

The Role of Small Finance Banks in Financing Micro Entrepreneurs in Kerala

Thesis

*Submitted to the University of Calicut
for the Award of the Degree of*

DOCTOR OF PHILOSOPHY IN COMMERCE

By

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I hereby declare that the work presented in the thesis entitled "**The Role of Small Finance Banks in Financing Micro Entrepreneurs in Kerala**" is based on the original work done by me under the supervision and guidance of **Dr. Jubair T**, Associate Professor, Department of Commerce, Kunnamangalam Government Arts & Science College, and has not been included in any other thesis submitted previously for the award of any degree. The contents of the thesis have undergone a plagiarism check using iThenticate software at C.H.M.K. Library, University of Calicut, and the similarity index found within the permissible limit. I also declare that the thesis is free from AI-generated content.



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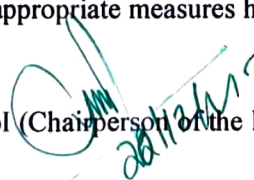
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List of Abbreviations

ACH	:	Automated Clearing House
ACRs	:	Automated Cash Recyclers
ACS	:	American Customer Satisfaction (Index)
AD	:	Authorized Dealer
AEPS	:	Aadhaar Enabled Payment System
AML	:	Anti-Money Laundering
ANBC	:	Adjusted Net Bank Credit
API	:	Application Programming Interface
APY	:	Atal Pension Yojana
AR	:	Access and Responsiveness (Variable Prefix)
AVE	:	Average Variance Extracted
BBPS	:	Bharat Bill Payment System
BC	:	Business Correspondent
BG	:	Business Growth
BHIM	:	Bharat Interface for Money
CA	:	Credit Accessibility (Variable Prefix)
CAGR	:	Compound Annual Growth Rate
CASA	:	Current Account and Savings Account
CB-SEM	:	Covariance-Based Structural Equation Modeling
CC	:	Cash Credit
CD	:	Certificate of Deposit
CDM	:	Cash Deposit Machine
CR	:	Composite Reliability
CSI	:	Customer Satisfaction Index
CT	:	Credit Terms (Variable Prefix)
CTS	:	Cheque Truncation System
DIY	:	Do It Yourself
EB	:	E-Banking Services (Variable Prefix)

EE	:	E-Banking Experience (Variable Prefix)
EDL	:	Enterprise Development Loan
EMI	:	Equated Monthly Instalment
ETC	:	Electronic Toll Collection
ETW	:	Enhancement of Women Entrepreneurship (Variable Prefix)
FD	:	Fixed Deposit
FI	:	Financial Inclusion
FIGs	:	Financial Intermediary Groups
FP	:	Financial Products/Services (Variable Prefix)
FS	:	Financial Services (Variable Prefix)
FSSAI	:	Food Safety and Standards Authority of India
FY	:	Financial Year
GECL	:	Guaranteed Emergency Credit Line
GDP	:	Gross Domestic Product
GL	:	Group Loan
GST	:	Goods and Services Tax
GWT	:	Growth of Women Entrepreneurs (Variable Prefix)
HFC	:	Housing Finance Company
ICCW	:	Interoperable Cash Withdrawal
ICT	:	Information and Communication Technology
IMPS	:	Immediate Payment Service
IPO	:	Initial Public Offering
JLG	:	Joint Liability Group
KYC	:	Know Your Customer
LABs	:	Local Area Banks
LAP	:	Loan Against Property
LC	:	Letters of Credit
LMPC	:	Legal Metrology Packaged Commodities
M-ATM	:	Micro ATM
MFI	:	Microfinance Institution
MSE	:	Micro and Small Enterprises
MSME	:	Micro, Small, and Medium Enterprises

NABARD	:	National Bank for Agriculture and Rural Development
NACH	:	National Automated Clearing House
NBFC	:	Non-Banking Financial Company
NEFT	:	National Electronic Funds Transfer
NPS	:	National Pension System/Scheme
NRE	:	Non-Resident External
NRI	:	Non-Resident Indian
NRO	:	Non-Resident Ordinary
OD	:	Overdraft
PCA	:	Principal Component Analysis
PDC	:	Post-Dated Cheque
PLS-SEM	:	Partial Least Squares Structural Equation Modeling
PMJJBY	:	Pradhan Mantri Jeevan Jyoti Bima Yojana
PMMY	:	Pradhan Mantri Mudra Yojana
PMS	:	Portfolio Management Services
PMSBY	:	Pradhan Mantri Suraksha Bima Yojana
POS	:	Point of Sale
PSL	:	Priority Sector Lending
PSLC	:	Priority Sector Lending Certificate
QB	:	Quality of Banking Services (Variable Prefix)
RBI	:	Reserve Bank of India
RCDP	:	Rural Centre for Development Programme
RD	:	Recurring Deposit
RERA	:	Real Estate Regulatory Authority
RF	:	Repayment Facilities (Variable Prefix)
ROA	:	Return on Assets
ROCE	:	Return on Capital Employed
ROE	:	Return on Equity
RRBs	:	Regional Rural Banks
RS	:	Responsiveness (Variable Prefix)
RTGS	:	Real-Time Gross Settlement
SBL	:	Secured Business Loans

SEL	:	Secured Enterprises Loans
SENP-SEP	:	Secured Enterprises/Entrepreneurial Products
SERVQUAL	:	Service Quality (Model)
SFB	:	Small Finance Bank
SHG	:	Self Help Group
SIDBI	:	Small Industries Development Bank of India
SMS	:	Short Message Service
SST	:	Self-Service Technology
SSTQUAL	:	Self-Service Technology Quality (Scale)
TC	:	Transaction Cost (Variable Prefix)
TGR	:	Trend Growth Rate
TReDS	:	Trade Receivables Discounting System
UCB	:	Urban Co-operative Bank
UE	:	Usage Challenges (Variable Prefix)
ULIPs	:	Unit Linked Insurance Plans
UPI	:	Unified Payments Interface
VRM	:	Virtual Relationship Manager
WCDL	:	Working Capital Demand Loan

Abstract

Financial inclusion is crucial for achieving inclusive growth and sustainable economic development, both globally and within India, as it provides essential financial services needed to reduce poverty and support national developmental goals. In the Indian economic landscape, micro-entrepreneurs hold a significant position, contributing meaningfully to employment generation, innovation, and regional development. However, despite their importance, the growth and expansion of these enterprises are often constrained by limited access to formal financial support. Many micro-units are excluded from traditional financing due to rigid lending norms, stringent collateral requirements, complex documentation procedures, and challenges in maintaining formal financial records. Addressing this financing gap is vital for strengthening the micro-entrepreneurial sector, sustaining economic growth, and fostering overall development.

To address the persistent problem of financial exclusion among underserved groups, the Reserve Bank of India, acting on the recommendations of the Nachiket Mor Committee, introduced Small Finance Banks as a differentiated category of banks. SFBs were established to promote financial inclusion by offering basic banking services and extending credit to small business units, marginal farmers, and micro enterprises through technology-driven, low-cost operations. Despite this clear mandate, limited research has examined the extent to which SFBs improve access, usage, service quality, and economic empowerment. This study fills this gap by analysing the structure and financial product portfolio of SFBs, assessing their role in the financial inclusion of micro-entrepreneurs, evaluating their contribution to the empowerment of micro women entrepreneurs, and measuring overall customer satisfaction.

The study adopted a mixed-methods approach using a descriptive and analytical research design, drawing on both primary and secondary data. The institutional focus centered on customers of ESAF SFB, with a sample of 383 micro-entrepreneurs selected through a multi-stage random sampling technique across four districts in Kerala. As the primary data exhibited a non-normal distribution, non-parametric statistical tests were extensively employed for inferential analysis. A researcher-developed Financial Inclusion Index was used as a key tool for measuring financial inclusion level. Additionally, Partial Least Squares Structural Equation Modeling was

applied to validate the conceptual framework and examine the structural relationships influencing business growth.

Findings on the structure of SFBs indicated strong adherence to regulatory requirements. All SFBs consistently met the mandated Priority Sector Lending norms and maintained a lending pattern in which small-ticket and micro loans formed the core of their portfolios. Analysis of their operations showed that services are highly accessible, supported by quick loan processing enabled by minimal collateral requirements and efficient digital systems. Customer satisfaction was generally high regarding processing speed and the absence of collateral; however, dissatisfaction was notable with respect to high interest rates, restricted credit limits, and rigid repayment schedules.

In brief, SFBs are functioning as transformative agents of inclusive financial development in Kerala by effectively removing key barriers, ensuring efficient access, and delivering high-quality services, which have translated into notable business growth and women's empowerment. However, to fully achieve their financial inclusion mandate, SFBs must strengthen actual usage levels by addressing the primary sources of customer dissatisfaction. The study recommends that policymakers and SFBs re-evaluate high loan interest rates and introduce more flexible credit terms, limits, and repayment schedules that better reflect the diverse cash-flow patterns of micro-enterprises, thereby ensuring affordable and sustainable entrepreneurial development.

Keywords: Small Finance Banks, micro entrepreneurs, micro women entrepreneurs, financial inclusion, economic empowerment, financial access, financial usage, financial quality.

സംഗ്രഹം

ആഗോളതലത്തിലും ഇന്ത്യയിലും സമഗ്ര വളർച്ചയ്ക്കും സുസ്ഥിരമായ സാമ്പത്തിക വികസനത്തിനും അത്യന്താപേക്ഷിതമായ ഒന്നാണ് ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ. ദാരിദ്ര്യം കുറയ്ക്കുന്നതിനും ദേശീയ വികസന ലക്ഷ്യങ്ങളെ പിന്തുണയ്ക്കുന്നതിനും ആവശ്യമായ അടിസ്ഥാന സാമ്പത്തിക സേവനങ്ങൾ ഇതു നൽകുന്നു. അത് പോലെ ഇന്ത്യൻ സാമ്പത്തിക പശ്ചാത്തലത്തിൽ സൂക്ഷ്മ സംരംഭകർക്ക് സുപ്രധാന സ്ഥാനമുണ്ട്. അവർ തൊഴിലവസരങ്ങൾ സൃഷ്ടിക്കുന്നതിനും നവീന സാങ്കേതികവിദ്യകൾ പ്രോത്സാഹിപ്പിക്കുന്നതിനും പ്രാദേശിക വികസനത്തിനും ഗണ്യമായ സംഭാവന നൽകുന്നു. എന്നിരുന്നാലും, അവരുടെ പ്രാധാന്യം ഉണ്ടായിരുന്നിട്ടും, ഔദ്യോഗികമായ സാമ്പത്തിക പിന്തുണയുടെ പരിമിതമായ ലഭ്യത മൂലം ഈ സംരംഭങ്ങളുടെ വളർച്ചയും വികാസവും പലപ്പോഴും തടസ്സപ്പെടുന്നു.

കർശനമായ വായ്പാ മാനദണ്ഡങ്ങൾ, ഉറപ്പുള്ള ഈട് ആവശ്യകതകൾ, സങ്കീർണ്ണമായ രേഖാപരിശോധന നടപടിക്രമങ്ങൾ, ഔദ്യോഗിക സാമ്പത്തിക രേഖകൾ പരിപാലിക്കുന്നതിലെ വെല്ലുവിളികൾ എന്നിവ കാരണം നിരവധി സൂക്ഷ്മ യൂണിറ്റുകൾ പരമ്പരാഗത ധനസഹായ സംവിധാനങ്ങളിൽ നിന്ന് ഒഴിവാക്കപ്പെടുന്നു. സൂക്ഷ്മ സംരംഭക മേഖലയെ ശക്തിപ്പെടുത്തുന്നതിനും സാമ്പത്തിക വളർച്ച നിലനിർത്തുന്നതിനും സമഗ്രമായ വികസനം പ്രോത്സാഹിപ്പിക്കുന്നതിനും ഈ ധനസഹായ വിടവ് നികത്തുന്നത് അത്യാവശ്യമാണ്.

മതിയായ സേവനം ലഭ്യമല്ലാത്ത വിഭാഗങ്ങൾക്കിടയിലെ സാമ്പത്തിക ഒഴിവാക്കൽ എന്ന സ്ഥിരമായ പ്രശ്നം പരിഹരിക്കുന്നതിനായി നചികേത് മോർ കമ്മിറ്റിയുടെ ശുപാർശകൾ പ്രകാരം റിസർവ് ബാങ്ക് ഓഫ് ഇന്ത്യ കൊണ്ടുവന്ന പ്രത്യേക ധനകാര്യ സ്ഥാപനങ്ങളാണ് സ്‌മോൾ ഫിനാൻസ് ബാങ്കുകൾ. സാങ്കേതികവിദ്യയുടെ സഹായത്തോടെ കുറഞ്ഞ ചെലവിൽ അടിസ്ഥാന ബാങ്കിംഗ് സേവനങ്ങൾ നൽകുകയും, ചെറുകിട ബിസിനസ് യൂണിറ്റുകൾക്കും നാമമാത്ര കർഷകർക്കും സൂക്ഷ്മ സംരംഭങ്ങൾക്കും വായ്പ ലഭ്യമാക്കുകയും ചെയ്ത് ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ സാധ്യമാക്കുകയാണ് സ്‌മോൾ ഫിനാൻസ് ബാങ്കുകളുടെ ലക്ഷ്യം. ഈ വ്യക്തമായ ലക്ഷ്യം ഉണ്ടായിട്ടും, സാമ്പത്തിക ലഭ്യത, ഉപയോഗം, സേവന നിലവാരം, സാമ്പത്തിക ശാക്തീകരണം എന്നിവ മെച്ചപ്പെടുത്തുന്നതിൽ സ്‌മോൾ ഫിനാൻസ് ബാങ്കുകളുടെ പങ്ക് എത്രത്തോളം ഫലപ്രദമാണെന്ന് പരിശോധിക്കുന്ന ഗവേഷണങ്ങൾ വളരെ പരിമിതമായേ നടന്നിട്ടുള്ളൂ എന്ന് കാണാം. ആയതിനാൽ, സ്‌മോൾ ഫിനാൻസ് ബാങ്കുകളുടെ ഘടനയും സാമ്പത്തിക ഉൽപ്പന്ന സമാഹാരവും വിശകലനം ചെയ്യുകയും, സൂക്ഷ്മ സംരംഭകരുടെ സാമ്പത്തിക ഉൾപ്പെടുത്തലിൽ അവരുടെ പങ്ക് വിലയിരുത്തുകയും, സൂക്ഷ്മ വനിതാ സംരംഭകരുടെ ശാക്തീകരണത്തിലേക്കുള്ള സംഭാവനകൾ പരിശോധിക്കുകയും, മൊത്തത്തിലുള്ള ഉപഭോക്തൃ സംതൃപ്തി അളക്കുകയും ചെയ്ത് ഈ ഗവേഷണ വിടവ് നികത്താൻ ശ്രമിക്കുകയാണ് ഈ പഠനം.

പ്രാഥമികവും ദ്വിതീയവുമായ വിവരങ്ങൾ ഉപയോഗിച്ച് വിവരണാത്മകവും വിശകലനാത്മകവുമായ ഗവേഷണ രൂപകൽപ്പനയാണ് ഈ പഠനത്തിനായി സ്വീകരിച്ചത്. കേരളത്തിലെ നാല് ജില്ലകളിൽ നിന്ന് മൾട്ടി സ്റ്റേജ് റാൻഡം സാംപ്ലിങ്ങിലൂടെ തിരഞ്ഞെടുത്ത ഇസാഫ് സ്‌മാൾ ഫിനാൻസ് ബാങ്കിന്റെ ഉപഭോക്താക്കളായ 383 സൂക്ഷ്മ സംരംഭകരെയാണ് പഠനത്തിനായി

ഉപയോഗപ്പെടുത്തിയിരിക്കുന്നത്. നോർമാലിറ്റിയുടെ അഭാവം കാരണം പ്രാഥമിക വിവരങ്ങൾ വിശകലനം ചെയ്യുന്നതിനായി നോൺ-പാരാമെട്രിക് ടെസ്റ്റുകളാണ് ഉപയോഗിച്ചത്. ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ അളക്കുന്നതിനുള്ള പ്രധാന ഉപകരണമായി ഗവേഷകർ വികസിപ്പിച്ചെടുത്ത ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ സൂചികയും ഇതിനായി ഉപയോഗിച്ചു. കൂടാതെ, ആശയപരമായ ചട്ടക്കൂട് സാധൂകരിക്കുന്നതിനും ബിസിനസ് വളർച്ചയെ സ്വാധീനിക്കുന്ന ഘടനാപരമായ ബന്ധങ്ങൾ പരിശോധിക്കുന്നതിനുമായി പി.എൽ.എസ്- സ്ക്വയർഡൽ ഇക്വേഷൻ മോഡലിങ്ങും പ്രയോഗിച്ചു.

സ്കോൾ ഫിനാൻസ് ബാങ്കുകളുടെ ഘടനയെക്കുറിച്ചുള്ള കണ്ടെത്തലുകൾ, നിയന്ത്രണാത്മക ആവശ്യകതകളോടുള്ള ശക്തമായ അനുസരണം സൂചിപ്പിക്കുന്നു. എല്ലാ സ്കോൾ ഫിനാൻസ് ബാങ്കുകളും നിർബന്ധിത പ്രാധാന്യമുള്ള മേഖലയിലേക്കുള്ള വായ്പാ മാനദണ്ഡങ്ങൾ സ്ഥിരമായി പാലിക്കുകയും, ചെറിയ തുകയ്ക്കുള്ള വായ്പകളും സൂക്ഷ്മ വായ്പകളും അവരുടെ വായ്പാ സമാഹാരത്തിന്റെ പ്രധാന ഘടകങ്ങളായി നിലനിർത്തുകയും ചെയ്തിട്ടുണ്ട്.

പ്രവർത്തനക്ഷമതയും ശക്തമായ സാങ്കേതികവിദ്യാ സ്വീകരണവും ഉണ്ടായിരുന്നിട്ടും, മൊത്തത്തിലുള്ള ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ സൂചികയിൽ ഇടത്തരം നിലവാരം മാത്രമാണ് പ്രതിഫലിച്ചത്. സാമ്പത്തിക സേവനങ്ങളുടെ യഥാർത്ഥ ഉപയോഗനിലവാരത്തിൽ ഉണ്ടായിരുന്ന താരതമ്യേന കുറഞ്ഞ പുരോഗതിയാണ് ഇതിന് കാരണം. വായ്പാ നടപടികളുടെ വേഗതയും ഈ ആവശ്യകതകളുടെ അഭാവവും സംബന്ധിച്ച ഉപഭോക്തൃ സംതൃപ്തിയും പൊതുവെ ഉയർന്നതായിരുന്നുവെങ്കിലും, ഉയർന്ന പലിശനിരക്കുകൾ, പരിമിതമായ ക്രെഡിറ്റ് പരിധികൾ, കർശനമായ തിരിച്ചടവ് ക്രമീകരണങ്ങൾ എന്നിവയിൽ ഉപഭോക്താക്കളുടെ അസംതൃപ്തി വ്യക്തമായിരുന്നു.

ചുരുക്കത്തിൽ, എല്ലാം കൊണ്ടും കേരളത്തിലെ സമഗ്ര സാമ്പത്തിക വികസനത്തിന്റെ പരിവർത്തന ഘടകങ്ങളായി സ്കോൾ ഫിനാൻസ് ബാങ്കുകൾ പ്രവർത്തിക്കുന്നു എന്ന് കാണാം. അവർ പ്രധാന തടസ്സങ്ങൾ ഫലപ്രദമായി നീക്കം ചെയ്യുകയും, കാര്യക്ഷമമായ പ്രവേശനവും ഉയർന്ന നിലവാരമുള്ള സേവനങ്ങളും ഉറപ്പാക്കുകയും ചെയ്തതിലൂടെ ശ്രദ്ധേയമായ ബിസിനസ് വളർച്ചയും വനിതാ ശാക്തീകരണവും സാധ്യമാക്കി. എന്നിരുന്നാലും, ഫൈനാൻഷ്യൽ ഇൻക്ലൂഷൻ എന്ന ലക്ഷ്യം പൂർണ്ണമായി കൈവരിക്കുന്നതിനായി ഉപഭോക്താക്കളുടെ പ്രധാന അസംതൃപ്തികളുടെ കാരണങ്ങൾ പരിഹരിച്ചുകൊണ്ട് യഥാർത്ഥ സേവന ഉപയോഗനിലവാരം സ്കോൾ ഫിനാൻസ് ബാങ്കുകൾ ശക്തിപ്പെടുത്തേണ്ടതുണ്ട്. സൂക്ഷ്മ സംരംഭങ്ങളുടെ വ്യത്യസ്തമായ പണമിടപാട് രീതികൾ കണക്കിലെടുത്ത് ഉയർന്ന വായ്പാ പലിശനിരക്കുകൾ പുനർമൂല്യനിർണ്ണയം ചെയ്യുകയും, കൂടുതൽ മെച്ചമുള്ള ക്രെഡിറ്റ് നിബന്ധനകളും പരിധികളും തിരിച്ചടവ് ക്രമീകരണങ്ങളും അവതരിപ്പിക്കുകയും ചെയ്യണമെന്ന് ഈ പഠനം ശുപാർശ ചെയ്യുന്നു. ഇങ്ങനെ ചെയ്യുന്നതിലൂടെ താങ്ങാനാവുന്നതും സുസ്ഥിരവുമായ സംരംഭകത്വ വികസനം ഉറപ്പാക്കാൻ നമുക്ക് സാധിക്കും.

സൂചകപദങ്ങൾ: ചെറുകിട ധനകാര്യ ബാങ്കുകൾ, സൂക്ഷ്മ സംരംഭകർ, സൂക്ഷ്മ വനിതാ സംരംഭകർ, സാമ്പത്തിക ഉൾപ്പെടുത്തൽ, സാമ്പത്തിക ശാക്തീകരണം, സാമ്പത്തിക പ്രാപ്യത, സാമ്പത്തിക ഉപയോഗം, സാമ്പത്തിക നിലവാരം.

Chapter 1

INTRODUCTION TO THE STUDY

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1.1 Introduction

The Small Finance Banks are organised as specialised financial institutions with the primary aim of extending financial services to small business units, small and marginal farmers, micro enterprises and other unorganised sectors of the economy. They are established by the RBI with the purpose of providing financial inclusion to underserved and unserved segment of the population by using low-cost technology. This chapter outlines the conceptual foundation of the Small Finance Banks including their origin, evolution and operational role in supporting underserved sectors, especially micro entrepreneurs. It also includes the research problem, significance, objectives, scope, methodology and limitations of the research. The primary aim of this chapter is to offer a thorough background and situational knowledge towards studying the role played by SFBs in the financial inclusion and development of micro entrepreneurship in Kerala.

1.2 Background of the Study

The process of financial Inclusion, which makes formal financial services available to everyone and every business, has evolved dramatically over the years. The history of financial inclusion in the world has been characterized by a number of significant developments. In the early 2000s, the concept became widely known as an effective instrument of ensuring economic growth and reducing poverty. The United Nations and other international bodies started highlighting the need to include the financial inclusion aspect in realizing developmental objectives (Naili et al., 2023). In 2011, the World Bank introduced the Global Findex Database, which became an important milestone in the history of financial inclusion in the world. This database has been an in-depth source of information on financial inclusion in different countries, revealing

the level of financial inclusion and progress achieved in different regions (Martinez et al., 2020). India has been leading in the process of financial inclusion, especially in the rural and semi-urban regions. The Reserve Bank of India has introduced a number of policies and programmes to enhance banking penetration. Financial inclusion is a very important part of the economic development strategy of India, which is intended to cover all strata of the population with access to financial services. The government has undertaken a number of projects to cater to the financial requirements of micro enterprises, which play a central role in economic growth and creation of employment opportunities. Such programmes are aimed at offering affordable credit, strengthening digital financial services, and promoting microfinance programmes (Johri et al., 2024; Verma and Shome, 2025).

The nationalisation of banks in 1969 was a major step towards financial inclusion, which was meant to expand access to banking services to rural and semi-urban communities. This action expanded the bank branches and made the banking services more available to the masses. Financial service delivery to the rural population was further enhanced by the formation of the Regional Rural Banks (RRBs) and cooperative banks to meet the demands of small farmers and rural enterprises. The economic liberalization in 1991 provided a shift with the recommendations of Narasimham Committee having major changes in the banking sector. These reforms involved measures to enhance efficiency and outreach of banks and thereby facilitate the process of financial inclusion. The initiatives such as Kisan Credit Cards and General Credit Cards were the projects that aimed to reach out to farmers and small entrepreneurs and enable them to access credit easily and invest in agricultural and other productive purposes. The Government has implemented several measures to facilitate the process of financial inclusion, such as the Pradhan Mantri Jan Dhan Yojana, Direct Benefit Transfer and financial literacy. PMMY was a flagship programme started by the Government and this scheme was intended to make banking services universal. It has been successful in expanding the number of accounts, especially among the low-income people in rural regions, and integrated financial literacy and access to credit into its structure (Divya & Jahan, 2017).

1.2.1 Financing of Micro-Entrepreneurs in India

Micro-entrepreneurs play a crucial role in the Indian economy, as they provide a significant contribution to employment, innovation, and the development of the region (Divya and Jahan, 2017). The Micro, Small, and Medium Enterprises (MSME) sector that involves micro-entrepreneurs provides about 40 percent of domestic production and almost half of the exports in India (Khan, 2017). But their expansion and growth are usually hindered by lack of access to formal sources of finance. The informal economy of India is based on micro-entrepreneurs, who own small businesses enterprises that help to support the lives of millions of people. In India, a large percentage of micro entrepreneurs use informal sources of funds such as self-finance and borrowing from friends and family due to strict eligibility requirements and collateral norms of financial institutions. Micro-entrepreneurs do not possess enough collateral that traditional banks may demand to secure their loans. Also, a lot of them work in informal environment and the financial records are not properly maintained by them which make it hard to evaluate their creditworthiness by banks (Bose, 2013; Rajamani et al., 2022). The availability of finance differs greatly depending on the area, and rural entrepreneurs face higher challenges and limitations than those in urban area. Specifically, women entrepreneurs are subject to some systematic barriers such as limited access to formal credit and the norms set forth by society that limit their participation in economic activities (Kumar, 2024).

1.2.2 Evolution of Small Finance Banks

The history and establishment of Small Finance Banks in India is related to the continuing search towards financial inclusion especially among the underserved and unbanked segments of the population. In 2013, the RBI formed the Nachiket Mor Committee which suggested the formation of Payment Banks and Small Finance Banks as a strategic move to promote financial inclusion in India. In September 2015, RBI started the formation of a new type of differentiated banks known as Small Finance Banks, with the main objective of offering financial services to small scale units, small and marginal farmers and other informal sector entities. This was an initiative under a larger plan to support the economic demands of the semi-urban and

rural populations that were not sufficiently met by the conventional banking institutions. The establishment of SFBs was a major milestone in the realisation of comprehensive financial inclusion process in India, which have been employing technology-based, affordable operations to access target customers.

The emergence of these banks was a major move in the Indian banking system, which sought to reduce the disparity between the organised financial system and the unbanked people. The Small Finance Banks represent a relatively novel and innovative banking concept that focuses on the financial needs of underserved groups and these banks have become an integral part of the Indian financial system, especially in terms of financial inclusion. These banks offer simple banking services such as accepting deposits and lending to financially marginalized segments of the society. They also offer various financial services such as microloans, savings and various credit facilities which are crucial to the growth and development of micro enterprises (Srinivas, 2020). SFBs focus on providing affordable financial services to low-income people and rural communities, thus enabling financial inclusion in the nation (Kittu & Chittawadagi, 2018).

1.3 Review of Literature & Research Gap

Financial inclusion is crucial to the economic advancement of a nation, as it is needed to curb poverty and create inclusive growth through providing underserved groups with access to essential financial services (Gandhi, 2013; Maity & Sahu, 2022). The analysis of role of banks in financial inclusion confirms that bank outlets and the credit to deposit ratio have a favourable influence on the GDP growth (Dwibedi & Mishra, 2022; Iqbal & Samiaa, 2017). Nevertheless, some of the findings within this area of study is the risk of banking institutions to focus in profitable urban regions and leave the rural areas under-served, thus having a direct negative impact on financial access by small businesses (Iqbal & Samiaa, 2017; Rakhecha & Tanwar, 2018). A distinct, reliable, and highly substantial inverse association between size of bank and predisposition to lend small scale units and micro business firms were also identified, stating that specialized, smaller institutions are more appropriate to satisfy the credit demand of this segment (Mkhaiber & Werner, 2021).

This organizational requirement of specialized lending resulted in the evolution of concept of SFBs and their contribution in financial inclusion process. RBI introduced Small Finance Banks as a type of differentiated banks and required them to focus on underserved segments by operating at low-cost technology and allocate 75 percent of their funding to the priority sector (Arora et al., 2018; Kishore, 2015). The studies confirm that SFBs are crucial as a breakthrough measure in financial inclusion by attaining massive growth in deposits and advances, extending the services into the unbanked rural regions, and surpassing the norms of priority sector lending, thus, leading to job creation (Prakash, 2021). The microcredit activities of SFBs give emphasis on their role in the extension of credit using group-based models, particularly to institutions that have been turned into Microfinance Institutions such as ESAF in Kerala (Benny, 2018). The customer awareness and perceptions of Small Finance Bank, particularly regarding new banking initiatives and financial inclusion measures showed a positive perception and viewed the conversion of Microfinance Institutions into SFBs as beneficial for low-income groups (Viswan, 2017).

The success of the Small Finance Banks was encountered by serious challenges which hinder their operations and financial performance. According to literature, typical barriers include the presence of high transformation costs, competition from the universal banks, challenges in mobilizing low-cost CASA deposits, and the critical challenge of Non-Performing Assets (NPA) management especially in the rural debt collection (Dhanya & Banudevi, 2019; Singh, & Kumar, 2017). The financial performance analysis affirms that SFBs experience consistent growth in the total business volume, but profitability tends to be negatively related to the NNPA ratio and high-cost income ratio, indicating that they have a hard time balancing social mandates and financial sustainability (Ali & Kaveri, 2021; Mohan Kumar & Bhavani, 2023). The research among SFB customers shows that the awareness of financial inclusion programmes is high, but the understanding of particular SFB function is lower (Dhanya & Banudevi, 2019). Customers are dissatisfied in some aspects of SFB services including complicated digital processes, high-interest rates, affordability of loans, and counter services, which require the improvement of the quality of services,

ease of use, and safety by SFBs to meet the needs of its target customers (Bhargava et al., 2022).

Despite the extensive research on the evolution, regulations, operational guidelines and challenges of Small Finance Banks, the literature review indicates some major research gaps on basic aspects such as structure and financial pattern of Small Finance Banks and its access, usage and quality of various services. The existing literature lacks complete analysis on the role of SFBs in the financial inclusion of micro-entrepreneurs, who represent a vital segment of the economy. Moreover, there is limited analysis of how the SFBs specifically contributes to the empowerment of women micro-entrepreneurs in terms of income generation, asset accumulation, decision-making power, training and financial literacy. The satisfaction level of micro-entrepreneurs on various SFB products and services concerning factors such as ease of access, affordability of loans, repayment flexibility, and technology adoption remains systematically underexplored. This study is an effort to examine the contribution of Small Finance Banks in financing micro entrepreneurs, economic empowerment of women entrepreneurs and the extend of satisfaction of institutional customers.

1.4 Research Problem

The Small Finance Banks were introduced by RBI as a differentiated bank with the purpose of extending financial inclusion to underbanked sections of the economy like micro entrepreneurs, small farmers, and other unorganized sector entities. The micro entrepreneurs, the backbone of the Indian economy and a major contributor to domestic production and exports, are frequently excluded from formal sources of finance due to lack of customized products, strict collateral requirements, complicated documentation and rigid lending rules. Women micro entrepreneurs are also faced with limited access to financial resources in addition to other socio-cultural barriers. Although the Small Finance Banks are formed to provide different forms of support to these underserved segments, the efficacy of intervention and the current performance is not properly evaluated. In addition, it is necessary to systematically

analyse the contribution of these banks towards financial accessibility, economic empowerment and satisfaction of micro entrepreneurs.

Despite the significance of Small Finance Banks within the Indian banking system, the existing literature shows huge knowledge gap about their specific role, contributions and effectiveness. There are a few unanswered questions in the research which include matters related to the accessibility and usage of financial services, challenges, extent of contribution for women empowerment, etc. There is a need for comprehensive study to examine whether these banks are really achieving their stated objectives by promoting financial inclusion among underserved population. The role of small finance banks is an under-researched topic and the present research fills the research gap by reporting the level of financial inclusion and the effectiveness of their service delivery. This research presents the structural processes and financial patterns of SFB and its contribution towards economic empowerment of women entrepreneurs. The outcome of the research is expected to guide the SFBs in enhancing their operational efficiency by offering a comprehensive understanding of accessibility and usage of various banking services, the extent of customer satisfaction, and its overall performance in supporting micro entrepreneurs.

1.5 Research Questions

To address the research problem stated above, the following key research questions have been formulated for the study.

- What is the structure and product portfolio of Small Finance Banks?
- How effectively are Small Finance Banks promoting financial inclusion among the micro entrepreneurs?
- Does the contribution of Small Finance Banks lead to the economic empowerment of micro women entrepreneurs?
- What is the satisfaction level of micro entrepreneurs with the various services provided by small finance banks?

- What factors motivate micro entrepreneurs to open bank account and avail loans from these banks?
- What challenges do micro entrepreneurs face while accessing financial products and services from Small Finance Banks?
- What are the financial schemes and other support of Small Finance Banks available to the micro entrepreneurs?
- How are Micro units accessing various credit schemes of small finance banks?
- Whether schemes of SFBs are able to address the needs of micro entrepreneurs?
- What is usage pattern of micro entrepreneurs with the various financial services?
- How these enterprises are getting benefits out of various measures of these banks?
- Whether aims behind the establishment of SFBs are met or not?
- Whether the micro entrepreneurs are satisfied with the credit terms and repayment facilities?
- What modes of usage are followed by the micro entrepreneurs for various banking services?

The present study seeks to answer these questions. The above research questions form the basis for formulation of subsequent objectives, methodology and analysis of this study.

1.6 Objectives of the Study

The following objectives have been formulated for the study to systematically address the research problems and research questions raised above.

1. To examine the structure of Small Finance Banks in India and analyse their financial product portfolio.

2. To analyse the role of Small Finance Banks in the financial inclusion of micro-entrepreneurs in Kerala.
3. To evaluate the contribution of Small Finance Banks in the economic empowerment of micro women entrepreneurs in Kerala.
4. To assess the satisfaction level of micro entrepreneurs with the services of Small Finance Banks.

These objectives form the basis for the scope and further analysis of the research.

1.7 Scope of the Study

- **Geographical Scope:** This research is confined to Kerala state, focusing on four districts with the highest concentration of ESAF Small Finance Bank branches namely, Thrissur, Palakkad, Ernakulam and Malappuram. These four districts together represent more than 50% of ESAF SFB branches in Kerala.
- **Institutional Scope:** The study covers all 11 SFBs in India for examining their structure and product portfolio, while the analysis of financial inclusion, economic empowerment, and customer satisfaction specifically focuses on ESAF SFB, the only Kerala-based SFB with 316 branches in the state. Ujjivan SFB, AU SFB, Equitas SFB, Unity SFB, and Suryoday SFB are the other Small Finance Banks that have a few branches in Kerala.
- **Population Scope:** The target Population of the study consists of micro entrepreneurs who are the customers of ESAF Small Finance Banks.
- **Temporal Scope:** The study covers the period from FY2017–18 to FY2024–25 and used secondary data along with the primary data collected from current micro entrepreneur customers.
- **Thematic Scope:** The thematic scope of the study encompasses various aspects of Small Finance Banks including:
 - Financial products and services of SFBs in India

- The organisational, operational, ownership and capital structure
- Statistics and trends on deposit growth, total loans & advances, casa ratio, total borrowings
- Availability of credit and utilisation of various financial services
- Customer satisfaction and service quality
- Contribution towards economic empowerment of women micro entrepreneurs
- Challenges and barriers in access and usage of service delivery

1.8 Operational Definitions

To ensure the conceptual clarity and better understanding, the various terms used in the study are explained below.

- **Financing**

The term financing means provision of credit facilities, loans, and other financial services by banks including various financial products such as microloans, term loans, working capital financing, and overdraft facilities which encompasses both secured and unsecured lending products.

- **Micro Entrepreneurs**

Individuals who operate micro enterprises, as defined in the Micro, Small and Medium Enterprises Development Act, 2006 are known as micro entrepreneurs.

Micro enterprises are those enterprises where the investment in plant and machinery or equipment is less than rupees one crore or where annual turnover is less than rupees 5 crore (MSMED Act, 2006).

1st April, 2025 onwards, the definition of micro enterprises was revised. As per the revised definition, the enterprises with an investment in plant and machinery or equipment is less than 2.5 crores or where annual turnover is less than 10 crores, are regarded as micro enterprises

- **Financial Product Portfolio**

In this study, the term financial product portfolio refers to the diverse financial products and services offered by Small Finance Banks comprising of deposit products, loan products, digital banking services, insurance & investments and other banking services. The pattern of product portfolio broadly reflects the total deposits, borrowings, loan portfolio and casa ratio of the Small Finance Banks.

- **Financial Inclusion**

It refers to the availability of affordable financial products and services that are accessible and suitable for the needs of individuals and businesses and it is usually measured in terms of access, usage and quality dimensions.

- **Economic Empowerment**

It is a process of enhancing the economic resources of an individual so that he/she is able to engage in, contribute to and benefit by economic growth measured in terms of income generation, asset creation, expansion of businesses, better living standards, decision making power, self-esteem and financial independence.

- **Micro Women Entrepreneurs**

The women entrepreneurs who own and operate micro enterprises, as defined by MSMED Act, are known as micro women entrepreneurs.

1.9 Significance of the Study

The study demonstrates the contribution of Small Finance Banks for advancement of financial inclusion and overall development of the economy. This study highlights the various constraints faced by the micro entrepreneurs in accessing funds and credit facilities, their frequency and mode of usage of various financial products and services, as well as their technical and training requirements. Micro-entrepreneurs have been contributing almost 40% to domestic production and nearly 50% of the exports in the country (Khan, 2017), hence financial empowerment directly affects the growth of the economy. This study makes the micro-entrepreneurs aware of and

enables them to avail the credit schemes and financial services of Small Finance Banks. The research enables micro-entrepreneurs to take more rational decisions, manage credit, and successfully expand their businesses.

Furthermore, this study highlights the role of Small Finance Banks in the economic empowerment of women micro entrepreneurs. Women entrepreneurs usually face various challenges including limited access to formal credit and social restrictions on their economic activities. Women also struggle to enjoy training, financial literacy, self-confidence and financial freedom to organise and operate business activities. This research discloses the financial and non-financial contributions of SFB to women led organisations. This may help to promote women entrepreneurship and thereby helps to achieve gender-sensitive economic development and empower women to become economically independent. This study not only promote equality but also promotes community development, as it reveals the support and prospects for increased participation of women in entrepreneurial activities.

The study expected to give very useful insights to the Small Finance Banks to increase their reach and enhance the quality of their services. The study will be helpful to SFBs to identify the limitations that micro-entrepreneurs experience, measure customer satisfaction, and restructure their service delivery models. Through an evaluation of existing products and credit services, the study allows banks to design new services and products tailored to the needs of underserved sectors. Moreover, it may provide standards of operational efficiency through the determination of the best practices and the areas that need to be improved. In short, the outcomes of the study will help the Small Finance Banks in formulating new credit & banking policies and in framing out various credit schemes in order to meet the needs and issues of their target groups.

This research enriches the limited literature on Small Finance Banks and their contribution to financing micro-entrepreneurs. It presents area-specific information of the financial ecosystem of Kerala, both urban and rural banking trends, which show differences in service delivery. These findings are also applicable in other states of India that have a similar socio-economic environment as Kerala.

Additionally, the findings of this study are expected to be useful for policy makers and regulators in evaluating the efficiency of the current policies, thereby enabling them to develop new and improved financial inclusion strategies. The study may help to determine whether Small Finance Banks are meeting their goals of serving financially excluded people. The results also guide existing Small Finance Banks in expanding their services and help in establishing new products. Overall, this research will contribute to build a more inclusive financial system that will enable the achievement of economic growth and development.

1.10 Research Methodology

The methodology describes the research design, population, sample, sampling methods, sample frame, Sample structure, data sources, data collection tools, and tools for analysis. The details are described in the following paragraphs.

1.10.1 Research Design and Approach

This study adopts a descriptive and analytical research design. The research was mostly based on the quantitative research framework that focuses collection and analysis of numerical data to determine trends and test hypotheses, and determine the relationship between variables. Both primary and secondary sources of data were collected and employed in the study. This research design made it possible to present and compile facts on the financial inclusion, economic empowerment and satisfaction level of micro entrepreneurs with the services of Small Finance Banks.

1.10.2 Population of the Study

The study population specifically comprises of 159,603 micro-entrepreneurs, who are the customers of ESAF SFBs in Kerala (as on 1st October 2023). These included individuals engaged in various forms of micro enterprises such as manufacturing, trading, and service activities who received financial assistance from small finance banks. Both men and women micro entrepreneurs from rural and urban regions of the state are selected for the study. The population includes micro entrepreneurs from different educational backgrounds and income levels.

1.10.3 Sampling Method and Techniques

In the research, a multi-stage random sampling method was applied in choosing the samples. This sampling method was selected to ensure that all the units of population had the same probability of being selected for the sample. This approach helped to reduce the sampling bias and increases the applicability of the findings.

