

FINANCIAL DIARY: A TOOL FOR FINANCIAL PRUDENCE

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ABSTRACT

Financial planning is very crucial for achieving financial goals in life, one can anticipate the financial needs of the future and can ensure a smooth flow of funds at all times. The study is an eye-opener to the respondents as they got to know the pattern of their income and expenses. By saving the money spent on bad habits such as tobacco, smoking and drinking; they will be able to divert their income to return generating micro-investment avenues in future.

INTRODUCTION

For centuries, savings are given priority by Indian households, still India ranked 23rd in a list of 28 countries on financial literacy (Business line, 2012). It also lacks financial literacy. Financial inclusion can be achieved when the savings of Indian households especially in the rural area is channelized in the formal financial system. Financial literacy is an integral part of financial inclusion. Basic knowledge of financial concepts can help the disadvantaged practice thrift and induce them to save, access credit, use the funds to find a better livelihood, earn income and thus join the mainstream from exclusion (Pamarthy, 2012).

All the literary definitions about financial literacy can be summarized as knowledge and ability to make informed financial judgments to reach an intended outcome such as lifetime financial security and the skills required to realize those outcomes (Kimiyaaghalam and Safari, 2015). Knowledge about finance and financial planning is especially important for low-income people as they have limited financial resources. If they are taught the importance of financial planning, they can manage short term volatility in income and can meet unexpected emergencies without getting trapped in unnecessary debt from the money lenders. A financial Diary is a powerful tool in understanding the financial behaviours of those at the bottom of the pyramid.

LITERATURE REVIEW

Financial literacy is a buzzword. Karlan et al (2014), identified constraints for effective use of savings products and services by the poor that include transaction costs, lack of trust and regulatory barriers, information and knowledge gaps, social constraints, and behavioural biases. Rawat and Gambhir (2017) revealed that 16 out of 100 people did not save money and this proportion mainly include people

in the unorganized sector such as rickshaw pullers, street vendors, etc. By fostering entrepreneurship and financial development in rural areas, it alleviated poverty (Ayyagari et al, 2013). Financial literacy plays a crucial role in reducing poverty (Askar, 2020).

For Micro Insurance, many academicians and researchers have developed conceptual notes (Vinayagamorthy et al, 2012; Mahanta et al, 2016; Paramasivan and Rajaram (2016); Ahsan (2009); Nandruet et al (2016)) and conducted empirical analysis for microinsurance. The conceptual studies mainly focus on microinsurance characteristics, importance, benefits, impact, IRDA regulations, penetration level, demand-supply gap, types of microinsurance etc. Empirical studies highlighted that the reach of microinsurance was very poor among the economically vulnerable section and lack of awareness was one of the major barriers to its lower penetration.

In a research study, The U.S. Financial Diaries (USFD), Morduch et al (2017) collected detailed financial data from 235 low- and moderate-income households over the course of a year, through Financial Diary. A non-profit organization, Microfinance Opportunities (MFO) used financial diaries as a tool for consumer research. Across three United States Agency for International Development (USAID)-funded studies (2019) in Malawi, Cote d'Ivoire and Ethiopia, high-frequency panel data collection was done using financial diaries. The authors studied the experiences of the Financial Diaries of women from India, Kenya, and Mexico and revealed the gender gap through this study. Contrary to these

studies, an experiment conducted in Uganda by Smits and Günther (2018) proved that the financial behaviour of the respondents was not changed in a significant way by just using the financial diary which was distributed free of charge to them and training on how to use them was provided. There are no such studies conducted for the local population of Gujarat in Ahmedabad and Gandhinagar cities.

RESEARCH OBJECTIVES

1. To check if the people in low to moderate-income groups are habituated to prepare a financial diary.
2. To understand the income and expense pattern and identify the savings and investment preferences in the selected income group in the unorganized sector.
3. To empirically test the awareness and willingness to invest towards micro-insurance and micro-investments avenues.

