The Regulatory Practices of Indian Financial Market and its Impact on Sustainable Long-Term Savings of the Women

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Abstract. Women's participation in the Indian workforce has steadily increased over the years, while on the other side of the spectrum, India's financial markets are also undergoing phenomenal transformative changes driven by the sustainability considerations. This rise in economic activity coupled with the increased women demographics in the workforce, has necessitated a crucial role in shaping the long-lasting, sustainable and enduring financial landscape consequently resulting in the need for financial independence and long-term savings of women, an increasingly significant one. This research study explores the multifaceted relationship between financial market regulations and women's savings behaviour by examining the regulatory framework, financial products, and the socio-economic factors influencing women's sustainable savings decisions and throws light on the challenges and opportunities that shape the financial security of women in India. This paper also highlights how financial regulations can contribute to the sustainable financial independence and socio-economic well-being of women and social progress. Further, this article enunciates three independent variables that act as a determinant for long-term savings of women with the mediating variable of financial market's regulations. A conceptual mathematical model called 'KTM model' (Knowledge – Time - Money) is proposed to substantiate the factors affecting the long-term savings. By understanding these dynamics and implementing recommended policies, India can strive towards a more inclusive and economically equitable future supportable for all its citizens.

Keywords: KTM Model, Indian Financial Regulations, Long-Term Savings, Women.

M. Rani Nimmagadda et al. (eds.), *Proceedings of the 3rd International Conference on Reinventing Business Practices, Start-ups and Sustainability (ICRBSS 2023)*, Advances in Economics, Business and Management Research 277,
https://doi.org/10.2991/978-94-6463-374-0_27

1 INTRODUCTION

India has witnessed a significant economic growth and development in recent decades, leading to increased participation of women in various sectors of the economy. However, despite their growing economic contribution, women still face numerous financial challenges anddisparities. The avenues available for women to save and invest their money securely and sustainably is determined by the financial market regulations. This sustainability or the viabilityof long-term savings of women is determined by three factors, namely KNOWLEDGE, TIME and MONEY along with the mediating factor of financial regulations is given in a mathematicalbased conceptual model to explain the interplay amongst them evidently.

1.1 Research Objective

This research paper aims to analyze the impact of Indian financial market regulations on the sustainable long-term savings of women, taking into consideration the regulatory framework, available financial products and the factors influencing women's savings behaviour.

2 LITERATURE REVIEW

2.1 Regulatory Framework in India

The financial market offers liquidity, funds mobilization, and capital formation, providing the partakers with the opportunity to trade and grow financially. These practices govern various aspects, such as governance practices, disclosure requirements, financial literacy programs, and the overall stability of the financial market. Following are the list of Financial Market regulatory bodies of India in brief [14, 15].

- Reserve Bank of India (RBI)**:** It is the Indian central bank managing credit supply, regulating operations of banks, and helps maintain a healthy financial system and ensures price stability in the country. It supervises banks, non-banking financial institutes and other financial intermediaries and act also a Banker to the government.
- Securities and Exchange Board of India (SEBI): It is in charge for supervision the securities market in India by maintaining fair practices, ensuring investor protection, and promotingthe development of a robust and transparent financial ecosystem in the country.
- Insurance Regulatory and Development Authority of India (IRDAI): It provides guidelines, regulations, and directives to insurance companies, intermediaries, and other stakeholders, promoting the orderly growth & proper functioning of the insurance industry.
- Ministry of Corporate Affairs (MCA): It regulates the functioning of industrial and services sectors and prevents malpractices in the market and plays a crucial role in ensuring transparency, accountability, and ethical conduct in business operations.

- Pension Fund Regulatory and Development Authority (PFRDA): It is a body, governing, regulating and promoting National Pension System & the pension industry in India, offering individuals a secure and reliable source of income during their retirement years.
- National Housing Bank (NHB): It regulates and supervises housing finance companies, providing financial assistance to institutions engaged in housing finance, and plays a pivotal role in shaping policies, regulations, and strategies to strengthen the housing finance sector.
- Insolvency and Bankruptcy Board of India (IBBI): IBBI aims to facilitate the resolution of insolvency and bankruptcy cases in a time-bound manner. It is in charge of regulating insolvency practitioners, insolvency professional agencies, and information utilities.
- Association of Mutual Funds in India (AMFI): It plays a crucial role in educating investors, standardizing practices, and maintaining high ethical and professional standards among asset management companies by working closely with SEBI to ensure compliance and regulations.