At the first stage, four districts of Kerala were selected based on the concentration of ESAF Small Finance Bank branches. At the second stage, two bank branches were selected randomly from each district, one from an urban location and one from a rural location, to ensure geographical representation. At the third stage, micro-entrepreneur customers were selected using a simple random sampling method from the micro-loan customer lists of the chosen branches, and the RANDBETWEEN function in Microsoft Excel was used to generate the random selections.

1.10.4 Sampling Frame

The sampling frame consists of the complete list of micro-entrepreneur customers obtained from the official records of the selected branches of ESAF Small Finance Bank.

1.10.5 Sampling Unit

The sample unit for the study comprised the micro entrepreneurs who are the customers of ESAF Small Finance Bank.

1.10.6 Determination of Sample Size

The Cochran's formula was used for determining the sample size of the research.

Calculation of initial number of samples

$$n_0 = \frac{z^2 \cdot p \cdot (1-p)}{e^2}$$

Where, n_0 = Initial sample size

Z = Z-score (confidence level, 1.96 for 95%)

p = Population proportion (50% of the Population i.e., 0.5)

e = Margin of error (at 95% confidence level is 0.05)

$$n_0 = \frac{(1.96)^2 \cdot 0.5 \cdot (1-0.5)}{(0.05)^2} = 384.16$$

Adjustment for finite population:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} = \frac{384.16}{1 + \frac{384.16 - 1}{159603}} = 383$$

The sample size determined using this formula is 383 respondents.

1.10.7 Sample Structure

The sample structure is represented by the geographical locations selected and the proportion of sample from each selected Small Finance Bank branches. The structure of sample used for collecting primary data for the study is as follows

Table 1.1

The Sample Structure for collecting primary data

Districts	No. of Branches	Branch Type & No.	Branches	No. of customers	No. of Samples
Thrissur	35	Urban -21	Mannuthy	693	57
		Rural -14	Thalassery	596	49
Palakkad	67	Urban -36	Palakkad Town	488	40
		Rural -31	Vaniyamkulam	656	54
Malappuram	60	Urban -34	Nilambur	569	46
		Rural -26	Edakkara	586	48
Ernakulam	23	Urban -9	Edapally	618	50
		Rural -14	Thiruvaniyoor	485	39
Total				4691	383

Source: Compiled by the Researcher

This sample distribution ensures proportional representation across districts while maintaining the rural-urban balance. 106 respondents are taken from Thrissur, 94 from Palakkad, 94 from Malappuram and 89 respondents are taken from Ernakulam.

1.10.8 Data Collection Tools

A structured interview schedule was developed as the primary data collection instrument. An extensive review of existing questionnaires and measurement models were made before development of the interview schedule. Input from academic experts and banking professionals were also sought at the primary stage. The interview schedule development was based on the theoretical models which deals with various aspects of financial inclusion and service delivery. The model of RBI Financial Inclusion Index (RBI FI index, 2021) and the model of World Bank's Global Findex data base, 2021 were the primary reference models used for the development of financial inclusion part of the schedule. The section on micro women empowerment adapted some of the aspects of women empowerment framework and microfinance evaluation models focusing on access to credit, decision-making, and self-efficacy (Kabeer, 1999; Pitt & Khandker, 1998). To measure the satisfaction level of customers, the instrument used some of the constructs from the SERVQUAL model, which evaluates customer perceptions across various dimensions (Parasuraman, Zeithaml & Berry, 1988) and ACS Index which was widely applied in financial services research (Fornell et al., 1996). Final refinement of the interview schedule was made after making minor modifications based on pilot study.

1.10.9 Secondary Data Collection

Secondary data collection involved gathering published information from multiple sources which was used to analyse the structural aspects and various financial products and service patterns of the bank. It was also used to provide context and support primary findings. The major sources of secondary data of the study include

- Annual reports of RBI for the period from FY2014-15 to FY 2024-25, RBI bulletins from 2013 to 2017, RBI financial inclusion index reports of 2014 and 2021.
- Financial statements and annual reports of 11 SFBs for the period from FY 2017-18 to FY 2024-25.
- Publication of World Bank Group on Global Findex Data base, 2014 & 2021.

- Official published data from the web site of Department of Financial Services, Government of India.
- Official published data from the websites of MSME and 11 Small Finance banks in India.
- Academic literature and scholarly articles offering theoretical and empirical insights for the financial inclusion and Small Finance Banks.

1.10.10 Pilot Study

In order to finalise the interview schedule and confirm the measurement scale, a pilot study was conducted among 50 respondents. Data for this study was collected from the rural and urban branches of Small Finance Banks in the selected two districts and it took around 2 months to complete the entire process. The reliability and validity tests were conducted by using the appropriate methods. After the pilot study, one question was deleted and suitable modifications were made to the questionnaire for making it fit for the final data collection.

1.10.11 Reliability Testing

To determine the reliability and accuracy of interview schedule, the instrument was assessed through Cronbach's Alpha, a statistical index of internal consistency. The main variables of the interview schedule and their respective Cronbach's Alpha values are as follows

Table 1.2

Reliability Statistics of Study Variables

Sl. No	Construct	Number of Items	Cronbach's Alpha
1	Savings in SFB	6	0.884
2	Loan availing Reasons	11	0.935
3	Access Challenges	9	0.928
4	Usage Frequency	15	0.789
5	Usage Challenges	10	0.786
6	Quality of Banking Services	16	0.965

Sl. No	Construct	Number of Items	Cronbach's Alpha
7	Business Growth	13	0.913
8	Women Entrepreneurship Enhancement	9	0.942
9	Area of additional Skills	3	0.754
10	Economic Freedom & Awareness	6	0.849
11	Self-Esteem & Confidence	6	0.848
12	Satisfaction Level	30	0.973

Source: Pilot study data

From the table 1.2, it is evident that the alpha values of all the variables are above 0.70. The range of this coefficient is normally between zero and one. To meet the reliability criterion, a Cronbach's alpha value of 0.7 or above is deemed necessary (Hair et al., 2013; Lance et al., 2006; Nunnally & Bernstein, 1994). Therefore, it can be inferred that the items used in the interview schedule reliably measure the corresponding constructs, ensuring the internal consistency and it can be considered suitable for further statistical analysis.

1.10.12 Content Validity

Content validity was performed to measure how well the instrument effectively evaluated specific construct it was intended to measure. In this study, a group of experts involving research supervisor, statisticians, professors of commerce and economics, bank officials and colleagues in the field of research were consulted to make a comprehensive review of both the questionnaire and the research objectives, and confirm the content validity. It was also ensured that the scale is suitably fixed for the intended analysis.

1.10.13 Normality of Data

The current research tested normality of data by using two methods: the Kolmogorov-Smirnov and the Shapiro-Wilk statistical tests. This was done to find out whether data set was normally distributed.

Table 1.3*Result of the Normality Test*

Kolmogorov-Smirnov			Shapiro-Wilk		
Statistic	<i>df</i>	<i>P</i>	Statistic	<i>df</i>	<i>P</i>
0.359	383	<.001	0.612	383	<.001

Source: Compiled from primary data

From the table no 1.3, it is evident that both the Kolmogorov-Smirnov and Shapiro-Wilk tests show the significant values ($p < .001$), which are less than 0.05. It indicates that data is not following a normal distribution. Due to this, non-parametric techniques are considered more appropriate for analysing the data of this study.

1.10.14 Tools of Data Analysis and Statistical Techniques

The primary data collected was analysed with the help of statistical packages like IBM SPSS 26.0, Smart PLS and MS Excel. The analytical approach was based on descriptive and inferential statistics. Frequency distributions, percentages, measures of central tendency like median and mean ranks were used for descriptive analysis of the study. Given the non-normal distribution of data, the study employed appropriate non-parametric statistical tests to analyse the data. Mann-Whitney U was used to compare two independent groups, Kruskal-Wallis H compared more than two independent groups, Wilcoxon Signed-Rank compared paired observations. Friedman test was used for ranking multiple related variables, Chi-square test and Monte Carlo tests were used for testing associations between categorical variables. The study employed the post-hoc test, Dunn's Pairwise comparison with Bonferroni Corrections, to identify particular differences between groups and guarantee a credible interpretation of results.

A financial inclusion index was developed by the researcher based on the RBI financial inclusion index, 2021. It was used to determine and confirm the level of financial inclusion of the respondents of the study on the basis of access, usage and quality dimensions.

This research also used PLS-SEM (Partial Least Squares Structural Equation Modeling) as multivariate analysis technique to study relationships between contributions of SFBs and business growth of micro entrepreneurs. PLS-SEM was used instead of Covariance-Based (CB) SEM because it allows non-normal data to work with, and has the capability to deal with complex models involving formative and reflective constructs. The PLS-SEM allowed for a joint evaluation of measurement models and structural models.

The secondary data were analysed by using descriptive and comparative analytical methods which include systematic tabular compilation of products and services, cross-sectional comparative presentation of operational structures, and limited time series analysis demonstrating growth trends for metrics such as total deposits, CASA ratios, total borrowings and loans & advance portfolio across 11 Small Finance Banks. A trend analysis was also carried out to analyse the overall trend of the all SFBs on the basis of their Trend Growth Rate (TGR) and Compound Annual Growth Rate (CAGR). Data presentation was made on structured tables, graphs and charts to demonstrate information about product portfolios and overall trends on financial products and services.

1.10.15 Period of Study

The research was conducted for a period of 8 years from 2017 to 2025. Primary data was gathered by preparing a well-structured interview schedule and this data collection process took place between 1 October, 2023 and 31 May 2024. The secondary data relevant for the study were collected for a period of 8 financial years from 2017-18 to 2024-25.

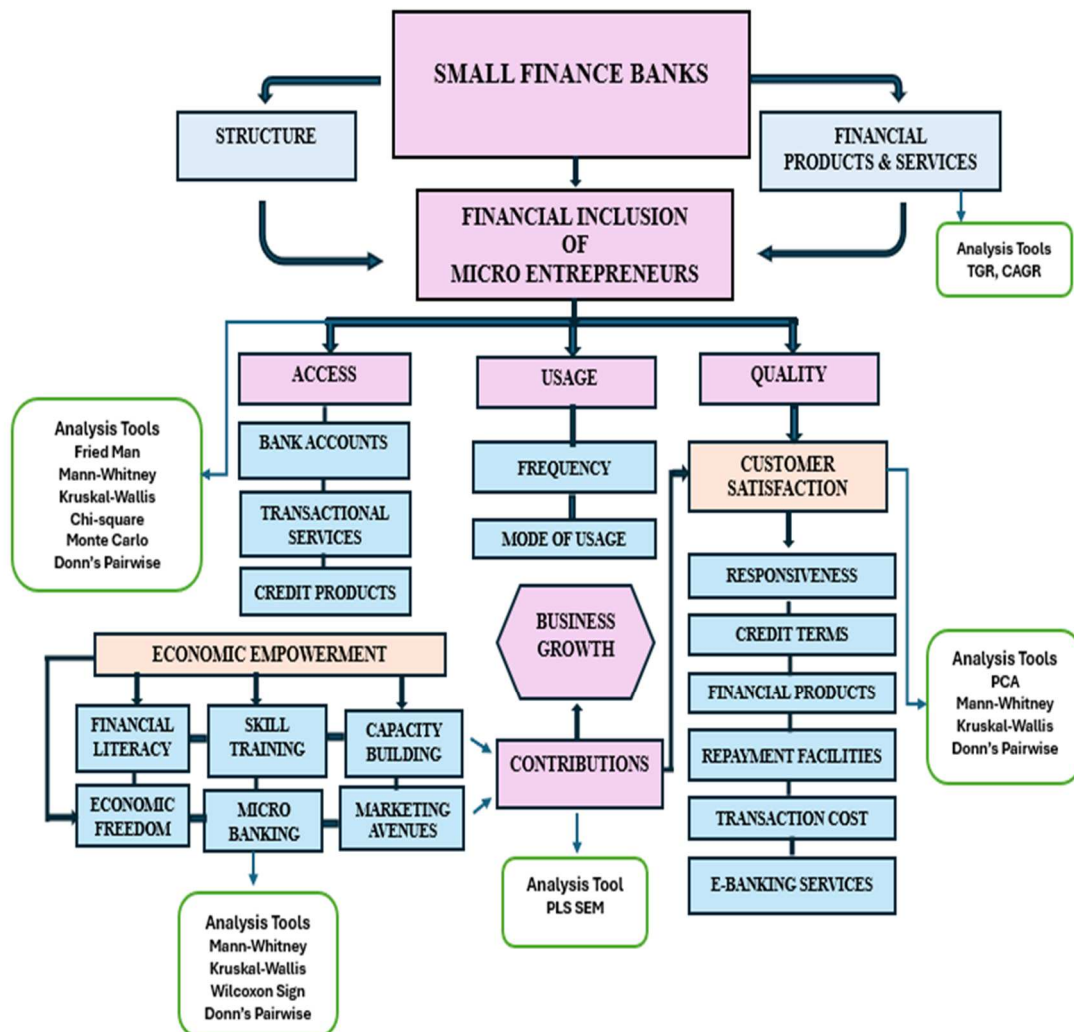
1.10.16 Conceptual Model

A conceptual model is a framework of a system which is made up of concepts, elements, and variables which describe the nature and the extent of the study. It can be used to arrange and streamline ideas or sets of concepts, and the framework of the study become easier to understand. The following conceptual model is constructed based on prior research on Small Finance Bank's role of financing businesses run by

micro entrepreneurs. The conceptual model represented by theoretical framework, variables and analysis tools used for the study is given below.

Figure 1.1

Conceptual Framework of the study



Source: Compiled by the researcher

1.11 Limitations of the Study

This research acknowledges the following limitations that may affect the scope and generalisation of the findings:

- **Geographical Limitations:** The study is confined to the state of Kerala which may affect generalisation of findings to other states or regions in India. Furthermore,

corporation and municipality areas are considered urban areas and panchayats are considered rural areas for the collection of primary data. Therefore, the semi-urban areas were not separately taken for the study.

- **Institutional Limitations:** The Primary data were collected from the customers of ESAF Small Finance Bank as it is the only Kerala based Small Finance Bank and having large number of branches and customers in Kerala. This may not represent experiences with other Small Finance Banks and as a result some of the findings may be specific to ESAF's operational model and service delivery approach.
- **Temporal Limitations:** Secondary data collected involves the data relating to the growth of product indicators during the covid pandemic period also. Hence the consequences of COVID-19 pandemic may have affected the data collected and analysed. The study also gives an overview of the micro entrepreneurs at a particular time of the year, and seasonal variations in business performance may influence responses.
- **Methodological Limitations:** This study explored the contribution of Small Finance Banks in the economic empowerment of micro women entrepreneurs with a particular focus on business growth, increase in income, financial literacy, leadership training, etc. The assessments of these constructs were based on the subjective judgments of respondents rather than quantitative indicators like Net profit, Return on Investment or market value.
- **Scope Limitations:** In this study, the researcher evaluated the role of Small Finance Banks' financing from the viewpoint of micro-entrepreneurs only, which may not represent all other customer segments.

The limitations of the current research have been disclosed transparently for ensuring honesty for both readers and academicians. However, earnest effort had been made to overcome the above mentioned limitations and to arrive at meaningful inferences.

1.12 Chapter Structure of the Thesis

This thesis is divided into eight chapters.

Chapter 1: Introduction - Provides foundation for this research, including background, statement of problem, objectives, significance, and methodology.

Chapter 2: Review of Literature - Provides comprehensive literature review on the topics related to financial inclusion and Small Finance Banks, and research gaps.

Chapter 3: Structure and Financial Product Portfolio of Small Finance Banks - Examines organizational structure, and financial product and service pattern of Small Finance Banks.

Chapter 4: Role of SFBs in Financial Inclusion of Micro Entrepreneurs - Discusses the dimensions of financial inclusion of micro entrepreneurs in relation to accessibility, usage patterns, and quality of services.

Chapter 5: Contribution of SFBs in Economic Empowerment of Micro Women Entrepreneurs – Discusses the contribution of Small Finance Banks towards the economic empowerment of women entrepreneurs in terms of different financial and non-financial services.

Chapter 6: Satisfaction of Micro Entrepreneurs with the Services of Small Finance Banks - Evaluates customer satisfaction levels on various aspects of the service quality provided by the Small Finance banks.

Chapter 7: Analysis of linkages between Contributions and Business Growth - Structural Equation Modeling - Presents about how contributions, credit accessibility, financial services, responsiveness and e-banking services of small finance banks influence the business growth of micro entrepreneurs.

Chapter 8: Findings and Discussions - Summarises the significant results of the analysis, implications and relates the results to existing literature.

Chapter 9: Recommendations and Scope for Further Research - Provides recommendations on the basis of findings of the study and suggests future research areas.

1.13 Conclusion

The chapter has described the conceptual and contextual background to the explanation of the role played by Small Finance Banks in financing micro entrepreneurs in Kerala. It emphasized the significance of SFBs as inclusive financial institutions which would provide credit facilities to the unbanked and underbanked layers of society especially to the micro and small enterprises. By providing the background, significance of the study, research problem, objectives and methodology, this chapter lays the basis by establishing the theoretical and empirical context on how SFBs enable access to finance and enhance the development of entrepreneurship. It also defined the scope, relevancy and structure of the research to specify a clear direction of the further chapters. The clarity and transparency regarding the scope and boundaries of the study are ensured through the identified limitations.

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Chapter 2

REVIEW OF LITERATURE

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2.1 Introduction

Financial inclusion has emerged as a central element of economic development and the Small Finance Banks is one of the institutional measures taken by the RBI in addressing the needs of the underprivileged sectors of the economy, particularly micro entrepreneurs. This literature review analyses the available body of knowledge in various areas that are relevant to the study which takes into account the conceptual framework and operational structure of Small Finance Banks, their contribution to financial inclusion among micro entrepreneurs, their contribution to economic empowerment of women, and the satisfaction levels of micro entrepreneurs with banking services. The review summarizes the results of studies on the mechanisms of financial inclusion, the development of the banking sector, the role of microcredit, and customer satisfaction to form the theoretical basis of understanding the functioning of Small Finance Banks. This chapter critically reviews the current literature to determine gaps in research and to define the theoretical framework that will reinforce the research on effectiveness of Small Finance Banks in serving micro entrepreneurs in Kerala.

2.2 Dimensions of Literature Review

On the basis of the nature of the study reviewed, the total literature is divided into nine heads

- ❖ Studies on Financial Inclusion
- ❖ Studies on Role of Banks in Financial Inclusion
- ❖ Studies on Evolution & Concept of Small Finance Banks
- ❖ Studies on Micro credit functions of Small Finance Bank
- ❖ Studies on Role of Small Finance Banks in Financial Inclusion

- ❖ Studies on Challenges of Small Finance Banks in Financial Inclusion
- ❖ Studies on Small Finance Banks and their Financial Performance
- ❖ Studies on Role of Banks in Empowerment of Women Micro Entrepreneurs
- ❖ Studies on Studies on Customer Satisfaction of Bank customers

2.2.1 Studies on Financial Inclusion

In this session, literature on the wider meaning of financial inclusion, as a method to alleviate poverty, generate inclusive growth and create access to financial services among underserved groups, are reviewed. The challenges faced by the entrepreneurs while accessing banking services such as low financial literacy, weak infrastructure, and digital literacy issues, while stressing the potential of financial innovations and policy initiatives in advancing inclusion, are discussed in this part.

The digital financial technology is an essential tool for delivering vital financial services toward financial inclusion of underserved people in developing countries particularly in India (Garg et al., 2024). The research uses quantitative together with qualitative methods within its mixed methodology framework. The methodology encompasses literature and the development of a system dynamics model. The study showed the three key determinants that shape financial inclusion programmes, which include digital financial technology systems, regulatory structure design and social economic boundaries. The research reveals ten fundamental variables affecting financial systems of emerging economies and the main problems that hinder from service accessibility among underserved populations of the developing nations.

The economic growth is significantly influenced by financial inclusion as it provides vital services to those who are underserved (Maity & Sahu, 2022). Banking institutions play a significant role in financial inclusion and they have achieved notable accomplishments throughout India. Additionally, the study shows various trends in the aspects of financial inclusion. This research paper presents India's financial inclusion landscape analysis through a focus on performance of banks as financial intermediaries. This research supports in explaining how banks have evolved to meet their financial and social responsibilities in light of diverse regulatory changes. The research finds that India has made significant progress as far as financial

inclusion is concerned, particularly the efforts of banks as financial intermediaries. However, it also highlights that there are still challenges, especially to access underserved populations in rural areas and achieve extensive access to financial services.

The concept of inclusive growth establishes a direct connection with financial inclusion because it allows more households without banking access and smaller businesses to access financial products (Morgan, 2022). This study investigates financial inclusion developments and fintech growth in Association of Southeast Asian Nations (ASEAN) member nations and India to establish current Fintech benefits and potential future improvements for financial inclusion. The study shows that digital platforms along with mobile applications have reduced the number of steps required for people to acquire savings, investment and insurance products. The paper investigates security concerns arising from fintech dominance that leads to both cyber security threats, regulatory challenges and increased digital segregation between groups.

The financial inclusion, which serves as a vital tool for addressing poverty and fostering equality and financial service delivery to unserved groups that enables sustainable development efforts particularly in developing nations, has been examined (Gigauri, 2022). The study states that inclusive financial systems provide enhanced financial service opportunities to disadvantaged social groups. This access plays an important role in enabling people and small enterprises to participate in the economy, that stimulate economic growth and reduce poverty levels. The study offers a detailed framework which reveals the characteristics of financial inclusion. The analysis highlights the implications of financial inclusion for developing countries to examine digital fintech solutions that improve financial services for disadvantaged communities.

Financial inclusion, that is essential for reducing poverty and improving economic advancement globally and in India and which provides vital banking services that enhances the options and decreases the expenses for disadvantaged populations has been analysed (Kirwan, 2021). The research uses specific case studies from different

locations while concentrating on the micro-credit sector in India and mobile banking operations in South Africa. The presented case studies deliver valuable qualitative information about real-life financial inclusion programmes and their effects in multiple settings. This study also used the various methods which includes policy analysis, social impact assessments, critical evaluations of risks, and the development of a conceptual framework. This framework helps to understand how access to financial services can be structured and which factors affect the access, especially in the context of developing nations.

The macro-level sustainable development which strongly depends on financial inclusion and financial stability together with economic growth and achievement of national developmental goals has been discussed (Tapas et al., 2019). The study evaluates the financial inclusion initiatives between different emerging economies. The study uses systematic review as its research methodology for analysing financial inclusion methods and practice designs. The research finds important barriers which prevent the achievement of financial inclusion particularly in India. The main barriers that prevent financial inclusion include income instability together with socioeconomic factors and poor financial competency and inadequate technological infrastructure.

Access to credit and banking services, which promotes sustainable economic development throughout developing countries, especially those from low-income families leads to inclusive development while reducing poverty levels has been investigated (Bapat et al., 2019). The study performed a household survey in Pune slums to collect data about household socio-economic characteristics and banking behaviours which provided quantitative evidence about financial inclusion of urban poor. The study also examined the socio-economic characteristics of households to determine the factors that significantly influence the level of financial inclusion in both rural and urban areas.

The fundamental financial inclusion principles which include access to various banking services, digital payment systems and financial literacy was analysed (Singh, 2017). The study analysed the existing research on financial inclusion to understand

its multiple dimensions including banking and insurance along with microcredit and agricultural credit aspects. This paper evaluates different empirical and institutional research about financial inclusion focusing on developing countries. The study shows the financial inclusion as a complex idea which enables people to use banking services, obtain credit and insurance, and to make digital payments. The paper reveals that the success of financial inclusion depends on understanding population-specific requirements and digital technology that helps in reducing transaction cost, and thereby leads to better service availability.

The essential role of financial inclusion to enhance economic development along with poverty elimination efforts has been examined (Kaur, 2015). The study describes various initiatives introduced by the government and RBI to help more people access banking services. These initiatives include commercial bank nationalisation, lending to priority sector and establishment of RRBs. The study observed the Pradhan Mantri Jan-Dhan Yojana as an essential move towards incorporating more people into the financial system. The study found that the RBI supports financial inclusion through a bank-led model which counts on technological solutions to improve banking accessibility. The financial system integrates Business Correspondents as well as mobile banking to provide services to rural communities which lack basic banking facilities. The study found that the inadequate infrastructure and inactive accounts of bank customers are the main challenges of financial inclusion.

2.2.2 Studies on Role of Banks in Financial Inclusion

These studies discuss the literature on how commercial banks and other financial institutions play a critical role in delivering financial services. The various banking reforms, expansion of rural branches, and other programmes showing both achievements and weaknesses in serving the unbanked.

The role of bank in financial inclusion together with their effect on India's economic development during the last ten years has been evaluated (Sable, 2024). The research examines India's present financial inclusion state along with important elements that influence accessibility of banking services. The research reveals that bank branches and credit to deposit proportion have a favourable statistical association with GDP

growth of the country yet ATM growth rate exhibits no significant statistical impact. Through empirical research the study demonstrates how particular banking indicators drive financial inclusion towards economic growth. The article shows the primary role of financial inclusion in achieving inclusive growth and demonstrates the significance of banking sector in this development process.

The financial inclusion indicators of State Bank of India to study their effect on India's GDP growth throughout a ten-year period have been examined (Dwivedi & Mishra, 2022). The research gathers its data from two sources including the RBI website and State Bank of India annual reports spanning from 2007-08 to 2016-17. The research uses multiple regression analysis as its principal methodology to examine how SBI bank branches and their ATM growth rate together with their credit deposit ratio affect India's GDP growth. This research aims to determine if SBI's expansion activities and lending operations have a substantial impact on India's GDP growth. The analysis demonstrates that an increase in SBI bank branch numbers produces significant positive effects on GDP growth but ATM expansion rates and credit-deposit ratios from SBI fail to generate significant individual relationships. During the study period increased physical branch network of SBI proved to be a major contributor to India's economic growth.

The GDP, which exhibits a strong relationship with financial inclusion indicators where bank branches and CDR produce positive effects has been examined (Verma & Vanidani, 2022). The study examined the financial inclusion in India through bank participation by utilizing secondary data published by RBI reports and Ministry of Finance alongside other government documents from 2016 to 2020. The research analyses combined information about Indian public sector bank, CDR and bank branch counts along with ATM expansion patterns. A multiple regression analysis serves as the main research method to measure how banking variables affect GDP growth. The research establishes through quantitative analysis that bank branch expansion and CDR growth positively impact India's GDP development thus demonstrating support for economic development. The article examined the financial inclusion patterns in India by exploring banking sector expansion as well as economic

development links. This paper concludes that the banks can make enhancements in the area of financial inclusion by adopting financial awareness campaigns and focusing on digital financial services.

The exploratory research on major banking sector reforms in India which target financial inclusion goals has been explained (Veena & Vijayashekarayanayaka, 2022). This paper explained why financial inclusion stands important especially following the 2008-09 global financial crisis and focuses on India's situation where numerous people lack access to fundamental financial services. The research investigates the development of the Indian banking system across four historical periods starting from pre-Independence and moving through pre-nationalization to post-nationalization and ending with the liberalized or reforms phase. The paper explained how banking sector reforms expanded after nationalization through the establishment of additional rural banking facilities. This paper made a thorough analysis of banking reforms in India throughout history that aimed to promote financial inclusion.

The banking sector plays a vital role in financial inclusion of rural India through implementing government policies obtained from both the government and the RBI (Rakhecha & Tanwar, 2018). The paper aimed to examine the contribution of traditional banks in bringing unserved people to formal banking services. The study demonstrates how Commercial Banks and Regional Rural Banks along with other financial institutions have created a wide network to extend credit and financial services across rural areas. The study showed an important financial gap exists mostly in rural regions. The paper advocates for enhanced bank liquidity together with improved no-frills accounts attractiveness and financial literacy programmes for the population.

The key role played by the banking sector to support inclusive growth and development and to include financially excluded people into formal financial institution has been analysed (Vikas & Jagtap, 2022). The results show that Reserve Bank of India took active steps for promoting 'no-frills' accounts while streamlining 'Know Your Customer' (KYC) procedures. The study provides an extensive analysis of the obstacles that hinder financial inclusion in rural areas because traditional branch

banking proves unprofitable for these regions. This research discusses how technology delivers banking services to underserved distant locations. The study suggests that banking sector together with the RBI regulatory body must sustain on-going efforts to guarantee financial service accessibility for every social segment.

The banks serve as essential agents who deliver financial literacy to unbanked people for promoting financial inclusion and it has been observed that financial inclusion stands in direct correlation with financial literacy (Bajaj, 2015). The research aims to study how financial literacy ensures financial inclusion and also to study role of banks on such inclusion. A major challenge to include unbanked people in financial systems stems from their widespread lack of financial literacy because this prevents them from making well-informed financial choices. Financial institutions together with banks now run financial literacy programmes based on their understanding of this essential fact. The paper reveals that banks deliver financial education while providing debt repayment counselling and basic financial management instruction through their Financial Literacy and Credit Counselling Centres which operate in both rural and urban areas. The paper shows that Business Correspondent or Business Facilitator model implementation with mobile banking expansion enables banking services to reach more people who are excluded from financial access.

India has a large segment of people without financial service access especially in rural areas and the percentage of households with bank accounts reaches only 40% while most bank branches operate in urban areas (Iqbal & Samiaa, 2017). The research investigates the seven-year effect of financial inclusion on India's economic development. The study found that financial inclusion serves as a positive force which advances the Indian economic growth according to the research hypothesis. Research data indicates a favourable connection exists between India's GDP and bank branch expansion together with the credit deposit ratio. Research findings show that ATM expansion did not create measurable effects on GDP growth. The study reveals that banking institutions concentrate their services in profitable urban centres without adequate attention to rural communities and suggested that India requires financial inclusion for its economic growth.

An in-depth analysis of Digital India's effects on financial inclusion throughout India has been performed and it is observed that the digital India has successfully brought more people into formal financial systems (Draboo, 2020). This assessment depends on an examination of secondary data through World Bank's Global Findex report together with Reserve Bank of India statistics and official government reports and databases. The article analyses financial inclusion at the national level by exploring financial indicators which include bank account ownership and digital transactions across the country. The analysis follows an analytical research approach to evaluate how PMJDY, Aadhaar and UPI have expanded the financial inclusion reach. Financial inclusion metrics show significant improvements through the research but there are still implementation barriers blocking the delivery of total potential. The study recommended infrastructure development and skills enhancement with policy modifications to address existing barriers which will provide better benefits to underprivileged individuals.

The banking sector performance regarding financial inclusion in India and its resulting effects on economic advancement has been evaluated (Jamnani, 2020). The paper utilised the multiple regression analysis to study how financial inclusion indicators which include ATMs, bank branches and credit deposit ratios affect India's GDP performance. This research study explained the financial inclusion across India at present and evaluates its effects on economic development. The article demonstrated that inclusive economic growth requires financial inclusion which banking institutions must facilitate. The analysis revealed that bank branches positively affect GDP but ATM numbers along with the credit deposit ratio negatively impact GDP. These research findings discussed the relationship between financial inclusion indicators and Indian Gross Domestic Product by employing statistical methods. The study demonstrated that financial inclusion has a strong relationship to economic expansion and bank branches play a substantial positive role.

The challenges that small and medium sized enterprises encounter while seeking bank finance and the immediate knowledge gaps regarding corporate finance limitations and growth barriers of SME companies have been investigated (Harrison et al., 2022).

The research includes Irish SMEs surveyed across 11 survey waves from June 2009 to September 2014 that are divided into crisis and post-crisis timeframes. The study investigates credit market changes during and after financial crises through an ordered probit model for demand analysis and a probit model for supply analysis. The research showed supply-side limitations as the primary reason behind bank loan reductions to SMEs while introducing the Credit Default Swap premium as an indicator of bank lending interest. The study examined that credit availability factors through the bank lending channel and borrower balance sheet channel. The study also established that the bank credit demand from SMEs stayed steady throughout the crisis periods yet the supply of bank credit dramatically reduced during the crisis.

2.2.3 Studies on Evolution & Concept of Small Finance Banks

The literature reviewed under this session are related to the regulatory framework, objectives, and evolution of SFBs as differentiated banks in India. This session demonstrates their distinctiveness to focus on the unserved populations using low-cost, digital platforms and discussing their potential and the existing difficulties they experience.

The differentiated banking models are developed to increase financial inclusion in India in the context of the history of banking reforms and persisting financial penetration requirements (Jain and Misra, 2018). The paper follows a conceptual framework and examines the policy documents and RBI guidelines within the perspective of reforms in the Indian financial sector. It emphasizes that Indian banking has long been trying to reconcile profit interests and social purposes, including priority sector lending and rural branching. The development of differentiated institutions such as the Payment Banks and SFBs by RBI will help to develop specialized skills to make in-depth financial penetration. The study observed that these special banks are an essential step towards realizing more holistic financial inclusion in India as a result of focusing on particular unserved markets.

The customer perceptions and usage of e-banking services offered by SFBs in Gujarat have been evaluated and SFBs are actively providing these services despite limited physical expansion (Shah, 2024). The key idea is to assess the competence of SFBs in

providing modern banking transactions, specifically mobile and internet banking. The study utilized primary data collected from 106 respondents through questionnaires employing a five-point Likert scale to gauge agreement on services availed. The research concluded that SFBs are competent in offering network banking services with 84% of customers use mobile banking, and an even higher 96% use internet banking, revealing customers are well aware of modern e-banking trends.

The importance of SFBs in enhancing access to banking services has been discussed and these along with their requirement of lending 75 per cent of the priority sector, are essential in the diversion of savings, financial literacy and economic growth in rural and semi-urban regions (Arora, et al., 2018). The study employs conceptual and descriptive methodology and incorporates the secondary data collected through several surveys and reports. The study found that SFBs are a progressive breakthrough to incorporate underserved groups in formal financial sector. The article highlights the 4 As of awareness, affordability, accessibility, and accountability as the key to effective financial services. This research concludes that SFBs are a win-win to both the bank and the government, as they have successfully achieved the financial inclusion goals thus helping in the overall economic growth.

The awareness and perceptions of the customers regarding the chosen Small Finance Banks in Coimbatore city have been evaluated and the findings revealed that the general awareness of financial efforts is high, yet there is less knowledge related to specific functions of SFBs (Dhanya & Banudevi, 2019). The primary goal of the study was to get an insight into how much SFBs are realizing financial inclusiveness through serving the poor segments of the population. Among the key contributions, one can mention the assessment of the awareness levels about the financial inclusion, the microfinance institutions, and the role of the SFBs. The awareness levels have been said to be high with the weighted mean score of functions at 2.66 when compared to approximately 4 to other awareness statements. There was also strong positive customer perception on easy sanction of loans and comfortable repayment schedules but the perceived interest rates were found to be less affordable. The study recommends that SFBs should make the interest rates affordable, improve

governance, and use cost-effective and mobile-based technology in their search to increase their coverage in underserved locations.

Awareness and perception of Small Finance Banks, namely ESAF Small Finance Bank, among rural people in Thrissur district has been explored with the main objective of knowing about the new banking sector initiatives and their contribution to financial inclusion (Viswan, 2017). The study collected primary data through the use of questionnaires and interviews as well as secondary data through the various publications and websites. Convenient sampling was used and statistical tools such as weighted mean scores were used in the evaluation. The results showed that there was high general awareness regarding the financial activities and activities of ESAF Microfinance, but they have less understanding of the specific operations of SFBs though the respondents had a positive attitude on ESAF loan processes. The research found that SFBs, specifically those that have come up as a result of MFIs have a lot of potential to promote financial inclusion under the umbrella of high technology and low-cost operations. The study recommended to consider the technology requirements among various customers and to lower the interest rate on loans offered by the bank.

The consumer awareness, uses, advantages and difficulties of internet banking by the customers of the Small Finance Bank (SFB) in Ahmedabad have been examined with a particular focus on the importance of SFB in terms of financial inclusion (Vaghela and Bootwala, 2023). The research revealed a moderate awareness of internet banking services, regulations, and transfer of funds among customers and also with regard to viewing account balances, statements as well as mobile banking functions. The study found that the perceived advantages were 24/7 access and time-saving and the major issues were the lack of knowledge, network connectivity, complicated processes, and hanging websites. The study concluded by recommending that SFBs need to simplify their internet banking operations and improve their digital literacy of customers.

The evolution, importance and obstacles of Small Finance Banks in India as well as how they have evolved over the years with the main goal financial inclusion were analysed (Irrinki, 2020). The research relied on the secondary data, which was collected through the RBI website, and the chosen statistics were used to assess the

operations of SFBs. The creation of SFBs along with the recommendations of Dr. Raghuram Rajan committee of 2009, which was intended to offer high-technology and low-cost credit and savings to the small businesses, farmers, and unorganized sectors were highlighted in study. The study found the benefits such as the localisation of the needs, low operational costs and the product diversification whereas the challenges are the systemic risks of geographical concentration, governance problems, and the high capital adequacy ratio. The study shows that there were overall positive increases in SFB branches, deposits, and credit schemes that implies the importance of SFBs to the economic development of an economy. The study recommends the SFBs to make additional enhancement in banking technology and to conduct financial literacy initiatives for the customers.

The Small Finance Banks are important in offering the basic banking services to the underserved groups and suggested that banks should consider these diverse levels of satisfaction (Nirolia & Monika, 2024). This study was aimed at assessing the customer satisfaction in the context of this small finance bank in the city of Rohtak. The study used a qualitative research design of exploratory cum descriptive research, which employed a convenience sampling method to select 100 customers of the AU Small Finance Bank. The results showed that most customers were satisfied with services offered by the bank and moreover, there were also considerable differences in the levels of satisfaction according to marital status where, unmarried respondents were more satisfied. The study also showed significant differences across age groups, with respondents above 40 years of age reporting higher level of satisfaction. The study indicated no significant differences in satisfaction level across gender and occupation.

The SFBs such as the AU Bank are one of the biggest revolutions in banking in India, where services are more accessible and affordable with low-cost and high-technology deployments (Jagwani, 2019). This paper has examined the contribution of Small Finance Banks in the Indian economy and in particularly how the AU Bank has been able to attain financial inclusion. The descriptive research design was used and study was highly based on secondary data that was gathered using SFB websites, different articles and journals. The study pointed that SFBs have a role to play in financial

inclusion by overcoming financial hindrances through the provision of banking services, particularly in the unbanked regions by way of targeting 75 percent of their loan in priority sectors. The study found that although, AU SFB has increased its customer base, deposits, net worth, as well as interest income significantly, it has been facing some challenges in meeting high capital adequacy requirements, awareness, geographical concentration risk, high deposit mobilization cost, strong infrastructure and competent manpower.

The significance, need, opportunities, threats, and challenges associated with differentiated banking licenses in the Indian context, particularly India's readiness for such a model in its pursuit of financial inclusion have been critically examined (Jain, 2014). The study employed the conceptual methodology and literature review where different reports, speeches and articles were used. The study found that unlike universal banking licenses differentiated banking licenses enable banks to focus on particular services, which may increase access to finances. The research suggested that although differentiated banking licenses had a potential to improve financial inclusion, systemic stability and regulatory arbitrage was a serious problem. Therefore, a careful method of implementing the current system is needed, along with more regular review of applications.

Small finance Banks were able to make tremendous changes to Indian banking as long as they follow certain strategies, including customer focused products design, lowering the cost of its operations with the use of technology, e-KYC processes improvement, and human capital development (Aggarwal, 2020). This paper has examined the role of Small Finance Banks in enhancing the economic empowerment of the weaker groups in the society, and made a SWOT analysis to determine how they work with their financial inclusion strategies. The main strengths identified are the high rural population in India and the existing Grameen banks, indicating the huge potential market. Some of the weaknesses included are the inactive bank accounts in financial inclusion programmes, poor infrastructure and ignorance of the rural population. The opportunities identified include the utilising unemployed youth as business correspondents and matching their products to the needs of their customers.

The challenges and threats identified include high transformation costs, issues in mobilization of deposits, intense competition, NPA management, adoption of technology, and human resource management.

The Payment Banks and SFBs are formed to promote financial inclusion in India and they are targeting particular demographic segments with minimal services in different regulatory frameworks (Ramamoorthy, 2018). The research methodology was descriptive as it only used secondary data to conceptualize these new banking entities. The study found that Payment Banks can accept demand deposits up to one lakh rupees, offers remittance and payment service, issues ATM /debit cards; however, lending is prohibited as well as the issuance of credit cards. Small Finance Banks, on the contrary, may accept any kind of deposit and participate in lending activities. There are similarities between the two types of banks in that they focus on the unbanked groups, encourage savings, and provide payment/remittance services. The article was able to point out regulatory provisions when it comes to expansions of capital and promoter stake, and lines of branch expansion in unbanked rural regions.

The factors that determine the adoption of SFBs in Karnataka have been identified and analysed (Varma et. al., 2020). The qualitative and descriptive research design was used wherein primary data were collected through a convenience sampling method. The study administered a questionnaire on 100 SFB customers in Karnataka and correlation and multiple regressions were used as the analysis tools. The study identified that the factors such as user-friendliness, security and employee support had a favourable influence on the usage of e-banking services, with the perceived ease of use having the highest level of correlation. On the other hand, adoption was not significantly related to social influence. The regression model summarized 68 percent of the e-banking adoption variance, which made the conclusion that SFBs need to constantly modernize their e-services with emphasis on these impacting variables to have a competitive edge, customer satisfaction and profitability in the dynamic banking environment.