OPERATIONAL DEFINITION

Respondents in low to moderate-income groups are those families in which more than one family member is working in an unorganized sector and the collective monthly income of the family is at least Rs.2,000. The IRDA Micro-insurance Regulations, 2005 defines a Micro-insurance policy as a general or life insurance policy to cover economically vulnerable sections of the society with a sum assured of Rs 50,000 or less. Micro investment avenues are those investing options in which people can invest with limited incomes and assets. This includes bank fixed deposit, recurring deposit, Systematic Investment Plans

(SIP) in Mutual Fund, Post office savings, Atal Pension Yojana, Sukanya Samridhi Yojana Self Help Group and Public Provident Funds.

RESEARCH METHODOLOGY

An exploratory search was executed to study the current pattern of recording the income and expenditure, followed by low to moderate-income group respondents, working in the unorganized sector, in selected areas of Ahmedabad and Gandhinagar. It was observed that the majority of them either did not record their income or it was not recorded in the standardized format. Hence, a standardized format of the financial diary was provided to the respondent to record their income and expenses. Financial Diary refers to systematic recording of income, expenses and savings in a pre-defined standardized horizontal and vertical format.

The diary is divided into three heads viz., A-Income, B-Expenses and C-Savings. A vertical box indicates the time in the week. Under 'A' head, the horizontal box collects information on income from husband, wife, other members and sources of other income (gift, wages etc). Under 'B' head, the horizontal box collects information on different types of expenses such as educational fees, rent, food, transportation, medical, habit, electricity, gas bill, water, cable TV, telephone other expenses. Under 'C' head the horizontal difference of income and expenses, across the week is indicated. The standardized diary format was translated into the Gujarati language for ease of data collection.

The respondents were asked to record the data on income, expenses and savings on weekly

basis starting from 01st January 2020 till 31st January 2020 i.e. five weeks. Researchers intermittently on weekly basis collected the datasheet and consolidated the data at the end of the month. Hence the longitudinal (trend or balance panel) type of research design was adopted. The nature of the study was quantitative. Quota sampling was adopted in which data were collected from sampling elements such as transport worker (30), domestic worker (30), street vendor (30), home-based worker (30) and factory worker (30). Thus, the total sample size was 150.

Researchers went to the respondents' workplace for collecting data. Delphi research approach accompanied by a standardized diary (research instrument) was adopted for data collection. Face-to-Face (Personal Visit) contact method and self-administered diary filling method was adopted to reach conclusive research. Data were processed and managed using SPSS and Excel. The data was analyzed using Tabulation, descriptive statistics such as Mean (X), Median (M), Mode (Z), Standard Deviation (SD), Frequency, Percentage and inferential statistics such as the Analysis of Variance (ANOVA) Test.

Once the respondents learnt the perfect method of recording the data, a questionnaire was prepared to test their awareness and willingness to invest in micro-insurance and micro-investments avenues.

Table 1: Research Methodology

Parameters	Empirical Study
Research Design	Descriptive
Sub-Type of Research Design	Single Cross-Sectional
Sampling Procedure	Non-Probability
Sampling Technique	Quota Sampling
Sample Size	150
Sample Size Determination	$n = Z^2 \cdot p \cdot q / e^2$, i.e. $(1.96)^2 \cdot (0.5) (0.5) / (0.08)^2$
Sampling Unit	Workplace
Sampling Element	Transport Worker, Domestic Worker, Street Vendor, Home based Worker and Factory Worker
Research Approach	Survey Method
Contact Method	Personal Visit
Research Instrument	Questionnaire
Sources of Data Collection	Primary and Secondary
Data Processing and Management	SPSS and Excel
Data Analysis	Frequency Table, Percentage and Tabulation
Descriptive Statistics	X, M, Z, SD
Inferential Statistics	McNemar Test, Fisher's Exact Test

(Source: Authors' Compilation)

