one among the digital services that is becoming more popular in India (Maleki & Hosseini, 2020). It is a brand new developing online funding for philanthropically activities by

using social media, enables the use of social media by project fundraisers and cutting edge payment technologies (Mansyur & Ali, 2022).

With the aid of this concept, the fundraiser can solicit money from the "crowd" without having to deal with the complicated requirements that traditional funding methods such as bank loans require which are in principle, more widely available (Sayedi & Baghaie, 2018).

Donation is the voluntary act of supporting a cause or a person's effort without expecting anything in return (Behl & Dutta, 2020). It also includes advocating for improvements in religion, education or any other socially positively useful endeavours. Individuals are not directly benefited by their donation in any way. It implies that donors motivation for using the service may not be to get the rewards (Baber, 2019).

Web-based services offer an expanding chance to locate communities of people who support a business's or organisation's purpose or core values. Social media can assist non-profit organisations in connecting with a broader audience and building a stronger donor base (Kusumarani & Zo, 2019).

The purpose of the research is to assess the impact of individual donor's intentions on donation-based crowd funding by using social media platforms and technology or UTAUT, has a light of the backdrop. Through the use of social media, organisations are now able to influence people's intentions to donate by appealing to their willingness to use technology (UTAUT) (Tri Kurniawati et al., 2021)(Sulaeman & Ninglasari, 2020b).

The study will be extremely significant for the academic and business communities. Particularly, the present article offers service providers guidance on how to enhance and perfect their capabilities and offers crowdfunding donation fundraisers realistic suggestions on how to enhance the success rate (Efrat et al., 2019). The investigational findings give us better theoretical knowledge regarding the motivations behind people's intentions when it comes to academic crowdfunding donations.

## II. REVIEW OF LITERATURE

The welfare of society is the main issues facing every government in any economy. Individuals and organisations will operate as the backbone to support towards welfare of society as a whole through charitable activities, corporate social responsibility and other initiatives that improve those who are struggling on both the economic and social levels (Tanaka & Voids, 2016).

Crowdfunding is a novel method of obtaining money for projects by exchanging rewards for donations or other financial resources over the Internet (Zhang et al., 2020). Traditional charity fundraising efforts are frequently restricted to particular populations and geographic areas, while donation based crowdfunding removes these limitations (Behl et al., 2020).

While the concept of crowdfunding has received a lot of practitioners and academic attention, existing research predominates (Baber, 2020). Academic researchers, business people, investors and decision makers are all becoming an escalating interested in the crowdfunding phenomenon (Sulaeman & Ninglasari, 2020a). Crowdfunding has been praised in the popular press as a practical substitute for established fundraising channels that may even be able to "save the economy." (Shneor & Munim, 2019)

Each recipient has the chance to influence donors to decide to give by presenting them with a relatable charity appeal. This method of fundraising clarifies the significance of the philanthropic request. Giving time, effort, and money (both monetary and non-monetary) to spread goodness to others without expecting anything in return is a significant portion of philanthropy. Which advance the nation's welfare, growth, and societal needs (Wang et al., 2019).

More study is required to confirm the findings for donation model as well as the primary emphasis of the investigation is on creators and platforms view. Regarding the contributors and their desire to utilize the service is minimum, the study is anticipated to offer additional insights on possible donors towards donation-based crowdfunding in India.

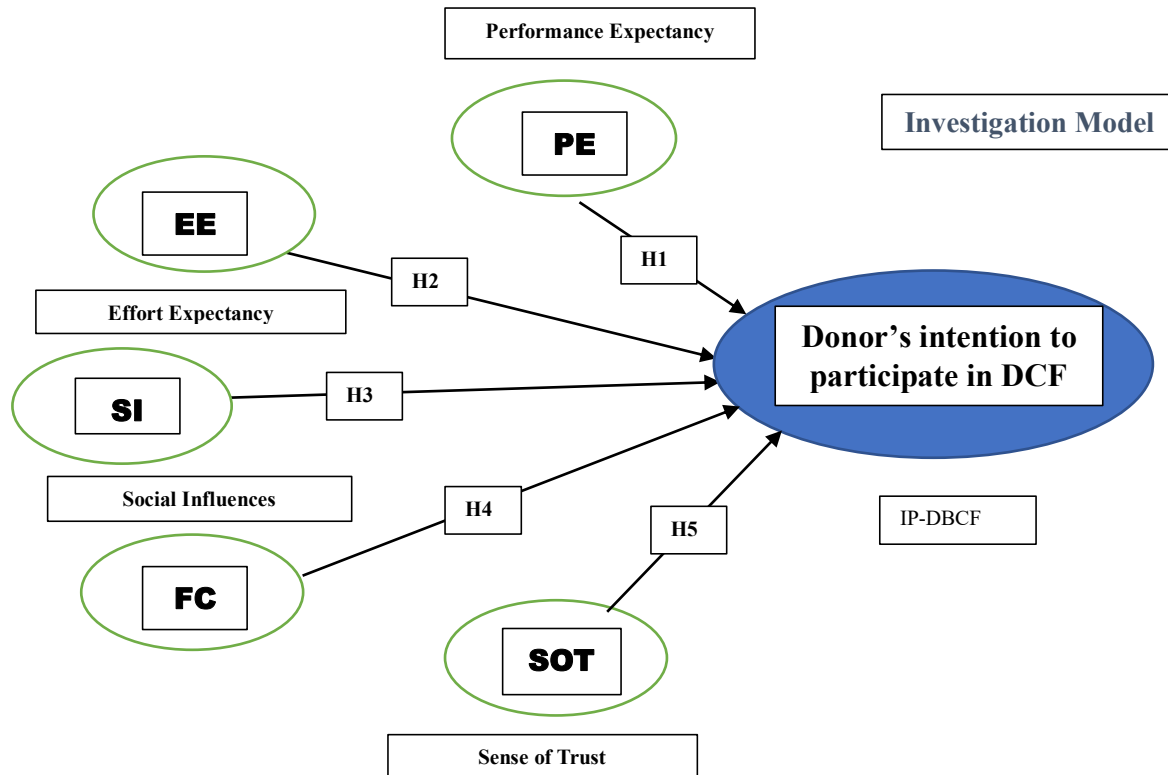
The most popular models in psychology, sociology, behavior and communications were considered at every stage of the literature review procedure (Mansyur & Ali, 2022) (Venkatesh et al., 2003), and UTAUT is among the most effective models for utilizing the recently produced technology (Alawadhi & Morris, 2008), which forecasts and explains how people consider the rate of adoption of new technology while taking action (Erjavec & Manfreda, 2022). With sense of trust as added explanatory variable, this research will use the Unified Theory of Acceptance and Use of Technology (UTAUT) as its research paradigm. UTAUT has been demonstrated to be successful in examining user acceptance and intention to utilize a technology product, it was chosen to serve as a model for the study (Venkatesh & Zhang, 2014). The study also further extends the UTAUT Model in the context of donation-based crowdfunding, which improves their robustness in explaining behavior intention. These theories may be important in future information system and behavioral sciences research.

## III. RESEARCH METHODOLOGY

### 3.1 Research framework and hypothesis development

The objective of the research is to use empirical research to analyse the internal and external elements that influence donor's intentions for participating in donation crowdfunding campaigns. The research model is built using the UTAUT model from earlier studies.

## Research design



Model of factors influences donor's intention towards contributions

### 3.2 Measures:

Considering the goal of the study, where measurements were developed using a literature review, the operational definitions of the constructs had to be made necessary changes in the view of Indian context. The survey aims to comprehend donor's behavioral intentions and opinions regarding the donation-based crowdfunding. Donor's behavior based on given factors towards donations may have a positive or negative influence towards DCF.

#### The Unified Theory of Acceptance and Use of Technology (UTAUT):

One of the most recent technology acceptance models created by (Venkatesh et al., 2016) UTAUT. It unifies the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Combination of TAM and TPB, Model of PC Utilization (MPTU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) are the eight most popular technology acceptance theories that it effectively integrates into a single theory (Venkatesh & Zhang, 2014). In explaining 70% of user variances, it has been demonstrated to be more successful than the others. Its four main structural components are performance expectancy, effort expectancy, social influence and facilitating conditions, serve as important direct determinants of the purpose of behaviorism and use behavior (Yeoh & Yin-fah, 2011). It was then developed by adding the one of additional component, namely sense of trust in studies of donation intentions. The inquiry was carried out to find out whether all the factors significantly influences the donors donating behavior.

#### Performance Expectancy (PE)

According to (Venkatesh et al., 2003) defined as "the degree to which an individual believes that using a system will help him or her to attain gains in job performance." Donation behavior under the circumstances of DCF campaigns might be driven by an intention to escape other people's contempt or to obtain praise and approval from others, to promote social connection and to recognize the importance of the moral and emotional advantages. Participating in philanthropic crowdfunding makes contributors feel good about themselves, which influences their willingness to take part. Based on prior study, PE is defined as the degree to which a person who supports a philanthropic initiative using a DCF platform thinks that doing so will enable them to attain individual fulfilment, social connection, social approval and a feeling of accomplishment.

#### Effort expectancy (EE)

According to (Venkatesh et al., 2003) defined as "the degree of ease associated with the use of a system." We presume that donor's intentions to donate are encouraged by the DCF platform's simplicity of use and the ease of the donation process.

### Social influence (SI)

According to (Venkatesh et al., 2003) defined as “an individual’s perception of how important it is that others consider that he or she should use the new system.” Individual’s donations for giving to charity often stem from societal obligation, religious tradition and personal philosophy. The acceptance of personal social responsibility has a big impact on how donors behave. Individuals who have strong opinions about doing well for others are likely to be more generous. Individual acts of kindness are also influenced by the conduct of other people. The amount of each donation depends on how much everyone else donates.

### Facilitating conditions (FC)

According to (Venkatesh et al., 2003) defined as “the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system.” Previous research has proven that a variety of information sources and media representations of the project, including social media platforms, frequently lead to a better understanding of crowdfunding initiatives in relation to charitable efforts. We believe that a project's leading donor status, variety of project material, and social media project promotion activity all have a major influence on encouraging donor motivation.

The following hypothesis that we put forth:

UTAUT factors significantly influences the donor’s plan to take part in Donation based crowdfunding campaigns.

### Sense of Trust (SOT)

One of the key components of a successful crowdfunding campaign has been shown to be trust since crowd sourcing for charitable causes gained popularity in the era of electronic commerce / online shopping. There are numerous types of trust for different crowd sourcing models which includes personal, professional and social institutions. In the present research, a supporter's sense of trust is defined as their level of confidence in the platform for crowd fund raising, the project and the initiators. Donor intention will be influenced by a crowdfunding platform's security, power and professionalism along with a crowd-funding project's dependability and management structure, the reliability of the project's originator and past similar experience.

Sense of trust significantly influences the donor’s desire to take part in Donation based crowdfunding campaigns.

## IV. DATA AND METHODOLOGY

### 4.1 Instrument design

To ensure content validity, the survey items that will be used for measurement were created using scales taken from earlier research. To meet the goals of this research, every element of the questions is carefully examined. A brief summary of the research was given in the questionnaire's introduction to better understanding. To determine the questionnaire's face validity, whether the respondents can easily grasp the questions. Prior to distribution, the items were reviewed by subject matter experts in this field, and a pilot study involving 30 college students was done to improve readability.

Sl. No	Construct	Number of Items	Adopted Scale Reference
1	Performance Expectancy (PE)	4	(Chong et al., 2012) (Theerthaana Panneer, 2021) (Ya, Zheng , Li, Tong-Liang He, Yi-Ran Song, 2017) (Kim & Hall, 2020)
2	Effort expectancy (EE)	4	
3	Social influence (SI)	4	
4	Facilitating conditions (FC)	3	
5	Sense of trust (SOT)	4	
6	Donor’s intention to participate in DCF- (IP- DBCF)	4	

### 4.2 Data Collection characteristics

The research is focused on donation-based crowdfunding along with the perspective of donors, the sample units selected for this research are actual donors and potential donors who have empathy for other people's causes and needs, who like to help and who are willing to contribute the donations financial for activities towards online philanthropy using donation-based crowdfunding model.

Data were gathered via an online survey method from several locations in Bengaluru, primarily the Central and South Zones, which represent the diverse population of India. Because it is difficult to estimate the precise population size of the donors who prefer to donate towards donation-based models, the study used a non-probability-based convenience and purposive sampling methods.

The survey was sent to mail and distributed to both private and public groups on social networking platforms like Facebook, Instagram, and What's Up. The data was collected from June 2023 to August 2023 using a well-structured with

closed ended questionnaire. 245 submission from the respondents were received; however, only 207 responses that met the criteria were carefully selected for investigation, which satisfying the acceptance rate. Additionally, the sample size complies with the general guidelines and rules for modelling structural equation and sample size would be ten times more than the instrument's maximum allowed for a given measurement item (Hair, Hult, Ringle, & Sarstedt, 2016).

## V. EMPIRICAL RESULTS

Prior the model was put into the test. The normality test was performed on the data using the Shapiro-Wilk test, which showed a significant result, Additionally, the Kaiser-Meyer-Olkin (KMO) and Bartlett's test Sphericity tests, which showed positive sample adequacy (KMO: 0.863; Bartlett's test: significant at 0.00), were used to solidify the sampling adequacy. Partial Least Squares (PLS) was chosen to assess the study model as it has a numerous of advantages.

### Respondent characteristics

Characteristics	Respondents (n=207)	
	Number	Percentage
<b>Gender</b>		
Male	86	41.5
Female	121	58.5
<b>Age</b>		
21-30	67	32.3
31-40	88	42.5
41-50	31	14.9
51-60	10	4.8
60 & above	11	5.5
<b>Education</b>		
Diploma	6	2.8
Graduate	90	43.4
Post Graduate	92	44.4
Professional Degree	10	4.8
PhD	9	4.6
<b>Occupation</b>		
Private Employee	162	78.2
Government Employee	28	13.5
Self-Employment/ Business	17	8.3
<b>Income</b>		
0 to 5,00,000	134	64.7
5,00,001 to 10,00,000	24	11.5
10,00,001 to 15,00,000	45	21.9
15,00,001 & above	4	1.9

The internal consistency(reliability), convergent validity and discriminant validity of the model were assessed using a (PLS) algorithm using Smart PLS 4.0. To estimate the convergent and discriminant validity of the research constructs, an confirmatory factor analysis was used (Vong et al., 2014).

Confirmatory factor analysis results, Reliability and validity						
Construct	Items	Factor loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Performance Expectancy (PE)	PE1	0.746	0.817	0.828	0.879	0.645
	PE2	0.835				
	PE3	0.806				
	PE4	0.821				
Effort expectancy (EE)	EE1	0.733	0.777	0.780	0.856	0.599
	EE2	0.777				
	EE3	0.796				
	EE4	0.788				
	SI1	0.782	0.827	0.832	0.885	0.659
	SI2	0.859				



Social influence (SI)	SI3	0.846	0.747	0.771	0.856	0.665
	SI4	0.755				
Facilitating conditions (FC)	FC1	0.726	0.833	0.840	0.889	0.667
	FC2	0.880				
	FC3	0.833				
Sense of trust (SOT)	SOT1	0.759	0.843	0.848	0.895	0.682
	SOT2	0.824				
	SOT3	0.855				
	SOT4	0.826				
Donor's intention to participate in DCF- (IP-DBCF)	IPDCF1	0.745	0.843	0.848	0.895	0.682
	IPDCF2	0.852				
	IPDCF3	0.846jj				
	IPDCF4	0.854				

Note: \* All standard loadings are significant at  $p < 0.001$ ".