The Payment Banks and SFBs are meant to improve financial inclusion in India as the specialised banking models that serve the specific market segments not traditionally

served by universal banks, including low-income households, migrant labourers, and small businesses (Kamruddin and Sultana, 2018). The study assessed the characteristics, licensing policies and services provided by Payment Banks and Small Finance Banks by outlining their unique role in the Indian financial system. The study found that the Payment Banks primarily focus on remittances and small savings unlike the credit and deposit services that Small Finance Banks provide to micro and small enterprises. The findings reiterate the importance of the both categories of differentiated banks in making available banking services to the unbanked and under-banked segment of the population. In conclusion, the paper finds that such differentiated banking models are essential towards financial inclusion and enhancing the overall efficiency and productivity of the banking system by focusing on the needs of the different segment of customers.

This perceptions and awareness of people towards Small Finance Banks (SFBs) with particular respect to the AU Small Finance Bank has been examined (Vaghela, 2024). A structured questionnaire was used to carry out a survey of 1,100 participants. The survey indicated that approximately 70 percent of the respondents had heard about SFBs. Marital status and family income were associated with awareness and not gender, age or education. Gender, age and education had an impact on whether an individual had an account in an SFB. Among the considerations in giving a decision about whether to open an account, the most crucial was the behaviour of the staff. In general, the SERVQUAL analysis revealed that customers usually have positive attitude towards SFBs, particularly, the responsiveness of the staff and the physical setting of the bank. The analysis indicates that the SFBs need to become more attractive with their loan products and be more open about their support of other sectors such as agriculture and MSMEs, which will help reduce the gaps in perception.

2.2.4 Studies on Micro Credit Activities of Small Finance Bank

This section discusses the reviews regarding how Small Finance Banks extend microcredit to low-income groups, small entrepreneurs, and various other sectors of the economy. Studies describe the role of micro credit functions in empowerment of entrepreneurs and underline the various issues faced by them.

The funding gap analysis of the microfinance institutions converted into Small Finance Banks have been conducted and the study investigated the effect and impact of changes in capital structure of these MFIs that were converted into SFBs (Kanika Gupta, 2017). The exploratory investigation has been able to answer questions related to inception of differentiated banking and the reasons for gap between existing level of financial literacy with the desired one. The descriptive analysis presents vertical analysis of balance sheets of MFIs along with ratio analysis to compare sources of funds used to lend and the current state of capital structure. Funding gap analysis has been conducted to understand the liquidity position of SFBs. The findings indicated that banks in the public sector have been in a position to mobilize maximum credit, followed by private sector banks, then regional rural banks and subsequently SFBs.

The Small finance bank offers targeted deposit and lends products to low-income groups and marginalised population where the product proposition is much focused in keeping the target customer profile in mind (Bhoomika & Chandan, 2020). The study discusses about the, historical background, growth and performance of the Small Finance Bank. It also describes how diversified its lending is, how is revenue generated in Small Finance Bank and what are the terms and conditions of repayment of loans. The study briefly describes how a Small Finance Bank lends credit to small entrepreneurs and how it has benefited them. The study also highlights why and how much credit is important in creating income and employment opportunities in the Indian economy.

The contributions of ESAF Small Finance Bank to weaker sections of the society have been analysed (Benny, 2018). The micro credit services are offered by the SFB to its borrowers by way of doorstep services. ESAF SFB give importance to women in matters of micro banking operations and the study shows that more than 1.20 million women were taking advantage of the micro credit service benefits at the moment. Recently, they introduced mobility banking as a way of responding to their customers in a faster and better way. The paper also addresses the issue of ESAF and how they have been giving microcredit to the weaker section of the population in Kerala through its various specific operations.

The role played by Ujjivan SFB in advancing financial inclusion and economic empowerment in underserved areas by way of microfinance projects, reinforced partnerships and financial literacy have been examined (Mohan and Bhavani, 2023). It made an analysis of affordability, accessibility and the effectiveness of micro loan products offered by Ujjivan SFB as a part of its inclusive banking strategy. The research was based on a mixed method approach of descriptive and exploratory research design to examine customer experiences, product outreach, as well as the socioeconomic implications of microfinance to low-income borrowers. The study found that the bank is spread very widely throughout India, with more than 90 lakh customers served via 752 branches and provides wide range of products such as micro loans, individual business loans, group loans and involvement in government initiatives. It also reveals that, although Ujjivan SFB is showing substantial growth in its micro loan disbursements, exceeding over 47 lakh active customers by 2023-24, there are still challenges of repayment issues, financial awareness, and comparatively high-interest rates on individual loans. The findings show that group loans and government sponsored programmes have been the main products made available to underserved citizens with flexibility and access to credit without collaterals.

As a recent innovation in the Indian banking structure, the central idea revolves around SFBs is to extend credit accessibility to the priority sector, including poor people, farmers, and small industries (Gupta, 2021). The research explores the activities of small banks in India, how they are registered, their performance and characteristics in the wider context of the microfinance industry. The study has employed a mixed research approach with the use of recent literature sources such as Wikipedia, economic journals, banking regulations, and RBI reports. The primary information was gathered in the form of expert opinions of senior executives of new small financial banks. The paper assessed the necessity of such differentiated banks and their complex implications, including issues faced by SFBs in creating a portfolio of liability products, fulfilling statutory requirements, establishing digital connectivity with rural populations, and creating cost-effective banking solutions. The findings show that the new SFBs will transform the banking sector, though they have to overcome these short-term challenges to create new and sustainable business models.

The Small Finance Banks have substantially helped rural women to improve economically and socially, underscoring their important role in enhancing the lives of the un-served and under-served community through microcredit (Jose & Chockalingam, 2017). This paper focused on exploring how the Small Finance Banks have been instrumental in empowering women by providing the microcredit. It also discusses particularly, how the intervention has impacted the economic and social empowerment of the beneficiary women in rural India. The primary data of the study was based on a structured interview schedule conducted among 30 women beneficiaries among three Self Help Groups in Karimannoor Grama Panchayat, Idukki District, Kerala who have been chosen through the random sampling method. The secondary data was obtained from different journals, publications and websites. The study found that these banks need to give 75% of loans to priority segments to achieve the objective of financial inclusion. The paired 't' test results showed a significant improvement in both the economic status and social status of women beneficiaries after availing microcredit.

The pivotal role of Small Finance Banks in developing microfinance initiatives for poverty eradication and promoting financial inclusion with a particular focus on Godhra City has been explored (Desa et. al, 2024). The study was based on a quantitative investigation of financial data and qualitative data collected using a sample of 121 respondents. It was based on the convenience sampling method and a descriptive research design. The study showed that SFB-enabled microfinance interventions is highly critical in terms of increasing financial access, credit access, financial literacy, entrepreneurship, and social development. It also addressed the opportunities and challenges encountered by SFBs in properly implementing the microfinance programmes in the context of the Godhra City. The study found that although SFBs are recording high growth rates and accessing unserved segments of the population, there is a need to create more awareness about microfinance services and policy initiatives to maxim growth of inclusion.

A study aimed at measuring the challenges faced by SFBs and assessing the awareness levels among Micro, Small, and Medium Enterprises regarding SFBs has been

conducted (Abijith & Raghavendra, 2018). The study found that the main aim of SFBs is to extend financial inclusion to underserved sections of the population. The researchers employed a mixed-method research design based on primary data and secondary data from existing research articles and journals. The study specifically sought to understand the role of SFBs from the perspective of MSME customers and to analyse the awareness level of institutional customers. The research found that SFBs have a positive influence on the banking sector and provided an insight into the real-life challenges and market perception of these new institutions.

2.2.5 Studies on Challenges of Small Finance Banks

This section of literature reviews the key operational and financial challenges faced by Small Finance Banks, including difficulties on deposit mobilization, high transformation cost, NPA management, and online banking issues.

The objectives, challenges, opportunities, and threats faced by Small Finance Banks in India, particularly regarding financial inclusion have been examined (Dhanya & Banudevi, 2019). The study suggested to innovate, especially in cost-effective and mobile-based technology, to effectively serve unbanked populations and manage their transition. The article relies on an extensive literature review and discussions of policy documents and reports from the Reserve Bank of India. According to the study, SFBs faced certain severe challenges, such as high transformation costs of their former microfinance institution, the inability to mobilize deposits, the intense competition, and some issues in connection with the Non-Performing Assets (NPAs) control. The difficulty in adoption of technology in the rural regions, compliance with prudential standards, human resource management aspects, and establishment of sound risk management systems are other key challenges identified.

The relevance of Small Finance Banks in facilitating financial inclusion of underserved communities has been explored, particularly the difficulties these Banks in the collection of debts in the rural regions (Chandrashekar et. al, 2023). This assessment is mainly founded on an elaborate study of available literature on different researches and used it as the secondary data. The study showed that SFBs play an important role in increasing financial inclusion, access to credit, job creation,

supporting the rural economy, and promoting financial literacy. This study reveals the key challenges in debt collection including financial awareness, lack of infrastructure, seasonal cash flows, insufficient collateral, and cultural factors that influence repayment. The key arguments highlight that these issues make SFBs vulnerable to Non-Performing Assets and there is a need to use measures such as effective credit appraisal, timely recovery and restructuring of loans when dealing with them. These findings showed that SFBs are considering the technological solutions such as digital lending platforms, mobile applications, artificial intelligence and blockchain to increase the efficiency of debt collection.

An overview of SFBs to emphasise its goals, issues as well as opportunities of the institutions within the financial inclusion agenda in the country has been conducted (Khan, 2018). The analysis relies much on secondary data presented by different institutional reports such as RBI, Nachiket Mor Committee, CRISIL, and World Bank Findex. The study made a step-by-step presentation of RBI requirements of SFBs including minimum capital, lending to priority sectors and the rural branches and a thorough explanation of the advantages of these requirements including diversification, low operation expenses, and increased penetration of the market. The paper presented the threats and challenges that SFBs may encounter, such as high transformation costs, the inability to mobilize deposits, high competition, NPA control, adoption of technology, prudential norms, and human resources management. The findings indicated that the SFBs can bring a revolution in Indian banking through the use of technology and new strategies.

An analytical discussion of the problems and issues that face Small Finance Banks has been conducted, as they were formed in India to facilitate financial inclusion by means of differentiated banking model (Singh and Kumar, 2017). The analysis identified SFBs as a novel concept intended to increase the availability of banking services to the underserved and unbanked communities. The primary arguments highlight the severe challenges that SFBs face, including competing with established banks and NBFCs, implementing advanced technology, complying with rigorous prudential standards (Cash Reserve Ratio and Statutory Liquidity Ratio), establishing

an effective human resource management, and establishing an effective risk management framework. The findings indicate that although SFBs play an important role in enhancing financial penetration, their performance depends on their ability to overcome these operational, technological, and regulatory challenges. The article found that SFBs need to be strategic in handling these complex issues to allow them to remain stable, grow, and be a part of a holistic financial inclusion.

A bibliometric analysis of the emerging relationship between emergent technologies in the form of AI, blockchain, and fintech and their role in sustainable finance development in particular has been performed (Nefla & Jellouli, 2025). The analysis relies on the evaluation of 2,446 publications on the Web of Science database through a systematic review of secondary data. As research methodology, the study used bibliometric data such as Bibliometrics to analyse its statistical data and VOS viewer to map the network, Gephi and Microsoft Excel were used to analyse its citation, bibliographic coupling, co-occurrence and content analysis. The study included the categorization of available literature into thematic topics, filling research gaps and even offering research directions in future, in particular, the dual nature of these technologies in improving financial efficiency and sustainability and presenting risks is revealed. The primary points are the exponential growth of research, the following major themes are data science applications, technology integration, and financial innovation to develop it, risk management, digital currencies, digital transformation challenges, and sustainability. Overall, the paper highlights that these technologies have enormous potential in contributing to sustainable finance, which is balanced by the serious obstacles to long-term sustainability.

A comprehensive empirical study that explores the barriers that Micro, Small, and Medium Enterprises (MSMEs) face when trying to access finance and its subsequent effect on business performance in India has been carried out (Rajamani et al., 2022). The research design was a survey of 400 MSMEs in five industrial clusters (Uttar Pradesh, West Bengal, Tamil Nadu, Maharashtra and Karnataka) based on quota sampling and collected primary data by posing self-administered questionnaires. It created a conceptual framework, which was strictly tested by Structural Equation

Modeling (SEM) and reliability and validity were determined by pilot studies and expert consultation. The findings indicate that the attributes of companies, sources of funds and MSME life cycle have a strong, positive impact on access to finance, financial barriers have strong negative effect; importantly, access to finance at that moment has a strong, positive effect on the performance of the MSMEs. Overall, the research proves the acute significance of the timely financial access to the survival and development of MSME.

The value proposition of Small Finance Banks by the investors was explored to determine the opportunity and challenges that they encounter in deepening financial inclusion and determining awareness levels among the institutional customers (Chinnathambi, 2019). The study was intended to present an in-depth knowledge of SFBs across the country. The study emphasized that conversion of Non-Banking Financial Companies and Microfinance Institutions into SFBs would allow them to serve the under-served populations in low-income and North-Eastern states. The researchers discovered that investors were well aware of microfinance activities but with little knowledge of particular SFB activities. The study recommended for lowering MFI loan interest rates and enhancing SFB governance models.

The Small Finance Banks in India which is conceptualized as a new type of banking institution that develops financial inclusion by offering basic banking, credit services via differentiated model and its challenges were examined (Jayadev et al., 2017). The article summarizes the scholarly sources on financial intermediation and growth, that determines the beneficial impact of financial institutions on economic growth, and in particular access to credit by small firms. The discussion has pointed out key issues such as the importance of technology in improving operational efficiency, the difficulty in developing low-cost liability portfolios out of a much unbanked or underserved customer base, and the need to balance regulatory compliances. The executives emphasized the pan-India operational flexibility and direct supervision of RBI as a major distinction to the past banking models such as Regional Rural Banks and Local Area Banks. The paper found that SFBs have the potential to transform the Indian banking industry but needs to address short-term liabilities management,

digital access to rural populations and developing affordable and innovative banking models.

The market penetration and other challenges of Small Finance Banks in India have been explored, which were presented as a strategic move by RBI to further improve financial inclusion by offering tech-enabled banking services to marginalized groups (Ravikumar et al., 2020). The paper reviewed the available literature that highlights the benefit of these banks in lending to small and medium enterprises because of their organizational structure and capabilities to collect 'soft information'. The key results showed the rapid development of SFBs that opened more than 3,500 branches, mostly in rural and semi-urban sectors, and with the stable growth of deposits and advances. Moreover, the paper mentioned the critical issues associated with establishing branches, lending, mobilisation of deposits, management of operating costs, disruption technologies, stiff competition, scale operations, and regulatory compliance. The analysis showed that SFBs need to build cost-effective, technology-powered innovative products and services to remain profitable and effectively achieve their mandate of serving the financially marginalized population.

2.2.6 Studies on Role of Small Finance Banks in Financial Inclusion

This part of the review demonstrates that SFBs with their priority sector lending requirements and their rural branch requirements play a significant role in the expansion of financial services to other sectors of the economy. The studies present not only their successes in the rural credit and job promotion but also emphasize the necessity of greater customer education, awareness, and service quality.

A narrative and descriptive research to investigate the development of Small Finance Banks in India and their contribution to financial inclusion has been conducted (Prakash, 2021). This study examined the performance of ten functioning SFBs such as the AU, Ujjivan and Equitas through to March 2020. The study revealed the fact that the SFBs have witnessed massive growth, which has made banking services accessible to a large proportion of the population and to unbanked rural villages, hence helping to drive economic growth and creating job opportunities. One of the key observations was that SFBs comply with regulations, and offer more than 80 percent

of their loans to priority sectors, where a significant emphasis was on MSMEs and agriculture. The paper has found that SFBs are active in promoting financial inclusion and economic growth, as shown by mobilized deposits of Rs. 82,488 crores and loans and advances of Rs. 90,576 crores.

A conceptual study to understand the Small Finance Banks, their purpose in financial inclusion, how they come into being, what are their licensing requirements, and their benefits of becoming universal banks have been undertaken (Dewangan & Dewangan, 2024). The study highlighted that the SFBs is a specialized financial organization that can play a significant role in filling the financial inclusion gap in rural and semi-urban regions by offering simple banking services to underserved consumers such as small businesses and farmers. The important findings showed that the SFBs have grown significantly in regard to coverage and volume of business, with the performance of the AU Small Finance Bank being of excellent standards and making it appropriate to convert them into a universal bank. The paper summarized that switching to universal bank has a number of advantages, such as reduced capital requirements, increased exposure limit, and increased portfolio diversification, where SFBs play a crucial role in ensuring financial inclusion and rural community development.

A qualitative study on the policies followed by Government of India towards financial inclusiveness, role of Small Finance Banks since the inception and the challenges that they have encountered in the pursuit of financial inclusiveness has been performed (Srinivas & Shanigarapu, 2020). The paper emphasized that SFBs are niche financial institutions offering simple banking facilities to the unserved groups such as small business and marginal farmers, who play a crucial role in economic growth and development of the country in terms of GDP. The study presented the obstacles encountered by SFBs such as high costs of transformation, problems with deposit mobilization, stiff competition, Non-Performing Assets management, compliance with prudential standards, and human resources management. The paper highlighted the vast and diversified branch network of SFBs in 31 states and union territories, and emphasizes on the importance of SFBs being understanding of the borrowers due to the inherent nature of the challenge.

The key role played by the Small Finance Banks in rural credit enhancement particularly to the agricultural sector through provision of affordable loans in regions that are mostly ignored by commercial banks, which has contributed to financial resilience and the general economic development has been analysed (Kalidas et.al., 2024). This descriptive study examined the origin, purpose and the effect of Small Finance Banks on financial inclusion and rural development in India. The study has analysed SFBs in general and enumerated eleven large SFBs that are operating now, as niche banks that are conceptualized to serve the underserved and the unbanked, as an important key to inclusive growth. Some of the key objectives of SFBs identified are to offer basic banking services, improve financial inclusion by offering cost-efficient, technology-based services, and assisting marginal farmers and small businesses. This analysis revealed that SFBs have shown impressive expansion, making tremendous growth on the semi-urban and urban locations by March 2020, and raised credit penetration, especially in women and small enterprises.

The SFB has tremendous potential in the rural market, which requires appropriate products, robust distribution networks, and economical mobile technology to impress the MSME segment in rural underserved regions (Mohanty, 2018). This exploratory study discussed the various issues behind financial exclusion, why small finance banks are required to develop financial inclusion in India, and the transformational challenges that confront the microfinance institutions in their transition to SFBs. Considering the ten organizations that were in-principle approved to become SFBs, eight of them were MFIs, the study emphasized that financial exclusion has impacted approximately forty percent of the Indian population owing to the small bank network and low levels of financial literacy. SFBs were found to be modified banking institutions, which would cater to remote and unbanked micro and small enterprises, which would be a key to financial inclusion. SFB characteristics, such as a 75% priority sector lending and 50 percent of loans based on loans up to Rs. 25 lakhs, as well as domestic capital, branch conversion, technology and human resources issues were presented in the paper.

Review-based research to examine how SFBs contribute to the growth of economies through involving individuals in the formal financial sector has been carried out (Dighde & Abale, 2023). Based on peer-reviewed databases and the available literature, the study evaluated the peculiarities and approaches of SFBs. The paper has particularly mentioned SFBs such as AU, Capital and Equitas, which were in operation as of March 16, 2019, and their business model of offering cost-effective financial services to the vulnerable and unbanked groups, such as small businesses and marginal farmers. One of the main findings revealed that SFBs are important in promoting financial inclusion through strategically placing more than 95 percent of its branches in rural and semi-urban locations as well as in providing over 80 percent of loans in priority sectors with at least 50 percent loans of less than 25 lakhs. The research established that SFBs play an important role in economic development and job creation, and highlighted the significance of the relationship between financial literacy and SFBs success.

The Small Finance Banks have the massive potential to unlock the unsatisfied demand in rural and unbanked regions and, therefore, a comprehensive strategy of balancing between long-term sustainability and the financial inclusion objectives is needed, which focus on awareness, education, and affordable credit (Kittu & Chittawadagi, 2018). This paper sought to discuss the topic of Small Finance Banks and whether they encouraged financial inclusion in India. The paper emphasized that financial exclusion has affected a very huge percentage of the world population and India also has a large unbanked population and which is targeted by SFBs created under differentiated banking licenses. The study showed that SFBs have to offer basic banking services, accept deposits and lend to those who cannot access banks; with very stringent provisions of 75% lending to priority branches and 50% lending to loans of below 25 lakhs.

A descriptive study that targeted Small Finance Banks, their roles, and their contribution to rural development was specifically assessed in terms of agriculture financing, microfinancing, and financial literacy programmes (Bhosale, 2024). The paper added to this by drawing attention to the compulsory requirements of SFBs and

how SFBs are active in promoting financial literacy among rural populations through multiple schemes. The results showed that SFBs provide tailored loan services such as microfinance and agricultural loans including Kisan Pragati Card, and they use digital banking platforms to make their services more accessible to rural communities. The study highlighted that SFBs have greatly advanced the access to financial services provided to rural populations thereby providing agricultural productivity, job creation, infrastructure development, and entrepreneurship which have resulted in the overall economic growth.

The beneficial role of Small Finance Banks in promoting economic development by bringing individuals into the formal financial sphere has been examined (Arora et al., 2018). The research implicitly made use of secondary data that was provided by different surveys and reports and examined the current financial inclusion programmes. The study identified ten entities that were first given in-principle approval to become SFBs by the RBI. The paper highlighted the fact that the drawbacks of conventional banking lending systems are rectified by SFBs through promoting basic financial services in the unserved areas. The study concluded that SFBs have a potential to reduce the issue of financial exclusion since they can access the underserved populations via small savings accounts, remittances, and micro-credit facilities and consequently reduce poverty and enhance the pace of the economic development of rural populations.

The relative performance of the Small Finance Banks against the financial inclusion objectives, in their attempt to balance between financial soundness and the continuity of their business has been examined (Neelam, 2019). The research heavily relied on the secondary data in the form of SFB annual reports, RBI databases and news reports in conducting the analysis. Focusing on the ten SFBs that have made the transition to in-principles-approved banks, the study found that SFBs resemble universal banks but with more regulatory requirements such as 75% Adjusted Net Bank Credit to priority sectors and 50% of bank loans should be up to Rs. 25 lakhs. The main results revealed that SFBs attained a better balance sheet growth rate than consolidated scheduled commercial banks and also provided higher rates of deposit. The study however

observed that SFBs credit and deposit strategies do not reflect an overwhelming rural orientation, but in many cases reflect the private sector bank.

The operations and functions of ESAF Small Finance Bank and its contribution to economic transformation in South India, more specifically in Kerala and Tamil Nadu has been examined (Krishnan, 2022). The study employed a descriptive and analytical research design. The structured interview schedule was used to obtain primary data from customers in the chosen states. The study found that customers showed a high preference towards the microcredit services offered by ESAF due to the ease of access, flexibility of repayment plans and the lack of collateral requirements. Consequently, the level of recognition of loan schemes was much more than that of savings schemes. The research also revealed that the application of ESAF's financial services provides better access to credit, higher spending power, better household amenities, social recognition and financial literacy. The paper concluded that ESAF has been a significant player in ensuring socio-economic growth and financial inclusivity via its socially oriented and sustainable banking services. The study recommended that ESAF needs to develop collateral free individual loans, enhance customer awareness of technological banking services as well as increase ATMs, especially in the rural locations.

2.2.7 Studies on Financial Performance of Small Finance Banks

This part of literature contains the financial performance of Small Finance Banks that demonstrates capacity to reconcile profitability and mandated focus of their financial inclusion. Research indicates that even as SFBs have recorded a consistent growth in deposits, advances and outreach, it is experiencing some challenges like high operating costs, management of non-performing assets and capital adequacy.

A performance review of Small Finance Banks since their beginning has been conducted and it sheds light on profitability, assets quality, and operational capability of SFBs using annual data of these banks and employs a regression model (Ali and Kaveri, 2021). Based on the statistical results, the variables that have the most significant impact on the return on assets (ROA) are bank-specific variables including ratio of net non-performing assets (NNPA), cost income ratio, and non-interest income

ratio. Also, ROA is directly related to the size of the bank and the non-interest income ratio and negatively related to the NNPA ratio and CIR. It is also found out that these banks have several issues such as a decline in profitability, a lower percentage of CASA deposits, a high dependence on borrowing, an increase in bad debts etc. The performance report indicated that the percentage of CASA deposits should be raised to reduce their dependence on external borrowing.

The effect of capital structure on the economic progress of the SFBs, as a determinant of the value of firm and profitability of the firm, has been examined (Vishnu Prasad, 2019). A deduction methodology and quantitative techniques were used to analyse data of eight SFBs over two years between 2017 and 2018. In particular, the research showed that debt to equity significantly influenced Net Profit, Return on Equity and Net Interest Margin, and debt to total funds significantly influenced ROCE and Return on Equity. The study recommended that SFBs need to have a balance between equity and debt within the capital structure to achieve maximum profitability.

The financial performance of organised payment banks and what strategies can be used to assist them to gain sustainable competitive advantage has been analysed (Nandlal, 2020). The study made an analysis of collected data with the help of Exploratory Factor Analysis, Confirmatory Factor Analysis and multiple regression. The results indicated that payment bank performance was varied by six factors, which included convenience, safety, complaint management, technological factors, user awareness, and value-added services. Out of them, convenience, safety, and complaint management became the most effective. On the basis of results, the paper provided viable recommendations to enable payment banks to enhance their performance and increase their competitiveness. Over all, the statistical analysis showed that the major factors have had a strong influence on the performance of payment banks although the extent of influence differs with the application of various analytical techniques.

In order to determine the economic stability and overall performance of SFBS, the various banking performance indicators have been examined (Meena Rani and Sangeetha, 2024). The study used a descriptive research design and performed an empirical analysis based on the use of multiple linear regressions of panel data in 12

Indian SFBs during the 2015-2023 timeframe. The independent variables included CAMELS covariates like Capital, Asset Quality, Management, Earnings, Liquidity, Sensitivity and GDP growth. The outcomes showed that indicators of banking performance have a positive effect on financial stability and certain aspects of financial stability such as Capital, ROA, Investment-to-Deposit ratio, and Net Interest Margin played the significant role in terms of financial stability and risk-adjusted performance. The study however partially supported the hypothesis on the improvement of the risk-adjusted performance and discovered that the quality of the managers did not significantly contribute to banking stability.

The performance and growth of all ten Indian Small Finance Banks during the period between 2019-2021, have been examined to establish their role in the economic development of the country (Punam Chand & Sunil Poonia, 2022). The trend and panel data analysis strategy was employed in the study, with the annual reports and RBI publications of the chosen banks being used as secondary data. Several performance indicators were examined such as operating profit, net profit, deposits, investments, advances, assets, non-performing assets, total income, and expenditure. The results showed that the majority of SFBs were profitable, and the best-performing SFBs according to profits, deposits, investments, and total assets were AU Small Finance Bank and Equitas Small Finance Bank. The study revealed that only NPAs showed a significant difference, which implies that other indicators of performance did not improve significantly among the SFBs and throughout the study period. The study has concluded that even though SFBs have issues such as the rise of NPAs, their general profitability and risk analysis processes hold significance in regulatory policy changes.

The development of Small Finance Banks in India and their contribution to financial inclusion progress since their inception has been evaluated (Teena, 2024). The major evaluation areas were expansion of the banking outlets, regional and population distribution, and general business growth, which entailed the trend in deposits, profitability and non-performing assets. The results indicated that SFB branches expanded greatly, especially in semi-urban and rural regions, which justified their goal

of serving underserved communities. Deposits showed impressive cumulative annual growth rates between 2017 and 2023 at 58 percent and the resource profile shifted towards more deposits than borrowings. The study concluded that SFBs are moving in the right direction, although they are experiencing difficulties such as access to funding, quality of assets, credit risk, and technological infrastructure.

The sustainability of Small Finance Banks in India, their development, licensing rules, and progressiveness, specifically the significance of the cost of funds to their Net Interest Margin has been examined (Kangayan and Dhevan, 2020). The study employed an exploratory research design with both quantitative and qualitative methods to collect secondary data by looking at annual reports of six purposively chosen SFBs and RBI publications in the years 2017-2019. The study gave a historical background of the financial inclusion initiatives in India, in which SFBs were compared to the past patterns like Cooperative Banks, Regional Rural Banks, and Local Area Banks. Business growth analysis indicated that SFBs were able to increase the size of deposits and thus replacing the expensive bank borrowing and also were able to decrease the accumulated loss over time. Correlation analysis was used to carry out a very important empirical test to investigate the correlation between the cost of funds and Net Interest Margin. The results rejected the null hypothesis and determined that the cost of funds do not significantly affect the Net Interest Income or Net Interest Margin of SFBs and therefore, the cost of funds is not significantly impairing profitability.

The financial performance of Ujjivan Small Finance Bank Ltd, its compliance with RBI and its role in financial inclusion have been explored (Kumar & Bhavani, 2023). The performance analysis was based on the main financial ratios such as total income, expenditure, net profit, paid-up capital, operating profit and the leverage, using statistical data such as trend analysis, ratio analysis, mean, median and standard deviation. The results indicated that Ujjivan SFB incurred net losses in several financial years, however, the bank continued to grow in total income and paid-up capital throughout the study period and this shows that it was working hard to enhance its financial position. The study showed that the bank has seen a great recovery during

the 2022-23 financial year, with a large net profit recorded, thus concluding that Ujjivan SFB is successfully reinforcing its banking business and is crucial in the provision of financial services to underprivileged groups.

2.2.8 Studies on Empowerment of Women Entrepreneurship

Under this section the literatures regarding the empowerment of women entrepreneurship through the provision of microcredit and other specific financial services that boost their income, decision-making power and social status have been reviewed.

Systematic research on the role of microfinance services on the development of entrepreneurship among women in town of Assosa, Ethiopia has been explored. The research demonstrated that, although the development of entrepreneurship among women was moderately improved following the use of microfinance financial and non-financial services, access to finance proved to be a challenge with high interest rates and complicated processes (Abebe & Kegne, 2023). The study utilized descriptive and explanatory designs with quantitative methodology and it was based on simple random sampling method to select 165 women clients in Assosa Woreda Microfinance Institution. The study proposed that microfinance institutions should significantly enhance accessibility of loans and reduce interest rates for developing women entrepreneurship. They should also provide non-financial services as the only way of empowering women entrepreneurs and realizing sustainable development outcomes.

The entrepreneurship supported by microfinance is a powerful empowerment instrument, yet it needs to be complemented by the political and social spheres interventions, which can be of great value to policy makers working on the development of women-focused financial inclusion initiatives (Shkodra et al. 2022). The article examined the possibility of microfinance-based entrepreneurship to act as a comprehensive empowerment program of women using empirical evidence of the Kashmir Valley, India. A comparative research design was employed in the study, involving 400 women (200 entrepreneurs and 200 non-entrepreneurs) with stratified random sampling, studied with the help of structured questionnaires to test the level

of economic, social, political, and psychological empowerment. The quantitative study showed that female entrepreneurs were more successful in comparison to non-entrepreneurs in economic, social, political, and psychological empowerment indicators, but a comparatively smaller influence was seen in political empowerment and an even smaller effect on social empowerment.

The impact of microfinance services on female entrepreneurship in Jordan based on a thorough quantitative research study of 380 women entrepreneurs in different governorates has been analysed (Thaher et al. 2021). The study adopted cross-sectional survey that has employed stratified cluster sampling which measures the effect of microfinance services on business performance, income generation and empowerment indicators. The study discovered significant positive correlations between training packages, incentives, psychological support, marketing connection and a regular monitoring with the success rates and earnings level of women in business ventures. The results showed that comprehensive microfinance services that included financial and non-financial assistance had a major impact on the success of women in entrepreneurship, accumulation of assets and savings.

The effect of credit access, digital knowledge and economic awareness on the progress of women entrepreneurship in a sample of 950 women-owned SMEs has been examined (Khan et al., 2021). The research methodology applied was quantitative research based on cross-sectional survey design using multi-stage stratified random sampling of various regions that measured the constructs of empowerment and the business performance indicators. The data analysis was performed through structural equation modeling, which incorporates confirmatory factor analysis to test measurement models and considers secondary data acquired in government databases, reports of financial institutions, and international statistics on development as the contextual data. The results indicated that there are positive and significant relationships between access to finance, technical knowledge, financial literacy, and women empowerment outcomes with access to finance exhibiting the best impact on entrepreneurial development. The methodology was composed of rigorous pilot

testing involving 100 respondents, content validation of the questionnaire through the experts as well as numerous statistical tests such as normality and multicollinearity.

The empowerment of women by entrepreneurship development must include combined strategies with access to finances, skills training programmes and literacy programmes, adding theoretical models connecting financial empowerment to women empowerment and giving practical advice to policy makers and financial institutions creating gender-based programmes (Thompson et al. 2022). The paper investigated the effectiveness of women-oriented lending programmes by commercial banks in promoting micro-entrepreneurship by a multi-country comparative study on 1,500 women entrepreneurs in 12 countries. The study used quasi-experimental design to compare women accessing the bank programmes on the performance of the business, the outcomes of the empowerment programmes, and the level of satisfaction with the programmes. The results indicated a considerable difference in the effectiveness of various banking models with relationship-based lending showing better results in contrast to transaction-based lending models. The study used advanced econometric models such as instrumental variables, treatment effect analysis, and heterogeneous treatment effect estimation to take into consideration variations in the programmes and individual differences.

An exploratory study on community financing, specifically Ajo, which evaluates community financing as an important alternative in women entrepreneurs in gendered financial marketplaces in Nigeria, has been conducted (Simba et al., 2023). Ajo played a major part in framing the entrepreneurial paths and their social organization through prosocial forms of reciprocity, solidarity, collectivism, camaraderie and trust in pooling and sharing their financial resources. The large percentage (87) of respondents based their start-up capital and day to day operations in Ajo because it is easy to access, does not require any collateral, and offers lower interest rates than other more formal financing, something that is usually stringent and biased towards the gender. The study revealed that this scheme was not only aiding the business, but also the personal and social needs thereby lead to better child education and family financial status.

A study on contribution of commercial banks in financial inclusion of women entrepreneurs in India has been carried out and its importance is critical in the growth of the economy, as well as the elimination of gender inequality in society (Savitha & Bhagya, 2020). The article has pointed to the fact that even though the government pays more attention to women entrepreneurship, the traditional social norms, patriarchal organization, and a high number of sources that lack formal financial resources and literacy are some of the biggest obstacles for women. Although different commercial banks have launched specialized loan products and financial literacy programmes, the gap between policy making and actual implementation remains quite visible. The paper finally recommends the need of more gender inclusive mandates, the use of collateral free and quota driven lending and less bureaucracy to incorporate women into the mainstream banking system in order to empower them economically and to improve their entrepreneurial skills.

The determinants of financial inclusion, specifically bank account ownership, among women-owned informal enterprises in India has been examined and this study fills a major gap in the research on this under-serviced sector (Sherwani et al., 2024). The research adopted a quantitative methodology, focused on 321 informal women entrepreneurs in Western Uttar Pradesh using snowball and purposive sampling. The relationships between enterprise or owner characteristics and financial inclusion were addressed in this study. It was found that the financial inclusion is correlated strongly with negative business duration and entrepreneur experience, as younger and less experienced women entrepreneurs tend to have bank accounts, because of higher awareness and the requirement to have a start-up loan. The paper ends on its practical implications on policy makers to address the needs of women of all ages, encouraging education and ICT diffusion, and building resource capacity to advance financial inclusion within this important informal sector.

The microfinance is not only an essential financial resource but also a potent instrument that promotes entrepreneurship and positive socioeconomic transformation of vulnerable groups (Khursheed, 2022). The research paper has undertaken a qualitative study to understand the versatile nature of micro credit and

the analysis showed that microfinance offered by RCDP had a deep impact on the life of women making them more confident, self-empowered, and independent in making household and business decisions. The participants also indicated that they had better control over their assets, managed their household spending in a better way, and had better living standards, including access to education and health facilities to their children, which fits into the William's theoretical model of empowerment and the status withdrawal theory.

The economic empowerment of women in Ethiopia has been examined in the context of microfinance, which determines empowerment as an ability to make decisions, earn income, and own assets (Mengstie, 2022). The study showed that the various demographic variables, volume of credit provided to women and the learning sessions had positive effects on economic empowerment of women. Moreover, it ensured that the income of the participants, their asset ownership as well as savings improved significantly following the access to microfinance services, and the programme is effective in changing the economic conditions of the participants. The study found that microfinance is significant in improving the economic empowerment of women in Ethiopia by helping them to increase their self-employment, financial literacy, and confidence.

2.2.9 Studies on Customer Satisfaction in Banking Sector

This session presents the literatures related to the level of customer satisfaction of various banks and micro-finance institutions based on accessibility, affordability, and quality provision of financial services, doorstep services, interest rates, customer service, and digital banking support.

The reasons behind the adoption and sustained use of mobile applications by Indian consumers have been discussed and a conceptual framework of both utilitarian and hedonic apps has been put forward, with the variables of satisfaction and habit being the mediating factors (Malik et al., 2017). The paper is based on the existing theoretical frameworks of technology acceptance and continued usage, and the argument is that existing models require re-treatment in the view of technology development, shifting consumption trends and demographics. The proposed model is

comprised of various elements that affect app adoption and continued usage. One of the contributions is categorizing apps as utilitarian (task-oriented, e.g., banking) and hedonic (fun-oriented, e.g., entertainment) with various factors affecting each influencing them. The research concludes that although mobile apps can be an important instrument of marketers, the key issue is the retention of consumers, and the model needs to be empirically validated.

To determine the factors that influence the level of satisfaction that the MSME borrowers have with the commercial banks in India have been examined to provide recommendations on what can be improved (Bhargava et al., 2022). The study identifies the importance of MSMEs in job creation, fair distribution of income and alleviating regional inequalities in addition to their significant credit gap. The authors proposed that traditional service quality models such as SERVQUAL lacked variables that are vital to MSME borrowers such as transparency, online banking, bank trustworthiness, and personal information security, which were included in their analysis. The results showed that MSMEs tend to trust banks and online banks as helpful and to be discontent with counter services, employee willingness to assist, accessibility of management, and the fear of losing their personal data. The results revealed strong positive relationships between satisfaction with corporate policies and general customer satisfaction, and it is recommended that loan processes should be simplified, online services be improved, staff training be improved, and that management accessibility be enhanced to improve borrower satisfaction.

The relationship between Self-Service Technology (SST) and service quality dimensions and perceived value and customer satisfaction in terms of mobile banking application has been explored (Leon et al., 2020). The study fills an information gap in the literature, given that most studies have concentrated on adoption and not on post-adoption services quality of mobile banking. To measure service quality, the researchers used the SSTQUAL scale that includes various dimensions, modelled as a second-order factor. Among the key findings of the study, there is a favourable effect of quality of services on perceived value and satisfaction level. Perceived value was however not found to play a significant role in customer satisfaction, which

contradicts the findings of some past studies. The study makes a theoretical contribution by confirming the use of the SSTQUAL model in mobile banking applications and gives an insightful approach on how banks can improve their mobile application services in these dimensions to maximize customer experience, perceived value and overall satisfaction.

The pilot study has been conducted to construct a CSI model, particularly targeting the banking institutions with the purpose of addressing the gap that exists in the form of a uniform customer-based satisfaction measure in India (Prasadh & Suresh, 2017). The paper stated that the traditional financial measures should not be solely used to assess the performance of business, but rather emphasize the qualitative and customer-centric measures and characteristics of generic international CSI models used in the Indian context. A proposed CSI model was developed by the study which organized these themes and sub-themes into a hierarchical latent variable model in which the perceived quality was a third-order latent variable. The research provides an essential foundation to subsequent empirical test and provides a practical advice to Indian banks and policymakers on how to learn and improve customer satisfaction.

A consumer loyalty model of micro banking customers is developed where customer satisfaction is the mediating variable (Hayati et al., 2020). The study was based on the high competition in the micro financing sector of Central Java, which aimed at identifying the best marketing strategies to acquire and retain customers. The study found that customer satisfaction was not a mediating factor between micro banking company image and customer loyalty, as well as between customer relationship and customer loyalty. This research argues that, though image building of micro banking and customer relations, as well as customer satisfaction maintenance will increase loyalty, the data did not support the mediating role of satisfaction in these respective relations.

To determine the critical service dimensions, measure the level of satisfaction, and determine the role of customer characteristics, a study to assess customer satisfaction with the services of a microfinance institution (MFI) in Togo has been carried out (Kanyurhi, 2013). By modifying the SERVQUAL scale to the MFI context, the study

has filled an identified gap in the microfinance literature, as most studies do not offer structured scales of customer satisfaction measurement. In July 2009, a survey of 353 customers of Women Association for Social and Economic Gain (WAGES), a large MFI in Togo, was used to collect data using proportionally stratified and purposive sampling. The analysis of data was based on factorial analysis, customer satisfaction index and ANOVA. The general customer satisfaction index of WAGES was determined to be 71.2% which was classified as high; however, savings products were more satisfying than loan products. The study found that the customer branch, revenue, and number of services accessed were found to have a significant impact on customer satisfaction with implications on specific marketing and service improvement initiatives.

Determinants of customer satisfaction in the microfinance sector in Ghana has been examined by relying on theoretical foundations of financial exclusion, institutional void and market segmentation viewpoints (Agyei et al., 2020). The research discussed the scarcity of customer experience and satisfaction research on African microfinance, especially Ghana where a large segment of the population remains financially excluded and there is a weak regulation framework. The results showed that customers who had been refused loans by non-MFIs were more satisfied, and credit motivated customers, and satisfaction was negatively related to the size of loan credit, higher educational levels, and higher household earnings. The research also found that MFIs in Ghana control the risk associated with credit by mainly relying on the savings, guarantors, lending to viable enterprises, and regular repayment plans instead of collateral.