EMPIRICAL RESULTS AND DISCUSSION

Section-I Financial Diary

On average the income of the husband, wife, other members and other income was Rs.9,086; Rs.2,525; Rs.1,965 and Rs.627 respectively. Other income included occasional wages and gifts in cash which were seldom received. The average income of the wife was lower than that of the husband because along with the household responsibility she was able to devote just part-time to her economic activity. The average monthly spending of the households on education fees, rent, food, transportation, medical expenses, electricity, gas bill, water, cable TV, telephone and other expenses were Rs.1,473, Rs.927, Rs.5,480, Rs.772; Rs.525; Rs.815; Rs.499; Rs.381; Rs.20; Rs.209; Rs.341 and Rs.1,027 respectively. In order to provide quality education to their children incurred the highest expenses with an SD as high as Rs.1,906.

Amount spent on irrelevant expenses such as habit was more than Rs.500 with an SD as high as Rs.1,007. It was the addiction to a habit that forced the respondents to spend more. Water being a free commodity the spending was very meagre. Food, transportation, medical, electricity and gas bill expenses were considered subsistence expenses. The spending on cable TV, telephone and other expenses may be curtailed and such savings could be channelized for investments.

Table 2: Test Statistics on Income, Spending and Savings

Hypothesis	ANOVA Result	Statistical Significance	Interpretation
H01: Transport worker, Domestic worker, Street vendor, Home-based worker and Factory worker do not significantly differ in their monthly income.	F (4, 145)= 3.25, p= 0.01	Significant	Domestic workers were women as well as men, in some cases other family members were also working; so, their average income was higher compared to other groups referred to in the study. The (X) and (SD) income was as high as Rs.17,009 and Rs.8,713 respectively.
H02: Transport workers, Domestic workers, Street vendors, Home-based workers and Factory workers do not significantly differ in their monthly spending.	F (4, 145)= 4.00, p= 0.006	Significant	They lived in a joint family, hence the SD on food expense was as high as Rs.3,359.49. Adults were spending on an average Rs.1,297, on habits such as drinking, smoking and chewing tobacco.
H03: Transport workers, Domestic workers, Street vendors, Home-based workers and Factory workers do not significantly differ in their monthly savings.	F (4, 145)= 1.22, p= 0.31, ns	Insignificant	Across all the categories except factory workers, families had borrowed money to meet their expenses. The income of transport workers was very irregular and they borrowed a minimum Rs.3,550 in a month. The factory workers were in a better-off position as they worked in an organized sector, where the minimum and timely wages were paid by the employer when compared to workers working in the unorganized sector, whose income was often dependent on the mercy of master or clientele.

(Source: SPSS Output)

Section-II Awareness on Micro Investments and Micro Insurance

(A) Micro Investments: The same set of respondents were surveyed with a questionnaire to check out their awareness of micro-investments and microinsurance.

Table 3: Elementary Details

Parameters	Observed Statistics	Interpretation
Gender	Male: 81%, Female: 19%	Males and females both were involved in the economic activity, to meet their livelihood. Females were a bit introverted to fill the questionnaire and therefore, she asked the male members to respond to the questionnaire. As a result, the numbers of male respondents were noted more than females.

Family Composition (Maximum Value)	Adult: 7	
Boy Child: 4		
Girl Child: 3	It indicates that family size has a direct bearing on income, expense and savings.	
Holding Bank Account	Yes: 94%, No: 6%	The credit of holding the bank account could be attributed to the movement of Pradhan Mantri Jan-Dhan Yojana, under which a concrete effort to include below-poverty line, low and moderate-income group people to open the bank account for the purpose of financial inclusion.
The habit of Recording of Income and Expense	Yes: 17%, No: 83%	Recording income and expenses is the best exercise to have control over expenses. For those who recorded the data, it was not in the standardized format.
Endorsement of Financial Diary	Yes: 89%, No:11%	The hands-on trial experience of recording the matter in the financial diary, for one month before the survey, created a habit of recording income, expenses and savings.
Maintaining Future Financial Diary	Yes: 79%, No:21%	This exercise-induced interest in the respondents to record the data on a long-term basis. Recording helped them to curb the spending on irrelevant habits.
Below Poverty Line (BPL) Card Holder	Yes:27%, No: 73%	People who have income less than \$1.90 a day are considered in BPL Category (Drishti, 2019) and holding the BPL card provides access to subsidized food and free healthcare facilities.