'Composite reliability' is established by assessing the correlations between measurement items and their corresponding constructs. 'Cronbach's alpha' and 'Composite reliability' (CR) were calculated to test construct validity. It was found that every measurement item exceeded both Cronbach's alpha and CR minimum criterion of 0.7.

Convergent validity is established by assessing the value of the average variance extracted (AVE) and monitoring the outer loadings of factor loadings analysis. The value of AVE shows the degree which the indicators explain the variance of the construct, which is recommended to be more than 0.5 (J. F. Hair et al., 2013). Every construct's AVE value exceeded the suggested level. The outer loadings for each construct explain whether the indicators successfully captured the value that explains the construct. Outer loadings greater than 0.7 is considered to show convergent validity (J. Hair et al., 2017). All indicators in our results demonstrate that outer loading values are significantly higher than the recommended threshold (Fornell, C & Larcker, D, 1981).

Discriminant Analysis -Correlations of the constructs and the square root of AVE						
Construct	PE	EE	SI	FC	SOT	IP-DBCF
PE	<b>0.816</b>					
EE	0.440	<b>0.826</b>				
SI	0.490	0.508	<b>0.803</b>			
FC	0.374	0.489	0.526	<b>0.774</b>		
SOT	0.403	0.536	0.556	0.699	<b>0.812</b>	
IP-DBCF	0.610	0.533	0.458	0.458	0.470	<b>0.817</b>

The Fornell-Lacker criterion compares the average variance extracted (AVE)'s square root relative to the possible variable correlation. The reliability values indicate that each construct shares more variance with its associated measurement items or indicators than with the other model constructs (J. Hair et al., 2017). The AVE value of each construct is higher than its highest correlation with the remaining constructs (Sarstedt et al., 2021).

Hypothesized Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values	Sig	Results
FC -> IPDCF	0.066	0.070	0.086	0.769	0.442	No	Rejected
PE -> IPDCF	0.185	0.190	0.083	2.241	0.025	Yes	Accepted
EE -> IPDCF	0.094	0.101	0.095	0.992	0.321	No	Rejected
SI -> IPDCF	0.217	0.213	0.103	2.097	0.036	Yes	Accepted
SOT -> IPDCF	0.263	0.261	0.080	3.290	0.001	Yes	Accepted

Note: p-value < 0.000 – significant at 1% level; p-value < 0.05 – significant at 5% level.

The PLS path coefficients are shown. For three of the pathways, the t-statistics value is found to be higher than 1.96. Performance expectancy, social influence and the intention of the donor to participate is significantly positively impacted by a sense of trust. Facilitating conditions and effort expectancy has an adverse effect on the donor intention to participate. The explanatory power (R Square) of Donation Intention is 0.6264, According to (Hair, Ringle, & Sarstedt, 2013) is considered as a better explanatory power.

## VI. DISCUSSION AND CONCLUSION

One latent variable (the sense of trust) was introduced to the UTAUT model in this study in order to build a research model of behavior influencing factors and donor intention to donate. The six paths all passed the model test, which is efficient and all six hypotheses are proven when Smart PLS 4 is used to analyse the survey data. We draw the conclusion that in the model, the three latent variables are all strongly correlated with donors' intentions to support campaigns based on donation-based model.

Therefore, in order to encourage the public to contribute money to a charitable crowdfunding project, we recommend that the project's creators provide adequate project information and describe the project's background and content to increase participation. Multimedia, including stories, photographs, and videos, can aid with this. So that as time passes, more individuals become aware and learn about the initiative. Gaining some influential donors early on in the endeavour is crucial for inspiring others to give as well. To educate the public, foster their feeling of social responsibility and aid them in developing the habit of giving through the internet. The crowd-funding platform's functionality and visual design should be continually enhanced, the payment system and manner of promotion should be polished and the complexity of the system for online donations should be kept to a minimum.

The initial UTAUT model doesn't take sense of trust into account. However, have a major influence on the donor behaviour. According to our research, people are far more probable to make online donations when they have faith in the platform, the project's creator, and the initiative itself. Therefore, the demand for confidence on the part of the potential contributor must be met in order to persuade the public to pay more attention to online philanthropic crowdfunding.

### Managerial Implications

The success of these campaigns will ultimately depend on how well crowdfunding platforms can understand the influence of donors and public interest in participating in donation-based campaigns. With the help of this study, they may be able to more accurately classify contributors and fundraisers and choose the best target demographic for each campaign. Donation-based crowdfunding might be useful for persons or organisations that are unable to offer anything in return for the contribution received.

### Limitations:

The sample used in this study focuses on crowdfunding initiatives with a donation-based model. It is yet to be observed that if any differences exist between the actual and potential donations at various campaigns. Furthermore, the sample size is small; nevertheless, we hope to increase it through further research.

Internet-based donation-based crowdfunding is currently gaining popularity all around the world, but especially in developing nations. Donors, whether they be individuals, groups or organisations, quietly transform society. Those wishing to encourage the growth of philanthropic crowdfunding can use the conclusions reached by this study. The intentions and actions of people in relation to joining charitable organizations and participating in public welfare initiatives could be further examined based on these findings.

### Author Note

Meghana C and Dr. Chandrakala G contributed to the development of this work. Meghana C was responsible for conceptualization, data curation, formal analysis, investigation, methodology, software, validation, and drafting the original manuscript. Dr. Chandrakala G supervised the project, managed administration tasks, and contributed to the conceptualization and review and editing of the manuscript.

## REFERENCES

- Baber, H. (2019). Factors underlying attitude formation towards crowdfunding in India. *International Journal of Financial Research*, 10(4), 46–54. <https://doi.org/10.5430/ijfr.v10n4p46>
- Baber, H. (2020). Intentions to participate in political crowdfunding- from the perspective of civic voluntarism model and theory of planned behavior. *Technology in Society*, 63. <https://doi.org/10.1016/j.techsoc.2020.101435>
- Behl, A., & Dutta, P. (2020). Engaging donors on crowdfunding platform in Disaster Relief Operations (DRO) using gamification: A Civic Voluntary Model (CVM) approach. *International Journal of Information Management*, 54(September 2019), 102140. <https://doi.org/10.1016/j.ijinfomgt.2020.102140>
- Behl, A., Dutta, P., Sheorey, P., & Singh, R. K. (2020). Examining the role of dialogic communication and trust in donation-based crowdfunding tasks using information quality perspective. *TQM Journal*. <https://doi.org/10.1108/TQM-06-2020-0139>
- Efrat, K., Gilboa, S., & Sherman, A. (2019). The role of supporter engagement in enhancing crowdfunding success. *Baltic Journal of Management*, 15(2), 199–213. <https://doi.org/10.1108/BJM-09-2018-0337>
- Erjavec, J., & Manfreda, A. (2022). Online shopping adoption during COVID-19 and social isolation: Extending the UTAUT model with herd behavior. *Journal of Retailing and Consumer Services*, 65(December 2021), 102867. <https://doi.org/10.1016/j.jretconser.2021.102867>
- Fornell, C & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388.

- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1–2), 1–12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. (2017). An updated and expanded assessment of PLS- SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442–458.
- Kim, M. J., & Hall, C. M. (2020). What drives visitor economy crowdfunding? The effect of digital storytelling on unified theory of acceptance and use of technology. *Tourism Management Perspectives*, 34. <https://doi.org/10.1016/j.tmp.2020.100638>
- Kumra, R., Khalek, S. A., & Samanta, T. (2021). Factors Affecting BoP Producer Intention to Use P2P Lending Platforms in India. *Journal of Global Marketing*, 34(4), 328–352. <https://doi.org/10.1080/08911762.2021.1915440>
- Kusumarani, R., & Zo, H. (2019). Why people participate in online political crowdfunding: A civic voluntarism perspective. *Telematics and Informatics*, 41(November 2018), 168–181. <https://doi.org/10.1016/j.tele.2019.04.011>
- Maleki, F., & Hosseini, S. M. (2020). Charity donation intention via m-payment apps: donor-related, m-payment system-related, or charity brand-related factors, which one is overkill? *International Review on Public and Nonprofit Marketing*, 17(4), 409–443. <https://doi.org/10.1007/s12208-020-00254-3>
- Mansyur, A., & Ali, E. M. T. bin E. (2022). The Adoption of Sharia Fintech Among Millennial in Indonesia: Moderating Effect of Islamic Financial Literacy on UTAUT 2. *International Journal of Academic Research in Business and Social Sciences*, 12(4), 1329–1343. <https://doi.org/10.6007/ijarbss/v12-i4/13035>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. et. al. (2021). Partial Least Squares Structural Equation Modeling. In *In Handbook of market research Cham: Springer International Publishing*. (Issue July, pp. 587–632). <https://doi.org/10.1007/978-3-319-05542-8>
- Sayed, A., & Baghaie, M. (2018). Crowdfunding as a Marketing Tool. *SSRN Electronic Journal*, 2017(March), 1–50. <https://doi.org/10.2139/ssrn.2938183>
- Sentanoe, W., & Oktavia, T. (2022). Understanding the Determinants of Funders on Crowdfunding Platform Using the Unified Theory of Acceptance and Use of Technology (Utaut). *ICIC Express Letters*, 16(3), 281–288. <https://doi.org/10.24507/iceicel.16.03.281>
- Shneur, R., & Munim, Z. H. (2019). Reward crowdfunding contribution as planned behaviour: An extended framework. *Journal of Business Research*, 103(August 2018), 56–70. <https://doi.org/10.1016/j.jbusres.2019.06.013>
- Sulaeman, S., & Ninglasari, S. Y. (2020a). Analyzing the Behavioral Intention Factors in Using Zakat-Based Crowdfunding Platform in Indonesia. *International Journal of Zakat*, 5(3), 1–19. <https://doi.org/10.37706/ijaz.v5i3.267>
- Sulaeman, S., & Ninglasari, S. Y. (2020b). An Empirical Examination of Factors Influencing the Behavioral Intention to Use Zakat-Based Crowdfunding Platform Model for Countering the Adverse Impact of COVID-19 on MSMEs in Indonesia. *International Conference of Zakat*, 203–218. <https://doi.org/10.37706/iconz.2020.218>
- Tanaka, K. G., & Voida, A. (2016). Legitimacy Work: Invisible Work in Philanthropic Crowdfunding. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, 4550–4561. <https://doi.org/10.1145/2858036.2858110>
- Theerthaana Panneer, M. H. L. (2021). How a doer persuade a donor? Investigating the moderating effects of behavioral biases in donor acceptance of donation crowdfunding. *Journal of Research in Interactive Marketing*, 15(2), 243–266. <https://doi.org/10.1108/JRIM-06-2019-0097>
- Tri Kurniawati, D., Rosita, N. H., & Anggraeni, R. (2021). The role of emotional marketing and UTAUT on donation intention through social media. *International Journal of Research in Business and Social Science (2147- 4478)*, 10(1), 38–46. <https://doi.org/10.20525/ijrbs.v10i1.1026>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425–478
- Venkatesh, V., Thong, J. Y. L., Statistics, B., Xu, X., & Acceptance, T. (2016). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. *J Ournal of the A Ssocation for Nformation I S Ystems*, 17(5), 328–376.
- Venkatesh, V., & Zhang, X. (2014). Journal of Global Information Unified Theory of Acceptance and Use of Technology : U . S . Vs . China. *Journal of Global Information Technology Management*, 13(1), 5–27. <https://doi.org/10.1080/1097198X.2010.10856507>
- Vong, S., Zo, H., & Ciganek, A. P. (2014). Knowledge sharing in the public sector: Empirical evidence from Cambodia. *Information Development*, 32(3), 409–423. <https://doi.org/10.1177/02666666914553604>
- Wang, T., Li, Y., Kang, M., & Zheng, H. (2019). Exploring individuals' behavioral intentions toward donation crowdfunding: evidence from China. *Industrial Management and Data Systems*, 119(7), 1515–1534. <https://doi.org/10.1108/IMDS-10-2018-0451>
- Ya, Zheng , Li, Tong-Liang He, Yi-Ran Song, Z. Y. & R.-T. Z. (2017). Factors impacting donors ' intention to donate to charitable crowd-funding projects in China : a UTAUT-based model. *Information, Communication & Society*, 4462(March). <https://doi.org/10.1080/1369118X.2017.1282530>
- Yeoh, S. F., & Yin-fah, B. C. (2011). Internet banking adoption in Kuala Lumpur : an application of Utaut model Internet banking adoption in Kuala Lumpur : An application of UTAUT model. *International Journal of Business and Management*, 6(4), 161–167. <https://doi.org/10.5539/ijbm.v6n4p161>
- Zhang, Y., Tan, C. D., Sun, J., & Yang, Z. (2020). Why do people patronize donation-based crowdfunding platforms? An activity perspective of critical success factors. *Computers in Human Behavior*, 112(1), 106470. <https://doi.org/10.1016/j.chb.2020.106470>



## Influence of Financing Options on Purchase Decisions in the Pre-Owned Car Market

Remesh N, Assistant Professor, Research Scholar, Post Graduate and Research Department of Commerce, Government Arts  
College (Autonomous), Tamil Nadu

Dr. Shanmugam N, Assistant Professor & Head Cum Research Guide, Post Graduate and Research Department of  
Commerce, Government Arts College (Autonomous), Tamil Nadu

### Article information

Received: 9<sup>th</sup> September 2024

Received in revised form: 7<sup>th</sup> October 2024

Accepted: 12<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume: 1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14546186>

### Abstract

The proliferation of diverse financing options and increasing affordability have driven the used car market in India. This article examines the significant impact of financing on customers' purchase decisions in this area. It highlights how various financing options such as loans, leases, and installment plans impact consumer behaviour and the overall market dynamics. The study reveals significant financing-related concerns, including interest rates, loan terms, down payments, and eligibility criteria, all of which affect middle-class families' ability to purchase and acquire a vehicle. It underscores the imperative for innovative strategies to meet evolving customer demands while addressing the challenges associated with financing used vehicles, including perceived risks and regulatory complexities. The report underscores the importance of financing in facilitating vehicle ownership and fostering market growth in India's pre-owned car sector through an examination of these interconnected aspects.

**Keywords:** Financing Options, Purchase Decisions, Pre-Owned Car Market

## I. INTRODUCTION

The used car market in India has experienced significant growth over the last decade, driven by enhanced affordability, escalating aspirations, and the accessibility of dependable financing alternatives. For numerous middle-income families, financing has emerged as a critical determinant in the shift from two-wheelers to four-wheelers. This article examines the influence of financing on purchasing decisions, emphasising its effect on consumer behaviour, market expansion, and prospective trends. Multiple studies illustrate the relationship among financial products, consumer behaviour, and perceived risks, rendering financing options a vital element in the decision-making process for purchasing pre-owned vehicles. Customers can assess their total expenses through financing options such as loans, leases, and installment plans, facilitating informed decisions when purchasing vehicles (Heon & Joon, 2018). Moreover, product quality and promotional strategies had a combined influence of 67.8% on purchasing decisions, indicating that marketing efforts are closely linked to financial factors (Utami & Suzanto, 2024). The disorganised nature of the pre-owned automotive industry heightens perceived risks, which financing can help mitigate by providing clearer price structures. The expansion of financing options has heightened demand in markets like India (Mishra & Das, 2018). Moreover, familial influence and demographic factors such as age and affluence determine financing decisions, therefore affecting customer satisfaction and debt levels post-transaction (Furtado et al., 2023) (Aujirapongpan et al., 2014).