Banking industries provide the same sort of services but the way to differentiate them is the quality of the service they provide and the continuous improvement in this aspect is essential to maximizing customer satisfaction, creating delight and securing market presence (Chougale & Ali, 2023). The research highlighted that in the modern business world, the level of success is directly proportional to the quality of the services and customer satisfaction, particularly in the Indian banking sector where the retention of the customers depends on the fulfilled adaptations. The study

demonstrated that many researchers are more inclined to utilize the SERVQUAL model to evaluate the quality of services in banking. The study showed that there was a positive correlation between such dimensions as assurance, tangibility, reliability, and responsiveness and customer satisfaction, but the role of empathy was not always found to be significant. In addition, the paper highlighted the increased significance of e-service quality dimensions such as reliability, efficiency, responsiveness, ease of use, security, aesthetics of the web site, credibility, and personalization in customer satisfaction in the digital banking age.

The digitalization dimension of service quality and its influence on customer satisfaction of Islamic banking in Tunisia, with an extended SERVQUAL model, are explored (Zouari & Abdelhedi, 2021). Their modified SERVQUAL model incorporated the digitalization and the compliance in addition to the traditional five dimensions, the philosophy of Islamic banking being distinct. The factor analysis revealed five dimensions of service quality, namely confidence, compliance, digitalization, tangibles, and human skills. The outcome of regression analysis showed that customer satisfaction and confidence, human skills, compliance, and digitalization had a positive and significant relationship. Nevertheless, tangibles were identified to have a negligible influence. The result showed that although the compliance with Sharia is essential, the service delivery, in particular, via digital channels, is also a key component in satisfying contemporary customers, especially Generation Y to encourage Islamic banks to balance digital innovation with human centered service delivery to stay competitive.

Customer satisfaction within commercial banks and, in more particular, the State Bank of India, to measure how products and services of the bank have met or exceeded the expectations of customers has been analysed (Nippatlapalli, 2013). Analysis of data was done through percentage analysis, weighted average, bar charts, and Spearman Rank Correlation to determine the customer perceptions in different dimensions of banking like; service charges, interest rates, and online facilities among others. The study showed that 92% of the respondents believe that SBI addresses all the banking requirements, most of them are interested in savings accounts (67%), and

customers are contented with financial transactions (84%) and personal services (70%). On the other hand, the study revealed that there are challenges like difficulty in opening the account and most of them being unaware in terms of online transactions and SBI's shares in the stock exchange. This research, therefore, provides relevant information on customer behaviour within the Indian banking industry, particularly to State Bank of India, and offers useful suggestions for improving its services.

2.3 Research Gap

The above review of literature indicates that there have been numerous studies conducted in different fields of bank finance, but a study which covers the basic aspects such as structure, financial pattern, access and usage of various services, contribution towards women empowerment and satisfaction level of micro entrepreneurs of the Small Finance Banks are not found anywhere.

Most of the existing literature focused on the concept, evolution, regulations and general operational guidelines of Small Finance Banks, there remains insufficient empirical research examining the specific financial patterns and structural adaptations of these institutions within the Kerala's unique economic context. There are only very limited studies on the structure of bank's operations, organisation and regulatory frame work, their lending products and how they adapt their financing patterns to serve the distinct micro-entrepreneurial ecosystem of Kerala. This leaves a research gap on the real structure and lending pattern of SFBs in comparison with micro entrepreneurs at a grassroots level.

Similarly, although the studies of financial inclusion are common in India and other developing economies, most of the attention has been directed at rural households, small farmers, and the overall unbanked population. There are limited studies exploring the detail role of SFBs in the financial inclusion of micro-entrepreneurs, who represent an important sector of economic system of India. The existing literature predominantly focuses on general financial inclusion criteria such as account opening, and branch expansion, while lacks a complete analysis of accessibility, usage patterns, quality of services and related challenges of micro entrepreneurs in diverse rural and

urban locations of the State. This research gap limits understanding of how SFBs can make major contributions towards attaining financial inclusions for this target sector.

The limited literature on Small Finance Banks' contribution to economic empowerment of micro women entrepreneurs were also led to another gap in this context. Despite the fact that some studies have emphasized on the importance of microfinance and women focused lending models, there is a lack of analysis on the specific contribution of SFBs to the empowerment of women micro-entrepreneurs in terms of income generation, asset accumulation, decision-making power, training and financial literacy. The majority of literature addresses the financial inclusion of women from the perspective of microfinance or self-help group, and there is a lack of understanding of how the shift to SFB impact the financing of women-led enterprises. This makes it necessary to explore whether SFBs are realizing significant gender inclusive results as opposed to financial access.

Finally, satisfaction level of micro entrepreneur customers and their experience with SFB services are also remain underexplored well. While most of the previous studies have examined awareness levels and digital adoption trends among SFB customers, the studies that systematically evaluated the satisfaction of micro-entrepreneurs in terms of as ease of access, affordability of loans, repayment flexibility, quality of customer service, and technology adoption of the Small Fiancé Banks were hardly seen. This gap highlights the need to measure the effectiveness of service delivery by SFBs since the customer satisfaction has a direct impact on the ultimate success of such banks in enhancing financial inclusion.

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Chapter 3

STRUCTURE AND FINANCIAL PRODUCT PORTFOLIO OF SMALL FINANCE BANKS

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3.1 Introduction

This chapter provides a general summary of the structure of Small Finance Banks and describes the various financial products and services they offer to the customers. It explains the concept, origin, objectives and regulatory norms behind the establishment of SFBs. Moreover, it describes their organisational structure, operational framework, licensing conditions and key statutory requirements prescribed by Reserve Bank of India. It also outlines the important financial products and services offered by eleven SFBs in India, focusing on their deposit schemes, loan products, digital platforms and other financial services. This chapter examines the portfolio of the financial products and services by analysing trends in total deposits, CASA ratios, total borrowings and total loans and advances, providing an overall overview of their growth and development in the Indian banking sector.

3.1.1 Historical Background of Small Finance Banks

The introduction of Small Finance Banks represents a recent and significant development in the Indian banking industry aimed at promoting financial inclusion (Jayadev et al., 2017). The need for such banks was highlighted by the Reserve Bank of India in a discussion paper of August 2013, which focused on the problem of reaching underserved populations. Earlier the High-Level Committee on Financial Sector Reforms (2009), which was led by Raghuram Rajan, had already suggested the paradigm change for financial inclusion in the form of private small finance banks. Building on these views, the Committee on Comprehensive Financial Services under the chairmanship of Nachiket Mor in 2013 had formally recommended the licensing of differentiated banks similar to SFBs to cater to small businesses and low-income households.

The primary reason behind this initiative was the fostering of financial inclusion to those segments which do not have adequate access to formal banking services. The RBI has received a total of 72 applications for the formation license of Small Finance Banks in India. A review panel was formed by the RBI to review those applications. Following a detailed evaluation process made by the review panel and based on strict evaluation criteria, the RBI granted "in-principle" approval for licensing to 10 applicants in September 2015. The existing Microfinance Institutions, Non-Banking Financial Companies and Local Area Banks which were known for their experience of serving the target segments are the initial recipients of these licenses. These institutions were considered eligible promoters on the basis of their track record in financial or banking sectors or as established companies or societies (Kishore, 2015).

Table.3.1*Small Finance Banks in India*

Sl. No	Name of SFB	Date of Origin	Prior Form
1	AU	April 19, 2017	NBFC
2	Capital	April 24, 2016	LAB
3	Equitas	September 5, 2016	NBFC
4	ESAF	March 17, 2017	NBFC-MFI
5	Jana	March 29, 2018	NBFC-MFI
6	Shivalik	April 26, 2021	UCB
7	Slice	October 17, 2017	NBFC-MFI
8	Suryoday	January 23, 2017	NBFC-MFI
9	Ujjivan	February 1, 2017	NBFC-MFI
10	Unity	November 1, 2021	NBFC
11	Utkarsh	January 23, 2017	NBFC-MFI

Source: Compiled from annual reports of SFBs

3.2 The Concept of Small Finance Banks

Small Finance Banks came into existence with the realisation that the traditional banking system and the existing financial inclusion programmes could not adequately meet the services requirements of all sections of the people, particularly the low-

income groups, small businesses and the unorganised sector. (Joshi et al., 2017). The introduction of SFBs is a component of the overall strategy of differentiated banking where banks that have niche banking services serving select sectors are issued licenses, as opposed to universal banks that serve all class of population. The licensing of SFBs can be seen as a renewed and more focused attempt to accelerate the process of financial inclusion in the form of the establishment of banking institutions that are specifically assigned to serve these niche segments (Kishore, 2015).

These banks are envisioned to operate with high technology and low-cost operations to ensure their viability while reaching out to a wider population. Furthermore, the concept involves encouraging motivated financiers with low-cost structures and the capacity for quick decision-making to establish and run these banks (Jayadev et al., 2017).

As per the licensing guidelines issued by RBI, specific mandate assigned to SFBs is to further the cause of financial inclusion by “Provision of savings vehicles, and Supply of credit to small business units; small and marginal farmers; micro and small industries; and other unorganised sector entities, through high technology low-cost operations” (RBI guidelines, 2014).

As per Department of Financial Services, Government of India, “Small Finance Banks are licensed under Banking Regulation Act, 1949 and created with an objective of furthering financial inclusion by primarily undertaking basic banking activities to unserved and underserved sections including small business units, small and marginal farmers, micro and small enterprises and other underserved sections.”

In essence, Small Finance Bank is a differentiated bank, which is licensed by the RBI to offer simple banking services to the unbanked and unorganised population. Its main goal is the promotion of financial inclusion to unserved and underserved communities while following specific regulatory norms and using cost-efficient models.

3.2.1 Worldwide Adoption of SFB Models

Globally, the concept of SFBs can be seen in many countries as well and it is not unique to India. For instance, community banks in the United States and microfinance

banks in Africa and Latin America have similar goals to promote financial inclusion and provide financial services to underserved populations. These institutions have shown their potential of contributing to economic growth through their ability to serve small business units as well as low-earning households. In Africa, they have played a critical role in offering financial services to the rural population. These institutions have exploited innovative methods, such as group lending and mobile banking, to reach the customer that would otherwise be excluded from the formal banking system. Similarly, in Latin America, small-scale banking institutions have been targeting small businesses and low-income households to drive economic growth and cut poverty (Jungo et al., 2022; Shihadeh & Liu, 2019). In Nigeria, microfinance model that is similar to SFBs has proved to be capable of mobilizing rural deposits, improving local economic transactions and leading to national income growth (Okoye et al., 2019).

3.2.2 Financial Inclusion Focus of Small Finance Banks

One of the main functions of SFBs has been to promote financial inclusion by making financial services available at low costs to underprivileged sections. SFBs have played a key role in providing micro-loans, savings accounts and other simple banking products to poor people, MSEs and rural communities. They have made a significant impact on financial inclusion of underbanked sectors. By giving access to formal banking services, SFBs have helped to reduce financial exclusion and have empowered individuals and small businesses to access the formal economy. The widespread network of branches of SFBs has been a significant contributor to their success and they have been able to reach remote and underserved regions where traditional banks have a limited presence. Through the various regulatory measures of RBI such as licensing criteria, capital requirements and governance standards, focus on financial inclusion has been reinforced to ensure its impact and effectiveness. The guidelines issued by RBI explicitly states that

- SFBs are formed with an aim of furthering financial inclusion. SFBs are encouraged to lend to Self-Help Groups (RBI guidelines, 2016).

- SFBs will have to present the progress reports to RBI on monthly basis and review should be done on annual basis (RBI guidelines, 2017).
- The rural banking outlets operated by the bank's own staff have to organise at least one financial literacy camp per month (RBI guidelines, 2017).

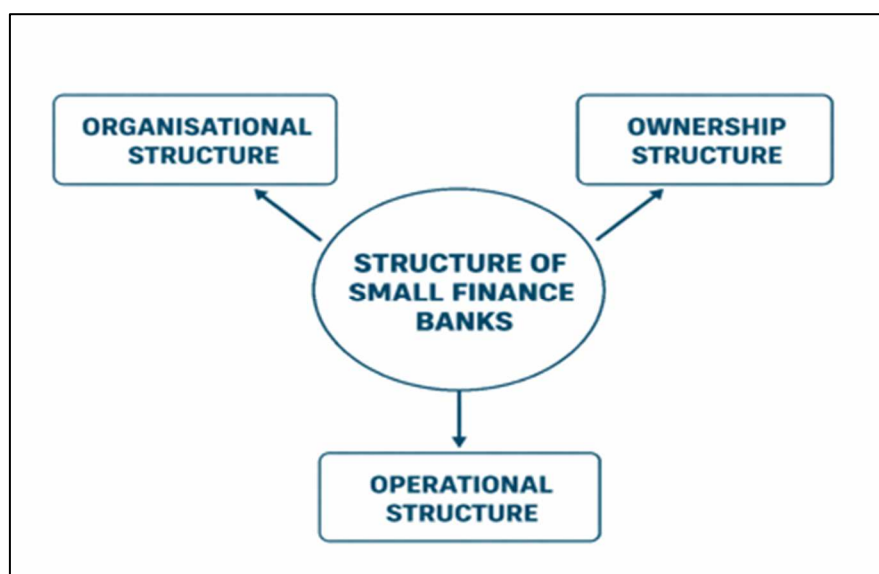
These banks are carefully designed and organised under the regulatory purview of RBI, operating with specific guidelines in ownership, capital requirements and a mandate to focus on underserved areas and priority sector.

3.3 Structure of Small Finance Banks

The structure of a bank refers to the way in which a bank is organised and regulated. The structure of Small Finance Banks outlines the mandates and regulatory requirements of RBI, which makes them different from the traditional commercial banks. It includes their organisational, operational, ownership and capital structure which describe the conditions for their establishment, the key features, the legal and regulatory framework governing them, and their purpose within the broader Indian banking system.

Figure 3.1

Structure of Small Finance Banks



Source: Compiled from annual reports and websites of Small Finance Banks

3.3.1 Organisational Structure of SFBs

Organisational structure of SFBs is designed with a series of guidelines and regulations stipulated by the RBI. These guidelines are framed to cover various aspects in order to ensure that these banks operate with a clear focus and within a prudential framework set by the government. Small Finance Banks are specially designed as niche banking institutions in order to provide a service to the financial requirements of small businesses, marginal farmers and other unbanked segments. The RBI granted in-principle approvals to ten entities in 2015, many of which were already operating as Microfinance Institutions and NBFCs (Kishore, 2015). The organizational structure of SFBs is designed in such a way as to ensure consistency and compliance with regulatory standards while allowing flexibility to operate as per priority sector lending norms.

3.3.1.1 Governance Framework

The SFBs are primarily governed by rules and provisions of RBI which align with many of the regulations applicable to scheduled commercial banks. Over the years, the RBI has made changes to the various provisions and requirements affecting SFBs. Over time, the RBI has updated the rules for SFBs to help them overcome challenges and adapt to changing financial environment of the country. It has also taken steps to make SFBs stable by improving capital and risk management requirements (Rao, 2024). The main points of the regulatory framework are listed below.

3.3.1.2 Regulatory Body

As the central bank of the country, the Reserve Bank is the main regulator of Small Finance Banks operating in India. The RBI formulates the all legal and regulatory frameworks including licensing guidelines, finalise their scope of operations, and ensures that these banks comply with various regulations applicable to commercial banks. The proposal of introducing Small Finance Banks was based on the suggestions of the committee formed by RBI, with the chairmanship of Nachiket Mor, which promoted reforms in bank licensing in order to reach higher financial inclusion. RBI employs its stringent regulations to continuously oversee all Small Finance Banks in

India, thereby safeguarding the objectives for which they were established (Jagwani, 2019).

3.3.1.3 Registration and Licensing: SFBs must be incorporated under the Companies Act, 2013 as a public limited company (RBI guidelines, 2019). The RBI also provided explicit guidelines on licensing SFBs on the eligibility requirements, capital requirements and other stipulations. The SFBs will fall under Section 22 of Banking Regulation Act, 1949 (RBI guidelines, 2019). SFBs will be governed by various Acts such as Banking Regulation Act, 1949, Reserve Bank of India Act, 1934, Foreign Exchange Management Act, 1999, Payment and Settlement Systems Act, 2007 and other guidelines issued by the RBI from time to time (RBI guidelines, 2019).

These banks are required to follow the regulatory governance standards like other commercial banks, including prudential norms, capital requirements, and liquidity standards. This ensures that SFBs operate with the same level of stability and integrity as other banks (Kishore, 2015). They must fulfil the RBI guidelines on KYC, Anti-Money Laundering (AML) and other provisions. This ensures that SFBs operate within the broader framework of financial integrity and stability (Jayadev et al., 2017).

3.3.2 Ownership Pattern of Small Finance Banks

According to the provisions of the RBI, the ownership pattern of small finance banks falls within the private sector. Promoters requiring to form SFBs should be eligible individuals or professionals with a minimum banking experience of 10 years with good track record (Jayadev et.al.,2017). Existing Non-Banking Finance Companies, Micro Finance Institutions and Local Area Banks can also be converted into SFBs, as long as they are owned and controlled by the residents, and they satisfy the required legal compliances (Kishore, 2015).

3.3.2.1 Capital Requirements

- The minimum paid-up equity capital of the SFB shall be ₹200 crore (RBI guidelines, 2014).

- SFBs must have a minimum capital adequacy ratio of 15 per cent of its risk weighted assets, which is higher than the 9% prescribed for universal banks (Jagwani, 2019).
- Tier I capital must not be less than 7.5 percent of risk weighted assets and Tier II capital must not exceed 100 percent of entire Tier I capital. Basel II norms would apply in general unless otherwise specified (RBI guidelines, 2014).

3.3.2.2 Conditions for Setting up of Small Finance Banks

The RBI has provided necessary eligibility criteria and conditions for setting up of Small Finance Banks. These include:

- The resident individuals or professionals, individually or collectively, should have a minimum of 10 years' experience in banking in a senior position. (RBI guidelines, 2014).
- The residents controlling the existing Non-Banking Finance Companies (NBFCs), Micro Finance Institutions (MFIs) and Local Area Banks (LABs) within the private sector, with a successful track record of at least five years, have the option of conversion provided they satisfy all legal and regulatory requirements and comply with these guidelines (RBI guidelines, 2014).
- The residents operating existing Payments Banks, for at least five years, are also eligible for conversion into SFB subject to other legal requirements (RBI guidelines, 2014).
- Joint ventures by different promoter groups are not permitted (RBI guidelines, 2019).
- The preference can be provided to local institutions or those that are aimed at offering to unserved or underserved sections (RBI guidelines, 2019).
- Government-owned or public sector and large industrial house/business groups, autonomous organisations formed under the enactment of state legislature, state

financial corporations, and subsidiaries of development financial institutions will not be considered (RBI guidelines, 2019).

- The urban co-operative banks that wish to transition voluntary, will refer to a different scheme, except for the initial minimum capital requirement (RBI guidelines, 2019).

3.3.3 Operational Structure of Small Finance Banks

The operational structure of SFBs is mainly designed for achieving the objective of financial inclusion. It is organised to meet the financial needs of underserved populations. Similar to universal banks, SFBs are permitted to involve in lending and deposit-taking activities. However, they are expected to focus on serving the under banked population, with an emphasis on digital enabled, low-cost operations (Irrinki, 2020). The main aspects of their operational structure include:

- **Target Customer Base:** The SFBs primarily target micro and small entrepreneurs, smaller business units, marginalised farmers and unorganized section of the population. They also serve lower income families and rural areas, and they can receive basic banking services (Muthukrishnan & Kanimozhi, 2024; Srinivas, 2020).
- **Product Offerings:** The SFBs have diversified their product offerings to meet the various financial needs of their customers. They have introduced wide range of financial products, including microloans, savings accounts, and other credit and deposit services tailored to the needs of the underserved sectors. These products are designed to be affordable and accessible to their target customers (Darbar, 2024; Srinivas, 2020).
- **Technology-Driven Operations:** SFBs have made use of technology to cut down cost and enhance efficiency. It involves digital technologies, mobile banking, and the use of other innovative solutions to access underserved communities (Kishore, 2015; Irrinki, 2020). Technology has been one of the main factors that promote the development of services provided by SFBs. RBI has also promoted the

application of technology to increase the access and efficiency of banking services, especially in rural and semi-urban locations (Dhavaleshwar, 2024; Agrawal, 2019).

- **Regional Dissemination:** SFBs are required to operate in rural and semi urban regions where the availability of banking facilities is minimal. SFBs have also progressed in terms of branch networks, spreading over a broader geographical area and also to areas that are underserved (Darbar, 2024; Srinivas, 2020).
- **Serving the Unbanked and Underserved:** The main objective is to extend basic banking and credit services to individuals, small businesses and other parties who lack sufficient services by conventional commercial banks (RBI guidelines, 2014).
- **Mobilisation of Small Savings:** Making available savings vehicles is an important feature of financial inclusion and SFBs are required to provide a range of deposit products (Arora & Adhikari, 2018).
- **Providing Remittance Services:** Facilitating low-cost remittance services for migrant labourers and low-income households is another important service of Small Finance Banks (Ramamoorthy, 2018).

3.3.3.1 Scope and Area of Operations

Small Finance Banks are authorised to undertake basic banking activities, including the acceptance of all types of deposits (savings, current, and term deposits) and lending loans to their target customer segments. They can also provide other financial services to serve the diverse financial needs of the low-income population through high technology low-cost operations. The guidelines of RBI related to its scope of operations are:

- SFBs are required to open a minimum of 25 percent of their branches in rural areas and other places that lack sufficient banking facilities (RBI guidelines, 2017).
- SFBs must set apart 60 percent (previously 75 percent) of their ANBC to priority sector lending. In this, PSL should have 40% of ANBC dedicated to various sub-

sectors and the remaining 20% can be dedicated to any or all of the sub-sectors. (RBI Notification, 2025).

- The loans and advances up to ₹25 lakh should make up at least 50% of its loan portfolio (RBI guidelines, 2014).

3.3.3.2 List of Branches of Small Finance Banks

Table 3.2

Small Finance Bank Branches

Bank name	Headquarters	Branches
AU	Jaipur	1720
Capital	Jalandhar	194
Equitas	Chennai	1018
ESAF	Thrissur	788
Jana	Bengaluru	670
Slice	Guwahati	183
Shivalik	Saharanpur	79
Suryoday	Navi Mumbai	716
Ujjivan	Bengaluru	753
Unity	Mumbai	299
Utkarsh	Varanasi	1092

Source: Compiled using data from Reserve Bank of India website

Table 3.2 shows that the Small Finance Banks are significantly rooted in terms of physical presence in the entire India, with their branch networks collectively totalling 7,512 branches. The magnitude of these networks also differs significantly among the listed banks, ranging from Shivalik Small Finance Bank operating 79 branches to AU Small Finance Bank maintaining a large network of 1720 branches.

In contrast to past banking systems, Small Finance Banks generally have no restrictions on their geographical area of operations. There is no strict restriction on the area of operations for Small Finance Banks across India, the licensing policy encourages a local focus and the ability to serve smaller customers effectively (Kishore, 2015). SFBs are expected to be primarily responsive to local needs. The scope of activities may be liberalised by RBI after the first five-year stabilisation and review (RBI guidelines, 2019).

The financial statements and annual reports of the various SFBs reveal that all these types of banks follow uniform regulatory framework and capital structure as prescribed by the RBI. Almost all SFBs meet or exceed the requirement of allocating 60 percent (previously 75 percent) of their ANBC to PSL confirming their alignment with financial inclusion goals. Under the RBI-requirement, 50 percent of the total loans of SFBs are loans of ticket size up to ₹25 lakhs. All SFBs have expanded their branches in the rural areas and semi-urban locations with a total number of 7,512 branches in India, and over 25% of the branches are in the unbanked regions as required by RBI.

3.4 Financial Product Portfolio of Small Finance Banks

Small Finance Banks are a new category of banks in the Indian banking industry that are emerged with the purpose of fostering financial inclusion. As a type of differentiated banks, SFBs are licensed to perform basic banking functions, particularly accepting deposits and providing lending facilities (Khan, 2018). Their product line also consists of various deposits such as savings accounts, fixed deposits, and recurring deposits, frequently at attractive interest rates.

In addition to deposits, SFBs provide other credit services, such as personal loans, business loans, gold loans, housing loans, and most importantly, micro credit services to empower customers (Arora and Adhikari, 2018). They can also offer payment and remittance services and with the permission of the RBI, they can distribute the third-party financial products like mutual funds, insurance products and pension products. Through low-cost operations with the help of technology, SFBs seek to target underserved and unserved regions and there by improve financial inclusion. These banks play a vital role in bridging the financial gap for vulnerable sections and contributing to the broader economic development of the country by bringing more people into the formal banking system (Arora et al., 2017).

A comprehensive table showing the various financial products and services of all 11 Small Finance Banks in India are listed below

3.4.1 Deposit Products of Small Finance Banks

Table 3.3

Deposit Products of SFBs

Name of SFB	Deposit Products
AU SFB	Savings Account, Current Account, Fixed Deposits, Recurring Deposits, Term Deposits, Certificate of Deposits (CDs)
Capital SFB	Savings Accounts, Current Accounts, Term Deposits, Retail Deposits, Bulk Deposits, Recurring, Short Term, Quarterly Interest Deposits, Monthly Interest Deposits, Cumulative Deposits, Tax Saver FD, NRE and NRO Deposits
ESAF SFB	Current Accounts, Savings Accounts, Fixed Deposits, Recurring Deposits, NRE Savings Accounts, NRO Savings Accounts, NRE Fixed Deposits, NRO Fixed Deposits, NRE Recurring Deposits, NRO Recurring Deposits
Equitas SFB	Current Account, Savings Account, Salary Accounts, Time Deposits, Term Deposits, Bulk Deposits, Certificates of Deposit, Recurring Deposits, NRE Rupee Savings Account, NRO Rupee Savings Account
Jana SFB	Savings Accounts, Current Accounts, Fixed Deposits, Recurring Deposits, Demand Deposits (from banks and others), Term Deposits (from banks and others)
Slice SFB	Basic Savings Bank Deposit Account – Small, Basic Savings Bank Deposit Account, Savings Account – Institutional, Current Account – Normal, Current Account – Plus, Savings Accounts, Term Deposits
Shivalik SFB	Savings Accounts, Current Accounts, Fixed Deposits, Recurring Deposits, Tax Saver Fixed Deposits, Non-Callable Fixed Deposits
Suryoday SFB	Saving Bank Accounts, Current Accounts, Fixed Deposits, Recurring Deposits, RD for Micro finance Customers, NRE and NRO Accounts, TAX Saver Deposit Account.
Ujjivan SFB	Regular Savings Account, Privileged Savings Account, Senior Citizens Account, Minor Savings Account, Basic Savings Bank Deposit Account (BSBDA), Regular Current Account, Premium Current Account, Business Edge Current Account, Term Deposits/Certificate of Deposits, Goal Based Deposits, Digital Saving and Term Deposit Products, Tax saving fixed deposit
Unity SFB	Savings Accounts, Fixed Deposits, Recurring Deposits, Current Accounts, Bulk Deposits, Certificate of Deposit (CD)
Utkarsh SFB	Savings Accounts, Current Accounts, Fixed Deposits Recurring Deposits, Salary Accounts, Certificate of Deposits, Bulk Term Deposits, Deposits for Wholesale and Institutional Clients

Source: Compiled from websites and annual reports of Small Finance Banks

Table 3.3 showing the deposit products of the 11 listed SFBs highlights a strong focus on foundational offerings of the SFBs. Almost all banks consistently offer Savings Accounts, Current Accounts, Fixed Deposits and Recurring Deposits as their main deposit products. Apart from the usual kinds, some SFBs provide special options such as Tax Saver Fixed Deposits, accounts for non-residents and accounts designed for seniors, minors or corporate clients, Goal Based Deposits, Digital Saving and Term Deposit Products as well as Salary and Bulk or Wholesale deposits. Another common product that some of these financial institutions offer are Certificates of Deposit (CDs), meant for particular types of investments. The fact that there are many types of accounts, ranging from basic to specialised, demonstrates that these SFBs are making efforts to meet a wide variety of customer needs and preferences.

3.4.2 Loan Products of Small Finance Banks

Table 3.4

Loan Products of SFBs

Name of SFB	Loan Products (Advances)
AU SFB	Retail Loans (Wheels Loan, Secured Business Loans to MSME & SME, Gold Loan, Agri Term Loans - NBFC Loans, Real Estate Group Loans, Business Banking Loans, Home Loan, Consumer Durable Loans, Two-Wheeler Loans, Personal Loans, Education Loans, Tractor Loan, Commercial Vehicle Loan), Wholesale Loans (Business Banking, Trade Finance, Forex, NBFC/HFC/MFI Lending, Real Estate Group Loans, Construction & Builder Finance)
Capital SFB	Agriculture Loans include Kisan Credit Card, Agri Term Loans, Commission agent financing. Scheme for SMEMSME, SME & Trading Loans include Working Capital loans, Machinery Loans, Project Financing and Term Loans. Mortgage Loans include Housing Loans, Loan against Property, Mortgage Loan against Property, Advances against Rentals and Advances for construction or real estate projects. Other Loans include Auto Loans, Personal Loans, Loan against Rentals, Corporate Lending, Preowned Vehicle, Gold Loan, General Credit Card Scheme, Overdraft Facility and Advances to Retail Traders.
ESAF SFB	Micro Loans (Microfinance Loans, Other Micro Loans), Retail Loans (Gold Loans, Mortgages, Personal Loans, Vehicle Loans), MSME Loans, Loans to Financial Institutions, Agricultural Loans.

Name of SFB	Loan Products (Advances)
Equitas SFB	Micro Finance lending (Group Loans to micro entrepreneurial women), Used Commercial Vehicle Finance lending, Micro Loan against Property, Housing Finance (Affordable Housing), Agri Loans, Gold Loans, Business Loans (including Secured business loans, Working Capital Loans, Fund based (cash credit, Overdraft (OD), etc.)), New Commercial Vehicles, Used Passenger Cars, MSE Finance (Business and working capital loans to Micro and Small Enterprises), Corporate Finance (Banking solutions to emerging corporates), Loans to Non-Banking Financial Companies (NBFCs), Term Loans, Loan Against Property
Jana SFB	Advances (Loans) with categories like Micro Banking Advances (JLG Loans, Individual Loans), Agriculture and allied activities, Industry, Services, Personal loans, Housing Finance, SME Finance, Vehicle Loans, Other loans
Slice SFB	Microfinance Loans, Enterprise Development Loan (greater than 5 to 25 Lakhs), Loan against Term Deposits, Personal Loan to Salaried Person, Piggery Loan, Skill Development Loan, Cash Credit Facility, Loan against Rent Receivable, Retail Asset Loans (EDL, Home Renovation etc.) and Home Loans.
Shivalik SFB	Home Loans, Loan Against Property, Business Loan, Retail Trade Loan, Gold Loan, Working Capital Loan, Agriculture Term Loan, Farmer Finance & Crop Loans, Micro Loans, Car/Auto Loans, Two-Wheeler Loan, Commercial Vehicle Loans, Roof Top Solar Loan and Loan Against Warehouse Receipts.
Suryoday SFB	Inclusive Finance Loans include Loans to Joint Liability Groups (JLGs), Commercial Vehicle Loans, Affordable Housing Loans, Secured Business Loans (SBL) (including Loans Against Property (LAP)), Micro Business Loans / Micro SME, Loans to Financial Intermediary Groups (FIGs), Vikas Loans (Individual Loans), MSME/SME Loans (Secured and Unsecured), Other Loans (including Overdraft against Fixed Deposit), Personal Loans and Gold Loans.
Ujjivan SFB	Micro Banking Group Loans, Micro Banking Individual Loans, Agri Group Loan, Kisan Suvidha Loan, Kisan Pragathi Card, Gold Loan, Street Vendor Loan, Affordable Housing Loans (Construction and Purchase), Micro and Small Enterprises (MSE) Loans, Top-up Loans – GL, OD on Current Account, Guaranteed Emergency Credit Line (GECL), Loan Against Property (LAP-SENP-SEP), Secured Enterprises Loans (SEL), Business Edge Loans, Term loan to NBFCs and MFIs, Working Capital Products (CC/OD/WCDL), Micro Loan Against Property (LAP)

Name of SFB	Loan Products (Advances)
Unity SFB	Business Loans, Supply Chain Finance, Working Capital Loans, Debt Consolidation Loans, Asset Purchase Loans, Secured Lending Facilities (for MSMEs), Unsecured Lending Facilities (for MSMEs), Retail Loans
Utkarsh SFB	Micro Banking (Joint Liability Group) Loans, Micro Banking Individual Loans, MSME Loans (both secured and unsecured), Housing Loans (including affordable housing), Wholesale Banking Loans (including Business Correspondent Model), Business Loans, Personal Loans, Loan Against Property (LAP) / Strategic LAP, Overdraft Loans, Loans to Small Corporates, Commercial Vehicle and Construction Equipment Loans ("Wheels" products), Loans to NBFCs and HFCs, Gold Loans, Advances against Fixed Deposits

Source: Compiled from websites and annual reports of Small Finance Banks

Table 3.4 which presents the loan products across the 11 SFBs reveals a strong focus on Micro Banking, providing group and individual loans to micro entrepreneurs through products like JLG and Inclusive Finance loans. The other important category of loans provided by all banks include the MSME/SME lending which consists of secured and unsecured business lending, working capital and term loans. The portfolios of retail loans are mixed and varied, and often they comprise Vehicle Loans (two-wheelers, cars and commercial vehicles), Personal Loans, and Gold Loans. Several SFBs also offer different types of Mortgage loans and Housing Finance including home loans, affordable housing and loan against property. Many of these institutions are offering agricultural lending including Agri term loans and farmer finance products. Many SFBs are lending out to other Financial Institutions such as NBFCs, HFCs and MFIs as different category. Even though the core offer has much in common, certain products and focuses differ among SFBs. Niche loans such as rooftop solar or street vendor loans are offered by some SFBs, with specific strategies towards the various customer groups.

3.4.3 Digital Banking Services of Small Finance Banks

Table 3.5

Digital Banking Services of SFBs

Name of SFB	Digital Banking Services
AU SFB	AU0101 App, Mobile Banking, Net Banking, Corporate Internet Banking, Video Banking, WhatsApp Banking, Auro Chatbot, Tab Banking, AU Abhi App, Digital Personal Loans, Digital Credit Card, Digital Savings Account, Digital Fixed Deposit, Digital Consumer Finance, Digital Vehicle Loan, Digital Insurance & Investments, Digital Merchant Lending, Digital Unsecured Lending, Digital Current Account, UPI QR, Point of Sale (POS), AEPS, BHIM UPI, FASTag, Bharat Bill Payment Service, Missed Call Banking, AU Biz Pay, AU Positive Pay, AU QR app, API Banking
Capital SFB	Capital Bank Mobile Connect, Internet Banking, Debit Cards, UPI. ABPS, Corporate Banking, Merchant Payments (POS), Online Tax Payments, Digital Solution for Educational Institutes, Payment Gateway Solution, Mobile Passbook, 3-in-1 Demat and Trading Account, Foreign Remittances (AD II Business), Online account opening, Self-service portals/kiosks, QR code-based payment devices
ESAF SFB	Internet Banking, Mobile Banking, UPI, RuPay branded ATM cum Debit cards, SMS alerts, WhatsApp Banking, Scan & Pay facilities, Missed Call banking, E-Sign for Micro Loans, Mobile Apps for collection and loan repayment, Loan Origination System of Mobility Products and MSME loans, Bharath Bill Payment System, UPI QR code-based EMI payment service, Micro ATM, CASA on Tabs, Corporate Internet banking.
Equitas SFB	API Banking, Digital Wallet, FASTag, UPI, Bharat Bill Payment services (BBPS), Selfe platform (includes Selfe accounts, Selfe Savings, Selfe FD), Digital Wealth Management services, Internet banking, Mobile Banking, Tab-based account opening, Online account opening, Mobile account opening, Video-enabled KYC/Video KYC, Virtual Relationship Manager (VRM) interactions, Micro ATM, Prepaid cards, ETC enabled transactions, Video Banking, WhatsApp Banking, Equitas Express: Banker on Wheels (App), Customer Chat bot, DIY Services, Bharat QR
Jana SFB	Internet Banking, Mobile Banking, Digital Account Opening & KYC Process, UPI, IMPS, RTGS, NEFT, Card Payments, NACH, AEPS issuance, AEPS
Slice SFB	Retail Internet Banking, Mobile banking, SMS Banking, NESFB Rupay Debit card, ATM network, Tab Banking, Corporate Internet Banking, UPI, ACH, POS, Bill Desk, SMS Banking, POS
Shivalik SFB	Internet Banking, Mobile Banking, UPI, CDM, SMS Banking, Debit Card, POS Machine, AEPS, ATM, m-ATM, Green PIN, Bill Desk and BBPS, QR-based Integrated Merchant Business Solution, tax payment for individual customers, Video KYC solution, WhatsApp Banking, SDK-based customer onboarding

Name of SFB	Digital Banking Services
Suryoday SFB	Internet banking, Mobile banking, Tab Banking, ABPS, Tech-enabled and real-time opening of bank account, Digital OD account opening, Digital ECLGS account opening, Smile OD, e-KYC, Video-KYC based account opening, WhatsApp banking, Sweep-in partnerships/facilities with payment banks, Digital collection facilities, Digital origination system for JLG loans (GLOW), Digital fixed deposit, Digital Loan Repayment Facility, UPI, Online bill payment services, Insta-Kits, Insta-Debit Cards
Ujjivan SFB	Internet Banking, Mobile Banking Application, Phone Banking, UPI, QR Code services, Debit Cards, ATMs, ACRs, Digital Savings Account, Digital Fixed Deposit, Bill Payment services, NEFT, IMPS, RTGS, BBPS, Digital Deposit, E-mandate facility, Cash Management Services, Online fee collection solutions, PFMS, Digital Lending, Missed Call Banking, SMS Banking, Payment Gateways, ATMs, Automated Cash Recyclers (ACRs)
Unity SFB	Mobile Banking Application, Internet Banking, ATMs, Debit Cards, Credit Cards, WhatsApp Banking, BharatPe for Merchant Pay-outs, Business Correspondent Banking, UPI Payments
Utkarsh SFB	Internet Banking, Mobile Banking, ATMs, Call Centre, POS, UPI, Bharat QR, Debit Cards, Micro ATMs, Bharat Bill Pay System, Digital On-boarding, Corporate Internet Banking, UPI Application, UPI Lite, e-KYC, e-Sign, AEPS, ICCW, Video KYC

Source: Compiled from websites and annual reports of Small Finance Banks

Table 3.5 reveals that Small Finance Banks offer a broad spectrum of digital banking services to cater to diverse customer needs. Most of these SFBs offer basic digital services based on Internet Banking, Mobile banking, and are actively using UPI to make quick payments. The transactional services such as Debit Cards, ATMs, POS terminals, AEPS and connection to Bharat bill payment system are also very common. Customer onboarding has been made digital by many banks, with services available including online account opening, Tab Banking, and Video KYC. Some of the SFBs go a step further to offer more sophisticated services such as API Banking, Video Banking, Chatbots, and digital origination facilities of different loans. In addition, certain banks offer exclusive digital offerings like digital wealth management, special merchant payment systems and custom-built digital services to educational institutes. Overall, the digital services highlight the efforts of the SFBs to improve customer convenience by using remote access, digital transactions and progressive digitalization of products and services.

3.4.4 Insurance and Investments of Small Finance Banks

Table 3.6

Insurance and Investments of SFBs

Name of SFB	Insurance and Investments
AU SFB	Life Insurance, Health Insurance, General, Motor & Fire Insurance (as Third-Party Products), Mutual Funds, 3 in 1 Trading Account, Wealth solutions (PMS, ASBA/IPO, Broking services)
Capital SFB	Traditional Life Insurance, Term Insurance, Motor Insurance, Property Insurance, Personal Accident Insurance, Health Insurance, Travel Insurance, General Insurance, Fire Insurance, 3-in-1 Demat cum Trading Account, Mutual Fund Distribution, ASBA
ESAF SFB	Distribution of third-party Life Insurance policies, Non-life/General insurance policies, Tailor-made General Insurance variants, Government pension products such as Atal Pension Yojna (APY) and National Pension System (NPS), Mutual funds, Demat services
Equitas SFB	Distribution of insurance products (Bancassurance) like Life Insurance, General Insurance, Health Insurance and investments like Mutual Fund Products, ENVI, ENVEST, 3-in-1 Account, Digital Wealth Management services
Jana SFB	Distribution of Credit Life Insurance, Non-Life Group Insurance (including Hospicash Insurance, Credit linked health plans, Collateral policies), Retail Life Insurance (including Traditional, term, ULIPs, Guaranteed Benefits plans), Retail Non-Life Insurance (including Health Policies, Motor Insurance, Fire Insurance, Travel Insurance, Liability Insurance), 3 in 1 account, Mutual funds
Shivalik SFB	Distribution of Life Insurance, General Insurance, Health Insurance, Pradhan Mantri Jeevan Jyothi Bima Yojana, Pradhan Mantri Suraksha Bima Yojana, 3-in-1 account, Demat services.
Suryoday SFB	Distribution of Flight Delay Insurance, Flight insurance cover, Natural calamity insurance, Atal Pension Yojana (APY), PMJJBY, PMSBY, National Pension Scheme (NPS), Life Insurance policies, General Insurance policies, Mutual fund products, Mutual insurance products, Investments.
Ujjivan SFB	Life insurance, General insurance, Health insurance, Credit Life Insurance, Term Insurance, Endowment, PAR Products, POS and ULIP, Motor, Property, Home Content, Personal Accident, Hospital Daily Cash, Health Indemnity/Family Floater, Indemnity Health Insurance (as Third-party products)
Unity SFB	Distribution of bancassurance, Life insurance solutions, investment services
Utkarsh SFB	Life Insurance, General Insurance, Health Insurance, Micro-insurance, Atal Pension Yojana, Mutual Funds Online Trading National Pension Scheme (as a third-party product)

Source: Compiled from websites and annual reports of Small Finance Banks

Table 3.6 reveals that Small Finance Banks are able to provide the basic package of various insurance products, such as Life, Health and General Insurance, usually in the form of third-party products or as bancassurance. The typical investment products available in these SFBs are the Mutual Funds, as well as entry to trading platform such as 3-in-1 account. Besides these regular products and services, a large number of SFBs allow access to government schemes including Atal Pension Yojana and National Pension System. Nevertheless, the particular differences in types of insurances like Credit Life or micro-insurance and particular investment services like digital wealth management show differences in their services. In general, all the SFBs offer a suite of basic insurance and investment solutions, with certain specific products to meet the perceived customer requirements.

