An investigation into the Digital Financial Literacy of employed individuals in rural India: A case study focusing on Mayurbhanj district.

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Research Article

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Abstract

Objective: The present study analyzed the level of digital financial literacy of salaried persons working in Mayurbhanj district of Odisha. It was also aimed to explore online threat experience, benefits of digital transaction and barriers of digital payments.

Methodology: Digital financial literacy was measured using three basic factors: knowledge and usage of digital financial services, awareness of digital financial risk and self-protection. For measurement of digital financial literacy 120 samples were selected using purposive sampling method and data were collected using structured questionnaire. Out of the collected data, 16 filled up questionnaires were rejected due to insufficient information and 104 valid responses were used for the analysis. The data were analyzed using SPSS.

Results: Through the survey, it was found out that only 21.2 percent respondents have high digital financial literacy level where as 27.9 percent respondents have average digital financial literacy and 51 percent respondents have low level of digital financial literacy. During the survey it was also found out that 10.6 percent respondents have been victim of digital financial frauds and phishing scam is common among other scams with 19.2 percent.

Conclusion: Digital financial literacy is one of the very basic skills which is required to be acquired by everyone in this digital era. 94.2 percent of the respondents have received scam messages out. Salaried persons having constant income and bank account with regular transactions can be easy target of the scammers.

Introduction

In financial inclusion digital technologies are playing a vital role, it is confirmed by the meteoric rise of mobile money in recent years. So far, we are behind a significant gap between usage and access. Digital financial literacy (DFL) is the application of financial literacy and digital literacy to enable the uses of digital financial services (Stephen, G,2022).

Going for digital economy provides several benefits to government, users and service providers. For government, it gives benefit of financial inclusion. For users it saves time and resources in utilizing financial services like credit or debit card, e-wallets, UPI and net banking. For service providers, it becomes easy to provide financial services virtually and at lowest transaction costs. It is the reason why many economies have targeted digital financial services as new engine for economic growth (R. Amit, M. Tejal, S. Payal, 2020).

Digital financial literacy is likely to become an increasingly important aspect considering the pace of technological advancement in the area of finance. Fintech, i.e., using software, applications and digital platforms to deliver financial services to consumers and businesses through digital devices, has become a promising tool to promote financial inclusion but it is also a challenge to many under developed rural areas. Notwithstanding the rapid economic growth in the recent years, Odisha remains low in human development.
With low urbanization, low per capita income, high incidence of poverty as compared with national average, Odisha ranks 32 among 36 states and union territories altogether.[1] Mayurbhanj is one of 30 districts of Odisha having the literacy rate at 63.17%. Of that, male literacy is 63.22% and the female literacy is 45.53% which make the district rank 23 out of 30 districts. As a tribal dominated district with low percentage of literacy makes it a hindering factor towards digital financial inclusion.

**Objective of the study:**

1. To explore the level of digital financial literacy of salaried persons working in Mayurbhanj district.
2. To study demographic variables of salaried persons working in different sectors within the district.
3. To study threats and scams faced by salaried person of Mayurbhanj district.

**Literature review:**

Stephen, G. (2022) looked into the community's knowledge and support of financial literacy, digital payment experience, advantages and disadvantages, safety measures, online fraud experience, and preferred device for digital online payment transaction of library and information science professionals. 94 library and information science professionals from the chosen region were surveyed as part of the research for this study, and online questionnaires were utilised to arrange the data collection. The results demonstrate that respondents organised programmes to raise awareness of digital financial literacy among library patrons (33%) and that 94% of respondents had experience using banking cards for digital payments. 100% (94) of respondents said they believed in instant payments, while 96% (90) said that the biggest drawback of digital payments system is service costs and moreover discovered that 66% (62) of respondents had received internet scam phone calls, mail, or messages but have carefully avoided them.

Rajdev, A. A., Modhavadiya Tejal, S. Payal (2020) evaluated the graduate and postgraduate students in the Saurashtra region's degree of financial literacy online. The goal of the research was to examine the correlation between demographic factors and the degree of financial literacy online. The association between using digital financial services and financial literacy was another goal of the study. Three criteria were used to measure digital financial literacy: familiarity with digital financial services and products, understanding of digital financial risk and how to manage it, and familiarity with consumer rights and dispute resolution processes. 135 students were chosen for the measurement of digital financial literacy using a practical sampling method, and information was gathered using a standardised questionnaire. SPSS was used to analyse the data.