## II. OBJECTIVES

1. To identify key factors influencing financing choices
2. To analyse the impact of financing options on purchase decisions
3. To identify challenges in financing pre-owned cars

## III. METHODOLOGY

This study employs a methodology reliant solely on secondary data, involving a comprehensive evaluation and analysis of existing studies regarding financing alternatives in the used automobile market. The study systematically gathers data from many academic journals, industry reports, and credible online sources to understand the dynamics of financing options and their impact on consumer purchasing behaviour. The data collection focusses on key themes that significantly influence financing decisions, including interest rates, loan terms, down payments, and eligibility criteria. A conceptual model is proposed based on the current literature to enhance the analytical framework. This model illustrates the relationship between financing options and purchasing decisions by emphasising the independent elements influencing these choices, including credit availability and consumer risk perceptions.

### 3.1 Pre-Owned Car Market in India

The pre-owned car market in India has surpassed the new car segment in recent years, with an estimated annual growth rate of 15-20%. Elements like as cost, accessibility of certified quality vehicles, and consumer awareness have driven this increase. Nevertheless, obstacles such as fluctuating pricing and restricted access to funding in specific areas endure.

The elevated prices of new vehicles, changing consumer preferences, and increasing disposable incomes are all factors contributing to the significant growth of India's used automobile market. The luxury market, characterised by challenges in accurately calculating resale value due to several influencing factors, is projected to expand at a rate of 16.30% from 2024 to 2032 (Ranjith, 2024). Customers seeking personal transportation options are influenced by the convenience of ownership and the increasing availability of financial assistance, especially following Covid-19, which contributes to the shift towards pre-owned vehicles (K. et al., 2022). (Saranya & Chander, 2022). Digital platforms have transformed the market by providing real-time data and enhancing the buying and selling process through advanced machine learning models that predict automobile prices (Ranjith, 2024) ("Review on the Pre-owned Car Price Determination using Machine Learning Approaches", 2022). Moreover, stakeholders must understand the evolving client behaviour, as preferences have significantly shifted over the past decade, necessitating tailored marketing strategies (Schmidbauer, 2023).

### 3.2 Financing Options for Pre-Owned Cars

Various methods exist to finance pre-owned vehicles, including prequalification programs that facilitate the process for purchasers. Recent technological advancements have rendered the purchasing process more open and efficient, allowing consumers to simultaneously access car history records and explore preapproved financing options (Cain et al., 2015). Approximately 75% of automobile acquisitions are financed through credit, with third-party financing being the predominant method (Agarwal et al., 2008).

Furthermore, lenders may now evaluate customer credit histories and vehicle equity thanks to cutting-edge finance models like equity mining, which allows for customised financing options (Cain et al., 2016). Additionally, by offering consumers flexible buying options like fixed-price buy options or predetermined discounts, promotional systems that leverage options can improve market segmentation and consumer value (Afik et al., 2012). Ultimately, these diverse financing strategies aim to meet customer needs while managing lender risks associated with defaults and prepayments.

The significant advancement of financing options has granted consumers increased autonomy and convenience. Traditional bank loans offer competitive interest rates; nevertheless, they often impose stringent qualification criteria. Individuals with moderate credit scores particularly advantage from the expedited processing and enhanced acceptance rates of non-banking financial organisations (NBFCs). In-house dealership finance at the dealership offers streamlined processes and incentives to attract customers. Peer-to-peer lending platforms provide a digital avenue for individuals to secure loans from others under mutually agreed terms, hence broadening the options available to consumers.

### 3.3 Factors Influencing Financing Choices

Purchasers often evaluate many factors when selecting financing options for automobile acquisitions to ensure optimal alignment with their financial situations. Given that interest rates directly influence the overall expense of the loan, they should be prioritised in consideration. Interest rates for used cars are typically higher than those for new cars, which can make them difficult to finance. The higher perceived risk of financing older assets that depreciate more quickly is frequently the cause of this discrepancy (CarWale, n.d.).

The loan tenure, which determines the duration of the repayment period, is another significant factor. Numerous buyers opt for flexible loan terms, as extended durations render monthly installments (EMIs) more manageable and afford greater financial latitude, whereas abbreviated terms diminish the total interest payable (CreditMantri, n.d.). Down payments are essential in financial options. Buyers are often attracted to solutions that require lower down payments, as they reduce the initial financial burden. It is essential to note that smaller down payments lead to a bigger principal loan amount, hence



increasing the total interest paid throughout the loan term. Due to this trade-off, buyers must meticulously evaluate the long-term financial implications in relation to their current financial capacities (Axis Bank, n.d.).

Eligibility requirements significantly influence the conditions and accessibility of funding options. Lenders typically assess a buyer's repayment capacity by examining their employment history, credit score, and income stability. A stable income and a high credit score not only enhance the probability of loan approval but may also result in more favourable terms, such as lower interest rates or increased loan amounts. Conversely, buyers with moderate or low credit scores may face more rigorous requirements or be compelled to explore alternative financing options, such as dealership financing or loans from Non-Banking Financial Companies (NBFCs) (CreditMantri, n.d.). To select a financing plan that balances cost, convenience, and long-term financial stability, buyers must consider all of these interconnected factors.

### 3.4 Impact of Financing on Purchase Decisions

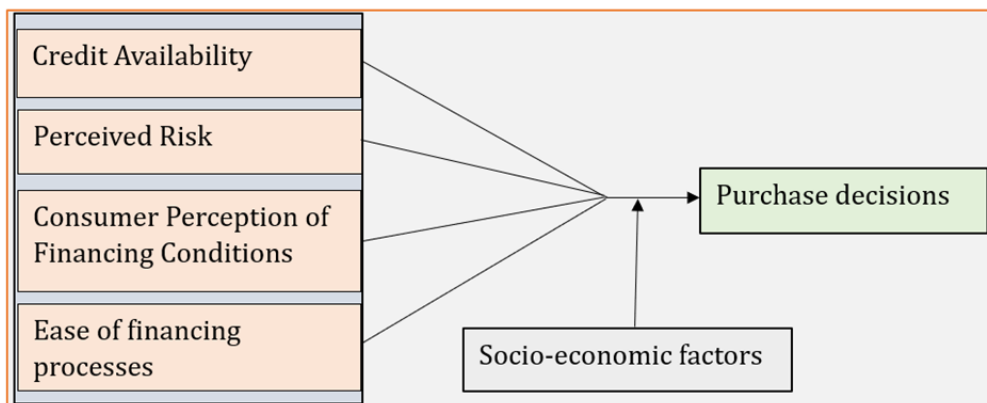
Financing significantly impacts the decisions of pre-owned car buyers, driven by various factors such as consumer behaviour, perceived risk, and credit accessibility. Research indicates that customer choices are significantly impacted by the accessibility of auto finance, particularly in countries such as India, where the demand for used vehicles has escalated due to an expanding middle class and increasing disposable income (Mishra & Das, 2018). Purchase decisions are also directly impacted by how financing circumstances, including interest rates and loan processing periods, are perceived; consumers are more likely to purchase cars when they expect favourable credit conditions (Johnson et al., 2014). Additionally, consumers prioritise ease of documentation and speedy processing times when choosing vehicle loan businesses (Joseph & Kamble, 2011). The dynamics of the used car business are significantly shaped by the interplay between financing options and consumer perceptions (Aujirapongpan et al., 2014).

The market for pre-owned vehicles has expanded significantly due to financing options, hence facilitating vehicle ownership for a broader demographic. Flexible repayment options have enhanced affordability for middle-class families, allowing them to get a vehicle without concern for initial costs. Moreover, financing schemes offering lower EMIs or attractive interest rates often sway consumers' brand or model preferences, therefore impacting their purchasing choices. Moreover, tailored financing solutions instill confidence in clients, enabling them to choose luxury vehicles they previously deemed expensive. These variables collectively underscore the significance of financing in shaping consumer behaviour and driving the used car industry.

### 3.5 Conceptual Framework: Impact of Financing on Purchase Decisions in the Pre-Owned Car Market

The conceptual framework underscores the critical importance of financing options while delineating the various factors that affect decisions to purchase a used vehicle. The choice to purchase a pre-owned vehicle is the dependent variable in this framework, influenced by several independent variables and intervening factors.

Figure 1. Impact of Financing on Purchase Decisions



A primary factor affecting customer decisions in the used automotive industry, particularly among middle-class consumers, is finance availability. Car ownership has become more attainable due to the provision of auto loans, which assist consumers in overcoming the challenge of substantial initial costs. This is especially relevant in emerging economies such as India, where finance initiatives address the fiscal constraints of a burgeoning middle class. The funding process can be streamlined through pragmatic factors such as minimal documentation and expedited processing times. These attributes enhance market accessibility by attracting novice buyers and persons with less financial literacy. Moreover, favourable financing conditions, such as low interest rates and flexible repayment plans, enhance the appeal of car ownership, since buyers are more likely to engage when financial terms are perceived as equitable and advantageous.

Consumer perceptions and expected financial considerations significantly impact purchase decisions. Consumers are urged to persist with significant acquisitions when assured by financing alternatives that offer stable repayment conditions and support during challenging financial periods. Tailored finance solutions can diminish perceived risks, allowing consumers to consider luxury vehicles that may have previously seemed unattainable. Moreover, financing schemes that provide attractive interest rates or minimal EMIs often sway consumer preferences towards specific brands or models, demonstrating their direct

impact on purchase choices. An expanding middle class and increasing disposable income exemplify socioeconomic features that act as vital intervening variables, promoting an environment favourable to the development of financing options. These factors discreetly enhance consumers' spending power and inclination to acquire used automobiles, hence driving market growth.

Consumer perceptions and financial opportunities converge to yield several significant outcomes. Primarily, financing enhances the accessibility of car ownership, broadening the market to encompass a larger demographic, especially middle-class families. Secondly, customers' brand and model selections are shaped by financing conditions and plans that guide them towards budget-compatible options. Thirdly, tailored financing instills greater confidence in customers and encourages them to consider luxury vehicles that were previously unattainable. These aspects collaborate to stimulate the used automobile market, underscoring the importance of financing as a catalyst for industry growth. This conceptual model illustrates the extensive impact of financing on consumer behaviour and market dynamics, highlighting its role in enhancing accessibility, confidence, and market growth within the used automotive sector.

### 3.6 Challenges in Financing Pre-Owned Cars

In India, financing pre-owned vehicles poses several challenges, mostly due to fluctuating market dynamics, legal intricacies, and economic volatility. The perceived risk of lending is significantly influenced by economic fluctuations, including alterations in inflation rates, currency instability, and interest rate policies. These factors affect capital structure decisions in the automobile business by resulting in adverse debt-to-equity ratios for financial institutions ("A panel data exploration of macroeconomic factors influencing the optimal capital structure of the Indian automotive sector," 2024). Financial institutions may exhibit reluctance in extending loans for the acquisition of used vehicles due to heightened pressure to maintain profitability amid prevailing economic concerns.

The vehicle finance market must adapt to stringent regulatory requirements while addressing evolving consumer expectations, including the increasing need for competitive interest rates and flexible repayment terms. Financing activities are often complicated by compliance with governmental restrictions, including tax legislation, loan distribution criteria, and financial transparency requirements. Robust risk management strategies are essential to address these challenges, ensuring both sustained growth and financial stability. Lending risks can be mitigated by effective tactics such as comprehensive credit risk evaluations, advanced data analytics for client profiling, and portfolio diversification.

To maintain competitiveness, the industry must proactively adapt to evolving market trends, including the rising demand for digital loan applications and enhanced customer service (Ranawat & Bhaiyya, 2024). These components collectively underscore the intricate challenges associated with financing pre-owned vehicles in India, necessitating innovative and adaptable solutions to overcome obstacles and capitalise on market opportunities.

The historical context of the Indian vehicle market, marked by outdated models and stringent regulatory challenges, has resulted in a finance environment that often struggles to meet modern customer demands (Krishnan, 2002). The automobile business has been characterised by limited vehicle options, strict import laws, and a deficiency of competitiveness for many years. These forces established a financial landscape that prioritised institutional mandates over consumer-centric innovation. Due to this background, financial institutions are less capable of swiftly adapting to the rising demands of contemporary consumers for flexible financing options, reasonable interest rates, and expedited loan approvals.

The challenges are exacerbated by the complexities of marketing financial services for pre-owned vehicles. The underutilisation of available financing options is often attributed to inadequate communication strategies and a failure to bridge the divide between lenders and borrowers. The ability to make informed decisions is further obstructed by information asymmetry, which arises when consumers possess inadequate comprehension of loan terms, eligibility criteria, and concealed costs. Consumers, particularly individuals from lower-income demographics or first-time purchasers, face additional financial strain due to elevated credit expenses, encompassing high interest rates and processing fees (Ranganath & Rao, 2012; Rao et al., 2017).

The interplay of historical inflexibility, insufficient customer awareness, and cost inefficiencies highlights the ongoing challenges in rendering finance more accessible and appealing to a wider demography in the used automobile industry. To resolve these issues and align finance systems with contemporary market expectations, an innovative strategy for legislation, product design, and consumer education is essential.

## IV CONCLUSION

In the used automobile market, financing options significantly impact decisions, particularly in a diverse and dynamic economy such as India. This essay illustrates how financing options enhance market accessibility by reducing financial barriers for clients. Middle-class families can now purchase a vehicle due to flexible repayment choices, reasonable loan rates, and streamlined processes, contributing to the rapid expansion of the pre-owned automobile sector. Buyers can make educated decisions due to the integration of advanced financial structures and digital platforms, which also enhance market efficiency and transparency.

Nonetheless, obstacles persist that hinder finance approaches from achieving their maximum potential, including historical market inflexibility, regulatory constraints, and economic fluctuations. Restricted consumer awareness and elevated credit fees further obstruct access for numerous individuals, especially those in lower-income brackets. The sector must adopt innovative strategies, including enhanced credit risk assessment tools, tailored financing options, and comprehensive consumer education programs to overcome these challenges. By addressing these concerns and using technological advancements, stakeholders may create a more dynamic and inclusive ecosystem that satisfies modern consumer wants, hence facilitating the sustained growth of the used automobile industry.

## V. FUTURE DIRECTIONS OF THE STUDY

The future objective of the study is to evaluate the proposed conceptual model through primary data collection and analysis utilising Structural Equation Modelling (SEM). The conceptual framework elucidates the impact of various financing options on purchasing decisions in the pre-owned automobile market, identifying relationships that this methodology aims to substantiate. Data, both quantitative and qualitative, regarding the financing experiences, preferences, and decision-making processes of consumers who have recently purchased used cars will be collected via surveys or interviews.