3.4.5 Other Banking Services of Small Finance Banks

Table 3.7

Other Banking Services of SFBs

Name of SFB	Other Banking Services
AU SFB	Locker Services, Point of Sale (POS) Machines, Merchant Payments, Tax Payments, Financial Literacy Programmes, Cash Management, Overdraft Facilities, Non-fund-based facilities (Bank Guarantees, Letters of Credit), Trade & Forex services
Capital SFB	Locker Facilities, RERA Accounts, Cross-selling of insurance products to borrowers, Sweep-in facility, Foreign Exchange Services: Money Transfer, Money Exchange, Inward and Outward foreign Remittances
ESAF SFB	Doorstep Banking Services, Adhar Seva Kendra Services, Safe deposit Lockers, Foreign Currency Exchange and Money Transfer Services, Distribution and Marketing of POS Terminals, Merchant QR codes, Financial Advisory services, Bank Guarantees and Letters of Credit, Financial Literacy Programmes, Electronic Payment Advice through Branches, E-Auctions.
Equitas SFB	Providing of locker facility, ATM-cum-debit cards, Issuance of FASTag, NRI Services
Jana SFB	Multi-channel delivery, Customer satisfaction and relationship management, direct assignment and securitisation, PSLC related services, Treasury Operations
Slice SFB	Treasury Back Office functioning, Customer Care Desk, Cash Management, Bill Desk, POS, ACH, CTS Clearing, KYC/AML Processes

Name of SFB	Other Banking Services
Shivalik SFB	Lockers, Remittances, Business Correspondents, Foreign Exchange, Merchant Business Solution, Tax Payment
Suryoday SFB	Tab Banking – Doorstep Banking, Online Bill Payment Services, Safe Deposit Locker Facilities, Sweep-in facility with Payment Banks, BC agents, BC Outlets services
Ujjivan SFB	Bank Guarantee, Automated Teller Machines, Automated Cash Recyclers, Financial Literacy Programmes
Unity SFB	Treasury Products Distribution (to Corporates, Co-operative Banks, etc.), Doorstep Banking, Lockers, Marketing and Distribution assistance
Utkarsh SFB	Customer Relationship Management tool, Account Opening, Locker Facilities / Safe Deposit Locker Facility, Distribution of Third-Party Point of Sales Terminals, Basic Remittance Services, Support to sales staff for CIBIL check and PDC management

Source: Compiled from websites and annual reports of Small Finance Banks

Table 3.7 shows that Small Finance Banks provide various foundational Other Services including locker facilities, distribution of Point of Sale (POS) terminals or merchant solutions, and foreign exchange or basic remittance services. Many SFBs provide financial education by Financial Literacy Programmes and also provide non-fund-based banking services such as Bank Guarantees and Letters of Credit. Customer convenience is enhanced by services such as Doorstep Banking, available from multiple SFBs. There are unique features being offered by the banks such as RERA Accounts in Capital SFB, Aadhaar Seva Kendra in ESAF SFB and FASTag and NRI Services in Equitas SFB. Overall, in most of the services, SFBs are building multifunctional service packages, mixing standard banking functionalities with niche and customer-oriented services.

3.5 Financial Product Trends Among Small Finance Banks

Some statistical insights related to broader categories of financial product pattern of Small Finance Banks are given below:

3.5.1 AU Small Finance Bank:

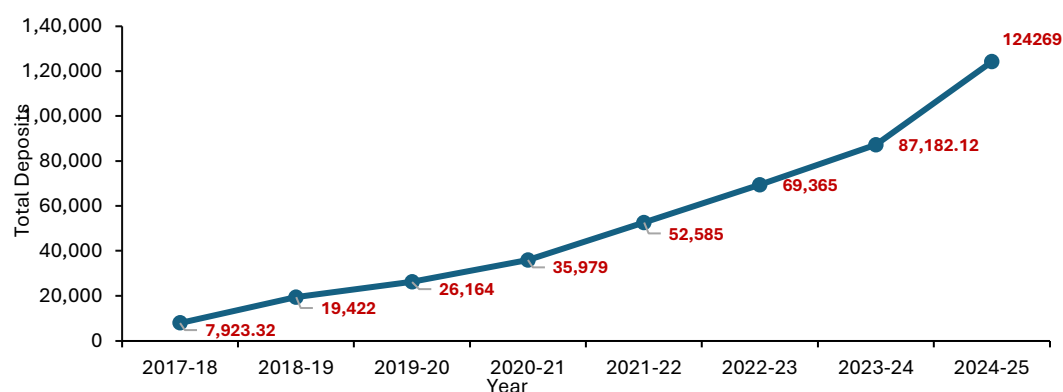
The product portfolio of the AU Small Finance Bank is primarily influenced by its financial inclusion mandate which aims at serving the underserved and unserved

groups. An important feature is mobilization of small savings by using various products of deposit which targets a stable and solid deposit base with the emphasis on Current and Savings Accounts (CASA). On the asset side, it is focused on giving credit to the target segments, which is usually in smaller, secured or semi secured loans to reduce the risk. Their lending patterns are greatly guided by the priority sector lending (PSL) requirements. Another important trend that is affecting their product offerings is the emergence of digital banking that would increase their reach and reduce costs.

3.5.1.1 Deposit Growth of AU Small Finance Bank

Figure.3.2

Total Deposits (₹ in Crores)



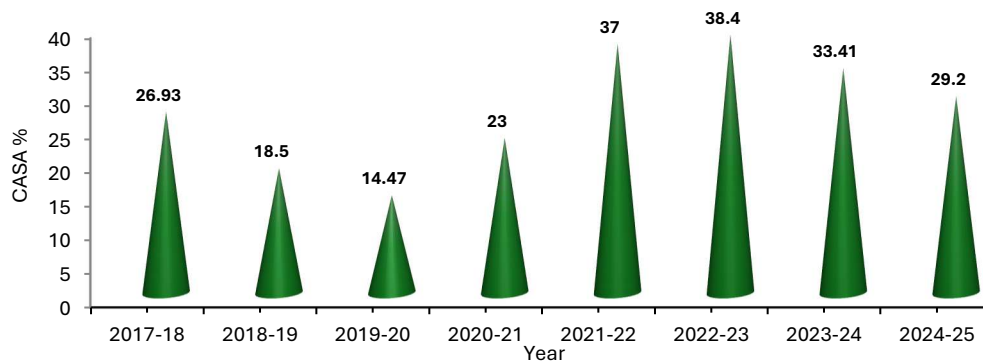
(Source: Compiled from Annual reports of AU Small Finance Bank)

The total deposits of AU Small Finance Bank have been showing a steady progress in the last eight years indicating a high growth in its funding base. Deposits grew significantly between ₹7,923.32 crores as at March 31, 2018, and ₹1,24,269 crores as at March 31, 2025 showing a tremendous increase over the period. This growth momentum highlights the rise in success of the bank in mobilisation of customer funds in different segments.

3.5.1.2 CASA Ratio of AU Small Finance Bank

Figure.3.3

CASA Ratio



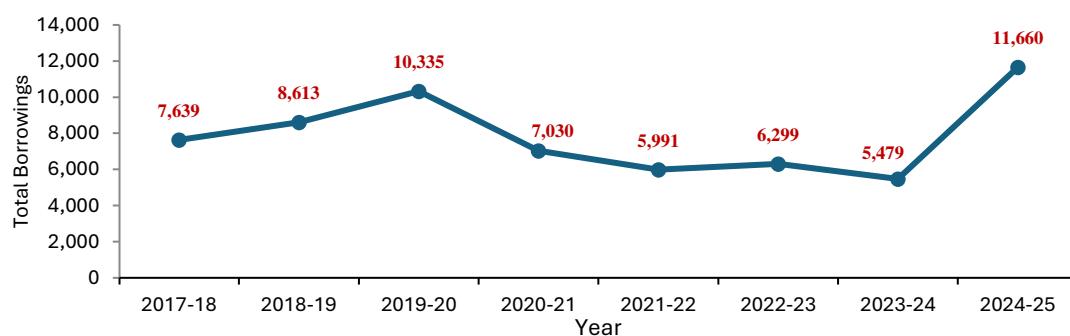
(Source: Compiled from Annual reports of AU Small Finance Bank)

The Figure 3.3 shows that CASA ratio of the bank initially saw a decrease from 26.93% in FY 2018 to a low of 14.47% in FY 2020, which may reflect the bank's initial deposit mobilisation efforts after transitioning from an NBFC. The ratio then saw considerable growth during financial year 2021 to 2023, which shows that it is becoming more successful in attracting the low-cost deposits. However, the trend changed last years, and the CASA ratio decreased to 29.2% as at the end of the March 31, 2025.

3.5.1.3 Total Borrowings of AU Small Finance Bank

Figure 3.4

Total Borrowings (₹ Crore)



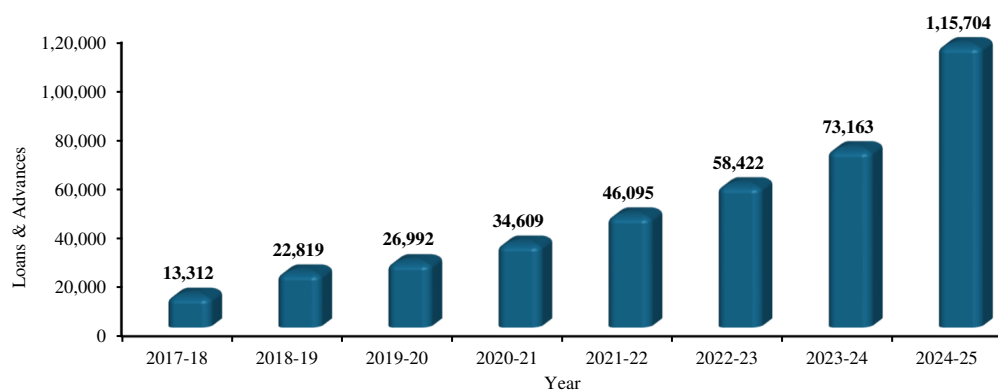
(Source: Compiled from Annual reports of AU Small Finance Bank)

Based on the Figure 3.4 total borrowings of AU Small Finance Bank initially showed an upward trend, increasing from ₹7,639 crore in FY 2018 to reach a high of ₹10,335 crore by the end of FY 2020. This peak was followed by a substantial decrease during the subsequent four years showing a lower dependence on borrowed funds. Borrowings then registered a substantial increase to ₹11,660 in March, 2025 which represents the highest level in the eight-year period.

3.5.1.4 Loan Portfolio Growth of AU Small Finance Banks

Figure 3.5

Loans & Advances (₹ Crore)



(Source: Compiled from Annual reports of AU Small Finance Bank)

The total advances of the AU Small Finance Bank showed a steady growth throughout the eight-year period beginning with ₹13,312 crore in FY 2017-18. This remarkably positive trend has persisted into the initial years of operation as a bank, with ₹26,992 crore by FY 2020 and picking up to ₹46,095 crore by FY 2022. The lending pattern of the bank witnessed a consistent growth by increasing the advances to ₹58,422 crore in FY 2023 and reached at ₹1,15,704 crore by march,2025. Cumulatively, the total advances of the bank also saw a significant growth in FY 2017-18 to FY 2024-25 and this demonstrates the rapid growth of the core lending functions of the bank.

3.5.2 Capital Small Finance Bank

The financial product portfolio of Capital Small Finance Bank reveals that the bank has been focusing on retail banking, financial inclusion, and secured lending. They

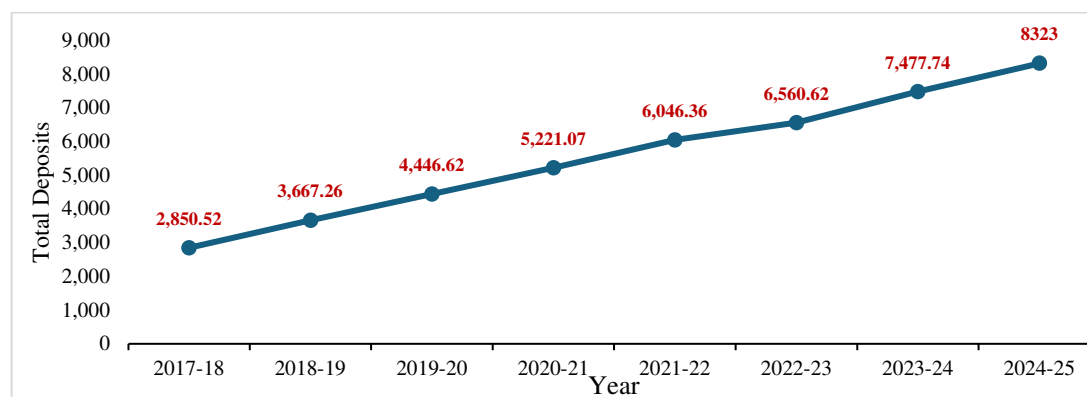
focus their strategy on becoming the leading banker of their customers, especially in North India and in rural and semi urban locations among middle-income group. They operate under the mandate to use technology-driven low-cost operations to provide banking products to underserved masses, including small and medium business units, small and marginal farmers, and the unorganized sector.

Some statistical insights related to broader categories of financial products of Capital Small finance banks are given below:

3.5.2.1 Deposit Growth of Capital Small Finance Banks

Figure 3.6

Total Deposits (₹ in crores)



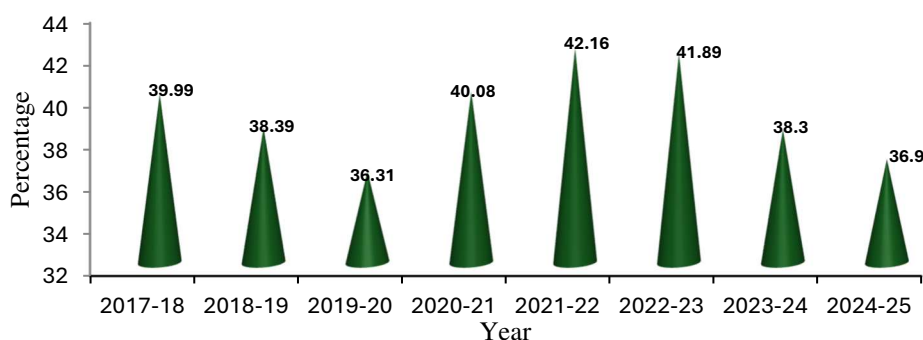
(Source: Compiled from annual reports of Capital Small Finance Bank)

Figure 3.6 shows that the total deposits of Capital SFB have shown consistent and tremendous growth, increasing from ₹2,850.52 crore in FY 2017-18 to ₹8,323 crore by FY 2024-25. There was huge growth in earlier years but showed fluctuations, with a decline particularly during FY 2021–22 and FY 2022–23. The bank has experienced a remarkable growth in deposits mobilisation in the last financial year 2024-25. This continued growth indicates that the customer deposits are the largest sources of funding to the bank.

3.5.2.2 CASA Ratio of Capital Small Finance Bank

Figure 3.7

CASA Ratio



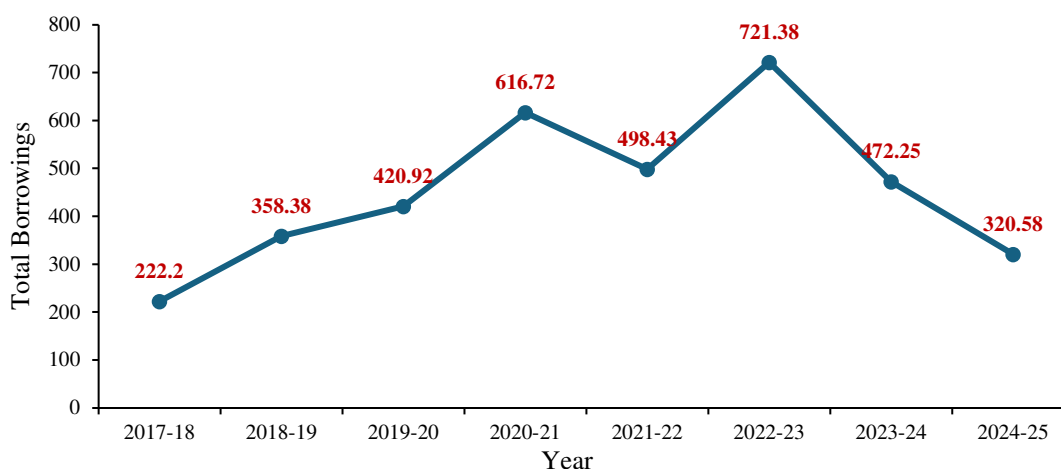
(Source: Compiled from annual reports of Capital Small Finance Bank)

Figure 3.7 indicates that the CASA ratio of Capital Small Finance Bank has experienced fluctuations over the eight-year period. The ratio initially saw a decline from 39.99% in FY 2017-18 to a low of 36.31% in FY 2019-20. Subsequently, there was a notable recovery and growth, with the ratio increasing to 40.08% in FY 2020-21 and reaching its peak of 42.16% in FY 2021-22. The ratio has been declining in the past three financial years, with a rather small value of 41.89% in FY 2022-23, and a considerably lower value of 36.9% in FY 2024-25.

3.5.2.3 Total Borrowings of the Capital Small Finance Banks

Figure 3.8

Total Borrowings (₹ in crores)



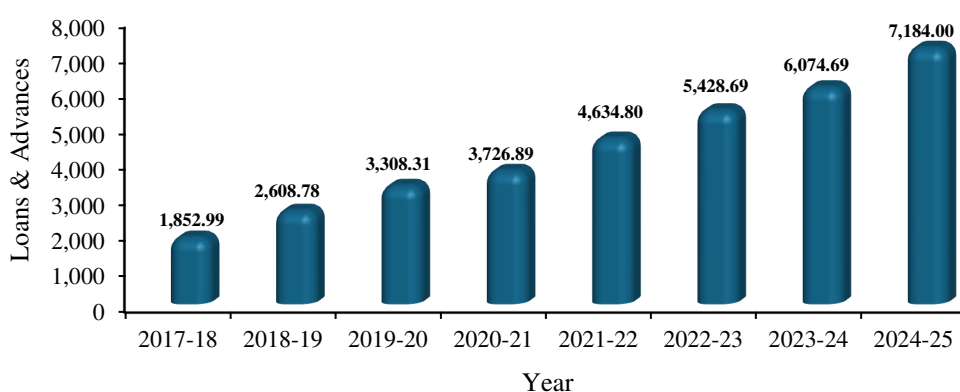
(Source: Compiled from annual reports of Capital Small Finance Bank)

Figure 3.8 reveals that the overall borrowings of the bank have been fluctuating in the period between FY 2019-20 and FY 2024-25. In general, total borrowings were showed an increase during the early years. It increased by a significant margin of FY 2020-21 to ₹616.72 crore before declining to ₹498.43 crore in FY 2021-22. The total borrowings in FY 2024-25 have been significantly reduced, particularly in contrast to the deposit increase indicating a greater success in financing the assets using potentially less expensive deposits instead of borrowings.

3.5.2.4 Loan Portfolio Growth of Capital Small Finance Banks

Figure 3.9

Total Loans and Advances (₹ in crores)



(Source: Compiled from annual reports of Capital Small Finance Bank)

Figure 3.9 shows that the total loans and advances of Capital Small Finance Bank have witnessed a steady and positive growth within a period of eight years between FY 2017-18 and FY 2024-25. There was also a substantial growth in the total loans and advances of ₹1852.99 crore in FY 2017-18 to ₹7184 crore in FY 2024-25. This underscores tremendous growth in the core lending business of the bank.

3.5.3 ESAF Small Finance Bank

The product pattern of ESAF Small Finance Bank is motivated by its mission of a ‘new-age social bank’ and a ‘bank for all’, with the intention of providing services to the unbanked and the under banked. This explains the initial and continued dominance of Micro Loans in its asset portfolio, aligning with microfinance models

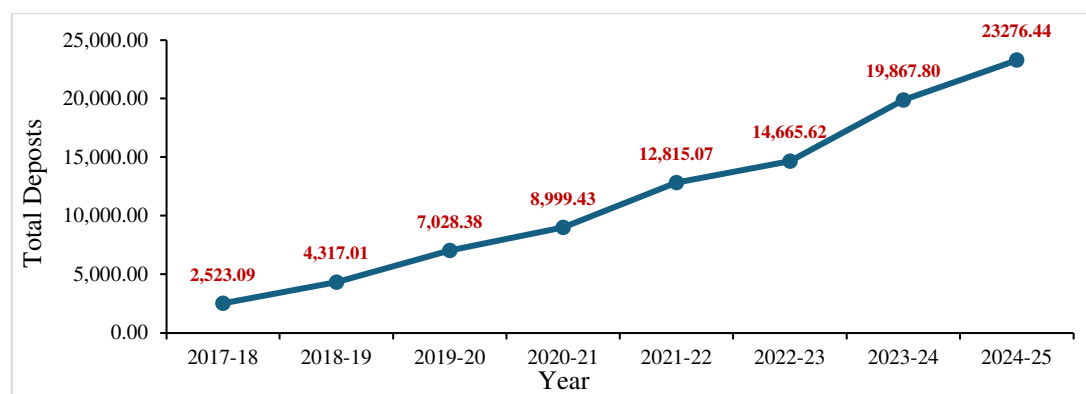
for financial inclusion. With the shift to an SFB, the range of products in relation to the deposits and lending services expanded, and the strategic move towards the diversification into retail loans, MSME Loans, and agricultural Loans was achieved.

Some statistical insights related to broader categories of financial products of ESAF Small finance banks are given below:

3.5.3.1 Total Deposit Growth of ESAF Small Finance Bank

Figure 3.10

Total Deposits (₹ in crores)



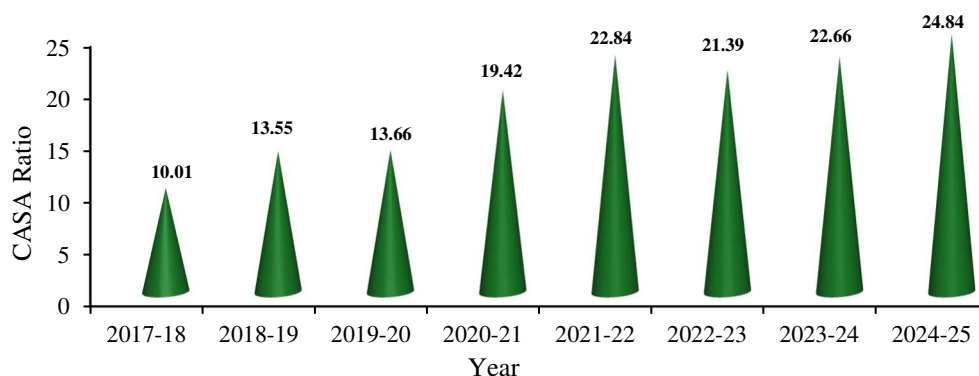
(Source: Compiled from annual reports of ESAF Small Finance Bank)

Figure 3.10 shows that ESAF Small Finance Bank demonstrates strong growth in its deposit base over the last eight years. Total deposits were tremendously increased in FY 2024-25. The increase of deposits was very high in 2021-22 and 2024-25, which is an indication of strong financial inclusion performance. In general, deposit mobilisation was one of the driving factors of the balance sheet strength of the bank.

3.5.3.2 CASA Ratio of ESAF Small Finance Bank

Figure 3.11

CASA Ratio of ESAF SFB



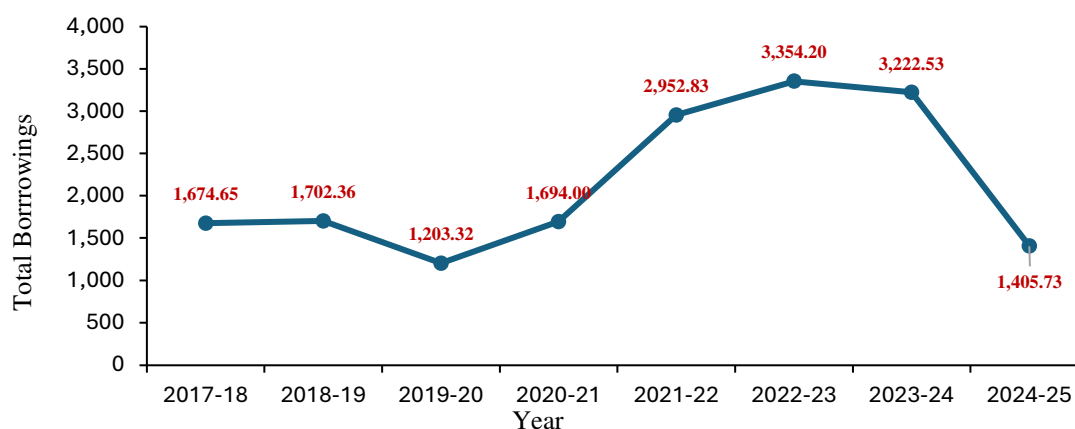
(Source: Compiled from annual reports of ESAF Small Finance Bank)

Figure 3.11 indicates that ESAF SFB has shown a general upward trend in its CASA ratio over the past 8 years, increasing from 10.01% in FY 2017-18 to 24.84% in FY 2024-25. The increasing CASA ratio indicates the bank's success in enhancing its low-cost deposit base, which is a positive sign for its financial health and profitability in the long run.

3.5.3.3 Total Borrowings of ESAF Small Finance Banks

Figure 3.12

Total Borrowings (₹ in crores)



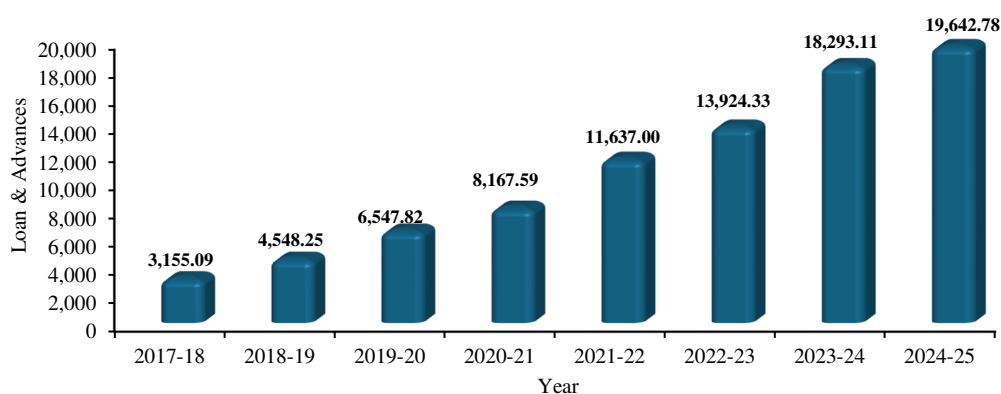
(Source: Compiled from annual reports of ESAF Small Finance Bank)

Figure 3.12 gives an insight into the dependence of the bank on the non-deposit sources of funds. The figures of total borrowings show fluctuations in earlier years, starting from 1674.65 Crore in FY 2017-18 and decreasing to 1,200 Crore in FY 2019-20. The total borrowings recorded highly in subsequent years were reduced tremendously to ₹1405.73 in FY 2024-25. The sharp decrease in FY 2024-25 could indicate decreased reliance on borrowed funds to support asset growth or other operational needs and showing a highly positive trend of bank growth.

3.5.3.4 Loan Portfolio growth of ESAF Small Finance Banks

Figure 3.13

Loans and Advances (₹ in crores)



(Source: Compiled from annual reports of ESAF Small Finance Bank)

Figure 3.13 shows that the bank's loan portfolio has also grown significantly. It reveals a consistent and generally high growth trend for ESAF Small Finance Bank over the past 8 years. The loan portfolio showed a tremendous growth in the FY 2024-25. The total advances multiplied more than 6 times during the last 8 years.

3.5.4 Equitas Small Finance Bank

The financial product trend of Equitas Small Finance Bank is based on the requirement to accelerate further financial inclusion by reaching the unserved and underserved populations. The microfinance lending, commercial vehicle finance, and micro loan against property have been their key asset products and with expansion of strategic investments in housing, agricultural, gold, and business loans. The bank

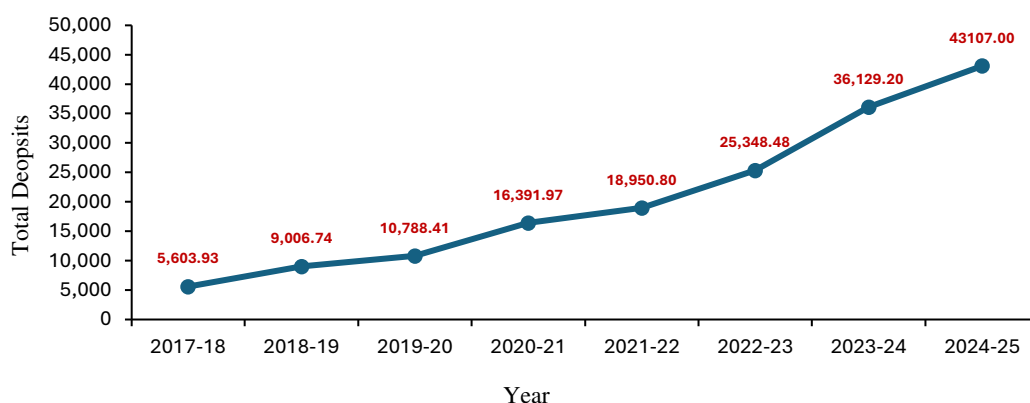
strategically emphasizes minimizing costs through digitization and focuses on meeting the banking needs of Micro and Small Enterprises.

Some statistical insights related to broader categories of financial products and services of Equitas Small finance banks are given below:

3.5.4.1 Deposit Growth of Equitas Small Finance Banks

Figure 3.14

Total Deposits (₹ in crores)



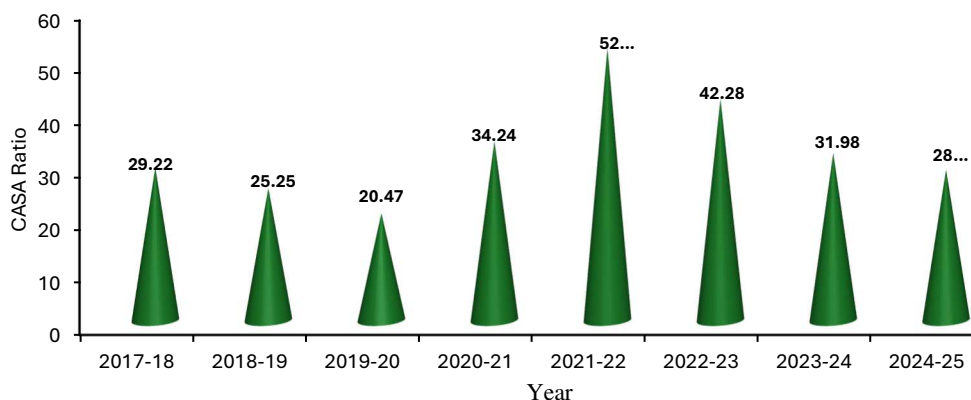
(Source: Compiled from annual reports of Equitas Small Finance Bank)

Figure 3.14 shows that the bank has demonstrated significant deposit growth during the past years. The data indicates a steady increase in the overall deposit base in the bank in the past eight years. It shows that the bank has grown its deposit base more than 8 times in the past years between the FY 2017-18 and FY 2024-25.

3.5.4.2 CASA Ratio of Equitas Small Finance Bank

Figure 3.15

CASA Ratio



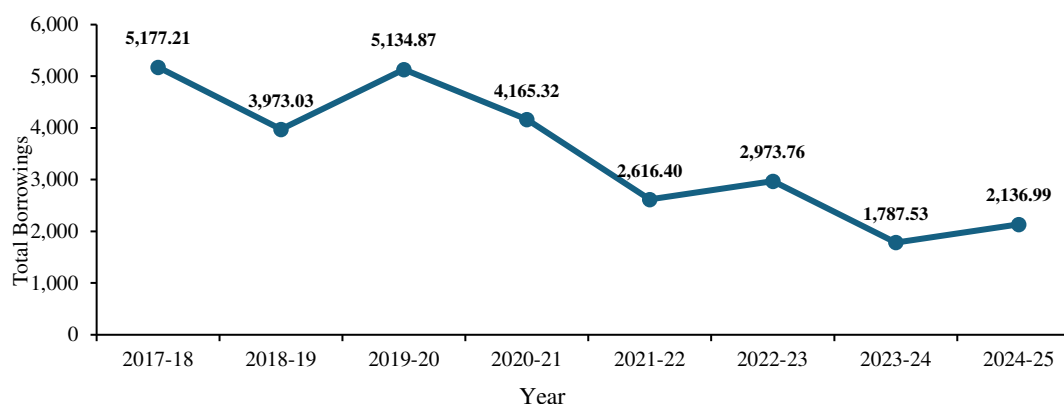
(Source: Compiled from annual reports of Equitas Small Finance Bank)

Figure 3.15 shows that the bank's CASA ratio first fell from FY 2017–18 to FY 2019–20, then rose sharply to a peak of 52.01% in FY 2021–22, and later declined again to 28.79% by FY 2024–25, showing high volatility. Even though the ratio fell, the actual CASA deposits still grew along with a sharp rise in term deposits, leading to an increase in total deposits.

3.5.4.3 Total Borrowings of Equitas Small Finance Bank

Figure 3.16

Total Borrowings (₹ Crore)



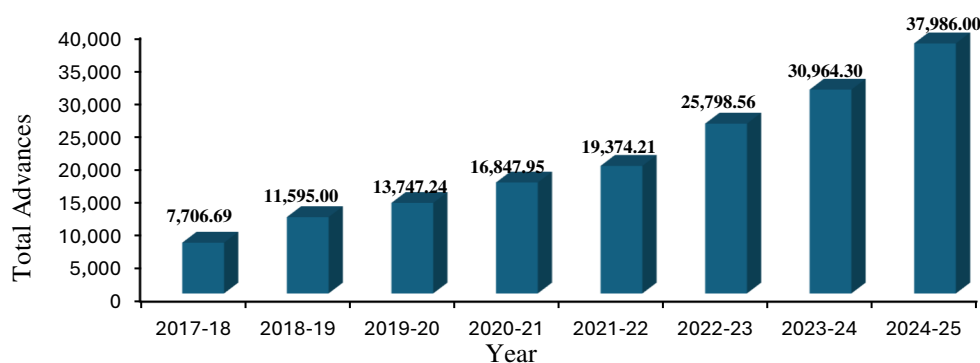
(Source: Compiled from annual reports of Equitas Small Finance Bank)

Figure 3.16 shows that Equitas Small Finance Bank's borrowings fluctuated in the first three years and then declined sharply in the following years. Borrowings decreased to their lowest point FY 2023-24, after it increased slightly in FY 2022-23 and then by FY 2024-25. This trend suggests that the bank has gradually reduced its dependence on borrowings and relied more on customer deposits.

3.5.4.4 Loan Portfolio Growth (Advances)

Figure 3.17

Total Advances of Equitas Small Finance Bank (₹ in Crores)



(Source: Compiled from annual reports of Equitas Small Finance Bank)

Figure 3.17 indicates that total loans and advances of the bank have been increasing steadily from FY 2017-18 to FY 2024-25, with a notable growth in the same since FY 2021-22. Loans crossed ₹37,000 crore by FY 2024-25 and this is an indication of significant growth in bank's lending operations.

3.5.5 Jana Small Finance Bank

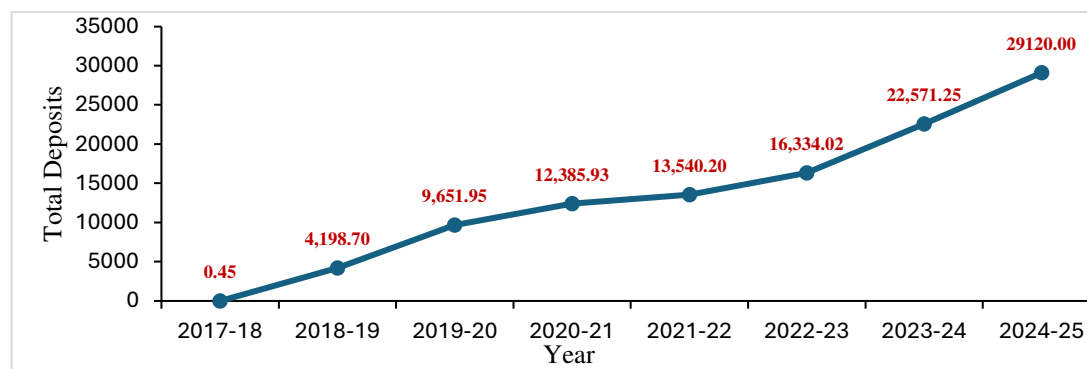
Jana Small Finance Bank is founded on the traditional banking principle of receiving deposits and issuing loans, and the objective is to grow and become a top digitized bank serving an aspirational India. This suggests a focus on offering a full suite of products and services through multiple channels with high customer satisfaction. The focus on priority sector lending is also consistent with its mandate and the objective of reaching out to a diverse range of customers, including underserved populations. Building a low-cost diversified retail deposit base is also a key focus. 36.8% of their branches are located in unbanked and under-banked rural locations.

Some statistical insights related to broader categories of financial products and services of Jana Small finance banks are given below:

3.5.5.1 Deposit Growth of Jana Small Finance Bank

Figure 3.18

Total Deposits (₹ in crores)



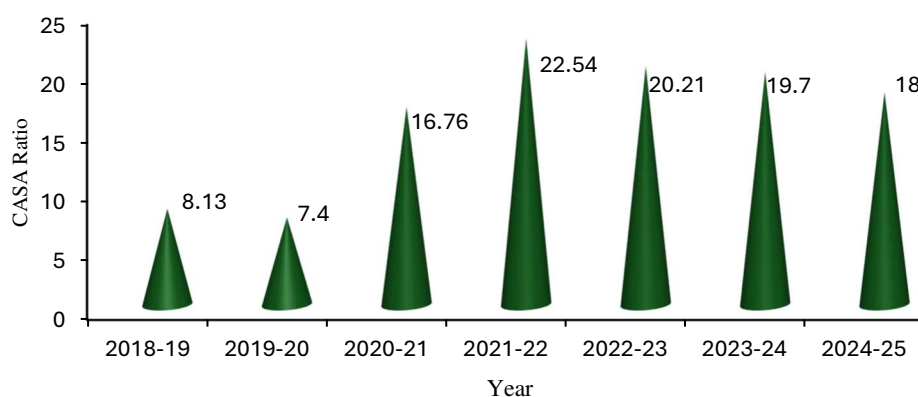
(Source: Compiled from annual reports of Jana Small Finance Bank)

Figure 3.18 reveals that the bank has witnessed a strong growth in its deposit base over the last 8 years. The total increase in the deposits experienced a highly significant increase beginning with ₹0.45 crore in FY 2017-18 up to ₹29,120 crore in FY 2024-25.

3.5.5.2 CASA Ratio of Jana Small Finance Banks

Figure 3.19

CASA Ratio



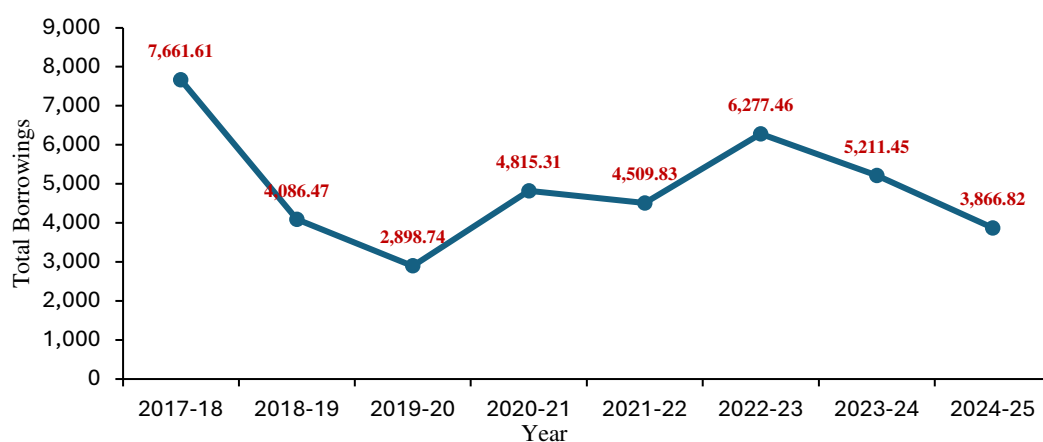
(Source: Compiled from annual reports of Jana Small Finance Bank)

The Figure 3.19 shows that the initial years had a fairly low CASA ratio of between 7% to 8% in FY 2018-19 and FY 2019-20. Then CASA ratio increased significantly to 16.76% in FY 2020-21 and to 22.54% in FY 2021-22. Afterwards, the CASA ratio was considerably declined in later years and finally to 18% in FY 2024-25.