2.2 Determinants of Long-Term Savings:

Review of existing literature on the long-term savings (LTS) reveals that there are many factors that determine the savings. Specifically, we consider the some of the recent empirical literature analysis since 1980 till 2015 listing the variables that affect the long-term savings. According to a review of literature by Niwanthika [29] listed the determinants that have positive or negative effects on personal savings. They are age, salary, uncertainty in the pay, motives, savings behaviour, affluence, risk lenience, saving horizon, homeownership, household composition, physical well-being status, education, race/ethnicity and employment type. A cross-country analysis by Staal [27] based on a model of disequilibrium savings theory found the Determinants of Household Savings as, unforeseen income changes, unexpected inflation and the lagged savings rate on household savings.

An empirical literature analysis by Kowalska [13] grouped the determinants of savings into six categories as below,

Category Name	Determinants
Education & Employment	Level of education & Type of employment
Macroeconomic Uncertainty	Inflation, changes in the Consumer Price Index
Income	Pay or Salary

Government Policy	Public revenues and expenditures, public savings/budget deficit, forms of social assistance.
Demographics	Dependent population rate, life expectancy, urbanization rate
Financial Determinants	deposit interest rate, financial market development, stock market development

Fig. 1. Determinants of savings (Source: Kowalska)

For identifying the Primary independent variables amongst these given factors, we shall do the grouping of similar related variables as a separate cluster and narrow them down to the three important factors. Thus, based on the above analysis we get three important Primary independent variables namely Knowledge, Time and Money.

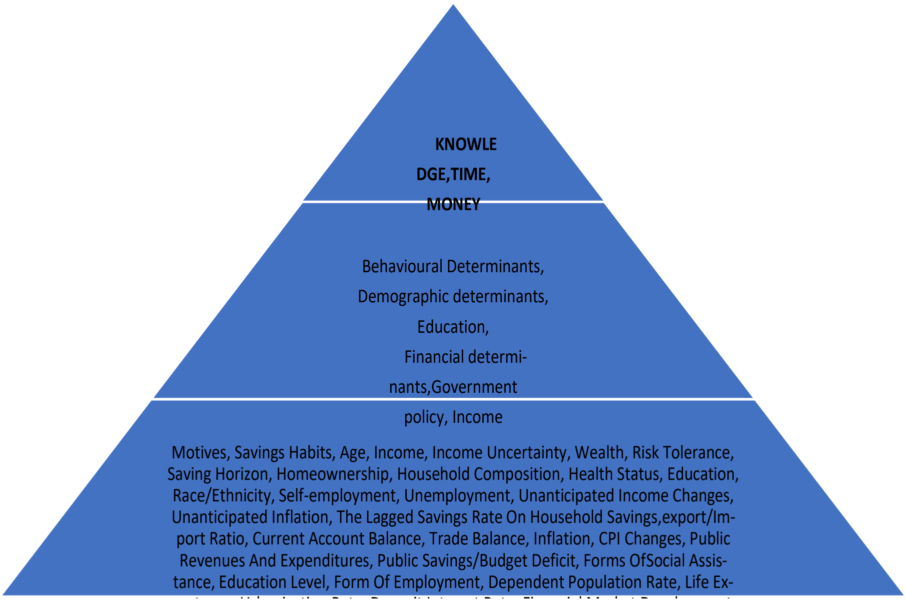


Fig. 2. Determinants of savings- A Comprehensive Overview Source: Compiled by Authors

Hence in this paper, the literature survey is thematically arranged based on these three Primary independent variables to build our KTM Model (Knowledge – Time - Money). In other words, the amount of investment that an individual makes is determined by the level of his / her KNOWLEDGE (Financial Literacy level, Awareness on

Financial Products, Taxation, etc…), TIME (Age of the individual, Time duration of Saving, Time period of the savings, etc…) and MONEY (Income, Salary, Available Money at disposal considering the taxation, interest rate and rising income, etc…).