According to Morgan, P. J., Huang, B., & Trinh, L. Q. (2019) understanding of digital financial products and services, awareness of digital financial risk, understanding of digital financial risk management, and knowledge of consumers’ rights and dispute resolution processes are the four elements that make up digital financial literacy (DFL). The four criteria listed below have been proposed for measuring digital financial literacy (DFL):

1. User awareness of digital financial products and services: This relates to the users’ level of knowledge about these items.
2. Awareness of Digital Financial Risk: This refers to knowledge of numerous digital financial dangers, such as spyware, phishing, and pharming.

3. Digital Financial Risk Control: This metric evaluates how DFS users mitigate risks associated with their use.

4. Awareness of Consumer Rights and Dispute Resolution Processes: Understanding consumer rights and the steps to take in the event of an issue (fraud) are discussed.

Digital Financial Risk Control and Consumer Rights and Redress Procedures Knowledge have been merged into one part (third part) for the current study.

Digital transactions are those in which both the originator and recipient send or receive money via a digital method, according to the Committee on Deepening of Digital Payments' 2019 Report to the RBI. It demands that at least one of the two delays be cashless. The National Electronic Funds Transfer (NEFT), National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Unified Payment Instruments (UPI), Electronic Clearing Service (ECS), Credit and Debit Card Payments are among the digital payment transactions in India.

Prasad, H., Meghwal, D., Dayama, V., (2018) conducted a survey to see how financially literate families in Udaipur were. The definition of digital financial literacy is the understanding of numerous digital platforms and the frequency of use. The study also looks to understand how individual differences impact financial literacy online. The study’s sample location was the city of Udaipur in the Indian state of Rajasthan. For the sample, 268 households were selected at random. A well-designed questionnaire was used to gather information on digital financial literacy. The results of the study will assist the government and makers of digital platforms in increasing citizen participation in online commerce. According to the paper, this is necessary to bring more people inside the umbrella of digital exchange. Additionally, a cash-based transaction-based economy such


Research methodology

This study aims to map digital financial literacy among salaried persons working in Mayurbhanj district of Odisha state. The data are collected through primary and secondary source. The study has implemented descriptive survey research design. Persons working in different sectors within the district and getting the salary is the population for the study. Purposive sampling technique is used in the study. A questionnaire was designed to collect the data. The questionnaire measures digital financial literacy using 28 variables. The questionnaire was divided into 3 parts: The first part measures knowledge and usage of digital financial services using 11 variables (excluding demographic variables). These variables are as follows:

1. Use of E-banking
2. Managing account and logging into the account
3. Uses of E-wallet
4. UPI
5. Concept of debit
6. Concept of credit card
7. Digital transfer of money
8. Cashback
9. Digital payment of bills
10. Start and end transaction
11. Correct error and cancel transaction

Second part focuses on awareness of digital financial risk using 9 variables.

1. Ability to detect scams
2. Fraudulent message identification
3. Ability to understand terms and conditions relating to digital financial services
4. Sending remittances through reliable channel
5. Day to day finance management
6. E-investment
7. Technical problem
8. Preferred device
9. More spending due to cashless

In the third part, the control of digital financial risk and self-protection was measured (8 variables).

1. Sharing OTP
2. Using private window
3. Sharing password
4. Tracking transactions
5. Measures to control financial risk
6. Security of network
7. Saving card details
8. Security threat

After a pilot survey and incorporating suggestions of experts, the questionnaire was administered on 120 salaried persons working in different sectors within the district, out of which 16 responses were excluded due to incomplete information and 104 responses were used to analyze the data using SPSS.

**Empirical Analysis:**
The responses were collected from a well-developed questionnaire. The respondents were asked to fill and submit response through google forms and offline printed form. The responses were given scores 0-1. Digital financial literacy was divided into 3 categories i.e. low DFL level (less than 60% score), average DFL level (60 % to 75 % score) and high DFL level (more than 75% score). The reliability of instruments was estimated using Cronbach’s alpha. Overall reliability for the instrument was 0.751.