## REFERENCES

- Review on the pre-owned car price determination using machine learning approaches. (2022). Proceedings of the International Conference on Artificial Intelligence and Smart Systems (ICAISS). <https://doi.org/10.1109/ICAISS55157.2022.10010958>
- A panel data exploration of macroeconomic factors influencing the optimal capital structure of the Indian automotive sector. (2024). Bangladesh Journal of Multidisciplinary Scientific Research. <https://doi.org/10.46281/bjmsr.v9i4.2239>
- Ajoy, S., Joseph, H. Y., & Kamble. (2011). Buying behaviour of passenger car customers towards auto finance: An empirical study.
- Amjad, H., Khan, M. K. R., Aswin, H., Sathish, & Pandey, M. (2022). The future and challenges of the preowned car market in India: A case study. *Kristu Jayanti Journal of Management Sciences (KJMS)*. <https://doi.org/10.59176/kjms.v1i2.2279>
- Axis Bank. (n.d.). Interest rates & charges for new car loans. Retrieved September 1, 2024, from <https://www.axisbank.com/retail/loans/car-loan/new-car-loan/interest-rates-charges>
- Yadav, B., Ranawat, P., Mohd, M., & Bhaiyya, S. (2024). Navigating uncertainties: A comparative exploration of risk management strategies in the Indian auto finance industry among selected companies. *Journal of Informatics Education and Research*. <https://doi.org/10.52783/jier.v4i1.1044>
- CarWale. (n.d.). Car loan – Compare car loan offers online. Retrieved September 1, 2024, from <https://www.carwale.com/car-loan/>
- CreditMantri. (n.d.). Car loan interest rates. Retrieved September 1, 2024, from <https://www.creditmantri.com/car-loan-interest-rates/>
- Saranya, B., Arun, C., & Chander, B. (2022). An overview of the pre-owned car market: A glimpse of the post-COVID scenario. *Ymer*. <https://doi.org/10.37896/ymer21.04/33>
- Schmidbauer, E. (2023). Evolution of car purchasing behaviour and the reasons behind it among Indian consumers: A comprehensive analysis from 2010 to present. Preprints. <https://doi.org/10.20944/preprints202307.0069.v1>
- Frota Furtado, G., Boeing, R., Almeida, Q. M., Rodrigues Sousa, A. M., & dos Santos, R. C. (2023). Influence factors of consumers' decision-making: The behavioral perspective on car buying. *REMark - Revista Brasileira de Marketing*. <https://doi.org/10.5585/remark.v22i1.17462>
- Septiana, H., Utami, W., & Suzanto, B. (2024). Influence of product quality and promotion on purchasing decisions at a used car company. *Jurnal Computech dan Bisnis*. <https://doi.org/10.56447/jcb.v18i1.295>
- Ranjith, K. (2024). Prediction of resale value of pre-owned luxury cars in the Indian market employing machine learning techniques. *International Journal for Science Technology and Engineering*. <https://doi.org/10.22214/ijraset.2024.63709>
- Kang, J. H., & Lee, H. J. (2018). Method and system for providing online car-purchasing service by comparing financial instruments.
- Johnson, K. W., Pence, K. M., & Vine, D. J. (2014). Auto sales and credit supply. *Research Papers in Economics*.
- Santosh, N., Ranganath, T., & Rao, L. (2012). Marketing of banking & financial services in India: The challenges ahead.
- Rao, P., Kumar, S., Gaur, V., & Verma, D. (2017). What constitutes financing gap in Indian SMEs—owners' perspective? *Qualitative Research in Financial Markets*. <https://doi.org/10.1108/OREFM-01-2017-0001>
- Ryan, B., Cain, W., Von Busch, K. M., & DeGuiseppe, D. E. (2015). Methods and system for simultaneously generating vehicle history reports and preapproved financing options.
- Ryan, B., Cain, W., Von Busch, K. M., & DeGuiseppe, D. E. (2016). Systems and methods of financing preapproval and prequalification options for equity mining.
- Aujirapongpan, S., Ritkaew, S., & Jutidharabongse, J. (2014). Factors affecting the customers' choice of purchasing used cars, car dealers, car loans, and leasing: Case study of consumers in Surat Thani Province and Songkhla Province. *WMS Journal of Management*.
- Agarwal, S., Ambrose, B. W., & Chomsisengphet, S. (2008). Determinants of automobile loan default and prepayment. *Economic Perspectives*.
- Krishnan, V. (2002). Indian automotive industry: Opportunities and challenges posed by recent developments.
- Mishra, V., & Das, B. (2018). Reducing perceived risk in purchase of uncertified used cars: Contributory factors.
- Afik, Z., Lowengart, O., & Yosef, R. (2012). Options as a marketing tool: Pricing a promotional scheme for a product with a secondary market. *Social Science Research Network*. <https://doi.org/10.2139/SSRN.2199802>





## Investment Performance of ELSS from 2009 to 2021 in India

Dr. Radha Vyas, Assistant Professor, D. R. Patel & R. B. Patel Commerce College, Surat,  
Dr. Pratik K. Desai, Assistant Professor, P. R. B. Arts & P. G. R. Commerce College, Surat.

### Article information

Received: 10<sup>th</sup> September 2024

Received in revised form: 18<sup>th</sup> October 2024

Accepted: 15<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume:1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14546211>

### Abstract

India offers a wide range of mutual fund investment schemes, but equity-linked savings scheme mutual funds (ELSS Growth plans) are becoming more, and more well-liked because of their special qualities, and benefits for investors. Due to the increasing demand for ELSS, researchers have chosen to use a number of ratios, including the Treynor, Jensen, Sharpe, and expense ratios, to assess the investment performance of different ELSS. 12 Diversified Equity Mutual Funds (DEMF Growth plans), and 27 ELSS funds were chosen for the study based on their market continuity from 2009 to 2021. The risk-adjusted investment performance of ELSS, and DE funds, as determined by the Treynor, Sharpe, Jensen, and expense ratios, was determined to be statistically not significant following the use of Welch's t-test. A statistically equivalent average between ELSS funds, and DEM funds may be shown from the mean of the Treynor, Jensen Alpha, Sharpe, and Expense Ratio metrics. According to this research, ELSS funds and Diversified Equity Funds have comparable risk-adjusted performance.

**Keywords:** - Expense Ratio, Equity Linked Savings Scheme Mutual Funds (ELSS), Sharpe Ratio, Treynor Ratio, Jensen Alpha Ratio.

## I. INTRODUCTION

Investors try to choose the best option from the available options by taking in to account their investing objectives, which include aims for maximum return, and risk tolerance. A well-functioning financial system offers a variety of investment options based on investor's aspirations. It is therefore possible to argue that mutual funds are a good fit for the economy since they produce capital over the whole risk spectrum.

Depending on the total amount invested in the fund over the year, ELSS funds might offer incentives to small investors with minimal income tax obligations. ELSS funds are therefore seen by investors as a means of reducing their income tax liability, which is why they are rightfully called "tax saving mutual funds."

The performance of the top five ELSS plans across numerous mutual funds in India is evaluated by (Panigrahi et al., 2020). using a range of criteria, such as beta, the Jensen ratio, the Sharpe ratio, and others. In order to assist investors in reaching their financial objectives, it provides suitable investing strategies for ELSS. Numerous funds have advanced under the Treynor, and Sharpe ratios, according to this analysis, with consistent and dependable results throughout the process. It is clear from analyzing performance in terms of average risk that every strategy closely matches the conditions, and market fluctuations.

The performance evaluation of ELSS mutual funds was studied by (Pathak, 2018). with a particular emphasis on growth funds. This study concludes that investor's risk-return relationships vary because mutual funds offer securities. A number of indicators, such as the beta, Jensen ratio, and Sharp ratio, were used in this study to analyze the performance of the ELSS Growth Funds. Proper ELSS programs are suggested by the researcher to assist investors in reaching their financial objectives. The five-year study period included an analysis of ten ELSS growth funds. Comparing ELSS-growth funds to the benchmark index, the analysis reveals that they perform remarkably well.

## II. REVIEW OF LITERATURE

The way open-ended equity, and debt mutual funds performs was analysed, and contrasted by (Prabakaran et al. 2023) between January 2018, and December 2022. This study assesses the performance of various schemes to assist individual investors in making well-informed investment decisions. Researchers assessed the performance of the selected funds using a range of statistical methods, such as risk-adjusted value, beta, standard deviation, and daily average return. The results indicate that, compared to debt schemes, equity schemes typically offer high returns at a modest level of risk. However, compared to equity, debt programs carry less risk. According to a survey, asset management companies, and investors should evaluate effective schemes based on performance.

Reviewing mutual fund performance in the Indian capital market is what (Kanodia and Khinchi, 2017). do. After reading through twenty-five study publications, they concluded that additional research is required to better understand how one characteristic can affect another. An increased focus on the examination of ratio performance, and ranks based on forside ratios is necessary to better comprehend the relationship between funds and the index.

Between April 2011 and March 2015, (Bhagyasree, and Khisori 2016). examined thirty open-ended growth equity funds. Fourteen of the thirty mutual fund schemes in the sample have higher benchmark returns, according to Treynor, and Jensen's measurements, which are based on previous performance assessments. The Sharpe Ratio is positive, and produces higher returns than the risk-free rate for each strategy. The Jensen criterion indicates that 18 plans have a negative alpha, and 12 have a positive alpha. Some underperforming initiatives deal with a variety of issues.

(Goel, and Laveena ,2015). conducted a comparison study on the performance analysis of debt, and equity schemes in HDFC, figured out their daily returns, and identified the investment class that investors want in the context of Birla Sun Life, and ICICI Mutual Fund schemes. There were fifteen plans in the study. According to the analysis, which was conducted between January 1, 2009, and December 31, 2013, the HDFC Infrastructure Fund, the Short-Term Plan, and the Long-Term Gilt Fund were the program's most effective components. Furthermore, the Birla Sun Life Index Fund, and Tax Savings Fund did better than ICICI, and HDFC.

In order to analyze the performance of specific diversified equity mutual funds that were created in India, (Choudhary and Chawla ,2014), carried out a study. The study's secondary objective was to utilize several statistical approaches, such as correlational analysis, standard deviation, beta, coefficient of determination, and Treynor and Sharpe Ratio, to analyze the performance of the chosen mutual funds for a variety of Indian stocks. In terms of both Treynor, and Sharpe ratios, the research findings showed that most of the funds chosen for the study did better.

The findings of ( Ashraf, and Sharma ,2014), are tested using regression analysis, Treynor's ratio, Sharp's ratios, Jensen's measure, Fama's measure, various coefficients, and risk-return analysis in an attempt to analyze the risk-free rate of the industry performance for equity mutual funds, and the return of benchmark returns over a five-year period. According to the findings of the Risk Return Analysis, all ten plans beat risk-free rates in terms of returns, but three of them underperform the market, and seven outperform it. The benchmark index is reduced to the Treynor ratios of each mutual fund scheme, and the Sharpe ratio of the benchmark market index, and the three mutual fund skippers. Research on the evaluation of specific ELSS mutual fund scheme's performance was done by (Lilly, and Anusuya,2014). From April 2008 to March 2013, they examined the results of 49 open-ended tax-saving ELSS programs. Treynor, Sharpe, earnings, and Jensen's alpha ratios are used to evaluate the performance of funds. It was found that LIC Nomura MF growth, and dividend plans beat the market, and involved taking on risk after comparison with other schemes.

## III. RESEARCH METHODOLOGY

Using a variety of ratios, including the expense ratio, sharpe ratio, Treynor ratio, and Jensen alpha ratio, the current study aimed to assess, and compare the investment performance of Equity Linked Savings Scheme Mutual Funds (Growth) plans with other Diversified Equity Mutual Funds (Growth) plans. This study employed a descriptive research design. The total population of ELSS funds that were in operation from April 1, 2009, to March 31, 2021, is represented by the 27 funds that make up the sample.

The following list includes diversified equity mutual funds with a 12-year track record starting on January 4, 2009 (Kumar, 2016). Welch's t-test was used to analyze the data, and determine if the two independent group means of Diversified Equity Mutual Funds (Growth), and Equity Linked Savings Scheme Mutual Funds (Growth) plans differed from one another. Thus, the following hypothesis is proposed:

- H<sub>0</sub>** = The average of the different ratios of the Diversified Equity funds, and ELSS funds does not differ significantly. (Expense Ratio, Treynor Ratio, Jensen Alpha Ratio, Sharpe Ratio).
- H<sub>1</sub>** = The average of several ratios between ELSS funds, and Diversified Equity funds differs significantly. The Treynor, Jensen Alpha, Sharpe, and expense ratios

## IV. RESULTS AND DISCUSSION

Tables 1 and 2 provide the details of the selected funds.

**Table 1.** List of Sample of Equity Linked Saving Schemes.

Sr. No	Funds	Inception Date	Benchmark
01.	ABSLTP - Reg.- G	Oct-06	S&P BSE SENSEX TRI
02.	ABSLTR - 96 - Reg. - G	Mar-08	S&P BSE 200
03.	BNPPLTEF - G	Jan-06	NIFTY 50
04.	BOIAXATAF- R - G	Feb-09	S&P BSE 500
05.	CRETS - R - G	Feb-09	S&P BSE 100 TRI
06.	DSPTSF - R - G	Jan-07	NIFTY 500 TRI
07.	ELTEF (Tax Savi) - G	Dec-08	NIFTY 500 TRI
08.	FITF - G	Apr-99	NIFTY 500
09.	HDFCTSF - G	Apr-96	Nifty 500 TRI
10.	HSBCTSEF - G	Jan-07	S&P BSE 200 TRI
11.	ICICIPLTEF (Tax Savi) - G	Aug-99	NIFTY 500 TRI
12.	IDFCTAF - R - G	Dec-08	S&P BSE 200 TRI
13.	IITP - G	Dec-06	S&P BSE 200 TRI
14.	JMTGF - G	Apr-08	S&P BSE 500
15.	KTSS - G	Nov-05	NIFTY 500 TRI
16.	L&TTAF - G	Feb-06	S&P BSE 200 TRI
17.	LICMFTP1997 - G	Apr-00	NIFTY 500
18.	NITSF - G	Sep-05	S&P BSE 100 TRI
19.	PPTS	Mar-96	NIFTY 500 TRI
20.	PTSF	Mar-96	Nifty 500 TRI
21.	QTP - G	Mar-00	Nifty 50 TRI
22.	QTSF - D – G	Dec-08	S&P BSE 200 TRI
23.	SBILTEF - G	Mar-93	S&P BSE 500 TRI
24.	SDE - G	Nov-99	S&P BSE 200 TRI
25.	TT - G	Apr-96	S&P BSE 200 TRI
26.	UTILTEF (Tax Savi) - G	Jul-05	Nifty 500
27.	UTIMEPUS	Apr-03	S&P BSE 100

Source: Compiled from sample of Equity Linked Saving Schemes by authors

**Table 2.** List of Sample of Diversified Equity Funds.

Sr. No	Funds	Inception Date	Benchmark
<b>S&amp;P BSE SENSEX TRI</b>			
01.	TEP/EF - G	29-Jun-04	BSE
02.	JMLCF - G	01-Apr-95	BSE
<b>S&amp;P BSE 100</b>			
03.	SBIBCF – G	14-Feb-2006	BSE
04.	NILCF - G	08-Aug-2007	BSE
<b>S&amp;P BSE 200</b>			

05.	L&TIVF – G	08-Jan-2010	BSE
06.	JMVV - G	02-June-1997	BSE
<b>S&amp;P BSE 500</b>			
07.	NIMCF - G	29-Mar-2005	BSE
08.	SBIMMF - G	29-Sep-2005	BSE
<b>NIFTY 50</b>			
09.	ABSLFEF - G	30-Aug-2002	NSE
10.	ICICIPVDF - G	16-Aug-2004	NSE
<b>NIFTY 500</b>			
11.	KSMF - G	11-Sep-2009	NSE
12.	HDFCEF – G	01-Jan-1995	NSE

Source: Compiled from sample of Diversified Equity Funds by authors

The ELSS, and DEF Growth plan's investment performance is detailed in Tables 3 and 4, which are based on the Treynor, Jensen, Sharpe, and Expense ratios.