3.5.5.3 Total Borrowings of Jana Small Finance Bank

Figure 3.20

Total Borrowings (₹ in crores)



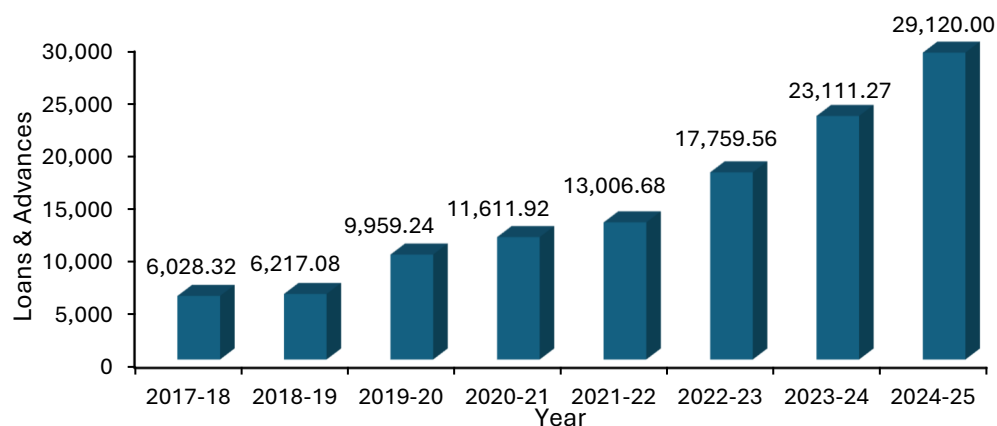
(Source: Compiled from annual reports of Jana Small Finance Bank)

Figure 3.20 shows that the total borrowings of the Jana SFB have been fluctuating over last years, with a dynamic change in their financing sources. A significant decline in the amount of ₹7, 661.61 crores in FY 2017-18 to 2,898.74 crores in FY 2019-20 was registered. After this, borrowings rebounded strongly in FY 2020-21 and substantially increased in FY 2022-23. The last years, FY 2023-24 and FY 2024-25, shows a decline in the amount, which is in line with the reported high deposit growth and less reliance of the bank on borrowings.

3.5.5.4 Loan Portfolio Growth of Jana Small Finance Bank

Figure 3.21

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Jana Small Finance Bank)

Figure 3.21 shows that the bank's loans and advances substantially enhanced over the past 8 years. The total loans and advances on FY 2024-25 have achieved around 5 times increase when compared to FY 2017-18.

3.5.6 Slice Small Finance Bank

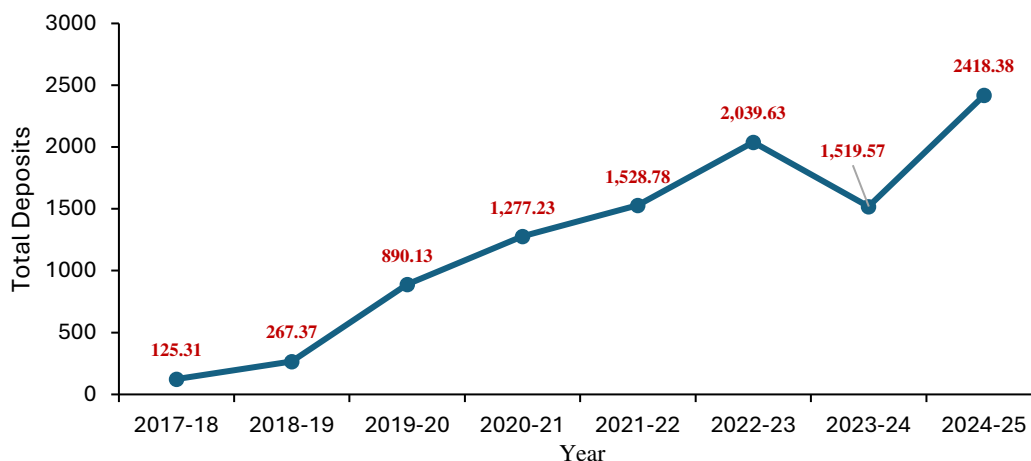
The financial product pattern of Slice Small Finance Bank reflects a strong focus on financial inclusion in the North East region and West Bengal. In the early years, the bank mainly focused on micro credit and basic savings accounts to serve unbanked and underbanked segment of population. The bank has been building a stable and low-cost funding base through deposit mobilization including various current account options. The bank is also focused on operational efficiency and digital adoption. There has been significant growth in portfolio outstanding, indicating strong demand for loan products.

Some statistical insights related to broader categories of financial products and services of Slice Small finance banks are given below:

3.5.6.1 Deposit Growth of Slice Small Finance Bank

Figure 3.22

Total Deposits (₹ in crores)



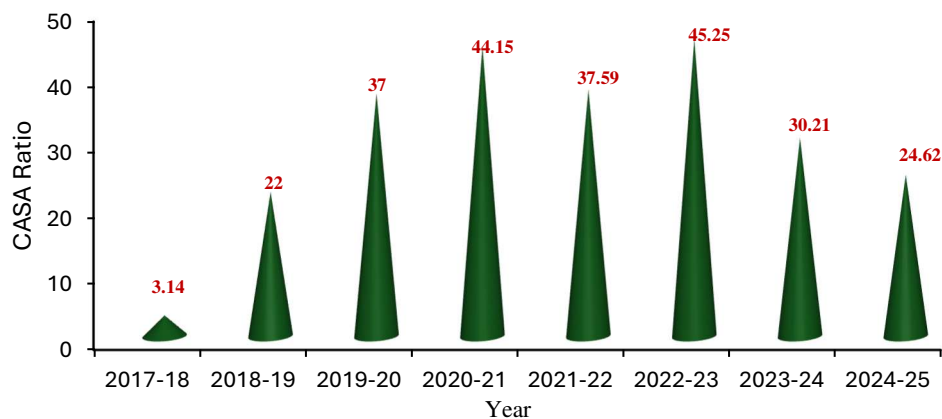
(Source: Compiled from annual reports of Slice Small Finance Bank)

Figure 3.22 indicates that the total deposits of Slice Small Finance Bank increased very tremendously between FY 2017-18 and FY 2022-23 and reached a high of ₹2,039.63 crore in FY 2022-23. The deposits of the bank declined in the financial year 2023-24. But tremendously increased to ₹2418.38 crore in the FY 2024-25, indicating a positive sign for the deposit growth.

3.5.6.2 CASA Ratio of Slice Small Finance Bank

Figure 3.23

CASA Ratio



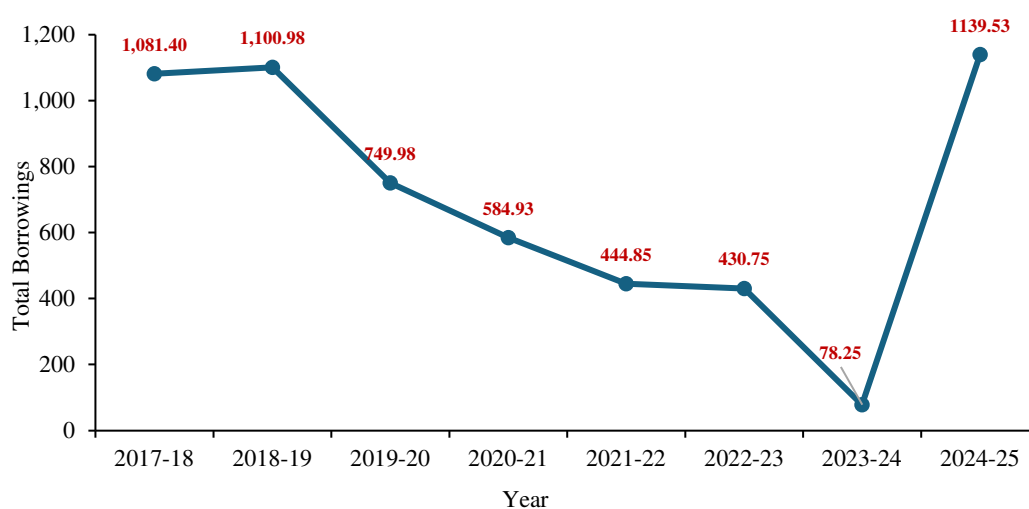
(Source: Compiled from annual reports of Slice Small Finance Bank)

Figure 3.23 shows that Slice Small Finance Bank's CASA ratio improved strongly from a low 3.14% in FY 2017–18 to 44.15% in FY 2020–21, showing its growing ability to attract low-cost deposits. However, the ratio later declined and fell to 24.62% in FY 2024–25.

3.5.6.3 Total Borrowings of Slice Small Finance Bank

Figure 3.24

Total Borrowings (₹ in crores)



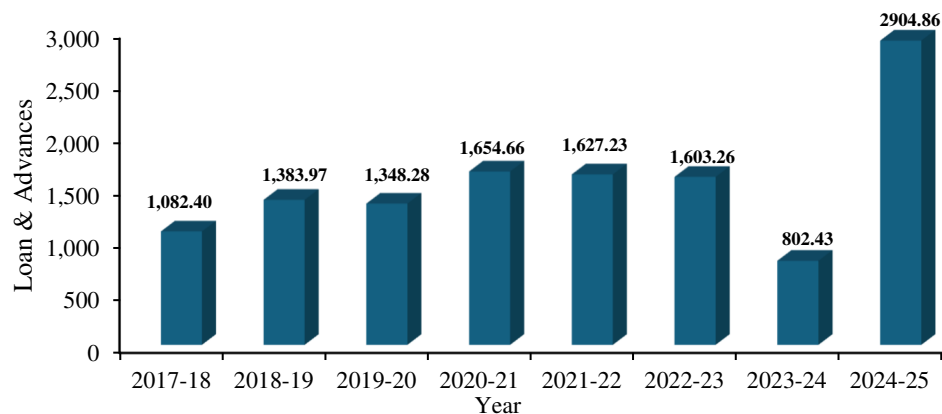
(Source: Compiled from annual reports of Slice Small Finance Bank)

The figure shows that the bank's borrowings started high at ₹1,081.40 crore in FY 2017–18 and rose slightly in FY 2018–19. Subsequently, the borrowings steadily fell in a number of years down to a low of ₹78.25 crore in FY 2023-24, depicting a lesser reliance on borrowed funds. However, in the most recent year the borrowings increased drastically to ₹1,139.53 crore, indicating that borrowings are heavily used.

3.5.6.4 Loan Portfolio Growth of Slice Small Finance Bank

Figure 3.25

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Slice Small Finance Bank)

Figure 3.25 shows that Slice Small Finance Bank's loans and advances grew steadily until March 2019 and rose sharply to ₹1,654.66 crore by March 2021. The total advances were disbursed consistently during 2022 and 2023. Their figures dropped drastically in March 2024 to 802.43 crore but increased sharply in 2024-25 to 2,904.86 crore thus depicting a favourable trend.

3.5.7 Shivalik Small Finance Bank

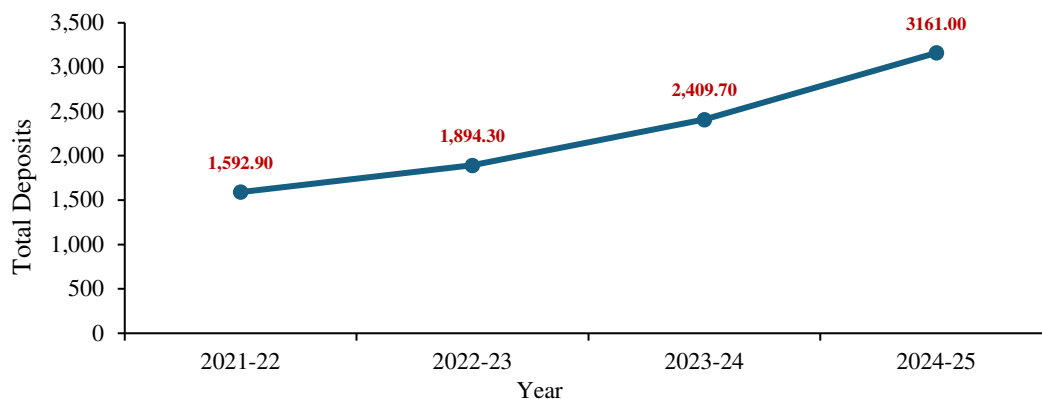
The product pattern of Shivalik Small Finance Bank is in line with the fundamental objectives of SFBs, which aim at financial inclusion and providing services to the under-served and unserved sectors. Their strategy is based on the Digital-First approach to provide affordable and convenient products. As an SFB, the bank strives to expand its retail banking legacy but provide a wider range of products, making it a focus of diversifying its products. After becoming SFB, the bank has recorded a high growth in deposits and advances. There are increasing figures for demonstrating commitment to regulatory requirements and underserved sectors. The customer base has also shown consistent growth.

Based on the annual reports, some statistical insights related to financial product and service pattern of Shivalik Small Finance Bank are given below.

3.5.7.1 Deposit Growth of Shivalik Small Finance Bank

Figure 3.26

Total Deposits (₹ in crores)



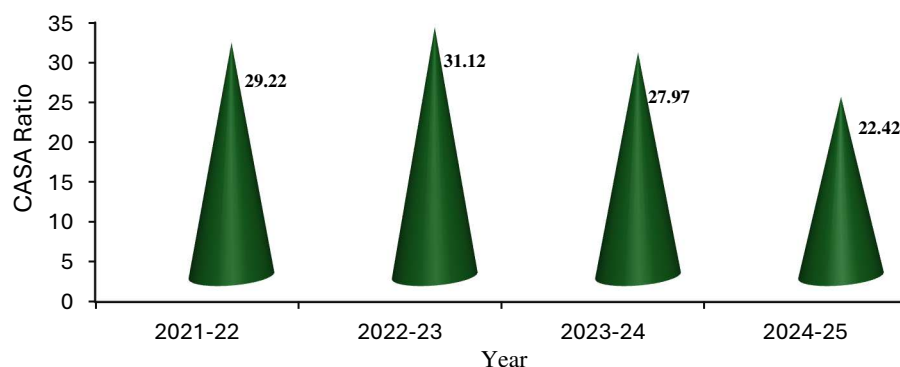
(Source: Compiled from annual reports of Shivalik Small Finance Bank)

The figure 3.26 describes that the total deposits of the bank has shown a substantial increase over the past 4 years. Regarding the financial year ending on 31 March 2023, the aggregate deposit increased 19% year-on-year as compared to the prior financial year. For the financial year ended 31 March 2024, the deposits increased by 27% to ₹ 2,410 crore and finally raised to ₹3161 as at 31st March, 2025.

3.5.7.2 CASA Ratio of Shivalik Small Finance Bank

Figure 3.27

CASA Ratio



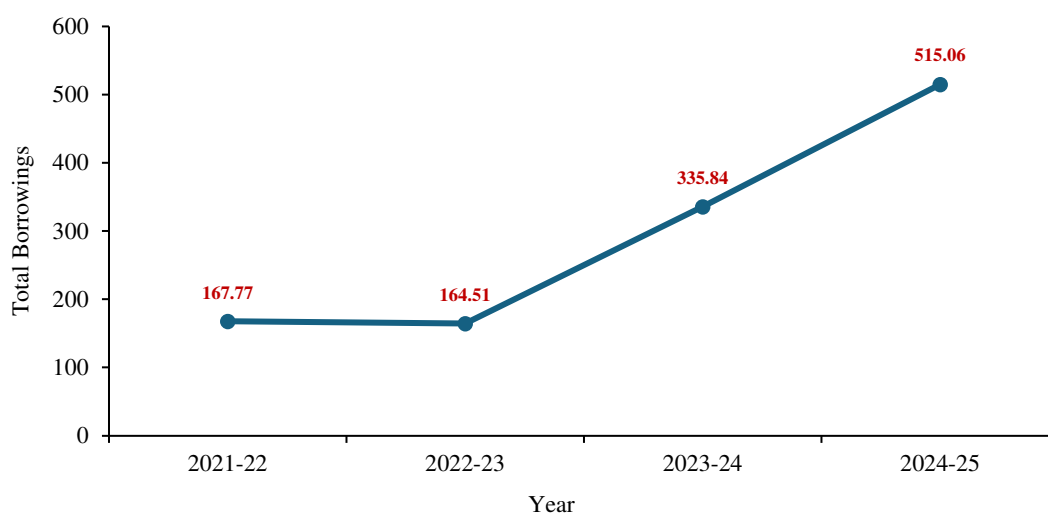
(Source: Compiled from annual reports of Shivalik Small Finance Bank)

The figure 3.27 shows that the CASA ratio showed an increasing trend from FY2022 to FY2023, followed by a decline in FY 2023-24 and FY 2024-25. Despite the decline in the ratio, the absolute value of the CASA book continued to grow each year as per the balance sheet and the total deposit base grew at a faster rate leading to a lower proportion of CASA within the total deposits.

3.5.7.3 Total Borrowings of Shivalik Small Finance Bank

Figure 3.28

Total Borrowings (₹ in crores)



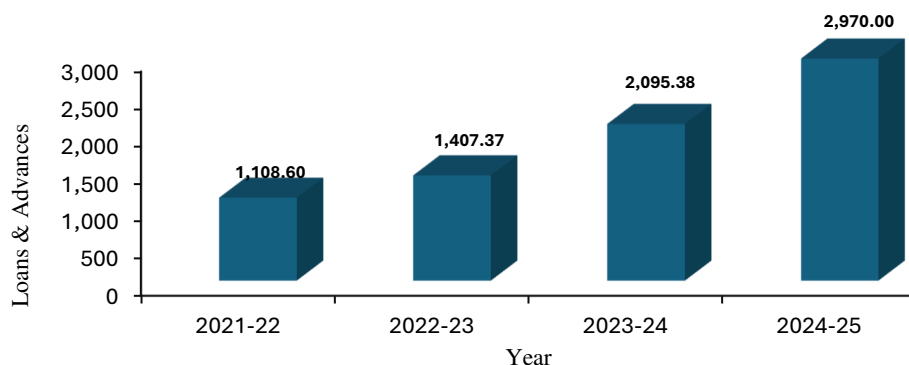
(Source: Compiled from annual reports of Shivalik Small Finance Bank)

As per the figure 3.28 the Shivalik SFB's total borrowings remained relatively stable between FY 2021-22 and FY 2022-23 but saw a more than doubling in FY 2023-24 and in FY 2024-25. This growth has been mainly a result of a massive growth in unsecured borrowings, especially refinance facilities used as stated in the annual reports with NABARD and SIDBI.

3.5.7.4 Loan Portfolio growth of Shivalik Small Finance Bank

Figure 3.29

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Shivalik Small Finance Bank)

Figure 3.29 shows that the total loans and advances of Shivalik Small Finance Bank have exhibited a strong upward trend over the last four financial years. The loans and advance were increased highly in FY 2023-24 compared to last years. The year ending on March 31, 2025 experienced huge growth in total advances and recorded a three-fold increase in total loans and advances.

3.5.8 Suryoday Small Finance Bank:

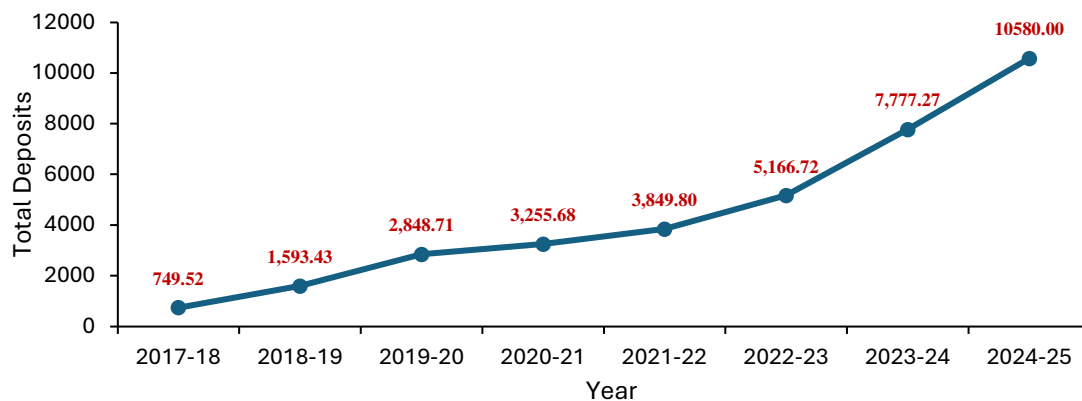
Suryoday Small Finance bank has a clear financial inclusion mandate as they are to provide services to the unbanked and the underprivileged. Its initial focus was heavily on JLG loans. Throughout the years, the bank has been strategic in diversifying its product range into segments such as Commercial Vehicle Loans, Affordable Housing Loans and Secured Business Loans, and has been meeting PSL requirements. Building a stable and low-cost deposit franchise is also a key aspect of their strategy.

Some statistical insights related to broader categories of financial products and services of Suryoday Small finance banks are given below:

3.5.8.1 Deposit Growth of Suryoday Small Finance Bank

Figure 3.30

Total Deposits (₹ in crores)



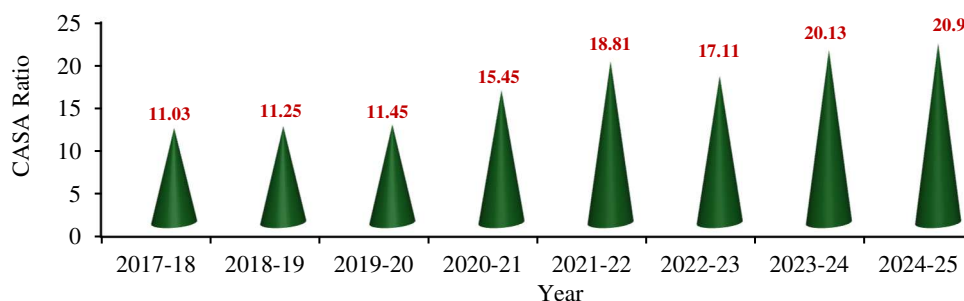
(Source: Compiled from annual reports of Suryoday Small Finance Bank)

As per the figure 3.30 over the last eight financial years, the bank's total deposits have shown significant and consistent growth. The total deposits, which were at ₹749.52 crore as of March 31, 2018, have grown more than twelve times to ₹10,580 crore as of March 31, 2025. The period between FY 2019-20 and FY 2023-24 deposits increases significantly, while the growth was significantly high in the most recent financial year.

3.5.8.2 CASA Ratio of Suryoday Small Finance Bank

Figure 3.31

CASA Ratio



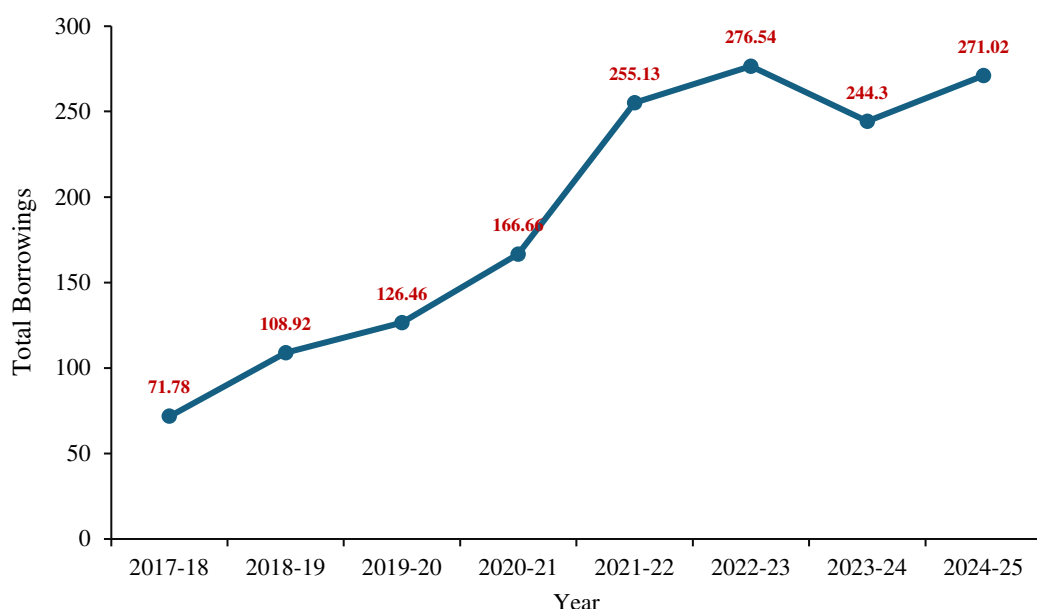
(Source: Compiled from annual reports of Suryoday Small Finance Bank)

Figure 3.31 shows that the bank's CASA ratio has demonstrated a clear and substantial upward trend over the last eight years. The earlier year showed a consistently low trend, then the ratio underwent an increase, reaching 15.45 percent in FY 2020-21 and 18.81 percent in FY 2021-22. The ratio rose strongly to reach its peak of 20.13% in FY 2023-24 and then to 20.9% in FY 2024-25. This trend indicates the bank's success in gradually but sustainably increasing its low-cost deposit base.

3.5.8.3 Total Borrowings of Suryoday Small Finance Bank

Figure 3.32

Total Borrowings (₹ in crores)



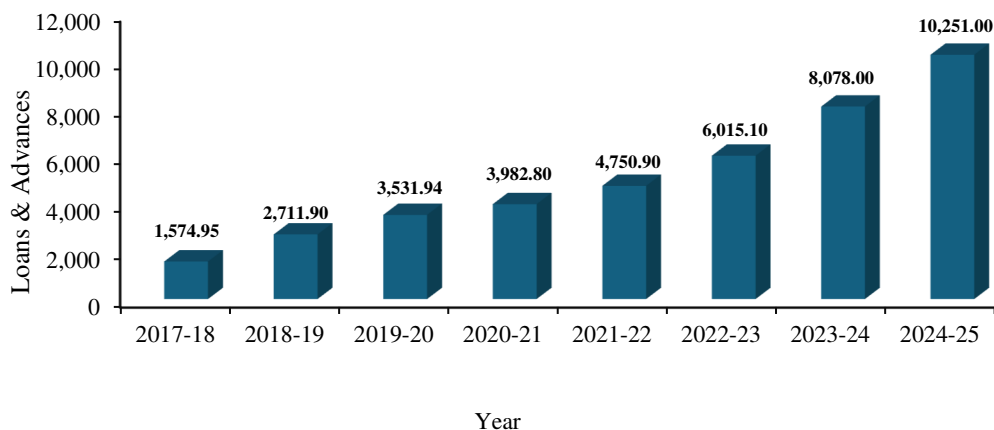
(Source: Compiled from annual reports of Suryoday Small Finance Bank)

Figure 3.32 indicates that there is an increased upward trend in total borrowings of the bank between the FY2018-19 and FY 2023-24. Since beginning with ₹71.78 crore in the FY 2018, the growth of borrowings was steady, and the high point was achieved in the FY 2022 -23 at ₹276.54 crore. But this trend changed in FY 2023-24 where the total borrowings dropped to ₹244.30 crore, then crossed to ₹271.02 crore. Overall, it shows the bank's growing dependence on the external funds and sources.

3.5.8.4 Loan Portfolio Growth of Suryoday Small Finance Bank

Figure 3.33

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Suryoday Small Finance Bank)

Figure 3.33 shows that total advances as reported by the bank have had a steep and stable upwards trend in the last eight years as ₹1,574.95 crore of FY 2017-18 increased to ₹10,251 crore in FY 2024-25. After an initial gradual growth, the rate of increase became much higher in the later years with a significant growth. This continued growth is an indication of the strategic orientation of the bank to develop its loan book, such as the micro loans and the retail loans.

3.5.9 Ujjivan Small Finance Bank

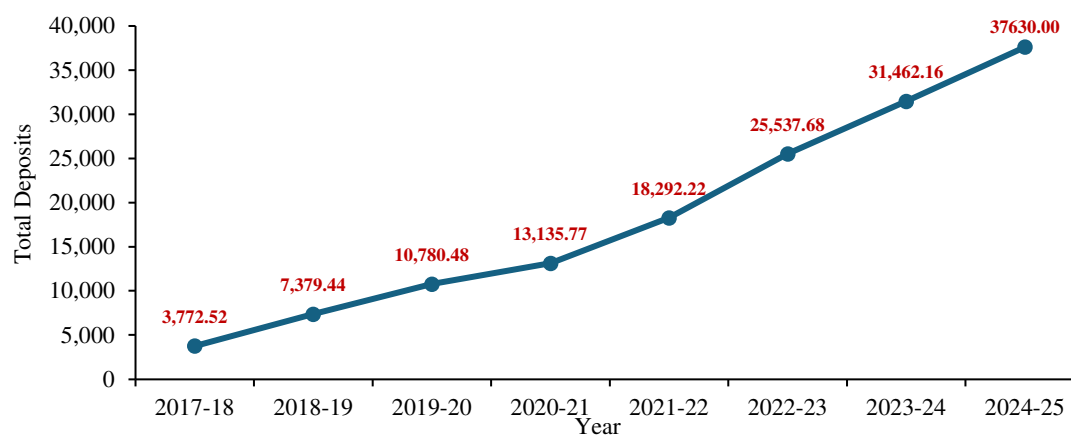
Ujjivan Small Finance Bank maintains a consistent orientation towards financial inclusion, which serves the unserved and underserved. First, it was greatly dependent on its microfinance customer base. It has been essential to strategically focus on establishing a liability franchise in terms of various deposit products. It has diversified its asset products, other than microfinance, over time, through affordable housing and MSE finance. The use of digital channels is also a major dimension of their strategy.

Some statistical insights related to broader categories of financial products and services of Ujjivan Small finance banks are given below:

3.5.9.1 Deposit Growth of Ujjivan Small Finance Bank

Figure 3.34

Total Deposits (₹ in crores)



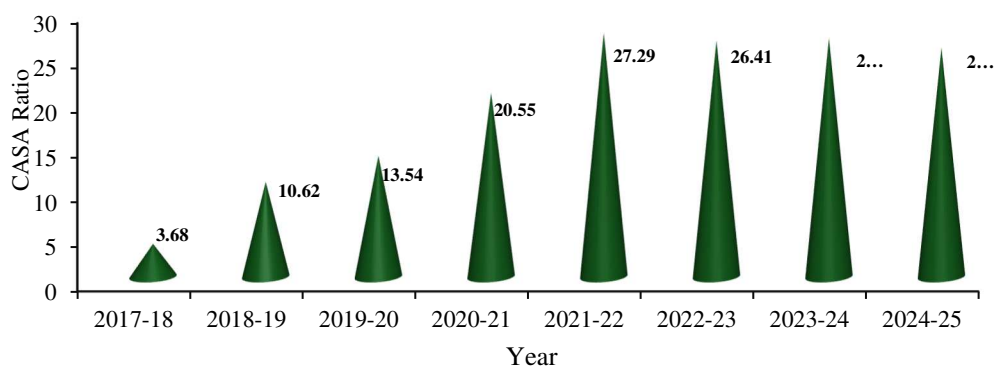
(Source: Compiled from annual reports of Ujjivan Small Finance Bank)

Figure 3.34 reveals that the bank has experienced upward continuous growth in total deposits over past eight years, which started with ₹3,772.52 Crores in March 2017-18 and ended with ₹37,630 Crores in March 2024-25. This is a significant growth in the deposit base which increases more than ten times the initial amount during the time. Its growth curve has been on a continuous annual trend, which reflects rising confidence by the customers.

3.5.9.2 CASA Ratio of Ujjivan Small Finance Bank

Figure 3.35

CASA Ratio



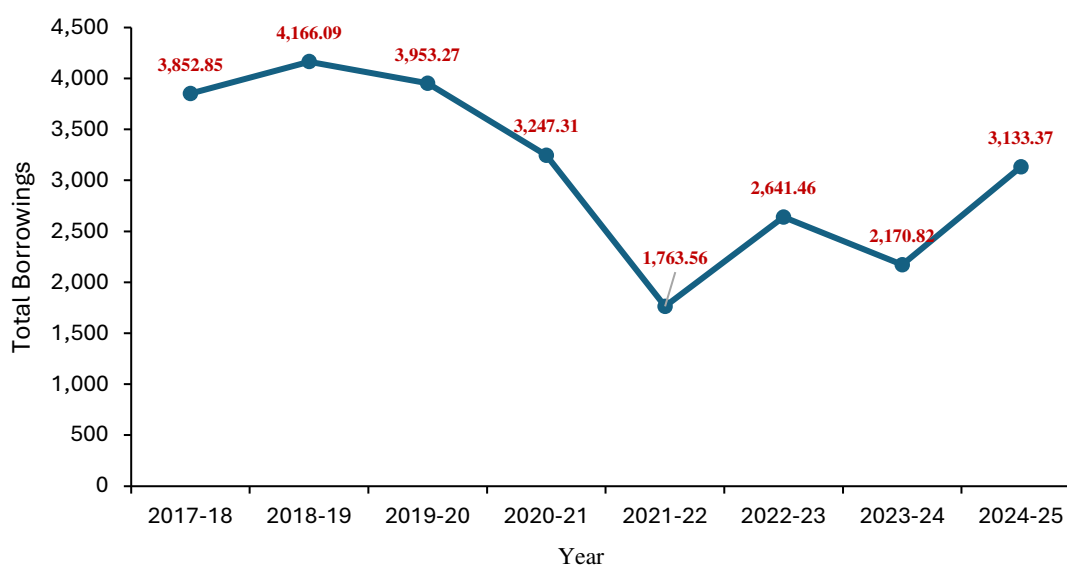
(Source: Compiled from annual reports of Ujjivan Small Finance Bank)

Figure 3.35 illustrates that the CASA ratio of the bank increased consistently since FY 2017-18. It also increased rapidly during the initial years to a high level of 20.55% in FY 2020-21 and a high of 27.29% in FY 2021-22. The ratio still showed a significant increase compared to the beginning and remained at a fairly consistent level.

3.5.9.3 Total Borrowings of Ujjivan Small Finance Banks

Figure 3.36

Total Borrowings (₹ in crores)



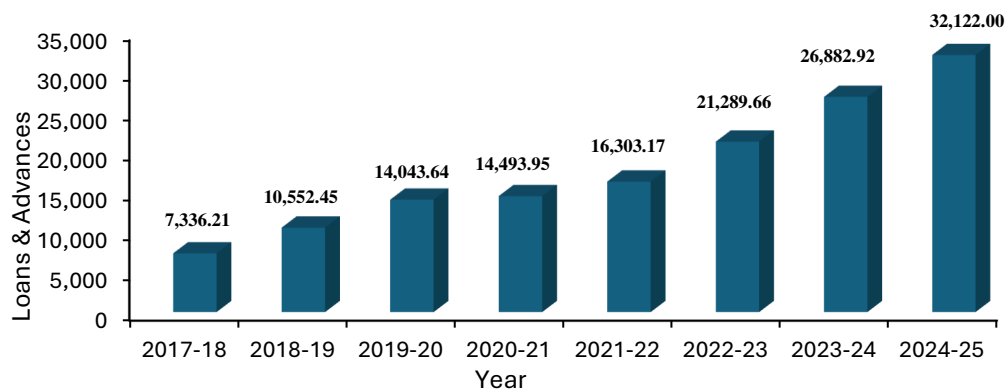
(Source: Compiled from annual reports of Ujjivan Small Finance Bank)

Figure 3.36 shows that the bank borrowings have been varying during the last eight years. The borrowings began with the peak of ₹3,852.85 crore in FY 2017-18, then dropped very steeply in FY 2018-19 to FY 2021-22. Borrowings decreased to ₹2,170.82 crore by March 2024 and then it increased to ₹3,133.37 crore in FY 2024-25. Overall, this is a clear shift in the pattern of borrowing of the bank as compared to its early years.

3.5.9.4 Loan Portfolio Growth of Ujjivan Small Finance Bank

Figure 3.37

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Ujjivan Small Finance Bank)

Figure 3.37 reveals that the total advances of the bank have recorded an impressive and steady growth during the eight preceding financial years, with the total advances of ₹7,336.21 Crores as at March 31, 2018 increased to ₹32,122 crores as at March 31, 2025. This continued growth indicates the strategic emphasis of the bank on developing its lending base in the different segments and hence the increase in the total advances by more than 4 times in this period.

3.5.10 Unity Small Finance Bank

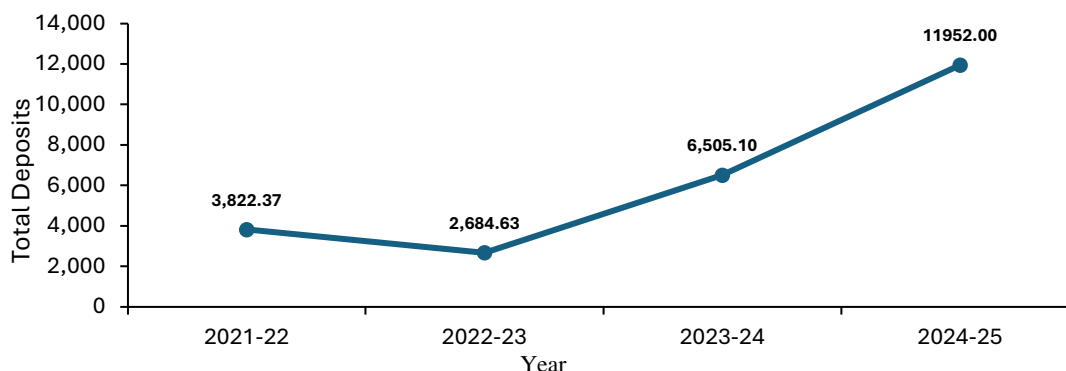
The product pattern of Unity Small Finance Bank is shaped by its character as an SFB which is concerned with financial inclusion of unbanked and underbanked sectors. The bank aims at serving the unorganised markets such as the small business and marginal farmers. Their business philosophy is oriented toward being Customer First and Co-Creation which implies relying on customer-centric products. The use of digital channels is also a prominent part of their strategy.

Some statistical insights related to broader categories of financial products and services of Ujjivan Small finance banks are given below:

3.5.10.1 Deposit Growth of Unity Small Finance Bank

Figure 3.38

Total Deposits (₹ in crores)



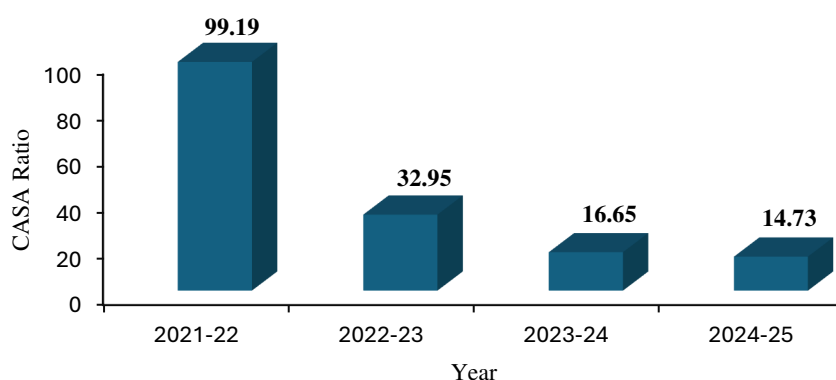
(Source: Compiled from annual reports of Unity Small Finance Bank)

Figure 3.38 reveals that the bank's total deposits grew significantly over the years. The total deposits showed a decline in FY 2022-23 and thereafter showed a significant increase. Later on, the total deposits of the bank increased drastically to ₹11,952 crore in FY 2024-25, which implies that the deposit base of the bank grew strongly in the current financial year.

3.5.10.2 CASA Ratio of Unity Small Finance Bank

Figure 3.39

CASA Ratio



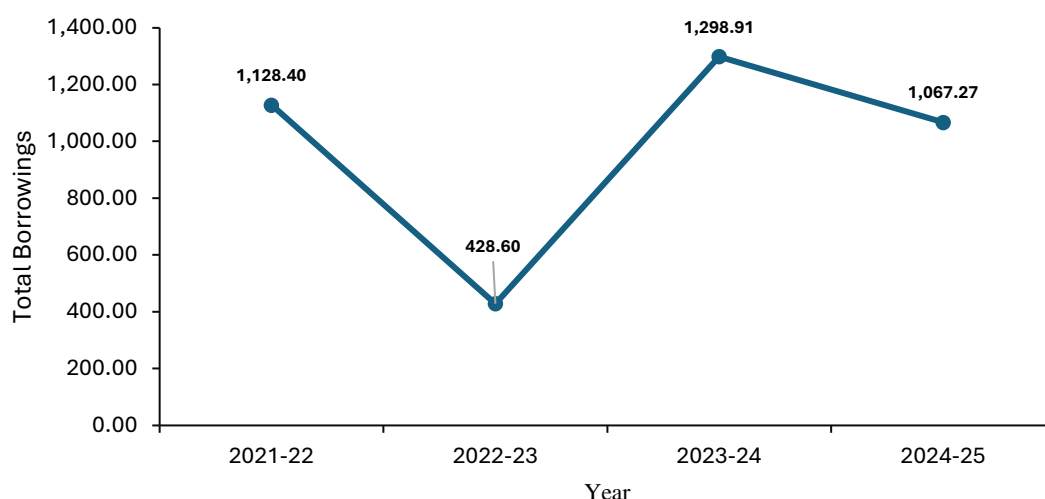
(Source: Compiled from annual reports of Unity Small Finance Bank)

Figure 3.39 shows that Unity Small Finance Bank started with a very high CASA ratio due to heavy reliance on savings and current accounts. The CASA ratio decreased to 16.65% in FY 2023-24. Subsequently, it decreased to 14.73 percent by March 2025 despite the massive growth in aggregate deposits that exhibited a clear transition of a CASA heavy base to more term deposits.