(Source: SPSS Output)

Whether there was any change in recording the details before and after the implementation of the financial diary was tested through McNemar Test. H_0 : There is no significant difference in the method of recording income and savings with the implementation of a financial diary. $\chi^2(150) = 84.79$, $p < 0.0001$, the result was significant, indicating that respondents learnt the correct methodology to record the data.

Monthly Savings

135 (90%) respondents carried out monthly savings, indicating that they had a thorough check on the income and expenses. 15 (10%) respondents were unable to save due to the reasons like drinking habits, smoking habits; chewing tobacco etc did not leave them with any surplus balance. The addiction to such harmful habits not only wiped out their pockets but also adversely impacted their

health. Only one member earned and fed all the other dependent members. Such responsibility did not leave them with any surplus money. In fact, families had to borrow during the financial crunch. A Fisher's Exact Test was applied to test, H_0 : There is no association between holding a bank account and carrying out monthly savings. The two-sided p-value was $0.002 < 0.05$, the result was significant, indicating that respondents who had bank accounts were inclined to save due to the incentive of receiving interest.

Investments of Savings

Out of 135, 61 respondents carried out investments. 45% invested their savings and 55% did not invest their savings. 58% deposited the saved money in a savings bank account, 26% had lent it to friends on interest and 16% had lent it to relatives on interest. Higher interest was received from friends and relatives so the money was lent to them instead of parking the funds in a savings bank account.

Non-Investment of Savings

45% had put the money idle in the cupboard as a part of the precautionary motive. 31% and 24% had provided interest-free loans to friends and relatives respectively, an assistance gesture by forgoing interest.

Awareness and Investment Willingness (Micro Investments)

Table 4: Awareness and Willingness For Micro Investments

Avenues	Minimum Amount (Rs.)	Awareness	Willingness
Bank Fixed Deposit	100	25%	23%
Recurring Account	10	23%	21%
Systematic Investment Plan in MF	100	12%	10%
Post Office Savings	500	12%	10%
Atal Pension Yojana	42	9%	18%
Sukanya Samridhi Yojana	250	2%	3%
Self Help Group	Unanimously Decided	9%	8%
Public Provident Funds	500	8%	6%

(Source: SPSS Output)

Respondents were aware and also invested in the debt avenues, awareness on equity investments was less. Respondents showed high interest in investing their money in Atal Pension Yojana (a scheme mainly implemented for the benefits of the unorganized sector) because of its attractive features such as present-day accumulation till retirement age and later date distribution of pension. Proper guidance and large-scale awareness for people of the unorganized sector would increase the enrolment in the scheme.

Frequency and Minimum Amount of Investments

Preferred mode was monthly (28%); yearly (28%); quarterly (17%), half-yearly (17%) and 10% showed no interest in investments due to lack of either knowledge on investment avenues or no surplus of funds in their kitty. The respondents were ready to invest on an average Rs.1,117. Maximum respondents showed the capacity of investment of Rs.100 and the maximum amount for investments indicated by respondents was Rs.8,000.

(B) Micro Insurance:

Mukhyamantri Amrutum Yojana (MAA Card)

MAA card is a health insurance scheme targeted to families of BPL for free of cost indoor treatment (surgeries) with annual coverage up to Rs.3,00,000 per family. 64% were holders of MAA cards and 26% did not hold MAA Card, as they did not fulfil the criteria for availing of the same. Beneficiaries of MAA cardholders receive medical benefits in kind.

Awareness and Benefits Availed from Ayushman Bharat Scheme

The scheme is for availing cashless medical treatment at an empanelled hospital for three days pre-hospitalization and 15 days post-hospitalization expenses.