[Table 2.1] The Grouping of similar variables in a Tabular format

Raw Variables	First Level of Grouping	Final Grouping Cluster
motives	Behavioural Determinants	KNOWLEDGE
savings habits	Behavioural Determinants	KNOWLEDGE
education	Education	KNOWLEDGE
race/ethnicity	Education	KNOWLEDGE
education level	Education	KNOWLEDGE
export/import ratio	Education	KNOWLEDGE
current account balance	Education	KNOWLEDGE
trade balance	Education	KNOWLEDGE
age	Demographic Determinants	TIME
household composition	Demographic Determinants	TIME
health status	Demographic Determinants	TIME
dependent population rate	Demographic Determinants	TIME
life expectancy	Demographic Determinants	TIME
urbanization rate	Demographic Determinants	TIME
risk tolerance	Financial Determinants	MONEY
saving horizon	Financial Determinants	MONEY
homeownership	Financial Determinants	MONEY
deposit interest rate	Financial Determinants	MONEY
financial market development	Financial Determinants	MONEY
stock market development.	Financial Determinants	MONEY
income	Income	MONEY
income uncertainty	Income	MONEY
wealth	Income	MONEY
self-employment	Income	MONEY

2.3 KNOWLEDGE:

Mokkarala's [16] study highlights the importance of informed investment decisions for women's financial independence and suggests conducting awareness sessions on new asset classes. Ganapathi [20] Concluded based on the survey of respondents from Bangalore City's female population to examine investing behaviour and attitudes, finds financial literacy has a significant positive long-term impact on household savings, assets and microfinance.

Kappal [4] found that reduced investment in long-term instruments is due to lack of knowledge about various products and if they spend time in getting informed about the nuances of financial instruments and they are prone to invest more in LTS. Rajan [19] studied financial literacy for catalyzing the investment behaviour of 335 rural women in an empirical fieldwork in Jalandhar district, proved financial knowledge has an impact on investments level.

Shetty **[10]** on an experiment study about informal sector employees discloses that logistical problems with form-filling is a foremost concern, due to the low levels of financial literacy, specifically women. Fry [13] investigated the saving habits of low-income households and discovers that factors related to education and financial literacy positively influence their saving.

2.4 TIME

Putra [22] validated the Effect of Time in using Intention Digital Mobile Payment Apps for savings transactions and promote more saving. Research conducted by Azirah **[23]** states that the result of the Time variable has a significant positive effect on digital investors for their saving, justifying that, someone who only has limited time to process transactions.

Numerous other empirical analyses have been conducted in the past to determine the factors that influence savings rates based on cross-section / country data, or time series data from individual countries. These analyses include those conducted by Modigliani (1970), Feldstein (1977 and 1980) till (Charles Y.H. and Akiko T.H., 2012) and BoŜena Frączek (2011); The age distribution of the population plays a significant role in these studies. The elderly depend on savings to cover living expenses is a common practise, so aged dependency ratio should negatively affect saving rates. Similarly, children consume without earning, the child dependency ratio should also negatively affect saving rates.

2.5 MONEY:

Bharath [25] research is done focusing the working women in Bengaluru North region concluded statistically that there is a substantial relation between working women's yearly salary of and their LTS. Opoku [11] examined the association between interest rates and women LTS rates during the period 1995–2018 for 19 OECD countries discovers that current income and wealth taxes, general government debt, household wealth as determined by housing prices, and inflation (both real and expected) have a major detrimental influence.

Shariff [26] investigated the factors affecting the retirement savings behaviour amongst Malaysian working individuals, proving, income level a vital determinant claiming the respondent with a higher pay level tends to save more than who earn relatively lower. BoŜena [24] This based on OECD data on household savings rate of 23 countries show positive correlation between the rise in income and the rise in national savings; It adds more that the level of savings depends on the variable income. According to Keynes' Absolute Income Hypothesis theory, the relationship between income and savings is established as well.