**Table 3.** Investment Performance of Equity Linked Savings Scheme Mutual Funds. (ELSS Growth plans)

Sr. No.	Funds	Expense Ratio	Rank	Sharpe Ratio	Rank	Treynor Ratio	Rank	Jensen Ratio	Rank
1	LICMFTP1997 – G	2.62%	25	1.34	17	10.33	27	-3.42	24
2	CRETS - R – G	2.33%	13.5	0.29	27	16.62	5	4.52	4
3	BNPPLTEF – G	2.36%	15	0.90	25	14.68	14	1.59	14
4	JMTGF – G	2.90%	27	1.43	14	11.48	24	-5.28	27
5	DSPTSF - R – G	1.97%	7	1.48	10	17.30	2	2.77	12
6	KTSS – G	2.55%	23	1.68	2	15.99	8	-0.64	19
7	ABSLTP - Reg. – G	2.52%	20	1.18	21	12.89	19	1.40	16
8	BOIAXATAF - R – G	2.66%	26	1.54	6	17.03	3	3.09	10
9	IITP – G	2.44%	18	1.17	22	16.96	4	4.88	3
10	HSBCTSEF – G	2.55%	23.5	1.27	19	12.33	20	-0.82	20
11	UTILTEF (Tax Savi) – G	2.55%	23.5	1.28	18	11.65	22	-3.79	25
12	ELTEF (Tax Savi) – G	2.43%	17	1.37	15	11.58	23	-1.49	23
13	TT - G– Growth ELSS	2.33%	13.5	1.50	9	15.57	9	3.78	6
14	ICICPLTEF (Tax Savi)	1.94%	6	1.35	16	17.76	1	5.45	1

15	ABSLTR - 96 - R - G	1.47%	3	1.22	20	15.00	12	3.10	9
16	PPTS	2.53%	21	0.64	26	11.08	25	-1.22	21
17	FITF - G	2.08%	8	1.46	13	14.86	13	4.13	5
18	L&TTAF - G	2.11%	10	1.06	24	13.76	17	1.97	13
19	SDE - G	2.26%	12	1.47	11	11.77	21	5.26	2
20	IDFCTAF - R - G	2.39%	16	1.57	5	15.32	10	3.21	8
21	PTSF	0.71%	1	1.51	7	13.81	16	-1.42	22
22	SBILTEF - G	2.17%	11	1.63	4	13.23	18	0.52	17
23	NITSF - G	2.10%	9	1.47	11	14.63	15	1.47	15
24	HDFCTSF - G	1.89%	4	1.68	2	16.07	7	0.36	18
25	QTSF - D	1.29%	2	1.51	7	16.47	6	3.01	11
26	QTP - G	2.48%	19	1.84	1	15.07	11	3.39	7
27	UTIMEPUS	1.92%	5	1.10	23	10.83	26	-4.39	26

Table 3 displays the ranking of Equity Linked Savings Plans based on a variety of ratios. Consequently, QTP-G ranks top according to the Sharpe ratio, while ICICPLTEF (Tax Savi) scores first according to the Treynor and Jensen Alpha ratio. Being in the top spot on the expense ratio indicates that PTSF offers a solid return as well.

**Table 4.** Investment Performance of Diversified Equity Mutual Funds (DEMF Growth plans).

Sr. No.	Funds	Expense Ratio	Rank	Sharpe Ratio	Rank	Treynor Ratio	Rank	Jensen Ratio	Rank
1	TEP/EF - G	2.67%	10	1.54	6	19.50	2	2.33	4
2	JMLCF - G	2.92%	12	1.19	11	9.24	11	-3.51	10
3	SBIBCF - G	1.85%	4	1.39	9	13.73	7	0.96	6
4	NILCF - G	1.99%	7	1.52	7	11.54	9	-0.58	9
5	L&TIVF - G	1.95%	6	1.66	2	10.22	10	-0.32	8
6	JMVF - G	2.90%	11	1.59	3	13.28	8	-5.46	12
7	NIMCF - G	2.12%	9	1.72	1	18.29	3	4.74	2
8	SBIMMF - G	1.86%	5	1.44	8	14.25	5	0.56	7
9	ABSLFEF - G	1.49%	1	1.38	10	14.19	6	2.94	3
10	ICICIPVDF - G	2.07%	8	1.55	5	26.41	1	12.59	1
11	KSMF - G	1.52%	2	1.04	12	9.17	12	-3.67	11
12	HDFCEF - G	1.76%	3	1.59	3	15.76	4	1.71	5

As shown in Table 4, according to the Treynor, and Jensen Alpha ratio, ICICIPVDF-G ranks first, while NIMCF-G ranks first according to the Sharpe ratio. Based on the Expense ratio, ABSLFEF - G is at the first position, which means it provides good returns with minimum expenses.

Table 5 provides result of Welch's t-test.

**Table 5.** Results Synopsis of the Ratio-Based Hypothesis Testing of Investment Performance.

Hypothesis	Statement of Null Hypothesis	Welch's t Test - p Value	Significance at 0.05	Test Result
H <sub>1</sub>	The average expense ratios of diversified equity funds, and ELSS funds do not differ much.	0.503	Not Significant	Null Hypothesis Cannot be Rejected
H <sub>2</sub>	The average Sharpe Ratios of Diversified Equity funds, and ELSS funds do not differ much.	0.117	Not Significant	Null Hypothesis cannot be Rejected
H <sub>3</sub>	The average Treynor Ratios of ELSS funds, and Diversified Equity funds do not differ much.	0.789	Not Significant	Null Hypothesis cannot be Rejected
H <sub>4</sub>	The average Jensen Alpha Ratios of Diversified Equity funds, and ELSS funds do not differ much.	0.926	Not Significant	Null Hypothesis cannot be Rejected

Based on the Treynor, Jensen, Sharpe, and expense ratios, Table 5 shows that there is no discernible difference between the risk-adjusted investment performance of ELSS funds, and Diversified Equity funds. It is evident that ELSS funds, and Diversified Equity Funds have statistically similar averages based on the mean of the Treynor, Jensen, Sharpe, and Expense Ratio metrics. This implies that Diversified Equity Funds, and ELSS funds have comparable risk-adjusted returns.

## V. CONCLUSION

This analysis backs up investor's choices between ELSS, and DEMF, and shows that mutual funds provide a better platform for investment, and better returns at a reduced risk. When it comes to the patterns of equity allocation, ELSS funds, and Diversified Equity funds are very similar. While the AUM of Diversified Equity Funds offers flexibility for stock market investments, it is clear that ELSS is an equity-based mutual fund that invests 80% in the stock market, and 20% in debt.

Although ELSS funds have done well overall, the analysis finds that they have not outperformed Diversified Equity funds (DEMF). Individual ELSS fund performance generally consistent during this period, with the exception of a few funds. Apart from a high expense ratio, the study revealed no other noteworthy risk issues that were specific to ELSS funds when compared to investing in diversified equity funds.

Because diversified equity mutual funds offer investors the benefit of steady returns, it can be inferred that they are more appealing to investors than ELSS. The data indicates that, in spite of notable return volatility, the 3-year rolling returns of ELSS funds have generally been increasing. This time frame's returns are entirely dependent on the market's condition.

## VI. FUTURE IMPLICATIONS

Mutual funds are a solid option for investors who are risk averse, according to one study. Depending on their interests and risk tolerance, investors can choose from a variety of investment options offered by the mutual fund sector. Presenting a performance analysis, and comparing mutual funds in India based on growth, size, and volume is essential to offer further insight. The assessment of ratio performance, and ranks has to provide more attention in order to better understand the relationship between funds and the index.

The performance of a number of chosen schemes is examined in this study, which also helps practitioners, and academic scholars understand current trends, and situations. According to this study, investors can get more insight into their potential future investment choices. Policymakers, and businesses can utilize this study to help them create policies that are suitable for prospective investors.

## REFERENCES

- Ashraf, S. & Sharma, D. (2014). Performance evaluation of Indian equity mutual funds against established benchmarks index. *International Journal of Accounting Research*, 2(1), 1-7.
- Bhagyasree, N. and Khisori, B. (2016). A study on performance evaluation of mutual fund schemes in India. *International Journal of Innovative Research in Science and Technology*, 2 (11), 812-816.
- Choudhary, V. & Chawla, P. (2014). Performance evaluation of mutual funds: A study of selected diversified equity mutual funds in India. In International Conference on Business, Law and Corporate Social Responsibility 2(10), 82-85.
- Goel, A., & Laveena (2015). A Comparative Study on Performance Analysis of Debt and Equity Schemes at HDFC Mutual Funds with Reference to Birla Sun Life and ICICI Prudential Debt and Equity Mutual Funds. *International journal of innovative research and development*, 4 (4), 56-65.
- Kanodia, M. and Khinchi, K. (2017). Performance Evaluation of Mutual Funds in India: Literature Review. *Account and Financial Management Journal*, 2(9),898-908.
- Kumar, K Krishna. (2016). *Evaluation of Investment Performance and Perception of Investors in Bengaluru and its Sub Urban Area with respect to Equity Linked Savings Scheme Plans of Indian Mutual Funds* [Doctoral dissertation, ICFAI University, Jharkhand]. Inflibnet Repository. <http://hdl.handle.net/10603/124686>
- Lilly, J. and Anusuya, D. (2014). An Empirical Study of Performance Evaluation of Selected ELSS Mutual Fund Schemes. *International Journal of Scientific Research*, 3(7), 67-69.
- Panigrahi, A., Mistry, M., Shukla, R., & Gupta, A. (2020). A Study on Performance Evaluation of Equity Linked Saving Schemes (ELSS) of Mutual Funds. *NMIMS Journal of Economics and Public Policy*, 5(1): 48-68.
- V. Prabakaran et al. (2023). Comparison of Performance of Selected Open-Ended Equity and Debt Mutual Fund Schemes. *Parikalpana - KIIT Journal of Management*, 19 (2), 128-141.





## The Influence of Spirituality and Religion on Financial Decision-Making: A Behavioural Analysis

Prof. (Dr) Bhupendra Kumar, Professor in Accounting & Finance, Rajalakshmi School of Business, Chennai

### Article information

Received: 9<sup>th</sup> September 2024

Received in revised form: 25<sup>th</sup> October 2024

Accepted: 15<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume:1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14546244>

### Abstract

Numerous facets of mental health and decision-making processes are known to be impacted by spirituality and religion (S/R). The behavioural and cognitive underpinnings of S/R, especially when it comes to financial decisions, are still poorly understood despite their complexity and diversity. This study examines how spiritual beliefs, religious attitudes, and participation in religious rituals affect individuals' financial decision-making. Specifically, we explore whether S/R fosters greater behavioral consistency, helping individuals regulate impulsive reactions when faced with financial gains or losses, thereby promoting measured financial decision-making. We used the Sequential Investment Task, which examines how individuals modify their behaviour in response to hypothetical and actual financial outcomes, to look into this. A wide range of self-report measures were used to evaluate the spiritual and religious views of 280 participants in a community-based sample. We sought to understand how S/R affects behavioural consistency, risk tolerance, and impulsivity in financial decision-making by examining reactions to financial wins and losses.

**Keywords:** - Spirituality, Religion, Financial Decision-Making, Behavioral Consistency, Risk Tolerance, Impulsivity

## I. INTRODUCTION

Religion and spirituality (S/R) have a big impact on how people behave because they affect their values, attitudes, and ability to make decisions. S/R has been linked to a number of beneficial psychological effects, according to research, including enhanced self-regulation, emotional well-being, and resilience to stress (Koenig et al., 2012). However, the impact of S/R on financial decision-making, particularly on the regulation of impulsive behaviors and risk tolerance, remains relatively underexplored.

Making financial decisions requires sophisticated cognitive processes that are impacted by both emotional and logical considerations. A framework for handling financial decisions may be provided by spiritual beliefs, which give people consistency and a feeling of purpose that reduces impulsive behaviour (Griffith & Gronoff, 2015). By examining how S/R influences financial decision-making, particularly in terms of behavioural consistency, risk tolerance, and impulsivity, the current study seeks to close this gap.

## II. METHODS

### 2.1 Participants

We recruited 280 participants (Mean age = 35.2, SD = 12.4) from a diverse, community-based sample. Participants represented various religious affiliations, including Christianity, Islam, and others. A detailed breakdown of participant characteristics is represented in Table 1.



**Table 1:** Demographic Characteristics of Participants

Characteristic	Value (n = 280)
Age (Mean ± SD)	35.2 ± 12.4
Gender (%)	Male (48), Female (52)
Religious Affiliation (%)	Christian (40), Muslim (30), Other (30)
Spirituality Level (Mean ± SD)	4.2 ± 1.8

## 2.2 Measures

We utilized a comprehensive questionnaire that assessed participants' spiritual and religious beliefs, along with their financial decision-making behaviors. The survey added the following variables, each measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree):

- **Spiritual Commitment:** Measures the extent to which individuals engage in spiritual practices.
- **Religious Service Attendance:** Frequency of participation in religious rituals.
- **Personal Prayer:** Individual prayer frequency.
- **Spiritual Well-being:** Perception of spiritual satisfaction.
- **Religious Commitment:** Adherence to religious principles.
- **Ethical Decision-Making:** Importance of moral values in financial decisions.
- **Self-Regulation:** Ability to control impulses in financial decisions.
- **Risk Aversion:** Willingness to avoid financial risks.
- **Conservatism in Financial Decisions:** Tendency to adopt conservative financial strategies.
- **Behavioral Consistency:** Consistency in decision-making behavior across financial trials.
- **Impulsivity:** Tendency to make rapid, less considered decisions.
- **Perceived Financial Security:** How financially secure an individual feels.
- **Religious Identity:** Degree to which religious beliefs are integrated into identity.
- **Altruism in Financial Decision-Making:** Willingness to consider others' welfare in financial choices.
- **Sense of Purpose:** How much purpose S/R provides in financial decisions.
- **Spiritual Reflection on Decisions:** Extent to which spirituality influences post-decision reflection.
- **Tolerance of Financial Uncertainty:** Comfort with uncertainty in financial outcomes.
- **Post-Loss Reflection:** Reflection after financial losses.
- **Satisfaction with Financial Decisions:** Satisfaction level after making financial decisions.
- **Mindfulness in Financial Decisions:** Level of awareness in making financial choices.

## 2.3 Procedure

Participants completed the Sequential Investment Task (SIT) to assess how they adapted their behavior in response to both real and fictive financial outcomes. The task involved multiple rounds of decision-making, with real monetary gains and losses introduced at various intervals. Participants were also given fictive scenarios to simulate different financial conditions.

## 2.4 Data Analysis

To examine the connections between S/R variables and the results of financial decision-making, we used structural equation modelling, or SEM. Risk tolerance, impulsivity, and behavioural consistency were the main dependent variables in the model, which looked at the direct and indirect impacts of S/R on financial behaviour.