Table 5: Awareness and Benefits Availed From Ayushman Bharat Scheme

Details of Scheme	Awareness (%)	Benefits Availed (%)
Rs. 5,00,000 per year to your family	09%	8%
Medical examination, treatment, and consultation	21%	27%
Pre-and-post hospitalization charges	14%	14%
All pre-existing conditions are covered from day one	12%	13%
Free treatment in private empanelment hospitals	13%	13%
Accommodation benefits	12%	9%
Food services during hospitalization(patient)	18%	16%

(Source: SPSS Output)

Respondents were grossly aware of the Ayushman Bharat Scheme and regarding cent per cent benefits availed under the scheme was not there either because they were not aware or the need was not felt.

Awareness and Willingness to Invest in Micro-Insurance Scheme

Table 6: Awareness and Investment Willingness In Micro-Insurance Scheme

Schemes	Minimum Amount (Rs.)	Awareness	Willingness
Social Development Plan	-	9%	7%

Grameen Super Suraksha	-	9%	8%
Janata Personal Accident Product	15	19%	26%
Janashree Bima Yojana	200	15%	9%
Accident Insurance Policy	-	18%	8%
Personal Accident Insurance Plans	899	6%	2%
Kishi Shramik Samajik Suraksha Yojana	-	6%	6%
Amartya Siksha Yojana Policy	50	13%	15%
Shakthi Security Shield	35	5%	19%

(Source: SPSS Output)

Frequency of Minimum Premium Subscription

33% did not wish to subscribe to micro-insurance schemes, as a couple of the respondents were holding MAA cards so they did not wish to pay a premium for other types of micro-insurance schemes. Preference for premium payment was yearly (37%), monthly (14%), quarterly and half-yearly (eight per cent each). They were ready to pay an average of Rs.158.60 as a premium amount and the maximum amount that respondents were ready to pay was Rs.2,000.

CONCLUSION

The financial diary helped the respondents to record the data on income, expense and savings in a systematic format. The habit of recording the expense data helped them to identify the huge money spent on addiction and also curtail the same. Channelization of savings in the formal sector in the form of investment is a must for the growth of an individual's wealth and also for the growth of the economy. Thus, awareness and subscription of micro-investment products such as Atal Pension Yojana would help the low to moderate-income group masses to not only save but also properly invest the money, so that wealth is generated for their future subsistence.