3.5.10.3 Total Borrowings of United Small Finance Bank

Figure 3.40

Total Borrowings (₹ in crores)



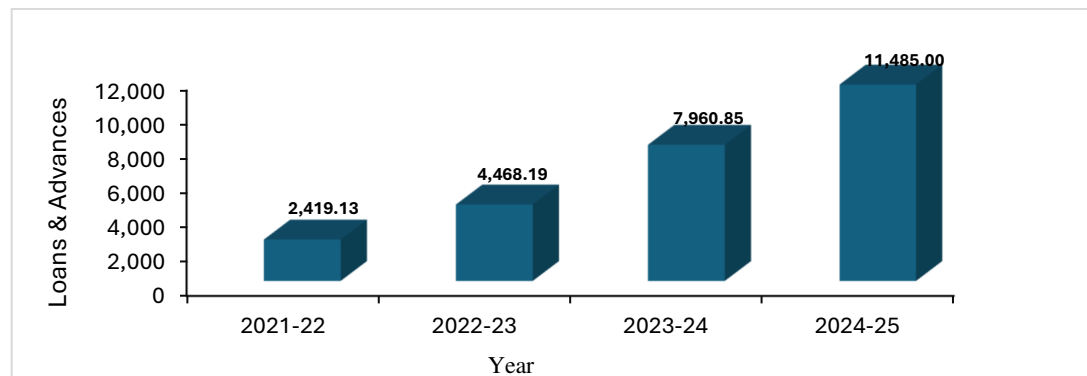
(Source: Compiled from annual reports of Unity Small Finance Bank)

Figure 3.40 indicates that the borrowings of Unity Small Finance Bank were varied over the years. The initial borrowings of the bank were ₹1,128.40 crore in FY 2021-22, were significantly decreased to ₹428.60 in 2022-23. However, during FY 2023-24, the number of deposits dropped once more to above three times and then came down to ₹1,067.27 crore. This shows the wide fluctuations of bank's reliance on borrowed funds.

3.5.10.4 Loan Portfolio Growth of Unity Small Finance Bank

Figure 3.41

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Unity Small Finance Bank)

Figure 3.41 shows that Unity Small Finance Bank's total advances were ₹2,419.13 crore as on March 31, 2022, soon after it began operations. During 2022-23, the increase in the advances and loans grew fast and continued to grow steadily. Subsequently witnessed a huge growth in total advances in FY 2024-25 with an amount of ₹11,485 crore. This indicates rapid and consistent expansion of the bank's loan portfolio over the three-year period.

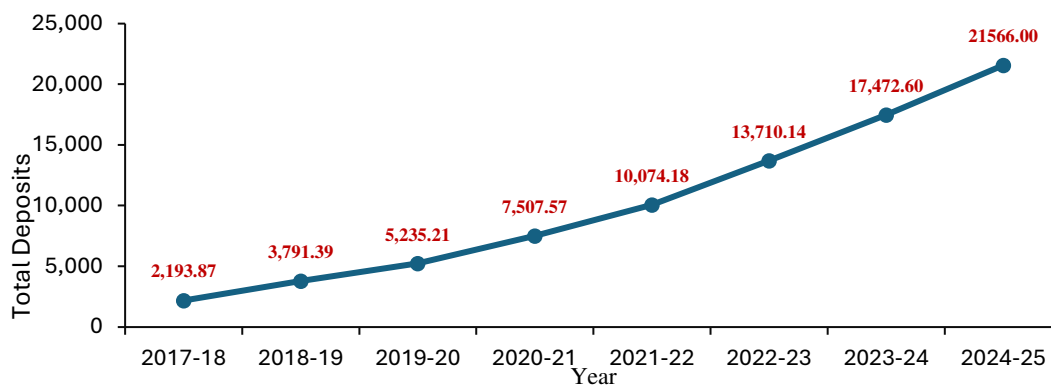
3.5.11 Utkarsh Small Finance Bank

Utkarsh Small Finance Bank's financial product strategy is centred around providing accessible and affordable banking services, with a primary focus on financial inclusion. The bank started with the focus on the basic banking and microfinance, however, has built a well-planned portfolio of different products in the retail lending, such as MSME and housing loans. The bank is also leveraging technology for service delivery and customer acquisition. Both deposits and loan portfolios have shown strong growth over the years. The analysis of the bank's product pattern reveals the following trends.

3.5.11.1 Deposit Growth of Utkarsh Small Finance Bank

Figure 3.42

Total Deposits (₹ in crores)



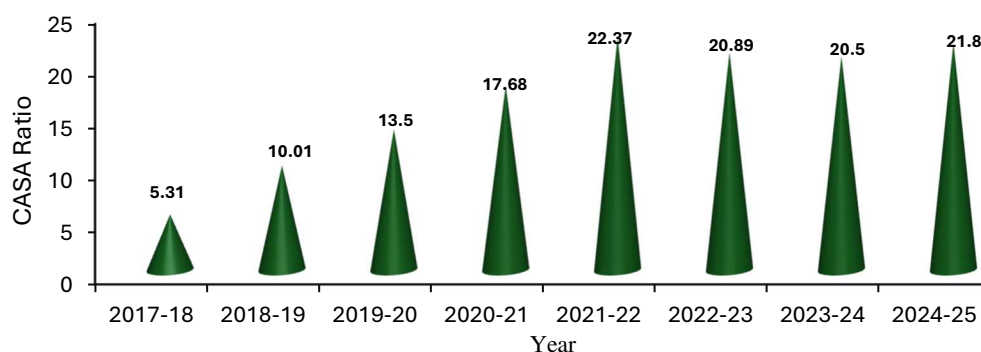
(Source: Compiled from annual reports of Utkarsh Small Finance Bank)

As shown in figure 3.42, the total deposits of the bank increased very strongly in the four years between FY 2017-18 and FY 2024-25 reaching ₹21, 566 crores. This indicates a high growth rate with the total deposits increasing every year and attaining a high annual growth rate during this period.

3.5.11.2 CASA Ratio of Utkarsh Small Finance Bank

Figure 3.43

CASA Ratio



(Source: Compiled from annual reports of Utkarsh Small Finance Bank)

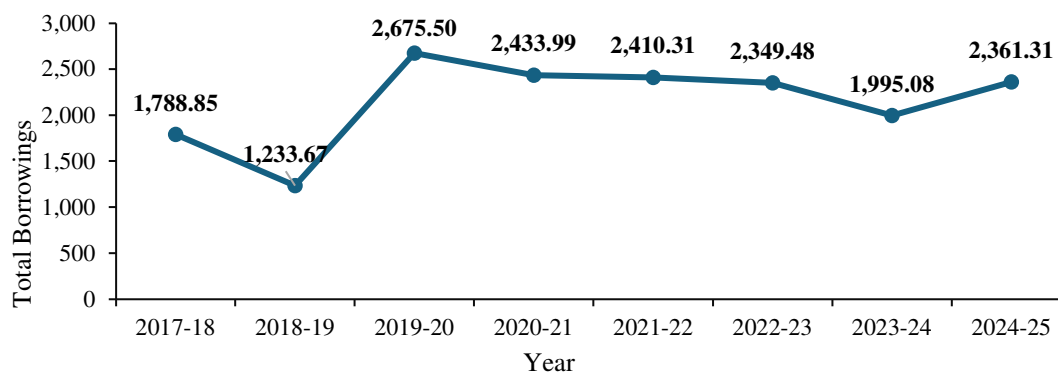
Figure 3.43 shows that the bank's CASA ratio rose steadily from a low of 5.31% in March 2018 and peaked at 22.37% in March 2022. It was slightly decreased in the

subsequent two years and then increased to 21.8 percent in FY 2024-25, indicating that the ratio has not been experiencing significant changes in the past few years.

3.5.11.3 Total Borrowings of Utkarsh Small Finance Bank

Figure 3.44

Total Borrowings (₹ in crores)



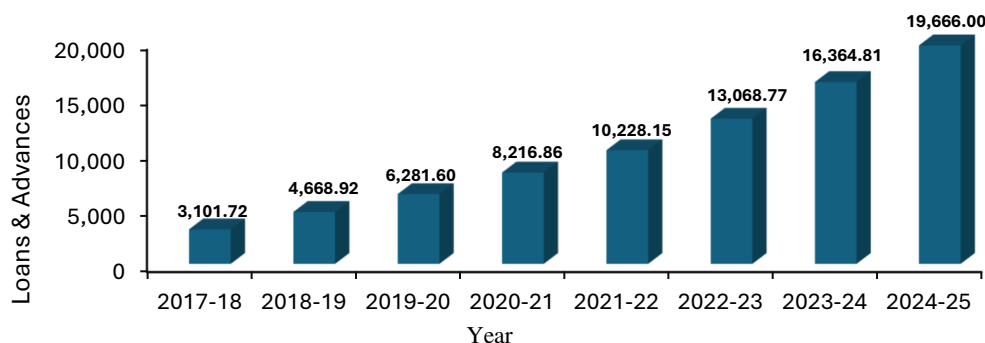
(Source: Compiled from annual reports of Utkarsh Small Finance Bank)

Figure 3.44 indicates that the bank borrowings have varied over the last eight years, with the highest point of ₹2,675.50 crore in March 2020, and the lowest value of ₹1,788.85 crore in March 2018. After this peak, borrowings generally declined and remained fairly stable, suggesting that the bank has gradually shifted its focus toward mobilising deposits instead of depending on costly borrowings.

3.5.11.4 Loan Portfolio Growth of Utkarsh Small Finance Bank

Figure 3.45

Total Loans & Advances (₹ in crores)



(Source: Compiled from annual reports of Utkarsh Small Finance Bank)

Figure 3.45 presents that the total net advances of the bank rose continuously from ₹3,101.72 crore in March 2018 to ₹19,666 crore in March 2025. This is more than five-fold increase and this indicates a successful expansion of its lending activities.

3.5.12 Trend Analysis of Financial Product Indicators

The time series data of 11 Small Finance Banks were analysed using the Trend Growth Rate (TGR) and the Compound Annual Growth Rate (CAGR). The analysis of the financial product indicators such as total deposits, CASA ratio, total borrowings and total loans and advances of the SFBs across 8 years from 2017-18 to 2024-25 is presented below.

3.5.12.1 Total Deposits of 11 Small Finance Banks in India

Table 3.8

Total Deposits

Year	(Rupees in Crore)											Total
	AU SFB	Capital SFB	ESAF SFB	Equitas SFB	Jana SFB	Slice SFB	Shivalik SFB	Suryoday SFB	Ujjivan SFB	Unity SFB	Utkarsh SFB	
2017-18	7,923	2,850.52	2,523.09	5,603.93	0.45	125.31	N/A	749.52	3,772.52	N/A	2,193.87	25,742.53
2018-19	19,422	3,667.26	4,317.01	9,006.74	4,198.70	267.37	N/A	1,593.43	7,379.44	N/A	3,791.39	53,643.34
2019-20	26,164	4,446.62	7,028.38	10,788.41	9,651.95	890.13	N/A	2,848.71	10,780.48	N/A	5,235.21	77,833.89
2020-21	35,979	5,221.07	8,999.43	16,391.97	12,385.93	1,277.23	N/A	3,255.68	13,135.77	N/A	7,507.57	1,04,153.65
2021-22	52,585	6,046.36	12,815.07	18,950.80	13,540.20	1,528.78	1,592.90	3,849.80	18,292.22	3,822.37	10,074.18	1,37,682.41
2022-23	69,365	6,560.62	14,665.62	25,348.48	16,334.02	2,039.63	1,894.30	5,166.72	25,537.68	2,684.63	13,710.14	1,78,727.91
2023-24	87,182	7,477.74	19,867.80	36,129.20	22,571.25	1,519.57	2,409.70	7,777.27	31,462.16	6,505.10	17,472.60	2,31,459.71
2024-25	124,269	8,323	23,276.44	43,107.00	29,120.00	2,418.38	3,161.00	10,580.00	37,630.00	11,952.00	21,566.00	300,289.82
Mean	52861	5574	11687	20666	13475	1258	1132	4478	18499	3121	10194	138692
TGR	43.06	15.87	35.87	32.97	183.80	46.50	25.82	40.25	36.72	53.80	37.61	38.37
CAGR	48.18%	16.54%	37.36%	33.84%	386.72%	52.63%	25.66%	45.96%	38.90%	46.23%	38.61%	42.04%

Source: Compiled from annual reports of Small Finance Banks

Table 3.8 reveals a significant and steady increase in total deposits of all 11 Small Finance Banks between FY 2017-18 and FY 2024-25 indicating increasing customer confidence and growth in the banking operations. The total deposits increased by more

than 10 times in eight years period from ₹25,742.53 crore to ₹3,00,289.82 crore. This steep growth indicates the symbol of acceptance of SFBs as a credible financial institution particularly among low-income and underserved populations. The AU SFB recorded with a highest deposit base, which increased from ₹7,923 crore to ₹1,24,269 crore with a highest mean deposit of ₹52,861 crore and a CAGR of 48.18%. Whereas, Capital SFB showed the lowest level of increase in deposit growth with a TGR of 15.87% and CAGR of 16.54%.

The deposits of Equitas SFB increased from ₹5,603.93 crore to ₹43,107 crore. Ujjivan SFB increased their total deposits to ₹37,630 crore from ₹3,772 crore. ESAF SFB increased from ₹2,523 crore to ₹23,276 crore. All these three banks achieved CAGR of 33% to 39% which is reflective of healthy and sustained deposit growth. There are also emerging Banks such as Unity, Shivalik and Slice SFB that bear promising trends. Unity SFB has increased its total deposits to ₹11,952 crore with 53.8% TGR and deposits of Slice SFB has increased to ₹2,418 crore from ₹125 crore.

The overall CAGR of 42.04 of total deposits of all SFBs illustrates how these banks have quickly evolved as a mobiliser of deposits and the overall average TGR of 38.37 shows that the sector is continuing to grow well in the long-term. The increase is high in the initial years in all banks owing to expansion. All SFBs showed a good performance after the pandemic due to increased customer confidence and digital adoption. Overall, the statistics shows that the mobilization capacity of SFBs in respect of deposits has been growing at a very high rate, which implies that the increasing degree of trust and the financial inclusion of the population is growing during the period.

3.5.12.2 CASA Ratio of 11 Small Finance Banks in India

Table 3.9

CASA Ratio

YEAR	AU SFB	Capital SFB	ESAF SFB	Equitas SFB	Jana SFB	Slice SFB	Shivalik SFB	Suryoday SFB	Ujjivan SFB	Unity SFB	Utkarsh SFB	Total
2017-18	26.93	39.99	10.01	29.22	N/A	3.14	N/A	11.03	3.68	N/A	5.31	129.31
2018-19	18.5	38.39	13.55	25.25	8.13	22	N/A	11.25	10.62	N/A	10.01	157.70
2019-20	14.47	36.31	13.66	20.47	7.4	37	N/A	11.45	13.54	N/A	13.5	167.80
2020-21	23	40.08	19.42	34.24	16.76	44.15	N/A	15.45	20.55	N/A	17.68	231.33
2021-22	37	42.16	22.84	52.01	22.54	37.59	29.22	18.81	27.29	99.19	22.37	282.61
2022-23	38.4	41.89	21.39	42.28	20.21	45.25	31.12	17.11	26.41	32.95	20.89	273.83
2023-24	33.41	38.3	22.66	31.98	19.7	30.21	27.97	20.13	26.7	16.65	20.5	243.59
2024-25	29.2	36.9	24.84	28.79	18	24.62	22.42	20.9	25.6	14.73	21.8	230.65
Mean	28	39	19	33	14	30	14	16	19	20	17	215
TGR	8.59	0.11	13.23	4.47	17.56	21.62	8.62	11.02	27.60	47.29	19.57	9.85
CAGR	1.16%	-1.14%	13.86%	-0.21%	12.02%	34.20%	-3.71%	9.56%	31.93%	-23.85%	22.36%	8.62%

Source: Compiled from annual reports of Small Finance Banks

Table 3.9 which shows the CASA ratio trends indicate that all Small Finance Banks showed a mixed performance in respect of CASA, over the eight-year period. The CASA levels of the sector have increased in the beginning and reached their highest point around the FY 2021-22, then steadily decreased. The total CASA ratio has increased steadily from 129.31% in 2017-18 to the highest point of 282.61% in 2021-22, showing a high deposit mobilisation in the initial years. At the same time, CASA ratios decreased to 230.65% in FY 2024-25, indicating an increasing competition. The average total CASA ratio stands at 215, the TGR is 9.85% and CAGR is 8.62% indicating moderate long-term growth.

The CASA range of Capital SFB was the most stable between 36% to 42%, and its mean is 39% though CAGR is slightly reduced. AU SFB grew and fell, reaching the highest point of 37 percent in FY 2021-22 and levelling to around 29 percent in FY 2024-25. Slice SFB showed a highest CAGR of 34.20, CASA increased by a huge

margin from 3.14 to 24.62. Ujjivan SFB has improved greatly with CAGR of 31.93, and it has grown from 3.68 to 25.6 in FY 2017-18 and FY 2024-25 respectively. Utkarsh SFB also recorded a high CAGR of 22.36.

With strong branch expansion, digital onboarding initiatives, and efforts to acquire new customers, CASA ratios have increased substantially until the FY 2021-22. The post-pandemic years shows that there is a transition to fixed deposits, which results in the reduction of CASA ratios by the majority of SFBs. Capital SFB and ESAF SFB have, however, built better low-cost deposits over the years, which are consistent in their CASA level. On the whole, the data indicates that the majority of SFBs were managed to enhance their performance in attracting low-cost CASA deposits, yet there are certain fluctuations, with some SFBs showing a downward or fluctuating trend over the years.

3.5.12.3 Total Borrowings of 11 Small Finance Banks in India

Table 3.10

Total Borrowings

(Rupees in Crore)												
YEAR	AU SFB	Capital SFB	ESAF SFB	Equitas SFB	Jana SFB	Slice SFB	Shivalik SFB	Suryoday SFB	Ujjivan SFB	Unity SFB	Utkarsh SFB	Total
2017-18	7,639	222.2	1,674.65	5,177.21	7,661.61	1,081.40	N/A	71.78	3,852.85	N/A	1,788.85	21,507.94
2018-19	8,613	358.38	1,702.36	3,973.03	4,086.47	1,100.98	N/A	108.92	4,166.09	N/A	1,233.67	25,342.90
2019-20	10,335	420.92	1,203.32	5,134.87	2,898.74	749.98	N/A	126.46	3,953.27	N/A	2,675.50	27,498.06
2020-21	7,030	616.72	1,694.00	4,165.32	4,815.31	584.93	N/A	166.66	3,247.31	N/A	2,433.99	24,754.24
2021-22	5,991	498.43	2,952.83	2,616.40	4,509.83	444.85	167.77	255.13	1,763.56	1,128.40	2,410.31	21,442.34
2022-23	6,299	721.38	3,354.20	2,973.76	6,277.46	430.75	164.51	276.54	2,641.46	428.60	2,349.48	25,324.03
2023-24	5,479	472.25	3,222.53	1,787.53	5,211.45	78.25	335.84	244.3	2,170.82	1,298.91	1,995.08	20,661.21
2024-25	11,660	320.58	1,405.73	2,136.99	3,866.82	1139.53	515.06	271.02	3,133.37	1,067.27	2,361.31	26,295.35
Mean	7881	454	2151	3496	4916	701	148	190	3116	490	2156	24103
TGR	1.12	6.57	6.89	13.61	1.56	16.15	50.36	21.14	7.48	9.87	4.81	0.01
CAGR	6.23%	5.38%	-2.47%	-11.87%	-0.79%	0.75%	17.38%	20.90%	-2.91%	-0.79%	4.05%	2.91%

Source: Compiled from annual reports of Small Finance Banks

Table 3.10 which reveal the borrowings of 11 Small Finance Banks demonstrates an unstable trend during the eight-year period of 2017-18 to 2024-25. Borrowings reached their highest point of ₹ 27,498.06 crore in 2019- 20 and fell in the pandemic years and again in 2024- 25 to ₹26, 295.35 crore. This implies that SFBs use

borrowings to fund the lending activities but their reliance is limited to the credit demand, liquidity conditions, and the regulations. In case of Total Borrowings, several banks like ESAF SFB, Equitas SFB, Jana SFB, and Ujjivan SFB, reduced their dependence on borrowings over the years. Whereas, AU SFB, Capital SFB and Utkarsh have increased their dependence on borrowings.

Smaller or newer SFBs like Shivalik, Suryoday and Unity showed a comparatively high TGR and CAGR values, indicating a growth of a small customer base and growing demand of borrowed funds to enlarge their loan books. Percentage increases in borrowings were also significant in Slice SFB and Shivalik SFB by 2024-25. The general trend of the sector with a moderate CAGR of 2.91% implying that the SFBs are slowly transitioning to increase deposit mobilization and minimise dependence on heavy borrowings in their operations despite the overall increase in the total borrowings over the years.

3.5.12.4 Total Loans & Advances of 11 Small Finance Banks in India

Table 3.11

Total Loans & Advances

(Rupees in Crore)												
Year	AU SFB	Capital SFB	ESAF SFB	Equitas SFB	Jana SFB	Slice SFB	Shivalik SFB	Suryoday SFB	Ujjivan SFB	Unity SFB	Utkarsh SFB	Total
2017-18	13,312	1,852.99	3,155.09	7,706.69	6,028.32	1,082.40	N/A	1,574.95	7,336.21	N/A	3,101.72	39,122.05
2018-19	22,819	2,608.78	4,548.25	11,595.00	6,217.08	1,383.97	N/A	2,711.90	10,552.45	N/A	4,668.92	67,105.35
2019-20	26,992	3,308.31	6,547.82	13,747.24	9,959.24	1,348.28	N/A	3,531.94	14,043.64	N/A	6,281.60	85,760.07
2020-21	34,609	3,726.89	8,167.59	16,847.95	11,611.92	1,654.66	N/A	3,982.80	14,493.95	N/A	8,216.86	1,03,311.62
2021-22	46,095	4,634.80	11,637.00	19,374.21	13,006.68	1,627.23	1,108.60	4,750.90	16,303.17	2,419.13	10,228.15	1,27,657.14
2022-23	58,422	5,428.69	13,924.33	25,798.56	17,759.56	1,603.26	1,407.37	6,015.10	21,289.66	4,468.19	13,068.77	1,63,309.93
2023-24	73,163	6,074.69	18,293.11	30,964.30	23,111.27	802.43	2,095.38	8,078.00	26,882.92	7,960.85	16,364.81	2,03,734.53
2024-25	1,15,704	7,184.00	19,642.78	37,986.00	29,120.00	2904.86	2,970.00	10,251.00	32,122.00	11,485.00	19,666.00	2,74,580.64
Mean	48890	4352	10739	20502	14602	1551	948	5112	17878	3292	10200	133073
TGR	32.38	20.14	30.53	24.05	26.04	5.74	39.86	27.40	21.53	69.05	29.35	28.92
CAGR	36.19%	21.36%	29.85%	25.59%	24.68%	15.15%	15.12%	30.68%	23.49%	24.92%	30.19%	32.10%

Source: Compiled from annual reports of Small Finance Banks

Table 3.11 which shows the loan portfolios of all 11 Small Finance Banks indicate strong and sustained expansion from FY 2017-18 to FY 2024-25, reflecting aggressive credit outreach and increasing demand from micro and small borrowers. The total loans of all SFBs increased approximately by seven-fold from FY 2017-18 to FY 2024-25. AU SFB was the largest contributor that was steadily growing its loan book from ₹13,312 crore to ₹1,15,704 crore with good quality of assets and diversification of lending. ESAF, Equitas, Ujjivan, and Jana also registered a high growth with each having a growing loan trend and CAGR of more than 10, indicating their market penetration and high loan customer base.

The emerging SFBs such as Unity and Shivalik were also demonstrating good performance especially Unity SFB with a TGR of 69.05, which is growing fast on a small base. From FY 2022-23 to FY 2024-25 many banks recorded high growths in under-served rural and semi-urban areas, mainly due to post-pandemic recovery, online credit operations and provision of credit facilities. The overall CAGR of the sector of 32.10% indicates the major expansion of the credit activities in the SFB sector, indicating increasing role in the financial inclusion and lending of micro-enterprises.

3.5.13 Overall Trends on the Financial Product Pattern of Small Finance Banks

All the eleven Small Finance Banks demonstrated a strong and sustained growth in all key indicators such as the total deposits, CASA ratios, total borrowings, and loan portfolios during the eight-year period between FY 2017-18 and FY 2024-25. The total deposits increased drastically in nearly all the banks within the sector from ₹25,742 crore in 2017-18 to ₹3,00,289 crore in 2024-25, with an increase of ten folds. The deposit mobilisation remained the preserve of AU SBF since it crossed ₹1.24 lakh crore in 2024-25, whereas other banks like Equitas, Ujjivan, Jana and ESAF also saw high growth in long-term. Recent players in the banking industry such as Unity, Shivalik, and Slice SFB displayed a high upward trend over the past few years.

The trend of CASA was different among banks. Ujjivan, ESAF, and Suryoday SFB continued to record positive increase in low costs deposits which indicates better customer acquisition and digital penetration. Others, such as AU, Equitas, Slice and Shivalik, experienced CASA moderation even as total deposits grew and this shows that they have adopted a more reliance on term deposits. Unity SFB was also

experiencing a fall in CASA share, which is in line with the initial years of rapid deposit growth being replaced by fixed deposits. Borrowing trends indicates a contradictory situation. A few well-established SFBs, such as AU, Equitas, Jana, and Ujjivan, decreased their reliance on external borrowings with time, which showed greater mobilisation of the internal resources. Slice SFB recorded a drastic decrease in borrowings up to FY 2023-24 but reported an upturn in FY 2024-25. Shivalik and Unity SFB, on the other hand, reported significant growth in borrowings, particularly in FY 2024-25 in accordance with their vigorous growth strategy. The borrowings of the various banks were showed large fluctuations over the years, but were generally stable and ended at ₹26,295 crore in FY 2024-25.

Among all the financial indicators, loans and advances recorded the highest and the steadiest growth with the amount of ₹39,122 crore in FY 2017-18 increasing by almost seven times to an amount of ₹2,74,580 crore in FY 2024-25. There was remarkable growth of loan portfolio of AU SFB with over ₹1.15 lakh crore in FY 2024-25. Strong growth was also observed in ESAF, Ujjivan, Jana, Equitas, and Utkarsh with the services to micro enterprises, MSME, affordable housing, and retail lending. Even though the operating history of Shivalik and Unity SFBs is relatively lower, both registered steep increases in FY 2024-25. The only exception was in the case of Slice SFB, which experienced a slight fall in FY 2023-24 but rebounded at a large scale to ₹2,904 crore in FY 2024-25.

An analysis of the Priority Sector Lending shows that a majority of SFBs have achieved and even exceeded the important limit stipulated by the RBI continuously, showing excellent adherence to their financial inclusion mandate. ESAF SFB recorded 92 per cent of its total advances in PSL whereas Utkarsh SFB recorded 86.78 per cent in FY 2023-24. Moreover, PSL outstanding values in absolute have experienced a remarkable growth in most banks in the last eight years, which shows an indication of effective lending business in these regions. As a whole, growing size of PSL and its focused effort reaffirm the critical role of the SFBs in targeting credit to underserved markets and achieving their fundamental mission and vision.

The core digital banking services such as Internet Banking, Mobile Banking, and extensive application of UPI are significantly spreading among customers of Small Finance Banks sector. Capital SFB has an 85 percent share of digital transactions in

FY 2023-24, Shivalik SFB has 98.5 percent digital savings account openings in FY 2023-24 and ESAF SFB has an increase of 148 percent on Micro ATM deployment in FY 2024-25. Some of the SFBs are taking their digital presence into more developed products like Video KYC, WhatsApp Banking and digital loan origination systems. This diversified operation also points out to the different approaches such as provision of Micro ATMs, doorstep banking services of ESAF SFB and digital wealth management offerings of Equitas SFB. Finally, these data highlights how strategically the SFBs are using digital transformation as one of the facilitators to improve customer accessibility, convenience, and operational efficiency to cater to their target markets.

Micro lending is a core product in most of the Small Finance Banks' financial products and it is appropriate for their financial inclusion agenda in serving unbanked and underbanked populations. It constitutes a large size of the loan book in a number of banks, such as ESAF SFB's Micro Loans of ₹13,766.32 crore consists of 70.02% of its book in the last year, Equitas SFB showed almost 20% year on year growth in FY 2024-25 and Suryoday SFB achieved almost double in disbursements of Vikas Loan. A massive increase in the microloan portfolios of most SFBs has pointed out the effective scaling up of this core financial activity over the last few years. These loans are also strongly focused on the underserved areas, especially women entrepreneurs, with Unity SFB showing 98 percent of borrowers in its inclusive banking segment are women.

3.6 Conclusion

Overall, the analysis indicates that all the Small Finance Banks have recorded considerable and expansive growth in overall deposits, as well as in total loans and advances, indicating a successful scaling of core banking operations in line with the financial inclusion mandate. Priority Sector Lending is a long-standing strength and regulatory compliance success of most of the SFBs, with its portfolios growing significantly in the underserved sectors and reaching or exceeding the 60 percent target. Micro loan services are successively increasing large in number, focusing mainly on women entrepreneurs by most of the banks. Moreover, SFBs are increasingly using digital processes to provide efficiency in financial services.

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Chapter 4

ANALYSIS OF ROLE OF SMALL FINANCE BANKS IN THE FINANCIAL INCLUSION OF MICRO ENTREPRENEURS

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4.1 Introduction

This chapter presents a detailed analysis and discussion of the primary data collected for the study. The role of Small Finance Banks in promoting financial inclusion among micro-entrepreneurs were analysed in detail. The analysis was focused on its three major dimensions such as access, usage, and quality of financial services provided by Small Finance Banks. The access of micro entrepreneurs to various financial products and services, the frequency and mode of usage of these services, and the quality of delivery of these services were analysed and examined. In order to understand the financial behaviour and patterns of micro entrepreneurs towards the services of SFBs, the reasons for availing loans and making deposits were identified and analysed. Further, the challenges faced by the entrepreneurs while accessing and utilizing different financial products and services have been explored.

The descriptive and inferential statistical methods have been used to analyse the data collected for the study. Frequency distributions, percentages, mean rank, and median scores were used for descriptive analysis. Considering the non-normal distribution of data, appropriate non-parametric tests were used for the inferential analysis. Non-parametric tests include the Kruskal-Wallis H test, Mann-Whitney U test and Friedman test. Chi-square test and Monte Carlo tests were used for testing associations between categorical variables. Dunn's Pairwise comparison with Bonferroni Corrections was employed as a post-hoc test, to identify particular differences between groups and guarantee a credible results interpretation.

4.2 Financial Inclusion of Micro Entrepreneurs

The comprehensive analysis of the financial inclusion role of micro-entrepreneurs was carried out using both descriptive and inferential statistical techniques. The

demographic and socio-economic profile of the respondents, the different dimension of access, usage, and service quality were analysed using the descriptive statistics including frequency distributions, percentages, and median values. The Kolmogorov-Smirnov and Shapiro-Wilk tests of normality showed that the data were not normally distributed and hence non-parametric statistical methods were mainly used for hypothesis testing. The Chi-square test and Monte Carlo test were used for analysing the association between educational qualifications and different modes of usage of banking services such as fund transfer, account opening, deposit, loan application and loan repayment. The Mann-Whitney U Test was used to investigate the differences of access challenges, usage challenges, quality of services, reasons for deposits and reasons for borrowings on the basis of gender, location and type of organisation. The Kruskal-Wallis H Test was used to investigate the differences of access challenges, usage challenges, quality of services, reasons for deposits and reasons for borrowings on the basis of educational qualification and nature of business. Friedman Test was used for studying the reasons for opening bank account, making deposit and availing loan from SFB. Moreover, the study used the Dunn's pairwise post-hoc comparison with Bonferroni corrections to accurately identify specific group differences. A financial inclusion index based on the RBI FI index was also used to determine and confirm the level of financial inclusion of the respondents on the basis of access, usage and quality dimensions. The analysis utilised different tests to investigate and confirm various elements to derive meaningful insights into the financial inclusion role of SFBs on micro entrepreneurs.

4.3 Demographic Profile of the Respondents

Table 4.1

Sampling Variables

Sl. No.	Variable	Category	Frequency	Percentage
1	Gender	Male	116	30.3
		Female	267	69.7
		Total	383	100

Sl. No.	Variable	Category	Frequency	Percentage
2	Marital Status	Single	29	7.6
		Married	287	74.9
		Widow/Widower	48	12.5
		Divorced	19	5
		Total	383	100
3	Educational Qualification	High school or less	80	20.9
		Senior secondary	163	42.6
		Bachelor's degree	87	22.7
		Technical/Professional	53	13.8
		Total	383	100
4	Location of Business	Rural Area	190	49.6
		Urban Area	193	50.4
		Total	383	100
5	Nature of Business activity	Manufacturing	124	32.4
		Trading	142	37.1
		Service	117	30.5
		Total	383	100

Source: Compiled from primary data

Table 4.1 presents the demographic and socio-economic profile of the respondents. The data shows that majority of respondents are female (69.7%) and male make up only one third of the total respondents (30.3%). Marital status shows that a clear majority of the respondents are married (74.9%), indicating that most of the business owners operate within family or household structure.

Educational qualification reveals that respondents with senior secondary education (Class 11-12) constituted the largest group (42.6%), followed by those with a bachelor's degree (22.7%) and those with high school education or less (20.9%), indicating that the respondents are relatively well educated.

Geographically, the respondents are relatively well distributed in rural (49.6%) and urban (50.4%) areas, to give a balanced view of the two types of landscape. With regard to the type of business firms, trading appears to be the dominant economic

activity (37.1%), followed closely by manufacturing firms (32.4%), and then by service firms (30.5%).

4.4 Registration Status of the Respondents

Table 4.2

Descriptive Statistics on Type of Registration

Sl. No.	Type of Registration	Status	Frequency	Percentage
1	Udyam	Yes	262	68.4
		No	121	31.6
		Total	383	100.0
2	FSSAI	Yes	100	26.1
		No	283	73.9
		Total	383	100.0
3	LMPC	Yes	121	31.6
		No	262	68.4
		Total	383	100.0
4	Corporation/Panchayath	Yes	383	100.0
5	GST	Yes	370	96.6
		No	13	3.4
		Total	383	100.0

Source: Compiled from primary data

Table.4.2, the descriptive statistics of registration reveals the extent to which the micro entrepreneurs comply the various legal licensing requirements. The registration requirements of corporation or panchayath was done by all the participants (100%), showing the willingness to comply with the requirements of the local government authorities. The majority of respondents (68.4%) have registered under Udyam, showing adherence to the regulatory compliance. However, more than 30 percent of the respondents still remain outside this requirement.

In the case of FSSAI, most of the respondents were not registered (73.9%) and only 31.6 per cent of the respondents have obtained LMPC. In the case of GST, majority

of the respondents (96.6%) were having GST registration, reflecting the wide spread participation in the formal tax system of the country.

4.5 Income Status of the Respondents

Table 4.3

Average Monthly Income

Average Monthly Income	N	Percentage
Below ₹20000	196	51
₹20000 – ₹40000	133	35
₹40001 – ₹60000	24	6
₹60001 – ₹80000	26	7
Above ₹80000	4	1
Total	383	100

Source: Compiled from primary data

Table 4.3 shows the average monthly income earned by the respondents. It shows that majority of the respondents fall under the monthly income group of below ₹20,000. 35 percent of the respondents comes in the ₹20,000–₹40,000 income group. Only 1 percent of the respondents belong to the income group above ₹80,000. This indicates that vast majority of the respondents falls under the monthly income of ₹40,000.

4.6 Investment Status of the Respondents

Table 4.4

Capital Investment

Capital Investment	N	Percentage
Below ₹300000	226	59
₹300001 – ₹500000	73	19
₹500001 – ₹1000000	45	14
Above ₹1000000	30	8
Total	383	100

Source: Compiled from primary data

Table 4.4 presents the capital investment made the respondents in their business activities. It indicates that most of the capital investments are clustered below the range of ₹300000 (59%), followed by investments up to ₹5,00,000 (19%). Only 8 % of the respondents were invested above ten lakh rupees in their business. This shows the financial limitations faced by micro-entrepreneurs in initiating and sustaining their business activities.

4.7 Period of Business Operation

Table 4.5

Duration of Business activities

Period	N	Percentage
Below 5 years	0	0
5 to 10 years	236	61.6
Above 10 years	147	38.4
Total	383	100

Source: Compiled from primary data

The above table clearly shows that most of the respondents have been engaged in their business activities for a period of 5–10 years (61.6 percent), while 38.4 percent of the respondents have been running their businesses for more than 10 years. The result reflects that all the respondents have experience in their respective areas of activity.

4.8 Loan Processing Period

Table 4.6

Average Days Taken to Obtain Loan

Number of Days	N	Percentage
1 to 7 days	349	91
8 to 14 days	34	9
Total	383	100

Source: Compiled from primary data

Table 4.6 indicates that the most of micro-entrepreneurs have received their loans from Small Finance Banks within a maximum period of seven days. Only a few

respondents reported that the bank takes more than seven days to sanction their loans. This implies that the loan processing period of the bank is relatively short, enabling quicker access to credit for their business operations.

4.9 Proximity of Business Unit to SFB Branch

Table 4.7

Distance from Business Unit to SFB

Distance	N	Percentage
Less than 5 km	106	28
5–10 km	242	63
11–15 km	31	8
More than 15 km	4	1
Total	383	100

Source: Compiled from primary data

Table 4.7 implies that most of the business units of the respondents are located within 5 to 10 km radius of Small Finance Bank branches (63%) and the business units of 28 percent respondents are situated within a distance of 5 km. This reflects a clear picture of availability of Small Finance Bank branches at an accessible distance of business units.

4.10 Proximity of Business Unit to SFB ATM

Table 4.8

Distance from Business Unit to SFB ATM

Distance	N	Percentage
Less than 5 km	104	27.1
5–10 km	224	58.5
11–15 km	47	12
More than 15 km	13	2.4
Total	383	100

Source: Compiled from primary data

Table 4.7 implies that most of the ATMs of Small finance Banks are located within 5 to 10 km radius of business units of the respondents (58.5%) and the business units of 27.1 percent respondents are situated within a distance of 5 km. It reveals that SFBs ATMs are accessible more easily due to its availability.

4.11 Type of Bank Accounts Opened in SFB

Table 4.9

Descriptive Statistics on Type of Bank Accounts

Type of Bank Accounts	Frequency	Percentage
Savings Bank Account	357	93.21%
Current Account	230	60.1%
Fixed / Recurring Deposit	Nil	-

Source: Compiled from primary data

Table 4.9 makes it clear that Savings Bank Accounts are the most preferred type of bank account among the respondents. Out of 383 account holders, 357 individuals (93.21%) having savings bank accounts. 230 respondents (60.1%) also hold Current Accounts, which typically require more minimum balance. However, none of the respondents had invested in fixed or recurring deposits with SFBs. This distribution indicates that although many respondents hold both savings and current account, most of them prefer bank account that demands less minimum balance requirement, rather than frequent remittances and withdrawals.

4.12 Reasons for Opening Bank Account in SFB

H₀: There is no statistically significant difference between the rankings of the reasons for opening bank account in SFB.

H₁: There is statistically significant difference between the rankings of the reasons for opening bank account in SFB.

Table 4.10

Friedman Test Result on Reasons for Opening Bank Account

(n=383)

Reasons	Mean Rank	Chi-Square	df	p
Avail Loan or Credit	1.59	410.110	3	< .001
Do Business Transactions	2.13			
Save or deposit	3.11			
Receive Government Grant or Benefit	3.17			

Source: Compiled from primary data

Table 4.10 reveals the reasons for opening a bank account in Small Finance Bank. The Friedman Test results on the reasons for opening bank account show statistically significant differences in the priorities of respondents ($\chi^2 = 410.110$ $df = 3$, $p < 0.001$). Here, the lower mean ranks signify greater preferences of the respondents.

It is found that the most significant reason for opening a bank account was to avail loan or credit from SFB (mean rank = 1.59). It indicates the importance of these banks as channels of funds for their customers by providing loans and credit facilities.

The second most significant reason for opening a bank account appears to be doing business transactions (mean rank = 2.13). This indicates a preference for carrying out business transactions through SFB bank accounts. Saving or depositing is the third most preferred reason for opening a bank account (mean rank = 3.11), indicating a moderate preference among micro-entrepreneurs for opening an account.

On the contrary, receiving government grants or benefits was ranked last with highest mean rank of 3.17, indicating that it is the least influential factor in the decision to open an account in SFB.

Based on the results, it can be concluded that a large proportion of micro-entrepreneurs are primarily motivated by the need to access loans or credit and to carry out business transactions when opening a bank account in SFB.