**Table 1: Reliability statistics for measurement of digital financial literacy**

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.751</td>
<td>28</td>
</tr>
</tbody>
</table>

Demographic profile of the respondents:

The initial part of the questionnaire was designed to generate the demographic information. The summarized responses are presented in the table below:

**Table 2 Frequency Descriptive**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>63</td>
<td>60.6</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>41</td>
<td>39.4</td>
</tr>
<tr>
<td>Age</td>
<td>18-29</td>
<td>50</td>
<td>48.1</td>
</tr>
<tr>
<td>Age</td>
<td>30-44</td>
<td>37</td>
<td>35.6</td>
</tr>
<tr>
<td>Age</td>
<td>45-60</td>
<td>17</td>
<td>16.3</td>
</tr>
</tbody>
</table>

As it can be seen from the above table that male respondents in the study is more than female respondents. It is evident that there are more male salaried persons than female in most of the workplaces within the districts. Similarly, the age wise distribution was categorized in three category and majority of the participants belong to the age group of 18-29.

**Table 3 Online fraud experience**

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have been a victim</td>
<td>11</td>
<td>10.6</td>
</tr>
<tr>
<td>Received message but avoided</td>
<td>67</td>
<td>64.4</td>
</tr>
<tr>
<td>Not received message but know victim</td>
<td>20</td>
<td>19.2</td>
</tr>
<tr>
<td>Not received message and don’t know victim</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100</td>
</tr>
</tbody>
</table>
During the survey, an additional question was included to observe online fraud or scam the respondents have faced. Due to the addition, it was revealed that 10.6 percent of the respondents have directly been the victim of such frauds and have lost money. It is a matter to be concerned about and this is the high time to take some initiatives to protect people from falling into such prey. Also, majority of people that is 64.4 percent have received such scam messages but carefully avoided them and only 5.8 percent of the respondents have not received such messages.

Table 4: Threat they come across

<table>
<thead>
<tr>
<th>Threats</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phishing</td>
<td>20</td>
<td>19.2</td>
</tr>
<tr>
<td>Ransomware</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Fake website</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Prize scam</td>
<td>34</td>
<td>32.7</td>
</tr>
<tr>
<td>Never come across</td>
<td>44</td>
<td>42.3</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100</td>
</tr>
</tbody>
</table>

Threats the respondents have come across was one of the variables to measure digital financial literacy and extracting the data of that particular variable, it can be seen that 57.7 percent of the respondents have faced threats from the scammers. Amongst the above-mentioned threats, Phishing scam (pretending to be bank or well-known source to steal money digitally) and Prize scam (Ask to deposit money to claim a fake prize in lucky draw coupon) are common with 19.2 and 32.7 percent respectively.

Table 5: DFL level

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low DFL</td>
<td>53</td>
<td>51</td>
</tr>
<tr>
<td>Average DFL</td>
<td>29</td>
<td>27.9</td>
</tr>
<tr>
<td>High DFL</td>
<td>22</td>
<td>21.2</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5 indicates the digital financial literacy level of respondents. The collected responses were given scores and the scores were categorized into three categories. Only 21.2 percent of the respondents have high digital financial literacy and majority of the respondents (51%) have low level of digital financial literacy.

Conclusion
The study was aimed to explore digital financial literacy level among salaried persons working in rural India with a case study of Mayurbhanj district. The study has employed descriptive research design. A questionnaire consisting of an instrument to measure digital financial literacy level was framed using the parameters suggested by Morgan, P. J., Huang, B., & Trinh, L. Q. (2019) and variables to cover those parameters suggested by Lyons, A. C, Kass-Hanna, J (2021). However, from the above analysis it can be observed that Digital financial literacy is one of the very basic skills which is required to be acquired by everyone. Salaried persons having constant income and bank account with regular transactions can be easy target of the scammers that is the reason only 5.8 percent of the respondents have not received text relating frauds, rest of 94.2 percent respondents have received such messages or know someone who has been a direct victim of such fraud. The other reason must be low level of digital financial literacy which is at 51 percent. Therefore, the governments, banks and other institutions must focus on their awareness programs.

The results of the research have three implications. First, there is a need to introduce awareness programs by the government to make people aware about the usage and security measures while making digital transactions because salaried persons with low digital financial literacy level are most vulnerable and are falling in trap of scammers. Second, financial institutions need to have multistage authentication for safeguard of the personal finance of their customers. Third, the awareness programs about digital transactions risks and customer rights need to be undertaken by the financial institution and a mechanism must be introduce to identify fake payment gateways and take actions to control further scams.

**Declarations**

**Author Contribution**

The authors confirm contribution to the paper as follows: 1. Study conception and design, data collection, data analysis and interpretation of results, draft manuscripts and preparation: Author M Mohakud. 2. Review and approval of the final version of the manuscript: Author SK Biswal

**References**