References

1. Ahsan, S. (2009). Micro insurance, Poverty & Vulnerability: A Concept Paper. Retrieved April 22, 2020 from https://www.researchgate.net/publication/228635612_Microinsurance_Poverty_Vulnerability_A_Concept_Paper
2. Askar, W, Ouattara, B., Fang Zhang, Y. (2020). Financial Literacy and Poverty Reduction: The Case of Indonesia. ADBI Working Paper 1097, Retrieved April 17, 2020 from <https://www.adb.org/sites/default/files/publication/574816/adbi-wp1097.pdf>
3. Ayyagari, M., Beck, T., Hoseini, M. (2013). Finance and Poverty: Evidence from India. Retrieved April 16, 2020 from https://assets.publishing.service.gov.uk/media/57a08a54e5274a27b200053f/61070_Finance_Poverty_India.pdf
4. Business Line (2012). "India ranked 23rd in financial literacy: Survey". (12/6/2012) Retrieved April 17, 2020 from <https://www.thehindubusinessline.com/economy/india-ranked-23rd-in-financial-literacy-survey/article23084025.ece>
5. Drishti. (2019, February 2). Social Justice: The Big Picture- Eradicating Poverty. Retrieved April 21, 2020, from Drishti: <https://www.drishtiiias.com/loksabha-rajyasabha-discussions/the-big-picture-eradicating-poverty>
6. Karlan, D., Lakshmi Ratan, A., Zinman, J. (2014). Savings by and for the poor: A Research Review. *Review of Income and Wealth*. 1. 36-78. Retrieved April 16, 2020 from <https://onlinelibrary.wiley.com/doi/pdf/10.1111/roiw.12101>
7. Kimiyaghalam, F., Safari, M. (2015). "Review Papers on Definition of Financial Literacy and its Measurement". Retrieved April 16, 2020 from https://shodhganga.inflibnet.ac.in/bitstream/10603/173691/6/06_chapter%201.pdf
8. Lorenzetti, L., Namey, E., Swann, M. (2019). Show me the money! How we have used financial diaries to inform research and programming for vulnerable groups. Retrieved April 16, 2020 from <https://researchforevidence.fhi360.org/show-me-the-money-how-we-have-used-financial-diaries-to-inform-research-and-programming-for-vulnerable-groups>
9. Mahanta, P., Panda, G., Sreekumar (2016). Status of Micro insurance in India-A Review. *Business Management*. 2 (12). 1-5. Retrieved April 22, 2020 from <http://ierj.in/journal/index.php/ierj/article/view/575>
10. MFO (n.d.). Financial Diaries as a Tool for Consumer Research. Retrieved April 16, 2020 from <https://www.microfinanceopportunities.org/download.php?download=aHR0cHM6Ly93d3cubWljcm9maW5hbml3Bwb3J0dW5pdGllcy5vcmcvd3AtY29udGVudC91cGxvYWZlZlIwMTMvMTIvRmluYW5jaWFsLURpYXJpZXMtYXMtYS1Ub29sLWZvci1Db25zdW1lci1SZXNIYXJjaC5wZGY=>
11. Morduch, J., Ogden, T., Schneider, R. (2017). The USFD Methodology: The financial lives of low- and moderate-income Americans. Retrieved April 16, 2020 from <https://static1.squarespace.com/static/53d008ede4b0833aa2ab2eb9/t/5a5624930d92974f91487db9/1515594905834/issue6-method1217.pdf>

12. Pamarthy, H. (2012). Financial Literacy as a tool for Financial Inclusion and Client Protection. Retrieved April 17, 2020 from <https://www.in.undp.org/content/india/en/home/library/poverty/financial-literacy-as-a-tool-for-financial-inclusion-and-client-.html>
13. Paramasivan, C., Rajaram S (2016). Micro Insurance –A Conceptual Analysis. International Journal of Recent Scientific Research. 7(5). Retrieved April22, 2020 from https://www.researchgate.net/publication/304056699_MICRO_INSURANCE_-A_CONCEPTUAL_ANALYSIS
14. Rawat, A, Gambhir, B. (2017). Financial Literacy: Imperative to India's Economic Makeover. Journal of Emerging Issues in Economics, Finance and Banking. 6 (1). 2102-2120. Retrieved April16, 2020 from http://globalbizresearch.org/economics/images/files/42235_ID_HK757_JEIEFB_Ananjan%20Singh%20Rawat_Bani%20Gambhir.pdf
15. Smits, J., Günther, I. (2018). Do financial diaries affect financial outcomes? Evidence from a randomized experiment in Uganda. Development Engineering. 3. 72-82. Retrieved April 16, 2020 from <https://reader.elsevier.com/reader/sd/pii/S2352728516300598?token=15C130648A3F28AB08A912BDDA38C24A1952ADABB740DE5811A811EE233E775C15BA422E4F4AA0AB29FD66A78C410096>
16. Vinayagamoorthy, A, Sankar, C., Sangeetha, M. (2012). A Study on Micro Insurance in India. Contemporary Commerce Review. 1 (1). 56-63. Retrieved April22, 2020 from https://www.researchgate.net/publication/315007219_A_Study_Micro_Insurance_in_India
17. Nandru, P, Anand, B., Rental, S. (2016). Micro Insurance Penetration in India: A Tool For Financial Inclusion. Retrieved April22, 2020 from https://www.researchgate.net/publication/323393134_Micro_insurance_penetration_in_India_A_tool_for_financial_inclusion

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