## 2.5 Hypotheses

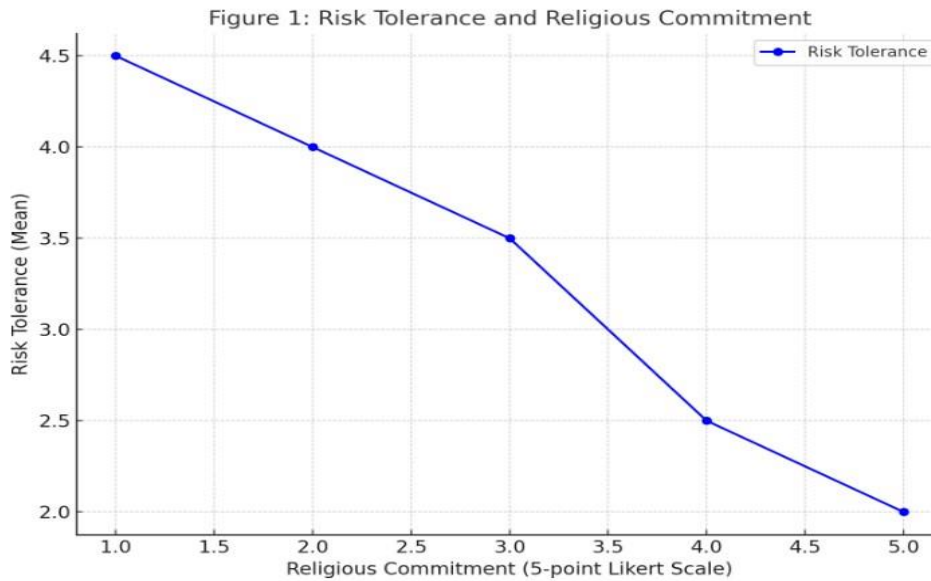
- H1:** Higher levels of spirituality are positively associated with greater behavioral consistency in financial decision-making.  
**H2:** Religious commitment is negatively associated with risk tolerance, leading to more conservative financial decisions.  
**H3:** Individuals with stronger spiritual beliefs exhibit lower impulsivity in financial decision-making.  
**H4:** Higher religious identity leads to greater satisfaction with financial decisions.

### III. RESULTS

#### 3.1. Behavioral Consistency and Spirituality

Investigating if increased spirituality was linked to more consistent financial decision-making behaviour was the first goal. The degree to which individuals made comparable investment choices throughout multiple trials, independent of prior financial results, was operationalised as behavioural consistency. The findings showed that participants' consistent financial actions and their spiritual views were significantly positively correlated ( $r = 0.35, p < 0.01$ ).

**Figure 1:** Risk Tolerance and Religious Commitment



#### 3.2. Impulsivity and Financial Decision-Making

One of the main theories was that those who are more spiritual and involved in religion will be less impulsive while making financial decisions. The frequency of sudden or erratic investing decisions after profits or losses was used to gauge impulsivity. Stronger spiritual beliefs were associated with less impulsivity, as shown by more consistent investment patterns across trials (Table 2).

**Table 2:** Impulsivity Scores by Spiritual and Religious Engagement

Group	Impulsivity Score (Mean $\pm$ SD)
High Spirituality	2.8 $\pm$ 0.6
Low Spirituality	4.1 $\pm$ 1.0
High Religious Commitment	3.2 $\pm$ 0.7
Low Religious Commitment	4.0 $\pm$ 1.2

##### 3.2.1. Risk Tolerance and Religious Attitudes

It was discovered that participants' tolerance for financial risk was influenced by their religious beliefs. In particular, those who were more religiously devoted showed a lower tolerance for risk and tended to make more cautious investing decisions after experiencing both actual and hypothetical losses. Participants with higher religious convictions were less inclined to take financial risks after suffering losses, according to Figure 1, which depicts the link between religious commitment and risk tolerance.

##### 3.2.2. Structural Equation Modeling (SEM)

SEM analysis was conducted using AMOS. Figure 1 presents the path model used in this analysis.

### Figure 1: Structural Equation Model

The model fit indices were satisfactory ( $\chi^2 = 105.8$ ,  $df = 86$ ,  $CFI = 0.97$ ,  $RMSEA = 0.04$ ), indicating an acceptable fit to the data. The paths between S/R variables and financial decision-making outcomes were significant, supporting our hypotheses.

**H1** was supported: Spiritual commitment had a significant positive effect on behavioral consistency ( $\beta = 0.41$ ,  $p < 0.01$ ).

**H2** was supported: Religious commitment negatively influenced risk tolerance, leading to more conservative financial decisions ( $\beta = -0.32$ ,  $p < 0.05$ ).

**H3** was supported: Spiritual reflection was negatively associated with impulsivity ( $\beta = -0.38$ ,  $p < 0.01$ ).

**H4** was supported: Higher religious identity predicted greater satisfaction with financial decisions ( $\beta = 0.29$ ,  $p < 0.05$ ).

### 3.3. Descriptive Statistics

Descriptive statistics for the key variables are presented in Table 3.

**Table 3:** Descriptive Statistics

Variable	Mean (SD)
Spiritual Commitment	4.3 (0.8)
Religious Service Attendance	3.8 (1.1)
Personal Prayer	4.1 (0.9)
Self-Regulation	4.2 (0.7)
Risk Aversion	3.9 (1.0)
Behavioral Consistency	4.0 (0.9)
Impulsivity	2.8 (1.2)
Satisfaction with Financial Decisions	4.1 (0.8)

### 3.4. Mediation Analysis

We further tested whether impulsivity mediated the relationship between spiritual beliefs and behavioral consistency. Results indicated that impulsivity partially mediated this relationship (indirect effect:  $\beta = 0.15$ ,  $p < 0.05$ ), indicating that a portion of the relationship between consistent decision-making and spiritual beliefs can be explained by decreased impulsivity.

### 3.5. Hypothesis Testing

The results of the hypothesis tests are summarized in Table 4.

**Table 4:** Hypothesis Test Results

Hypothesis	Path Coefficient	p-value	Supported?
H1: Spirituality → Consistency	$\beta = 0.41$	<0.01	Yes
H2: Religion → Risk Tolerance	$\beta = -0.32$	<0.05	Yes
H3: Spirituality → Impulsivity	$\beta = -0.38$	<0.01	Yes
H4: Religion → Satisfaction	$\beta = 0.29$	<0.05	Yes

#### IV. DISCUSSION

The findings of this study reveal significant relationships between spirituality, religion, and financial decision-making. Individuals with higher spiritual commitment demonstrated greater behavioral consistency in their investment decisions, likely due to a stronger sense of purpose and reduced impulsivity. This supports previous research suggesting that spirituality enhances self-regulation (Koenig et al., 2012).

Religious commitment was associated with lower risk tolerance, leading to more conservative financial strategies, especially after losses. This could be attributed to religious doctrines that emphasize prudence and caution in financial matters. Moreover, spiritual reflection on financial decisions was found to reduce impulsivity, highlighting the role of reflective practices in fostering more deliberate and thoughtful decision-making processes.

Our SEM results support the hypothesis that spirituality and religion provide cognitive frameworks that promote measured and consistent financial decisions, lowering the possibility of rash decisions being made in reaction to temporary gains or losses in money.

The results of this study suggest that spirituality and religion significantly influence financial decision-making. Specifically, individuals with higher levels of spiritual beliefs and religious commitment exhibited greater behavioral consistency, lower impulsivity, and reduced risk tolerance in their financial decisions. These findings align with previous research indicating that spiritual and religious frameworks provide individuals with a sense of purpose and self-regulation, helping them navigate complex decision-making processes (Sasaki et al., 2016).

The association between spirituality and behavioral consistency suggests that spiritual beliefs may foster a long-term perspective in financial decision-making, reducing the likelihood of impulsive actions in response to short-term financial outcomes. Similarly, the link between religious attitudes and risk tolerance indicates that religious individuals may adopt more conservative financial strategies, particularly after experiencing losses.

These findings have important implications for understanding the cognitive and behavioral mechanisms underlying financial decisions. Future research should explore the neurocognitive processes that mediate the relationship between S/R and financial behavior, as well as how these factors vary across different cultural and religious contexts.

#### V. CONCLUSION

This study provides fresh perspectives on how religion and spirituality affect financial judgement. This study offers fresh perspectives on how religion and spirituality affect financial judgement. By fostering behavioral consistency, reducing impulsivity, and promoting more conservative financial strategies, S/R appears to play a significant role in shaping how individuals navigate financial gains and losses. These findings highlight the potential of S/R to influence not only individual well-being but also broader economic behaviors.

#### REFERENCES

- Griffith, B., & Gronoff, P. (2015). Spirituality and behavioral economics: A review of the literature. *Journal of Behavioral Economics*, 45(1), 23-32.
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of religion and health*. Oxford University Press.
- Sasaki, J. Y., Kim, H. S., & Xu, J. (2016). Religion and financial decision making: How spirituality affects risk preferences. *Journal of Economic Psychology*, 55, 43-56.



## The Role of Social Security Systems in Alleviating Poverty Among Elderly Populations: An Evaluation of Policy Effectiveness and Challenges

Balakrishnan.A, Research Scholar, Institute of Management and Commerce, Mangalore.  
Dr. KVM Varambally, Research Guide, Institute of Management and Commerce, Mangalore.

### Article information

Received: 20<sup>th</sup> September 2024

Received in revised form: 12<sup>th</sup> October 2024

Accepted: 15<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume: 1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14546275>

### Abstract

With the global population ageing, social security programs are crucial for alleviating poverty among the elderly and ensuring their welfare and financial stability. This study examines the efficacy of social security policies in reducing elder poverty, focussing on their impact in both industrialised and developing nations. The research delineates variations in the design and execution of these systems worldwide by analysing secondary data from international organisations, official papers, and academic studies. The extensive social security systems in affluent countries such as Sweden, Germany, and Norway integrate earnings-related and universal pensions, resulting in significantly low poverty rates among the elderly. Conversely, emerging nations such as Ghana and India confront challenges like inadequate coverage, limited financial resources, and erratic policy execution, all of which exacerbate poverty among the elderly. The study employs a SWOT analysis to evaluate the systems' potential, risks, weaknesses, and strengths. The findings indicate that while social security programs substantially decrease poverty rates among marginalised groups, demographic factors, volatile economies, and inequitable access often compromise their efficacy. To enhance sustainability and inclusion, it is recommended to integrate social security with healthcare systems, leverage digital technologies, and foster public-private collaborations. This study underscores the need for contextually tailored, collaborative initiatives to ensure that social security institutions effectively manage the growing complexity of ageing populations.

**Keywords:** - Elderly poverty, social security systems, pensions, poverty alleviation, global ageing populations.

## I. INTRODUCTION

It is impossible to overestimate the significance of social security systems in light of the world's historic population ageing. Social Security gives elderly people a lifeline that lets them live with respect and without having to worry about money all the time. This study analyses the efficacy of social security systems in alleviating poverty among the elderly, addresses policy issues, and proposes ideas to enhance their worldwide influence. Although social security systems are essential for reducing elder poverty, their efficacy significantly differs among countries and contexts. Affluent countries such as Sweden and Germany have established extensive pension and long-term care systems; nonetheless, challenges such as supporting claimant attitudes and escalating costs continue to exist (Uścińska et al., 2023). In developing nations such as Ghana, Pakistan, and Myanmar, insufficient pension schemes and deficiencies in policy execution intensify poverty among elderly individuals, especially those working in the informal sector (Khai et al., 2024). The Indira Gandhi National Old Age Pension Scheme in India has demonstrated potential in alleviating poverty and economic disparity, underscoring the significance of focused redistributive policies (Narayana, 2023). Korea proposes a multi-pillar retirement income system to tackle the intricacies of elder poverty, highlighting the necessity for strong public support networks (Kang et al., 2022). In the United States, governmental payments have markedly diminished poverty rates among the elderly, especially within at-risk populations (Lu et al., 2021). Ultimately, social security programs are essential for reducing poverty; but, their design and execution must be contextually adapted to adequately address the needs of the elderly.

## II. OBJECTIVES

The primary objective of this study is to analyse the effectiveness of social security systems in alleviating poverty among the elderly. The specific objectives are:

- To examine the role of social security programs in reducing poverty rates among the elderly globally.
- To compare the impact of various social security policies across developed and developing nations.
- To assess the strengths, weaknesses, opportunities, and threats (SWOT) of social security systems in addressing elderly poverty.

## III. RESEARCH METHODOLOGY

This study employs a research methodology based on secondary data analysis, utilising information from credible sources such as government publications, international organisations, academic journals, and case studies. The basis for assessing how well social security systems reduce poverty among the elderly is data from organisations such as the OECD, World Bank, and United Nations. The impact of social security systems is assessed using comparative analysis, which highlights the programs' advantages, disadvantages, and potential areas for development.

## IV. ANALYSIS AND DISCUSSION

Government-operated programs, referred to as social security systems, offer healthcare, financial aid, and other necessities to individuals, especially those unable to support themselves due to age, disability, or economic hardship. National welfare systems are essential as safety nets that provide support and financial stability throughout major life transitions. These programs are intended to meet various circumstances, including unemployment, maternity, illness, disability, and retirement, serving as a financial safety net. They generally engage with contributory schemes, wherein individuals remit recurring premiums or contributions during their employment, frequently in conjunction with their employers. People receive a range of benefits in return for fulfilling specific qualifying conditions, including as becoming eligible for retirement, becoming ill, or losing their work (Tryfonidou, 2021).

These systems aim to promote social justice and economic security while lowering poverty and inequality by providing resources to those in need. Retirement pensions provide seniors with a consistent income, enabling them to sustain a respectable level of living post-employment. Unemployment insurance offers provisional financial support to persons who have been laid off as they seek new employment opportunities. Health insurance, typically provided by social security, guarantees access to vital medical care without requiring substantial out-of-pocket costs. Social security systems mitigate the impacts of recessions and bolster general economic stability by sustaining consumer spending during economic downturns while also offering direct aid to individuals. They also foster social cohesion by reducing economic disparity and encouraging a sense of shared responsibility. However, the effectiveness of these systems is often determined by their design, funding, and governance. Ageing populations, demographic shifts, and financial constraints can put pressure on social security systems; as a result, frequent modifications are necessary to ensure their sustainability and inclusiveness (Tryfonidou, 2021).

Social security systems are categorised into three main types: housing and social services, healthcare assistance, and pensions. Pensions are periodic benefits provided to individuals upon retirement, ensuring a stable income during their non-working years. These payments are classified into several types. Employers typically finance defined benefit plans, which guarantee a specific retirement payout based on factors such as years of service and salary history. Contributions from both employer and employee are allocated to individual accounts inside defined contribution plans, which are subsequently invested over time. The retirement benefits depend on the total contributions and the investment performance. Additionally, numerous countries provide Social Pensions, which are government-financed non-contributory pensions. These are designed to offer financial assistance to elderly individuals lacking sufficient savings or pension schemes. For example, social pensions provide as a safety net for people without sufficient retirement savings in many developed countries (Wikipedia, 2024). Different pension plans are implemented by nations based on their demographic requirements and economic circumstances. The National Pension System (NPS), for example, was implemented in India and encourages people to make voluntary payments to save for retirement (Drishiti IAS, 2024).