3 Impact of Financial Market Regulations on Women's LTS

Following literature review papers underscore the importance of regulatory practices and financial inclusion initiatives in empowering women and promoting their sustainable long-term savings in the Indian financial market.

The Global Findex Report, 2023 [7] measuring a comprehensive database in 148 countries on how people save, borrow, and manage risk, reveals that woman often dearth access to different financial services like digital payment /savings methods etc., highlighting the scope for regulators' actions. Karacsony [2] quotes Kumar Mangalam Birla Committee and the Narayana Murthy Committee's recommendations that has helped improve the overall governance standards of listed companies, making them more attractive especially to women investors.

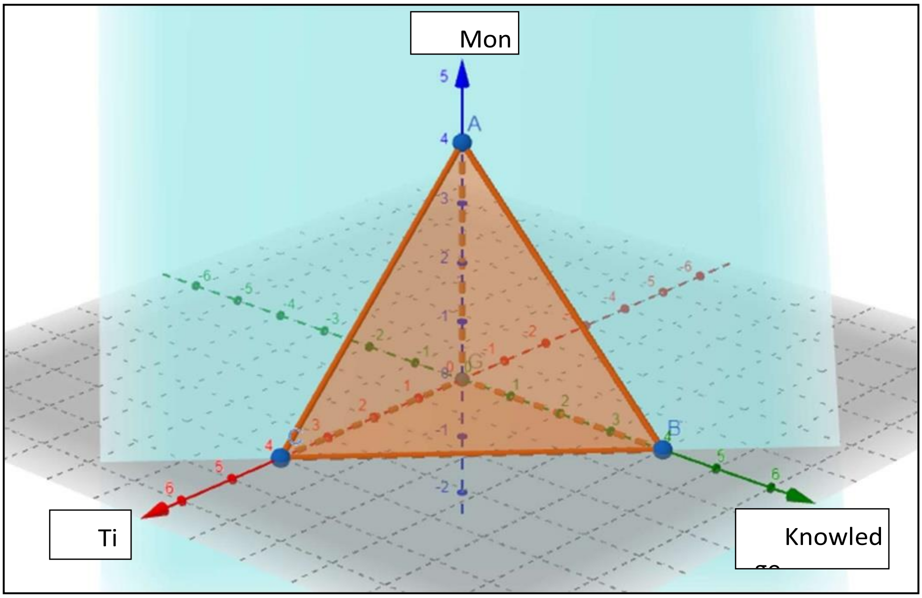
Redmond [8] quoted on entrepreneurial women in Australia neither have enough savings at their retirement nor a plan, aggravated by the lack of regulation making mandatory contributions on superannuation. Haldar **[1]** efforts made by the Securities and Exchange Board of India to enhance board practices are vital in protecting investors and enhancing the competitiveness of Indian firms. Natali [21] examined the Government of Zambia's Child Grant Program's impact concluded that the unconditional cash credit to targeting women with young children has a positive level of significance in participation on non-farm enterprises and their savings.

Ahmad's [12] study used time series data during 1972 to 2012 of Pakistan suggests that GDP per capita, financial progress, Adult / child dependency ratio, inflation rate & fiscal growth have impact on women's private savings rate. Bérubé **[9]** examined the structural determinants of the personal savings rate during last 30 years in Canada found that the expected price rises, the ratio of the all-government fiscal balances to nominal gross domestic product and the real interest rate are the utmost and important determinants of the trend in the personalsavings rate of women.

4 ANALYSIS AND DISCUSSION

Based on the literature review and other studies on the LTS, we postulate a new Theoretical Model, by name **KTM MODEL** (KNOWLEDGE – TIME - MONEY). The three major independent variables that determine the long-term savings of women with other moderating and / or catalytic variables such as financial regulations etc… altering the efficacy / quantumof these three independent variables.