A fundamental component of social security is healthcare assistance, which offers elderly and other marginalised populations complimentary or significantly reduced medical services to enhance their quality of life and alleviate the financial strain of medical expenses. Medicaid, co-funded by federal and state governments, assists low-income individuals and families with medical expenses, including long-term and home health care, whereas Medicare is a federal program that predominantly offers health insurance to adults aged 65 and above. It encompasses inpatient admissions, outpatient treatment, and certain preventive interventions (Abel-Smith, 2024). Moreover, numerous countries implement universal healthcare systems to ensure that all citizens can access essential medical services without financial strain; for example, Sweden's publicly funded healthcare system provides comprehensive coverage to all residents through taxation (Investopedia, 2024). Elderly individuals facing challenges with food preparation or accessibility can obtain nutritious meals directly from organisations such as Meals on Wheels, which offer sustenance as well as vital social interaction that can alleviate feelings of isolation.

Social assistance organisations provide resources or financial support to individuals facing financial hardship due to unemployment or other factors. The National Social Assistance Programme (NSAP) in India offers financial assistance to elderly individuals living below the poverty level to meet their essential requirements. The integration of housing and social service programs enhances the lives of marginalised groups, ensuring they receive the necessary support for dignified living (Social Programs in India, n.d.). These programs, which include housing services, healthcare support, and pensions, are essential to improving the wellbeing of the most disadvantaged people of society.



#### 4.1. Impact of Social Security on Elderly Poverty

Since its founding, Social Security has greatly decreased poverty rates among the elderly in the United States, making it an essential program. Social Security benefits and other government transfers considerably diminish poverty rates, particularly among vulnerable groups such as women, minorities, and individuals with lower educational qualifications (Lu et al., 2021). (Donni and Marino, 2018). Poverty persists despite these benefits; in 2016, 9.3% of older individuals lived in poverty, with higher rates among minority populations (Johnson et al., 2018). Prolonged financing challenges jeopardise the effectiveness of Social Security and may lead to substantial payout reductions, perhaps increasing the proportion of future pensioners living in poverty (Sass, 2015). Moreover, studies demonstrate that public pension systems in several countries exhibit a substantial negative association between pension expenditures and elderly poverty, highlighting the importance of adequate public support in alleviating poverty (Jacques et al., 2021).

Numerous elderly individuals globally face limited finances, rendering elder poverty a significant societal issue. Public pensions and robust Social Security programs have emerged as effective mechanisms to address this issue. Poverty rates among the elderly are generally reduced in countries with established income assistance systems for retirees. Countries with robust Social Security systems exhibit elderly poverty rates under 10%, whereas countries with less effective systems indicate rates exceeding 20%, as per data from the Organisation for Economic Co-operation and Development (OECD) (OECD, 2021). These programs provide access to healthcare and mental health services while also ensuring financial stability. The United States exemplifies how Social Security has alleviated poverty among the elderly. The U.S. Census Bureau reported that Social Security lifted almost 16 million seniors out of poverty in 2022 (Census Bureau, 2023). Without these subsidies, the senior poverty rate would have risen from 10.3% to over 38%, underscoring their vital significance. Furthermore, the safety net for elderly individuals with limited earnings is reinforced by programs like as Medicaid and Supplemental Security Income (SSI). Collectively, these measures ensure that millions of individuals receive not only life but also a degree of security and dignity. Due to their universal and earnings-related pension systems, countries such as Sweden, Norway, and Denmark have some of the lowest rates of elder poverty globally. In contrast to the global average of 14.2%, about 2.2% of Norway's elderly population resides below the poverty threshold (World Bank, 2022). Canada has one of the lowest rates of senior poverty in the OECD, at 6.7%, because to the combined effects of Old Age Security (OAS) and Guaranteed Income Supplement (GIS) (OECD, 2021). Senior poverty is kept below 5% because to the Australian Age Pension and obligatory superannuation contributions (Australian Bureau of Statistics, 2022). The importance of integrating public pensions with customised enhancements to address specific need is seen in these programs. Data from global organisations underscores the efficacy of Social Security programs in alleviating poverty. According to the World Bank (2022), elder poverty rates have decreased by almost 50% in nations with strong pension systems in the past two decades. Additionally, tailored programs lessen inequities among marginalised groups, such as minorities and women, according to the United Nations (2021).

**Table 1:** Elderly Poverty Rates and Primary Pension Systems in Selected Countries

Country	Elderly Poverty Rate (in percentage %)	Primary Pension System
Norway	2.2	Universal + Earnings-related pension
United States	10.3	Social Security
Canada	6.7	OAS + GIS
Australia	5	Age Pension + Superannuation
India	18.7	Indira Gandhi National Old Age Pension Scheme (IGNOAPS) + National Pension System (NPS)

Source: compiled by the author

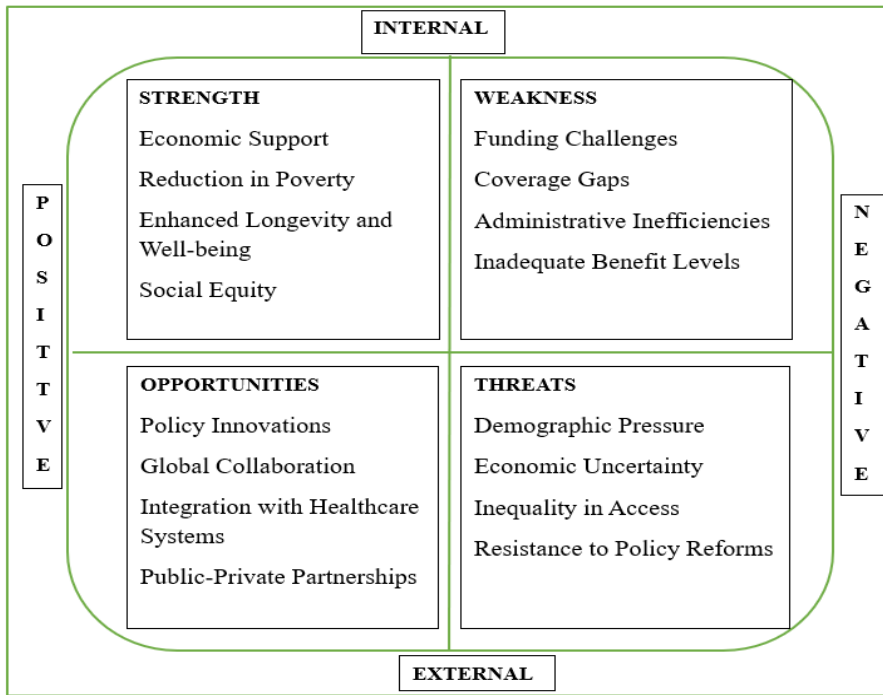
Financial security is just one benefit of Social Security programs. Elderly people who earn more money can afford safer living conditions, wholesome food, and better healthcare. According to a National Institute on Ageing (2021) study, seniors who had steady incomes reported 35% fewer health issues than those who were impoverished.

#### 4.2. SWOT Analysis

SWOT analysis is a strategic planning method that evaluates a project's Opportunities, Weaknesses, Threats, and Strengths. SWOT analysis, a strategic planning and management technique, is employed to identify strengths, weaknesses, opportunities, and threats in project planning, corporate competitiveness, or specific situations. Scenario analysis and situational evaluation are other names for it. Situational evaluation or scenario analysis are other names for it (Aswani & Varghese, 2023).

The characteristics that provide a company or situation a competitive edge over others are referred to as its strengths. Conversely, its weaknesses are the qualities that make it less favourable than others. Opportunities are outside forces that can be used to the business's or situation's advantage. Threats, on the other hand, are outside factors in the environment that might present difficulties or trouble for the business.

**Figure 1.** SWOT Analysis of Social Security Systems



Source: compiled by the author

### 4.3. Strength

Social security programs are vital for providing elderly individuals with a stable income that reduces their financial dependence and meets their basic needs. Effective policies significantly influence the reduction of poverty rates among the elderly, enhance their quality of life, and preserve their social status. Moreover, reliable financial assistance promotes enhanced health outcomes and facilitates access to essential services, hence improving the overall well-being and lifespan of elderly individuals. Social security systems foster equity and inclusiveness by mitigating income disparity and offering support to marginalised groups, so cultivating a more just and balanced society.

### 4.4. Weakness

Social security systems can encounter significant funding challenges, particularly concerning sustainability, due to insufficient financial resources or demographic shifts such as an ageing population. Moreover, the lack of access to official social security payments for numerous individuals in low-income countries or those working in the informal sector perpetuates significant coverage gaps. Corruption, delays, and bureaucratic impediments exemplify administrative inefficiencies that hinder equitable benefit distribution. Furthermore, under some conditions, the provided benefit amounts are insufficient to elevate the elderly beyond the poverty line, particularly in areas with elevated living costs, hence constraining the efficacy of these programs.

### 4.5. Opportunities

Policy innovations, such as the implementation of digital technologies and targeted initiatives, can significantly enhance the efficacy and allocation of social security benefits. International collaboration offers valuable insights for improving policy effectiveness through the exchange of best practices and the examination of successful models in other countries. The elderly can obtain comprehensive assistance that meets their financial and health-related needs by merging social security systems with healthcare initiatives. Moreover, public-private collaborations are crucial since they expand the reach of social security systems and diversify funding sources, ensuring more comprehensive and sustainable coverage.

### 4.6. Threats

The sustainability and effectiveness of social security programs are jeopardised by various variables. The rising population of elderly individuals in numerous countries is exerting demographic pressure that imposes a significant financial strain on these systems. Recessions and financial crises exemplify economic instability that further constrains governments' ability to sustain or expand social security systems. Access inequality persists as marginalised groups and rural areas often have more barriers to obtaining benefits. Moreover, political opposition or public distrust may obstruct the implementation of crucial policy improvements, so hindering the progress of social security systems.



## V. CONCLUSION

Worldwide, state pension schemes and Social Security have been instrumental in reducing the prevalence of poverty among the elderly. These programs ensure that the elderly can age with dignity by offering a consistent income and additional benefits. Social security systems are crucial for ensuring financial stability, promoting societal well-being, and alleviating poverty among the elderly. Despite the persistence of issues, innovative solutions and collaboration can facilitate inclusive and enduring enhancements. Social security programs are essential for alleviating poverty among the elderly and have shown to be very effective in industrialised nations due to robust pension systems that ensure access to healthcare and financial security. However, developing countries have considerable challenges, including inadequate financial resources and ineffective policy execution, exacerbating poverty among the elderly. The study highlights the necessity for contextually relevant solutions that leverage technology, promote public-private partnerships, and integrate social security with healthcare initiatives to enhance inclusiveness and sustainability.

Strong social security systems must be prioritised as the world's population ages in order to protect the dignity and standard of living of senior citizens everywhere.

## REFERENCES

- Abel-Smith, B. (2024). *Social security*. Encyclopaedia Britannica. Retrieved September 3, 2024, from <https://www.britannica.com/money/social-security-government-program>
- Aswani, T. D., & Varghese, E. (2023). An evaluation of the structural change of the agrarian sector in Kerala. *International Journal of Management and Technology Sciences*, 8(1), 99–109.
- Drishti IAS. (2024, November 20). *Reforming India's social security net*. Retrieved September 3, 2024, from <https://www.drishtiiias.com/daily-updates/daily-news-editorials/reforming-india-s-social-security-net>
- Uścińska, G., Czepulis-Rutkowska, Z., & Jarmuż-Zawadzka, P. (2023). Social protection for older persons: An adequacy – comparative perspective. *Ubezpieczenia Społeczne*. <https://doi.org/10.5604/01.3001.0053.8536>
- Investopedia. (2024, November 20). *What is social security?* Retrieved September 3, 2024, from <https://www.investopedia.com/terms/s/socialsecurity.asp>
- Kimberly, J., Johnson, E., & Johns, E. (2018). A new minimum benefit in Social Security to help vulnerable retirees. *Public Policy & Aging Report*. <https://doi.org/10.1093/PPAR/PRY018>
- Narayana, M. R. (2023). Improving economic security for older persons by public pension schemes: Evidence from National Transfer Accounts for India. *Journal of Social and Economic Development*. <https://doi.org/10.1007/s40847-022-00219-8>
- Li, P., Donni, M., & Marino, M. F. (2018). Patterns of poverty among elderly Americans: A latent class Markov model. *Applied Economics Letters*. <https://doi.org/10.1080/13504851.2017.1366637>
- Lu, P., Mack, C., Shelley, M., & Liu, Y.-L. (2021). Government transfers and poverty alleviation among older adults in the United States from 2002 to 2014. *Social Policy and Society*. <https://doi.org/10.1017/S147474642000041X>
- Jacques, P., Leroux, M.-L., Stevanovic, D., & Stevanovic, D. (2021). Poverty among the elderly: The role of public pension systems. *International Tax and Public Finance*. <https://doi.org/10.1007/S10797-020-09617-2>
- Social programs in India. (n.d.). In *Wikipedia*. Retrieved from [https://en.wikipedia.org/wiki/Social\\_Programs\\_in\\_India](https://en.wikipedia.org/wiki/Social_Programs_in_India)
- Sass, S. A. (2015). Will Social Security keep fewer of tomorrow's elderly out of poverty? *Research Papers in Economics*.
- Tual, S. K., Peters, N., Jacob, A., Khan, A. W., & Asaduzzaman, M. (2024). A comparative analysis of the pension schemes for elderly population in developing countries: Policy insights in the context of financial wellbeing and social justice. *Preprints*. <https://doi.org/10.20944/preprints202401.1756.v1>
- Social pension*. (2024, November 20). *Wikipedia*. Retrieved September 3, 2024, from [https://en.wikipedia.org/wiki/Social\\_pension](https://en.wikipedia.org/wiki/Social_pension)
- OECD. (2021). *Pensions at a glance 2021*. <https://doi.org/10.1787/b35a14e5-en>
- World Bank. (2022). *Global economic prospects 2022*. World Bank Group. <https://www.worldbank.org/global-economic-prospects>
- Australian Bureau of Statistics. (2022). *Population and demographics 2022*. Australian Bureau of Statistics. <https://www.abs.gov.au/population-demographics-2022>
- United Nations. (2021). *Pensions and inequities: A global overview*. United Nations. <https://www.un.org/pensions-and-inequities-2021>



# Dynamic and Sustainable Growth: A Comprehensive Analysis of the Housing Sector in India

Dr. Aswani T D, Editor, Eduschool Academic Research Publishers, Angamaly, Kerala

## Article information

Received: 13<sup>th</sup> September 2024

Received in revised form: 10<sup>th</sup> October 2024

Accepted: 5<sup>th</sup> November 2024

Available online: 26<sup>th</sup> December 2024

Volume: 1

Issue: 1

DOI: <https://doi.org/10.5281/zenodo.14557588>

## Abstract

The housing sector in India is the largest and fastest-growing sector in the economy, and is propelled by a multitude of causes, including increased urbanization, rising earnings, and the government's focus on providing affordable housing. The sector is anticipated to expand considerably in the forthcoming years, generating new prospects for enterprises and investors.

It has experienced dynamic growth alongside persistent challenges, presenting a complex landscape that warrants comprehensive analysis. This paper offers an in-depth exploration of the sector's multifaceted nature by examining its evolving trajectory, factors driving its expansion, the pivotal role of government, and the enduring obstacles it confronts.

Through a detailed overview of current conditions, including housing demand, supply, and urbanization trends, the paper delves into the sector's quantitative landscape. It scrutinizes the driving forces of growth, including demographic shifts, urbanization, and rising income levels, highlighting their influence on housing dynamics. Additionally, the paper delves into the multifaceted role of government in shaping the sector, elucidating policies, initiatives, and schemes aimed at promoting affordability, urban development, and housing finance. Amidst growth, the sector encounters difficulties such as inadequate supply, affordability concerns, informal settlements, and infrastructural deficits, all of which are meticulously examined. By evaluating regulatory frameworks and policy implications, the paper dissects the environment in which the sector operates.

**Keywords:** - Dynamic Growth, Persistent Challenges, Housing Sector, urbanization, and housing demand & supply

## I. INTRODUCTION

The housing sector in India is one of the largest and most dynamic in the world. It is estimated that the sector contributes around 13% to India's GDP and employs over 40 million people. The sector has exhibited fast expansion in recent years with sales of residential units increasing by an average of 9% per year between 2014 and 2022.

Several factors have fueled this growth, including an increasing middle class with increasing disposable incomes, an increase in affordable housing demand, and government initiatives to boost the sector. India is a rapidly urbanizing country. The urban population is expected to reach 600 million by 2030, up from 370 million in 2015. Increasing urbanization will put a strain on the housing sector, since affordable housing will be in greater demand. Besides urbanization, rising incomes are also driving the growth of the housing sector. Recent increases in Indian household income have made it possible for more people to afford to purchase homes. The government has launched several schemes to provide affordable housing, such as the PMAY. Low-income households have benefited from these schemes by being able to afford more affordable housing.

In addition, India's housing sector faces several challenges, including a lack of affordable housing, inadequate infrastructure and urban planning, high-interest rates, and a slow pace of land acquisition. Despite the issues confronting the housing sector in India, it is anticipated to experience growth in the forthcoming years. The government is committed to addressing the challenges facing the sector and has announced a number of initiatives to boost the sector. India's housing sector is expected to continue to grow due to these initiatives as well as strong economic fundamentals.

## II. OBJECTIVES

The main aim of this paper is to review the growth and challenges of the housing sector in India. The precise objectives are;

1. To provide an overview of the housing sector in India.
2. To analyze the factors driving the growth of the housing sector.
3. To discuss the government's role in the housing sector.

### III. METHODOLOGY

The study is both descriptive and analytical, grounded in a review of the literature about the housing market in India. The literature review includes scholarly articles, governmental publications, and industrial analyses. An examination of the expansion and issues within India's housing market is conducted utilising secondary data from multiple years. The government's involvement in the housing sector is also addressed.

#### The residential sector in India

The Indian real estate sector is seeing significant growth due to persistent rises in population, urbanisation, and commercial endeavours. Investment in real estate is experiencing significant growth in both the long and short term. The Indian real estate sector, classified by property type such as residential, commercial, retail, hospitality, and industrial, was the most adversely impacted market during the COVID-19 pandemic. Over the past two years, numerous sites were shuttered for construction, and many projects remained incomplete. Post-pandemic, India's real estate market has thrived and is expanding rapidly, with cities such as Bengaluru, Ahmedabad, and Chennai emerging as prime investment destinations. The demand for Indian housing has significantly increased in recent years. Factors such as population growth, evolving consumer behaviour, regulatory reforms, rural-to-urban migration, and property investment patterns have propelled real estate development in India's housing sector. The housing market had a record annual growth rate of 68%. India's population is projected to exceed 1.5 billion by 2023, indicating a heightened demand for housing in light of existing and future circumstances. In response to heightened demand, builders commenced building as housing market sales surged by an unprecedented 48% in FY23.

**Table:1** Growth of the housing sector in India

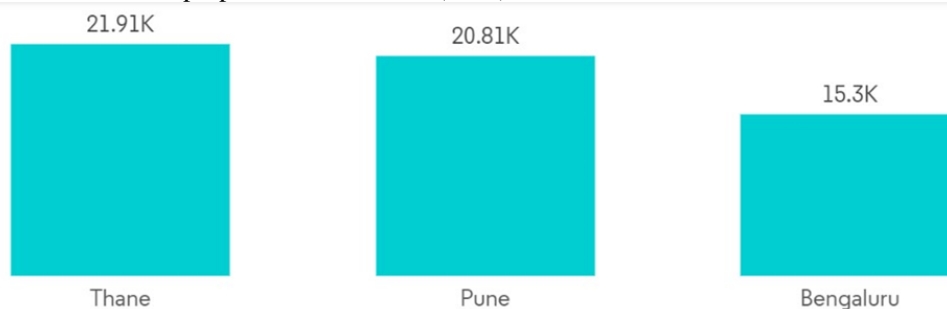
Year	Market Size (USD billion)	CAGR
2019	265.18	25.60%
2020	331.64	22.90%
2021	412.96	20.70%
2022	509.48	19.00%
2023	622.5	17.70%

Source: Statista

During the period from 2019 to 2023, the housing market size in India has more than doubled, as shown in table 1. The CAGR is also very impressive, at over 20% per year.

Fast urbanization has resulted in a huge demand for affordable housing throughout the country. Moreover, luxury and spacious residences are becoming increasingly popular due to increased lifestyle demands. Implementing initiatives that create demand and encourage individuals to buy real estate enhances the market. Move-in ready properties have been in high demand from residential buyers. Technological advancements are transforming the Indian real estate industry. Innovation is prevalent throughout the industry. As a result of recent technological advancements, the market has grown rapidly. Technology and real estate have collaborated efficiently in a key innovation in home automation. These places possess significant potential to attract diverse investment possibilities and innovative individuals. Properties under construction are progressively losing their allure due to protracted waiting times and a rise in project failures. Consequently, ready-to-move-in homes are increasingly gaining popularity. The strategy of constructing before to selling is a prevalent business practice employed by builders to facilitate this method. This prevalent American and European residential design has entered the Indian real estate market.

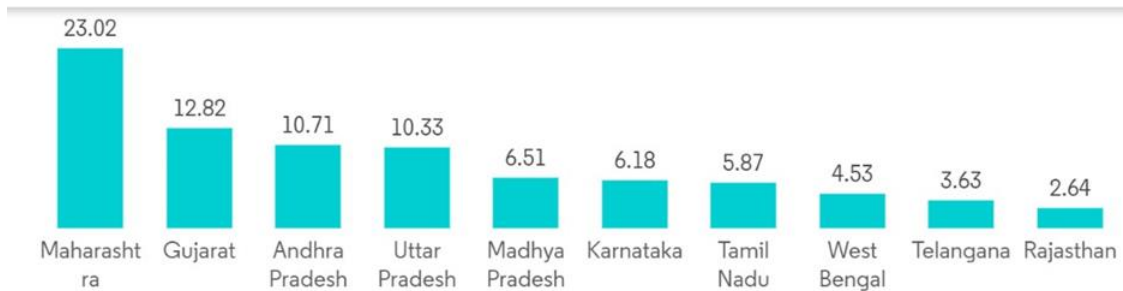
**Figure:1** No. of residential properties sold in India (2022)



Source: Industry association

Recent data by industry analysts indicates that residential property sales in India's major cities rose by 24% in the July–September quarter of 2022 compared to the corresponding period in 2021. The data indicates that total sales rose from 87,747 units in the third quarter of 2021 to 108,817 units in the third quarter of 2022. This research identifies Bengaluru, Chennai, Hyderabad, Kolkata, Thane, Mumbai, Navi Mumbai, Pune, and Delhi-NCR as Tier-1 cities. The primary causes contributing to the sales growth include homeowners' desire to enhance their lifestyles, low-interest rates, affordable pricing, and the pandemic's resurgence of enthusiasm in homeownership. In the first half of 2022, developers introduced 160,806 units, representing a 56% increase compared to the same period in 2021, as a strategic response to market conditions. In Mumbai, 44,200 residential units sold constituted 28% of total sales across the eight primary markets. Housing sales in the NCR were 29,101 units, reflecting a 154% year-over-year growth. NCR possessed the second-largest market share in sales among the nation's eight principal real estate markets.

**Figure:2** Investment value in affordable housing programs in India (USD Billion)



Source: MHUA (2022)

The ten states with the highest investment value are shown in Figure 2. As of May 2022, 88.8 billion USD had been invested overall on affordable housing projects in India. Compared to 2014, when the investment value was only \$10 billion USD, this marks a significant growth. The government's Pradhan Mantri Awas Yojana (PMAY) program, which aims to provide affordable housing to all Indians by 2022, is responsible for the increase in investment.

With government assistance, non-resident Indians are keeping an eye on the Indian real estate market. FDI has been enthusiastically embraced by SEBI and the RBI. It was projected that NRI investment in India would hit a record-breaking INR 96 crore in FY2021. Luxury real estate in India is purchased by non-resident Indians, who then rent it out. USD 14.9 billion was invested by non-resident Indians in fiscal year 2022. The residential sector in Mumbai is allocated USD 13.1 billion of the USD 14.9 billion. It shows that NRIs are interested in making real estate investments in India. It is projected that NRI investment in Mumbai's residential sector will rise by about 12% in 2023.

### The Role of the Government in the Housing Sector

Indian housing sector is heavily influenced by the government. The Constitution of India assigns matters pertaining to housing and urban development to the state governments. However, the central government is responsible for the formulation and implementation of social housing schemes. The central government has launched a number of schemes to provide affordable housing to economically weaker sections (EWS) and low-income groups (LIG). These schemes include the PMAY (Urban), the Rajiv Gandhi Awas Yojana, and the Valmiki Ambedkar Awas Yojana. As a result of these programs, financial assistance is provided to individuals and families to build or purchase a house. Under the PMAY initiative, the government creates cheap housing and sells it at far lower rates than market prices. The government further offers subsidies on interest rates for mortgage loans. Government measures regarding the housing system have significantly aided individuals, since home loans have facilitated the acquisition of inexpensive housing in India. Currently, a house loan commences at an interest rate of 6.85% per annum, with manageable EMIs and extended repayment terms.

In addition to providing loans, the government has an obligation to regulate the housing sector. The historic Real Estate (Regulation and Development) Act of 2016 aims to safeguard the rights of homebuyers. According to the Act, all real estate developers are required to register their projects with the Real Estate Regulatory Authority (RERA). RERA also mandates that developers provide homeowners with thorough project information.

- Since the COVID-19 outbreak, the Indian government and numerous state governments have taken significant actions to advance growth in the field. The smart city initiative, which intends to establish 100 smart cities throughout India, presents a substantial opportunity for real estate developers. These are some significant government initiatives for the real estate sector in 2020–21.
- The tax holiday for affordable housing projects and the tax exemption for interest on housing loans up to Rs. 1.5 lakh are extended until the end of fiscal year 2021–2022 by the Union Budget 2021–2022.
- In November 2020, Finance Minister Mrs. Nirmala Sitharaman announced the Atmanirbhar Bharat 3.0 package, which includes income tax relief provisions for homebuyers and real estate developers regarding the principal purchase or sale of residential units valued up to Rs. 2 crores between November 12, 2020, and June 30, 2021.

- The Ministry of Housing and Urban Affairs established a platform for affordable rental housing complexes in October 2020.
- As of January 31, 2021, 265 of the 425 Special Economic Zones (SEZs) that India had officially authorised were operational. The IT/BPM industry is home to the majority of Special Economic Zones.
- The government said on October 27, 2020, that the Real Estate (Regulation and Development) Act, 2016 would apply to the Union Territory of Jammu & Kashmir. Any Indian citizen can now purchase non-agricultural land and property, whereas before only local locals could.
- The Union cabinet has authorised the creation of a ₹25,000 crore alternative investment fund to resurrect over 1,600 housing projects that have been placed on hold nationwide.
- With an initial budget of Rs. 10,000 crores, the government established the Affordable Housing Fund (AHF) at the National Housing Bank (NHB) to finance Housing Finance Companies (HFCs) through priority sector credit deficiencies from banks and financial institutions.
- The Indian government aspires to achieve Housing for All by 2022, citing elevated housing demand, and has intensified its focus on the PMAY, especially in rural regions.

#### IV. CONCLUSION

The comprehensive study delved into the intricacies of the housing sector in India, aiming to shed light on its dynamic and sustainable growth. Through a thorough analysis of the sector, the study successfully achieved its three primary objectives. An insightful overview of the Indian housing sector was presented which encompasses the status of the housing sector, its influential factors, and the role of government in the housing sector. Based on this overview, we could better understand its growth trajectory. The study meticulously examined the multifaceted factors of the housing sector. From demographic shifts and urbanization trends to economic indicators and evolving consumer preferences, the study illuminated a complex interplay of these elements. Furthermore, the study critically examined how government has shaped the housing market. An enabling environment for growth has been achieved through various policies, initiatives, and regulatory frameworks.

#### REFERENCE

- Economic Times. (n.d.). *India's housing market growth expected to continue with 9% sales rise in FY24: India Ratings*. Retrieved from <https://economictimes.indiatimes.com/industry/services/property/-construction/indias-housing-market-growth-expected-to-continue-with-9-sales-rise-in-fy24-india-ratings/articleshow/10138590.cms>
- Mahadeva, M. (2006). Reforms in the housing sector in India: Impact on housing development and housing amenities. *Habitat International*, 30(3), 412–433. <https://doi.org/10.1016/j.habitatint.2004.12.006>
- Mahalik, M. K., & Mallick, H. (2011). What causes an asset price bubble in an emerging economy? Some empirical evidence in the housing sector of India. *International Economic Journal*, 25(2), 215–237. <https://doi.org/10.1080/10168737.2011.586880>
- Mordor Intelligence. (n.d.). *Residential real estate market in India*. Retrieved from <https://www.mordorintelligence.com/industry-reports/residential-real-estate-market-in-india>
- Gopalan, K., & Venkataraman, M. (2015). Affordable housing: Policy and practice in India. *IIMB Management Review*, 27(2), 129–140. <https://doi.org/10.1016/j.iimb.2015.03.003>
- Tiwari, P. (2001). Housing and development objectives in India. *Habitat International*, 25(2), 229–253. [https://doi.org/10.1016/S0197-3975\(00\)00027-0](https://doi.org/10.1016/S0197-3975(00)00027-0)
- Sivam, A., & Karuppanan, S. (2002). Role of state and market in housing delivery for low-income groups in India. *Journal of Housing and the Built Environment*, 17(1), 69–88. <https://doi.org/10.1023/A:1014838308680>
- Keskar, Y. M., Choudhury, B., & Mandal, N. R. (2018). Critical evaluation of housing scenario in India. *International Journal of Scientific Research in Science and Technology (IJSRST)*, 4(5), 468–480.
- IBEF. (n.d.). *Real estate industry in India*. Retrieved from <https://www.ibef.org/industry/real-estate-india>
- Manoj, P. K. (2004). Dynamics of housing finance in India. *Bank Quest*, 75(3), 19–25.
- Sandhu, K. (2013). Formal housing finance outreach and the urban poor in India. *International Journal of Housing Markets and Analysis*, 6(3), 269–283. <https://doi.org/10.1108/IJHMA-11-2012-0056>
- De la Maisonneuve, C., & Dek, M. (2020). Housing for all in India. *OECD Observer*.
- Nallathiga, R. (2006). Housing in India: Status, policy, and interventions. In *Urban governance: Indian initiatives [Section IV: Shelter and Services]* (pp. 166–188). Kanishka Publishers.
- Government of India. (n.d.). *Housing in India*. Retrieved from <https://www.india.gov.in/topics/housing>
- Sethi, H. K. (2017). Affordable housing in India. *International Journal of Engineering Research and Technology (IJERT)*, 6(6).