This mathematical model suggest that the area of the triangle gives the proportionate value of the investment that an individual undertakes i.e., the estimated level of Knowledge, Time and money determines the level of long-term savings, though these three variables can still be influenced by other mediating or catalytic variables like financial market regulations etc and change the level of these three parameters. For example, Govt policy in promoting financial literacy programme increases the Knowledge parameter; Govt's policy on capital gain tax on LTS etc reduce the Money parameter and SEBI's minimum lock in Period affects the Time parameter etc… So, to arrive at an optimum return on LTS, we can find a balance between these three variables (Knowledge, Time and Money), using multiple probable combinations on the parametric level of these three independent variables in reaping higher LTS benefits. In other words, if the women have constraints on money variable, then they can focus more on having higher Time period of investment and / or increase their financial Knowledge level so that they can still get higher the returns for their LTS. Similarly, it applies the same for other two variables vice versa as well. Pictorially it is be plotted in a triangular form in [Fig 3.1].



[Fig 3.1] Theoretical Model: Factors affecting LTS of Women -KTM Model

5 RECOMMENDATIONS

Recommendations for financial regulators on designing and making financial policies catering to the unique needs of women for their sustainable / continuable savings are as follows,

(Kumari, 2022) explores the relationship between financial inclusion and women's empowerment, highlighting strategies that aim to empower women through access to financial services. (Noopur, 2019) discusses the need for continuous innovation in financial products, specifically micro-loans, to align with the life cycle financial needs of women. (Balasubramanian, 2015) argues that while microfinance has focused on credit inclusion, savings inclusion has been neglected, and designing appropriate savings products for poor women is crucial.

Arner [6] research hypothesizes the financial technology as the key driver for financial inclusion on the lines of UN SDG, is to focus on the 4 prime pillars. The first one creating the identity digitally meaning simplified account opening and e-KYC systems, reinforced by the 2nd pillar of interoperable and open e-payments systems. The third one fusing the infrastructure of the initial two pillars to fortify the provision of government services and payments electronically. The last one is, designing financial markets digitally and supporting wider access to finance and investment.

Overall, regulatory measures to drive financial inclusion like Jan Dhan accounts, microfinance institutions, self-help groups etc. have helped improve women's access to banking and credit. However, usage remains low. To enable sustainable long-term savings by women, regulations need to focus on easing KYC norms, improving financial literacy, increasing women-centric products and using technology for last-mile outreach. Indian tax law does no discrimination between men and women by following a uniform tax system is available to both women can begiven preference in tax rebate. Moreover, incentives to banks and Mutual Fund Institutions to offer savings products tailored for women can be provided. In addition, we can Simplify KYC norms for women, allow use of proxies like SHGs for identification; Drive financial literacy programs focused on women, highlighting benefits of long-term savings; Incentivize development of dedicated savings/investment products for women; We may also leveragetechnology and business correspondents to improve last-mile access in rural areas and Increase women's share in priority sector lending to encourage financial institutions to focus more.

Smita [3] discusses a social case study on women's savings and credit cooperatives in Nepal, concluded that arbitration effect on savings on conflict and build peace at the local levels. Hence the possibility of regulatory measures to create LTS and in turn country's growth and development and ultimately peace & welfare of the people can be explored.

6 CONCLUSION

This study concludes by summarizing the key findings and emphasizing the importance of financial market regulations in promoting sustainable long-term savings amongst women in India. It underscores the need for proactive measures to address gender differences in financial inclusion rates' and highlights the role of regulatory authorities, financial institutions, and educational initiatives in achieving equal participation by all in financial matters, because always inclusiveness alone will lead to the sustainable development. Hence, The Indian financial market regulations must have an enabling effect on the three independent variables Knowledge, Time and Money in the proposed **KTM Model** for the long-lasting long-term saving of women, instead of reduction effect. Thus, this LTS of women becomes sustainable and helps implicitly and explicitly for the growth of Indian Economy and Growth.

7 LIMITATIONS AND FURTHER STUDY

The existing literature focused on the major only three independent variables with the financialmarket's regulation as a mediating factor while, we might have more other catalytic andmediating factors that determine the level of long-term savings of women. Further study canbe made in exploring such of these other variables, and also to validate the proposed KTM model for its applicability in other social sciences filed of research.

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