4.13 Convenience of Bank Transaction Timings

Table 4.11

Descriptive Statistics on Convenience of Banking Hours

Banking Hours		Frequency	Percentage
Convenient	Yes	324	84.6
	No	59	15.4
	Total	383	100

Source: Compiled from primary data

Table 4.11 makes it evident that majority of the respondents perceive the SFBs present banking hours is convenient (84.6%) whereas 15.4 per cent respondents reported their inconvenience with the timings of the bank. Considering the findings it is clear that the operational hours of SFB were aligned with the preference and availability of their customers. The flexibility of the banking hours can also contribute positively to the financial activity, particularly in the micro-entrepreneurs and time-constrained individuals.

4.14 Reasons for Depositing with Small Finance Banks

Table.4.12

Descriptive Statistics on Reasons for Depositing with SFBs

Reasons	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
High Rate of Interest	207 (54)	139 (36.3)	0 (0)	19 (5.0)	18 (4.7)	5
Safety of Investment	138 (36.0)	201 (52.5)	7 (1.8)	24 (6.3)	13 (3.4)	4
Easy Withdrawal	78 (20.4)	219 (57.2)	41 (10.7)	39 (10.2)	6 (1.6)	4
Overdraft Facility	131 (34.2)	57 (14.9)	163 (42.6)	26 (6.8)	6 (1.6)	3
Future Credit Facility	193 (50.4)	152 (39.7)	1 (0.3)	19 (5.0)	18 (4.7)	5
Reliable	104 (27.2)	167 (43.6)	14 (3.7)	42 (11.0)	56 (14.6)	4

Source: Compiled from primary data

Table 4.12 indicates that the high rate of interest on deposits offered by SFBs (median score = 5) and the availability of credit facility in future (median score = 5) are the primary motivations for depositing. However, the overdraft facility showed a mixed response, with 42.6 percent of respondents remaining neutral and a median score of 3, indicating that it is not a strong determinant.

It is found that the key motivators for making deposits in SFBs are attractive interest rates and credit-linked benefits. The safety of investment, easy withdrawal and comparative reliability serve as moderate motivators, whereas the availability of overdraft facilities has less influence on micro-entrepreneurs' decisions to deposit in SFBs.

4.15 Reasons for Depositing with SFBs

H₀: There is no statistically significant difference between the reasons for depositing with SFB.

H₁: There is statistically significant difference between the reasons for depositing with SFB.

Table 4.13

Friedman Test Result on Reasons for Depositing with SFBs

(n=383)

Reasons	Mean Rank	Chi-Square	df	p
High Rate of Interest	4.17	226.012	5	< 0.001
Future Credit Facility	4.06			
Safety of Investment	3.71			
Easy Withdrawal	3.18			
Overdraft Facility	2.95			
Reliable	2.93			

Source: Compiled from primary data

The table 4.13 shows the reasons for making deposits in a Small Finance Bank. The Friedman Test results revealed that there are statistically significant differences in the reasons for depositing with SFBs ($\chi^2 = 226.012$, $df = 5$, $p < 0.001$). The result

confirmed that the high rate of interest on deposits offered by SFBs (mean rank = 4.17) and the availability of credit facility in future (mean rank = 4.06) were the basic motivating factors for depositing with SFBs, both showing the highest mean ranks.

However, the statistical result showed that comparative reliability (mean rank = 2.93) and overdraft facility (mean rank = 2.93) are not a strong determinant for making deposits in SFBs. The safety of investment (mean rank = 3.71) and easy withdrawal (mean rank = 3.18) serve as moderate motivators to influence on micro-entrepreneurs' decisions to deposit in SFBs.

4.16 Reasons for Availing loan from Small Finance Bank

Table 4.14

Descriptive Statistics on Reasons for Availing Loan From SFB

(n=383)

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
Simple Loan Borrowing Procedure	160 (41.8)	186 (48.6)	0 (0)	24 (6.3)	13 (3.4)	4
Loan Carries Low Rate of Interest	18 (4.7)	23 (6.0)	29 (7.6)	279 (72.8)	34 (8.9)	2
Loan Arrangements will be made by SFB	61 (15.9)	272 (71.0)	7 (1.8)	31 (8.1)	12 (3.1)	4
No Collateral Security Required	305 (79.6)	44 (11.5)	0 (0)	6 (1.6)	28 (7.3)	5
Low Processing, Documentation & Other Charges	72 (18.8)	209 (54.6)	50 (13.1)	38 (9.9)	14 (3.7)	4
Speedy & Timely Processing of Loans	327 (85.4)	19 (5.0)	0 (0)	1 (0.3)	36 (9.4)	5
Efficient and Prompt Customer Service	242 (63.2)	104 (27.2)	0 (0)	13 (3.4)	24 (6.3)	5
Less Mental Stress than dealing with Local Money Lenders	142 (37.1)	196 (51.2)	14 (3.7)	13 (3.4)	18 (4.7)	4
Favourable Repayment Options	64 (16.7)	215 (56.1)	18 (4.7)	53 (13.8)	33 (8.6)	4
Innovative Micro Unit Specific Products	267 (69.7)	67 (17.5)	7 (1.8)	12 (3.1)	30 (7.8)	5
Adopts Latest Technology in Providing Loans	296 (77.3)	50 (13.1)	0 (0)	1 (0.3)	36 (9.4)	5

Source: Compiled from primary data

Table 4.14 presents the descriptive statistics on the reasons for availing loans from SFBs, indicated that the highest rated reasons included speedy and timely processing of loan requests, absence of collateral requirements, efficient and prompt customer service, innovative micro-unit-specific products, and the adoption of the latest technology in lending services, all with a median score of 5. Simplicity of loan procedures, arrangements made by SFBs, low processing and documentation charges, and favourable repayment options were also significant positives, each with a median score of 4. Conversely, the interest rate on loans (median score = 2) received lower ratings, showing dissatisfaction of respondents with this aspect. The results suggested that customers preferred SFB loans mainly for their collateral-free, timely, customer-friendly, and innovative services, although high interest rates remained a major drawback.

4.17 Reasons for Availing loan from SFB

H₀: There is no statistically significant difference between reasons for availing loan from SFB.

H₁: There is statistically significant difference between the reasons for availing loan from SFB.

Table 4.15

Friedman Test on Reason for taking Loan From SFB

(n=383)				
Reasons	Mean Rank	Chi-Square	df	P
Speedy & Timely Processing of Loans	7.98	1494.995	10	< .001
No Collateral Security Required	7.83			
Adopts Latest Technology in Providing Loans	7.58			
Innovative Micro Unit Specific Products	7.27			
Efficient and Prompt Customer Service	7.17			
Simple Loan Borrowing Procedure	6.15			
Less Mental Stress than dealing with Local Money Lenders	5.90			
Loan Arrangements will be made by SFB	4.92			
Low Processing, Documentation & Other Charges	4.69			
Favourable Repayment Options	4.46			
Loan Carries Low Rate of Interest	2.04			

Source: Compiled from primary data

The table 4.15 shows the result of the Friedmans Test on reasons for availing loans from SFB. It was found that there was a statistically significant difference in the reasons for availing loans from SFBs ($\chi^2 = 1494.995$, $df = 10$, $p < .001$). The results also revealed that some factors were clearly more influential than others in shaping borrower preferences. Considering the mean ranks, it was evident that speedy and timely processing of loans (mean rank = 7.98) had the highest mean rank, closely followed by exemption from collateral requirements (mean rank = 7.83) and the use of advanced technology in providing loan services (mean rank = 7.58). These aspects were regarded as the most influential. On the other hand, the least preferred factor was the interest rate (mean rank = 2.04), showing that borrowers valued accessibility, convenience, and service effectiveness more than the cost of borrowing.

4.18 Financial Products and Services Availed from SFB

Table 4.16

Descriptive statistics on Financial Products or services

(n=383)			
Items	Access	Frequency	Percentage
Micro Loans	Yes	383	100
Term Loans	Yes	76	19.8
	No	307	80.2
Over Draft	Yes	115	30
	No	268	70
Cash Credit	Yes	55	14.4
	No	328	85.6
TReDS (Bills Discounting)	Yes	25	6.5
	No	358	93.5
Credit Card	Yes	12	3.1
	No	371	96.9
Debit card / ATM card	Yes	383	100
Mobile Banking App	Yes	383	100
Online/ Net Banking	Yes	125	32.6
	No	258	67.4
UPI	Yes	363	94.8
	No	20	5.2
Electronic Fund Transfer (NEFT/RTGS/IMPS)	Yes	98	25.6
	No	285	74.4
ATM Service	Yes	383	100

Source: Compiled from primary data

Table 4.16 indicates that financial products and services such as microloans, ATM or debit cards, mobile banking apps, and ATMs are used by all micro-entrepreneurs. This suggests that these services are widely available and easily accessible to all customers of the bank. They have now become an integral part of the respondents' financial behaviour and play a significant role in their everyday transactions.

Some respondents also use credit-related services such as term loans (19.8%), overdraft facilities (30%), and cash credit (14.4%). This indicates that while these options are not utilised by all, they remain important for those managing small businesses. Only a few entrepreneurs were using services like TReDS (6.5%) or credit cards (3.1%), showing a lack of awareness or familiarity about these facilities.

The UPI services are highly popular, with 94.8% of users making payments through it. Net banking is used by 32.6% of customers, indicating some differences in accessibility or perceived convenience with this mode of banking. 25.6% of the respondents were also using electronic fund transfer services such as NEFT, RTGS, or IMPS. All these results are reflecting an increased level of adoption and trust in formal and secured online modes of money transfer.

4.19 Challenges in Accessing Financial Product and Services of SFB

Table 4.17

Descriptive Statistics on Challenges in Accessing Financial Product and Services

(n=383)						
Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
Complex Account Opening formalities	25 (6.5)	12 (3.1)	0 (0)	70 (18.3)	276 (72.1)	1
High Bank charges and fees	12 (3.1)	38 (9.9)	8 (2.1)	253 (66.1)	72 (18.8)	2
Insistency of collateral security	24 (6.3)	7 (1.8)	6 (1.6)	94 (24.5)	252 (65.8)	1
Extensive Documentation	18 (4.7)	19 (5.0)	25 (6.5)	169 (44.1)	152 (39.7)	2
Insufficient number of Bank officials	18 (4.7)	20 (5.2)	19 (5.0)	178 (46.5)	148 (38.6)	2

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
Inadequate information about new schemes	1 (0.3)	147 (38.4)	42 (11.0)	155 (40.5)	38 (9.9)	2
Delays in loan application and approval processing	30 (7.8)	7 (1.8)	0 (0)	74 (19.3)	272 (71.0)	1
Inaccessibility of services for individuals with disabilities	12 (3.1)	26 (6.8)	81 (21.1)	189 (49.3)	75 (19.6)	2
High minimum balance requirement for Bank Account	2 (0.5)	151 (39.4)	70 (18.3)	151 (39.4)	9 (2.3)	3

Source: Compiled from primary data

Table 4.17 presents the descriptive analysis of the challenges faced by respondents while accessing services from SFBs. The need to maintain a high minimum balance in bank accounts was the most common issue reported by entrepreneurs (39.4%, median score = 3). The next major concern was the inadequate information on new schemes (38.4%, median score = 2). High bank charges, extensive documentation, an insufficient number of staff to meet customer needs, and difficulties in access for people with disabilities were reported as moderate concerns in accessing services from SFBs (all median =2).

Conversely, issues such as delays in loan processing and approval, complex account opening procedures, and the requirement of collateral security (all median = 1) received relatively low scores, indicating that the majority of customers do not perceive them as major concerns.

4.20 Difference in Access Challenges Across Gender

H₀: There is no significant difference in the challenges in accessing financial product and services from SFB based on their gender

H₁: There is significant difference in the challenges in accessing financial product and services from SFB based on their gender

Table 4.18

Mann Whitney U Test on Access Challenges on the Basis of Gender

	Gender	N	Mean Rank	Mann-Whitney U	z	p
AC1	Male	116	188.92	15128.500	-0.456	0.648
	Female	267	193.34			
AC2	Male	116	187.65	14981.000	-0.605	0.545
	Female	267	193.89			
AC3	Male	116	197.49	14849.500	-0.764	0.445
	Female	267	189.62			
AC4	Male	116	186.58	14857.500	-0.684	0.494
	Female	267	194.35			
AC5	Male	116	205.30	13943.000	-1.690	0.091
	Female	267	186.22			
AC6	Male	116	200.24	14530.000	-1.027	0.305
	Female	267	188.42			
AC7	Male	116	206.25	13832.500	-2.086	0.037
	Female	267	185.81			
AC8	Male	116	190.59	15322.500	-0.177	0.860
	Female	267	192.61			
AC9	Male	116	186.70	14871.500	-0.661	0.508
	Female	267	194.30			

Source: Compiled from primary data

Table 4.18 shows the result of the Mann-Whitney U test carried out to find the association of challenges between different genders of respondents. The result shows that the most of the p values are greater than 0.05. Therefore, it means that there are no statistically significant differences between male and female respondents in challenges faced while accessing financial products and services from Small Finance Banks.

However, there was a significant variation in one of the items, that is, the delay in processing and approving loans ($p = 0.037$). The male respondents had a higher mean

rank of 206.25 compared to the female respondents of 185.81 which shows that men were more affected by this delay. Overall, both genders reported more or less the similar challenges, except the perception regarding delay in processing and approving loans.

4.21 Difference in Accessibility Challenges by Nature of Business Activity

H₀: There is no significant difference in the challenges were faced while accessing financial product and services from SFB based on their nature of business activity

H₁: There is significant difference in the challenges were faced while accessing financial product and services from SFB based on their nature of business activity

Table 4.19

Kruskal Wallis H Test on Accessibility Challenges Based on Nature of Business Activity

Nature of Business activity		N	Mean Rank	Kruskal-Wallis H	df	p
AC1	Manufacturing	124	163.61	25.999	2	< .001
	Trading	142	218.15			
	Service	117	190.35			
AC2	Manufacturing	124	169.73	10.907	2	0.004
	Trading	142	199.46			
	Service	117	206.54			
AC3	Manufacturing	124	158.59	33.940	2	< .001
	Trading	142	224.59			
	Service	117	187.86			
AC4	Manufacturing	124	151.06	33.733	2	< .001
	Trading	142	223.50			
	Service	117	197.15			
AC5	Manufacturing	124	138.08	69.255	2	< .001
	Trading	142	241.83			
	Service	117	188.67			

Nature of Business activity		N	Mean Rank	Kruskal-Wallis H	df	p
AC6	Manufacturing	124	153.17	54.403	2	< .001
	Trading	142	179.34			
	Service	117	248.51			
AC7	Manufacturing	124	161.61	22.451	2	< .001
	Trading	142	210.60			
	Service	117	201.63			
AC8	Manufacturing	124	185.24	10.298	2	0.006
	Trading	142	213.12			
	Service	117	173.54			
AC9	Manufacturing	124	200.57	1.930	2	0.381
	Trading	142	192.66			
	Service	117	182.12			

Source: Compiled from primary data

Table 4.19 shows the results of the Kruskal-Wallis H test conducted to examine whether significant differences exist in the challenges faced while accessing financial products and services based on the nature of business activity. The test result reveals that there are statistically significant differences among the three groups since p values are less than 0.05 for all challenges except for the requirement of high minimum balance.

As per the responses it is clear that the trading entrepreneurs are consistently reported higher difficulty among several dimensions such as account opening formalities (mean rank = 218.15, $p < 0.001$), collateral security requirements (mean rank = 224.59, $p < 0.001$), and extensive documentation (mean rank = 223.50, $p < 0.001$). They also reported the issue of insufficient bank staffs (mean rank = 241.83, $p < 0.001$), delay in processing of loan (mean rank = 210.60, $p < 0.001$) as well as accessible issues faced by differently abled customers (mean rank = 213.12, $p = 0.006$). In the service sector, customer mainly felt a lack of awareness about new schemes (mean rank = 248.51, $p < 0.001$) and high bank charges (mean rank = 206.54, $p = 0.004$). However, the need for a high minimum balance was the only issue that did not show a major difference across nature of business ($p = 0.381$). Overall, traders

and service providers faced more serious challenges than those in the manufacturing sector.

Table 4.20

Dunn's Pairwise Comparison with Bonferroni Corrections on Accessibility Challenges Based on Nature of Business Activity

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Complex & difficult formalities	Manufacturing – Trading	–4.92	<.001
		Manufacturing – Service	–2.41	0.048
		Trading – Service	2.36	0.055
2	Very high bank charges & fees	Manufacturing – Trading	–2.20	0.083
		Manufacturing – Service	–3.11	0.006
		Trading – Service	–1.04	0.891
3	Insist security for availing products	Manufacturing – Trading	–5.51	<.001
		Manufacturing – Service	–2.48	0.04
		Trading – Service	2.87	0.012
4	Extensive Documentation	Manufacturing – Trading	–5.45	<.001
		Manufacturing – Service	–3.53	0.001
		Trading – Service	1.72	0.255
5	No. of Bank officials are insufficient	Manufacturing – Trading	–7.97	<.001
		Manufacturing – Service	–3.91	<.001
		Trading – Service	3.81	<.001
6	Adequate information not available on new schemes	Manufacturing – Trading	–1.96	0.152
		Manufacturing – Service	–7.16	<.001
		Trading – Service	–5.47	<.001
7	Delay in processing & approval	Manufacturing – Trading	–4.34	<.001
		Manufacturing – Service	–3.56	0.001
		Trading – Service	0.6	1
8	Not accessible for individuals with disabilities	Manufacturing – Trading	–1.87	0.184
		Manufacturing – Service	0.9	1
		Trading – Service	2.77	0.017

Source: Compiled from primary data

The post-hoc results confirmed that manufacturing units differ significantly from trading and service units across various challenge dimensions. Significant differences were found between manufacturing–trading ($p < 0.001$) and manufacturing–service ($p = 0.048$) sectors for the challenges like complex and difficult formalities, need for collateral securities and extensive documentation, indicating that trading entrepreneurs face the greatest procedural difficulties, followed by service units. These findings confirm that manufacturing enterprises experience comparatively fewer formal and documentation-related challenges than traders and service providers.

Another significant difference, which was found only between manufacturing and service groups, was very high bank charges and fees ($p = 0.006$), indicating that service-based entrepreneurs are more affected by high charges. All group comparisons showed significance in the case of insufficient bank staff ($p < 0.001$), with trading entrepreneurs showing the highest mean ranks, indicating that they perceive this issue more strongly.

Service sector entrepreneurs felt the greatest information gap regarding new banking schemes, as significant differences were existed between manufacturing–service ($p < 0.001$) and trading–service ($p < 0.001$) sectors. Similarly, traders and service providers were more affected by delays in processing and approval of loans since manufacturing–trading and manufacturing–service differences are significant ($p < 0.05$).

However, in respect of inaccessibility for individuals with disabilities, only the trading–service sector comparison was significant ($p = 0.017$), indicating a minor significant difference between these two groups.

On a whole, the post-hoc analysis confirms the earlier finding that trading enterprises are the most affected group, facing significant challenges in accessing services, followed by service enterprises. Manufacturing enterprises experience the least difficulty in accessing financial products and services from SFBs. This shows the need to improve and simplify service delivery procedure, particularly for trading and

service-based micro-entrepreneurs who depend on frequent and timely financial transactions.

4.22 Difference in Access Challenges by Type of Organisation

H₀: There is no significant difference in the challenges faced while accessing financial product and services from SFB based on their type of organization

H₁: There is significant difference in the challenges faced while accessing financial product and services from SFB based on their type of organization

Table 4.21

Mann Whitney U Test on Accessibility Challenges Based on Type of Organisation

Type of Organisation		N	Mean Rank	Mann-Whitney U	z	p
AC1	Sole Proprietorship	338	196.21	6181.500	-2.593	0.010
	Partnership	45	160.37			
AC2	Sole Proprietorship	338	188.65	6472.000	-1.740	0.083
	Partnership	45	217.18			
AC3	Sole Proprietorship	338	197.78	5651.000	-3.347	0.001
	Partnership	45	148.58			
AC4	Sole Proprietorship	338	195.64	6374.000	-1.913	0.056
	Partnership	45	164.64			
AC5	Sole Proprietorship	338	189.05	6606.500	-1.560	0.119
	Partnership	45	214.19			
AC6	Sole Proprietorship	338	187.47	6073.500	-2.347	0.019
	Partnership	45	226.03			
AC7	Sole Proprietorship	338	190.39	7062.000	-0.977	0.328
	Partnership	45	204.07			
AC8	Sole Proprietorship	338	191.35	7386.000	-0.338	0.735
	Partnership	45	196.87			
AC9	Sole Proprietorship	338	188.65	6472.000	-1.740	0.082
	Partnership	45	217.18			

Source: Compiled from primary data

Table 4.21 shows the result of the Mann-Whitney U test conducted to examine whether significant differences exist in the challenges faced while accessing financial products and services based on the type of organisation. The result shows that the most of the p -values are greater than 0.05. Therefore, it means that there is no statistically significant difference in the challenges faced while accessing financial product and services from SFB based on their type of organization. But in case of challenges like complexity and difficulty in account opening formalities ($p = 0.010$), insistence of security for availing various financial products ($p = 0.001$) and inadequacy of information regarding new schemes or financial products ($p = 0.019$) showed significant differences based on their type of organization.

The result shows that the sole proprietor units were faced more challenges in respect of account opening (mean rank =196.21) and insistence of collateral security (mean rank =197.78), While partnership units were faced more challenges regarding knowledge of new schemes of the bank (mean rank = 226.03).

4.23 Difference in Access Challenges by Location

H₀: There is no significant difference in the challenges faced while accessing financial product and services from SFB based on their location

H₁: There is significant difference in the challenges faced while accessing financial product and services from SFB based on their location

Table 4.22

Mann Whitney U Test on Accessibility Challenges Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	P
AC1	Rural Area	190	194.01	17952.500	-0.449	0.654
	Urban Area	193	190.02			
AC2	Rural Area	190	187.34	17450.000	-0.974	0.330
	Urban Area	193	196.59			
AC3	Rural Area	190	195.71	17630.500	-0.777	0.437
	Urban Area	193	188.35			

Location of Business		N	Mean Rank	Mann-Whitney U	z	P
AC4	Rural Area	190	192.20	18297.000	-0.038	0.970
	Urban Area	193	191.80			
AC5	Rural Area	190	192.61	18219.000	-0.117	0.907
	Urban Area	193	191.40			
AC6	Rural Area	190	199.09	16987.500	-1.330	0.184
	Urban Area	193	185.02			
AC7	Rural Area	190	196.72	17438.500	-1.039	0.299
	Urban Area	193	187.35			
AC8	Rural Area	190	186.49	17289.000	-1.040	0.298
	Urban Area	193	197.42			
AC9	Rural Area	190	182.33	16497.000	-1.818	0.069
	Urban Area	193	201.52			

Source: Compiled from primary data

Table 4.22 shows the result of the Mann-Whitney U test conducted to examine whether significant differences exist in the challenges faced while accessing financial products and services based on the location. The results show that there is no significant difference in the challenges faced by rural and urban micro entrepreneurs while accessing financial services from Small Finance Banks. In all items (AC1 to AC9), the p -values were above 0.05, indicating that the differences are not statistically significant. The nearest result that indicated a difference was that of high minimum balance requirements ($p = 0.069$) in which the urban users have a slightly higher mean rank (201.52) compared to the rural users (182.33) meaning that they found it a bit more challenging.

4.24 Usage Frequency of SFB Product and Services

Table 4.23

Frequency of Usage of Various Services

Financial Services	Usage	Frequency	Percentage
Deposit	Weekly	45	11.7
	Monthly	187	48.8
	Once in 6 Months	99	25.8
	Once in a year	12	3.1
	Need based	40	10.4
	Total	383	100.0
Withdrawal	Weekly	94	24.5
	Monthly	252	65.8
	Once in 6 Months	25	6.5
	Need based	12	3.1
	Total	383	100.0
Micro Loans	Once in a year	12	3.1
	Need based	371	96.9
	Total	383	100.0
Term Loan	Need based	76	19.8
	Never	307	80.2
	Total	383	100.0
Over Draft	Once in 6 Months	7	1.8
	Once in a year	12	3.1
	Need based	96	25.1
	Never	268	70.0
	Total	383	100.0
Cash credit	Once in 6 Months	6	1.6
	Need based	49	12.8
	Never	328	85.6
	Total	383	100.0
TReDS (Bills Discounting)	Need based	25	6.5
	Never	358	93.5
	Total	383	100.0

Financial Services	Usage	Frequency	Percentage
Credit Card	Need based	12	3.1
	Never	371	96.9
	Total	383	100.0
Debit card / ATM card	Weekly	190	49.6
	Monthly	162	42.3
	Once in 6 Months	24	6.3
	Need based	7	1.9
	Total	383	100.0
Mobile Banking App	Daily	92	24.0
	Weekly	237	61.9
	Monthly	19	5.0
	Once in 6 Months	29	7.6
	Need based	6	1.6
	Total	383	100.0
Net Banking / Online banking	Daily	8	2.1
	Weekly	31	8.1
	Monthly	47	12.2
	Once in 6 Months	18	4.7
	Need based	21	5.5
	Never	258	67.4
	Total	383	100.0
UPI	Daily	338	88.3
	Weekly	20	5.2
	Monthly	5	1.3
	Never	20	5.2
	Total	383	100.0
Fund Transfer (NEFT/RTGS/IMPS)	Weekly	7	1.8
	Monthly	58	15.2
	Once in 6 Months	18	4.7
	Need based	15	3.9
	Never	285	74.4
	Total	383	100.0

Financial Services	Usage	Frequency	Percentage
ATM Service	Daily	19	5.0
	Weekly	156	40.7
	Monthly	159	41.5
	Once in 6 Months	30	7.8
	Need based	19	5.0
	Total	383	100.0
Other banking services (by visiting SFB branch)	Monthly	19	5.0
	Once in 6 Months	100	26.1
	Once in a year	40	10.4
	Need based	224	58.5
	Total	383	100.0

Source: Compiled from primary data

The table 4.23 indicates the frequency of transaction habits of micro entrepreneurs using various services of Small Finance Banks. Majority of the people make deposits every month (48.8 %) followed by 25.8 % of respondents make deposits once in every six months. Withdrawals happen more often, with majority (65.8%) of making them monthly and 24.5% on a weekly basis.

When considering credit, a very large number of users (96.9%), take micro loans only when needed, while term loans are less common, with only 19.8% using them when required. Services like overdraft and cash credit are rarely used and 70% and 85.6% of users, respectively, have never used them. In terms of banking tools, debit cards are used either weekly (49.6%) or monthly (42.3%), showing they are quite popular.

UPI is the most widely used digital service, with majority of the respondents (88.3%) using it daily. Mobile banking apps are also used often, especially on a weekly basis (61.9%), while online banking websites are not as popular, since most (67.4%) of the respondents never use them. The use of ATM is relatively equal with 41.5 percent using it once a month and 40.7 percent using it once a week.

Moreover, more than half of the customers (58.5%) only visit the bank branch when they feel it is necessary. indicating a preference for digital over physical banking interfaces. These results clearly show that digital banking is now a preferred choice,

especially for frequent transactions and services, while services like credit cards and internet banking websites are still not widely adopted.

4.25 Mode of Usage for Various Banking Services of SFB

Table 4.24

Descriptive Statics on Frequency of Mode of Usage

Service	Mode	Frequency	Percentage
Fund Transfer	Mobile/Online banking	310	80.9
	Banking at Branch	73	19.1
	Total	383	100.0
Balance Enquiry	Mobile/Online banking	345	90.1
	Banking at Branch	38	9.9
	Total	383	100.0
Bank Account Statement	Mobile/Online banking	170	44.4
	Banking at Branch	201	52.5
	Use of service of BC	12	3.1
	Total	383	100.0
Loan Application	Mobile/Online banking	12	3.1
	Banking at Branch	113	29.5
	Use of service of BC	258	67.4
	Total	383	100.0
Repayment of Loan	Mobile/Online banking	19	5.0
	Banking at Branch	25	6.5
	Use of service of BC	339	88.5
	Total	383	100.0
Making Deposit	Mobile/Online banking	6	1.6
	Banking at Branch	365	95.3
	Use of service of BC	12	3.1
	Total	383	100.0

Source: Compiled from primary data

Table 4.24 reflects that Small Finance Bank customers use both digital and traditional methods for different services. For fund transfers, majority (80.9%) of users choose

mobile or online banking. This indicates an increasing tendency to use digital platforms. Balance enquiry is also mostly done using digital methods by most of the (90.1) respondents.

With regard to getting bank account statements most of the respondents (52.5%) still follow the traditional pattern of visiting the branch. While, 44.4 percent of respondents taking bank account statements using digital channels.

In the case of loan related services, majority of customers (67.4%) applying loans through business correspondence and a large majority (88.5%) also use them for making repayments. This shows that micro entrepreneurs still prefer personal assistance for loan services.

Deposits are mostly made at the branch, with the majority of users (95.3%) depositing money in person, while only 1.6% use online modes for making deposits. This indicates that although digital tools are preferred for quick tasks such as checking balances and transferring money, entrepreneurs still rely heavily on direct, in-person support for other banking services.

4.26 Association between Educational Qualification and Mode of Fund Transfer

H₀: There is no statistically significant association between the mode of fund transfer and educational qualification of micro entrepreneurs

H₁: There is statistically significant association between the mode of fund transfer and educational qualification of micro entrepreneurs

Table 4.25

Educational Qualification and Mode of Fund Transfer

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Total
High school or less	62 (77.5)	18 (22.5)	80
Senior secondary	134 (82.2)	29 (17.8)	163
Bachelor's degree	73 (83.9)	14 (16.1)	87
			173

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Total
Technical/Professional	41 (77.4)	12 (22.6)	53
Total	310 (80.9)	73 (19.1)	383
Level of Significance 5%	χ^2 df p	1.721 3 0.632	

Source: Compiled from primary data

Table 4.25 illustrates the results of a chi-square test conducted on the education qualification and mode of fund transfer of micro entrepreneurs (χ^2 : 1.721, df : 3, p = 0.632). Since the p -value is greater than the 5% significance level, it is concluded that there is no statistically significant association between educational qualification and mode of usage of funds transfer of micro entrepreneurs.

4.27 Association between Educational Qualification and Mode of Balance Enquiry

H₀: There is no statistically significant association between the mode of balance enquiry and educational qualification of micro entrepreneurs

H₁: There is no statistically significant association between the mode of balance enquiry and educational qualification of micro entrepreneurs

Table 4.26

Educational Qualification and Mode of Balance Enquiry

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Total
High school or less	74 (92.5)	6 (7.5)	80
Senior secondary	150 (98)	13 (8)	163
Bachelor's degree	74 (85.1)	13 (14.9)	87

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Total
Technical/Professional	47 (88.7)	6 (11.3)	53
Total	345 (90.1)	38 (9.9)	383
	χ^2	3.786	
Level of Significance 5%	df	3	
	p	0.286	

Source: Compiled from primary data

Table 4.26 indicates the results of a chi-square test conducted on the education qualification and mode of usage of balance enquiry of micro entrepreneurs (χ^2 : 3.786, df : 3, p = 0.286). Since the p -value is greater than the 5% significance level, it is concluded that there is no statistically significant association between educational qualification and mode of usage of funds transfer of micro entrepreneurs.

4.28 Association between Education and Mode of Accessing Account Statements

H₀: There is no statistically significant association between the mode of accessing bank account statements and educational qualification of micro entrepreneurs

H₁: There is statistically significant association between the mode of accessing bank account statements and educational qualification of micro entrepreneurs

Table 4.27

Educational Qualification and Mode of Accessing Bank Account Statements

Educational Qualification	Mobile/Online Banking (Count & %)	Banking at Branch (Count & %)	Use of BC (Count & %)	Total
High school or less	13 (16.2)	61 (76.2)	6 (7.5)	80
Senior secondary	78 (47.9)	79 (48.5)	6 (3.7)	163
Bachelor's degree	38 (43.7)	49 (56.3)	0 (0)	87

Educational Qualification	Mobile/Online Banking (Count & %)	Banking at Branch (Count & %)	Use of BC (Count & %)	Total
Technical/Professional	41 (77.4)	12 (22.6)	0 (0)	53
Total	170 (44.4)	201 (52.5)	12 (3.1)	383
		χ^2	55.462	
Level of Significance		p	< .001	
Monte Carlo	< .001	df	6	

Source: Compiled from primary data

Table 4.27, which shows the result of the chi-square test (χ^2 : 55.462, df : 6, p < .001) indicates that there is a statistically significant relationship between the level of education and the method of accessing bank account statements. The higher the education level of the respondent, the more they preferred mobile/online banking; especially those who had technical/professional qualifications (77.4%). Whereas the lower the education level of the respondent, the more they preferred to use branch visits or use the service of business correspondents. Due to the low cell frequencies in certain categories, a Monte Carlo test was also used to authenticate the results. The simulated p -value was <.001, which was consistent with the outcome of the chi-square test.

4.29 Relationship between Educational Qualification and Mode of Loan Application

H₀: There is no statistically significant association between the mode of loan application and educational qualification of micro entrepreneurs

H₁: There is statistically significant association between the mode of loan application and educational qualification of micro entrepreneurs

Table 4.28

Educational Qualification and Mode of Loan Application

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Use of BC (Count & %)	Total
High school or less	6 (7.5)	16 (20)	58 (72.5)	80
Senior secondary	6 (3.7)	35 (21.5)	122 (74.8)	163
Bachelor's degree	0 (0)	36 (41.4)	51 (58.6)	87
Technical/ Professional	0 (0)	26 (49.1)	27 (50.9)	53
Total	12 (3.1)	113 (29.5)	258 (67.4)	383
		χ^2	31.227	
Level of Significance 5%		p	< .001	
Monte Carlo < .001		df	6	

Source: Compiled from primary data

Table 4.28 shows a statistically significant association between educational qualification and mode of loan application (χ^2 : 31.227, df : 6, p < .001). It has been confirmed with a Monte Carlo test due to some of the cells in the chi-square showing a zero value. The p -value of the Monte Carlo test result shows < .001. It is similar to the chi-square value shown in the table. The test reveals that there is a significant association between educational qualification and mode of loan application because the p -value is less than 0.05; here, the null hypothesis has been rejected, and confirmed that the mode of loan application strongly influenced by educational qualification of micro entrepreneurs. The lower educated respondents mainly used the services of business correspondents, whereas the higher educated respondents, particularly those with technical or bachelor's degrees, were more inclined to apply directly at bank branches.

4.30 Relationship between Educational Qualification and Mode of Loan Repayment

H₀: There is no statistically significant association between the mode of loan repayment and educational qualification of micro entrepreneurs

H₁: There is statistically significant association between the mode of loan repayment and educational qualification of micro entrepreneurs

Table 4.29

Educational Qualification Towards Mode of Loan Repayment

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Use of BC (Count & %)	Total
High school or less	15 (18.8)	6 (7.5)	59 (73.8)	80
Senior secondary	3 (1.8)	0 (0)	160 (98.2)	163
Bachelor's degree	1 (1.1)	13 (14.9)	73 (83.9)	87
Technical/ Professional	0 (0)	6 (11.3)	47 (88.7)	53
Total	19 (5)	25 (6.5)	339 (88.5)	383
		χ^2	64.991	
Level of Significance 5%		p	< .001	
Monte Carlo	< .001	df	6	

Source: Compiled from primary data

Table 4.29 which shows the result of the chi-square test (χ^2 : 64.991, df : 6, $p < 0.001$) indicates that there is a statistically significant relationship between the level of education and the mode of loan repayment. The respondents with low education level, particularly those with senior secondary education were preferred the service of business correspondents. Due to the low cell frequencies in certain categories, a Monte Carlo test was also used to authenticate the results. The Monte Carlo test p -value was < .001, which was consistent with the outcome of the chi-square test. The

results of the test confirmed that the mode of loan repayment strongly influenced by educational qualification of micro entrepreneurs.

4.31 Relationship between Educational Qualification and Mode of Making Deposit

H₀: There is no statistically significant association between the mode of making deposit and educational qualification of micro entrepreneurs

H₁: There is statistically significant association between the mode of making deposit and educational qualification of micro entrepreneurs

Table 4.30

Educational Qualification and Mode of Making Deposit

Educational Qualification	Mobile/Online banking (Count & %)	Banking at Branch (Count & %)	Use of BC (Count & %)	Total
High school or less	0 (0)	74 (92.5)	6 (7.5)	80
Senior secondary	6 (3.7)	151 (92.6)	6 (3.7)	163
Bachelor's degree	0 (0)	87 (100)	0 (0)	87
Technical/ Professional	0 (0)	53 (100)	0 (0)	53
Total	6 (1.6)	365 (95)	12 (3.4)	383
		χ^2	18.021	
Level of Significance 5%		p	0.006	
Monte Carlo	0.006	df	6	

Source: Compiled from primary data

Table 4.30 reveals the result of chi-square test to assess the relationship between educational qualification and mode of making deposit. The result shows a statistically significant association between educational qualification and mode of making deposit (χ^2 : 18.021, df : 6, p = 0.006). It has been confirmed with a Monte Carlo test due to some of the cells in the chi-square showing a zero value. The p -value of the Monte

Carlo test result shows 0.006. It is similar to the chi-square value shown in the table. The test results concluded that there is a significant association between educational qualification and mode of making deposit because the p -value is less than 0.05. While analysing the frequencies, the group consisting of respondents with school-level education showed some reliance on business correspondents. On the other hand, respondents with bachelor's and technical qualifications primarily used bank branches. The use of innovative technologies, such as mobile or online banking, was relatively low for making deposits.

4.32 Challenges Associated with Usage of Financial Services

Table 4.31

Descriptive Statistics on Challenges Associated with Usage of Financial Services of SFB

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
Limited SFB branches or ATMs	36 (9.4)	16 (4.2)	0 (0)	82 (21.4)	249 (65.0)	1
Inconvenient banking hours	25 (6.5)	32 (8.4)	0 (0)	83 (21.7)	243 (63.4)	1
Lack of CDMs for cash deposit.	142 (37.1)	167 (43.6)	49 (12.8)	13 (3.4)	12 (3.1)	4
Hidden service charges	7 (1.8)	75 (19.6)	48 (12.5)	245 (64.0)	8 (2.1)	2
High interest rates on credit/loan.	34 (8.9)	263 (68.7)	13 (3.4)	67 (17.5)	6 (1.6)	4
Not user-friendly online services	13 (3.4)	34 (8.9)	12 (3.1)	191 (49.9)	133 (34.7)	2
Frequent technical issues in online/ mobile banking	25 (6.5)	22 (5.7)	7 (1.8)	183 (47.8)	146 (38.1)	2
Unresponsive customer representatives	13 (3.4)	24 (6.3)	0 (0)	174 (45.4)	172 (44.9)	2
Use of other Bank Account as primary Account	7 (1.8)	65 (17.0)	52 (13.6)	207 (54.0)	52 (13.6)	2
Limited comprehension diverse financial products	47 (12.3)	105 (27.4)	25 (6.5)	190 (49.6)	16 (4.2)	2

Source: Compiled from primary data

Table 4.31 shows that micro entrepreneurs were faced various challenges related to both infrastructure and service quality. The most significant problems reported are the high interest rates charged on credit or loans and the lack of cash deposit machines, both with the highest median score of 4. This indicates that customers are highly concerned about the cost of credit and that many users find it difficult to access deposit facilities conveniently.

Some respondents also reported moderate challenges such as hidden charges, non-user-friendly mobile or online banking services, technical issues in mobile banking, unresponsive customer service, use of other banks as primary accounts, and limited financial literacy (all median score = 2). Although these challenges are relatively minor, bank can address them to further enhance the efficiency and user experience of SFB services.

4.33 Difference in Usage Challenges Based on Location

H₀: There is no significant difference in challenges associated with usage of SFB's financial services based on their location

H₁: There is significant difference in challenges associated with usage of SFB's financial services based on their location

Table 4.32

Mann Whitney U Test on Usage Challenges Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
UE1	Rural Area	190	184.89	16984.500	-1.475	0.140
	Urban Area	193	199.00			
UE2	Rural Area	190	186.57	17304.000	-1.111	0.266
	Urban Area	193	197.34			
UE3	Rural Area	190	196.23	17530.500	-0.799	0.424
	Urban Area	193	187.83			
UE4	Rural Area	190	190.07	17969.000	-0.396	0.692
	Urban Area	193	193.90			

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
UE5	Rural Area	190	192.63	18216.000	-0.134	0.893
	Urban Area	193	191.38			
UE6	Rural Area	190	192.99	18146.000	-0.191	0.848
	Urban Area	193	191.02			
UE7	Rural Area	190	190.06	17966.500	-0.372	0.710
	Urban Area	193	193.91			
UE8	Rural Area	190	191.22	18187.000	-0.151	0.880
	Urban Area	193	192.77			
UE9	Rural Area	190	177.58	15594.500	-2.773	0.006
	Urban Area	193	206.20			
UE10	Rural Area	190	199.43	16922.500	-1.410	0.159
	Urban Area	193	184.68			

Source: Compiled from primary data

Table 4.32 presents the results of the Mann-Whitney U Test conducted to examine whether challenges in using financial services from Small Finance Banks differ between rural and urban business locations. The result indicates that there is no significant difference in the challenges while using financial services between rural and urban users, as most p -values exceed 0.05.

However, a significant difference was observed in the use of other bank accounts as the main account, with a p -value of 0.006. Urban users had a higher mean rank (206.20) compared to rural users (177.58), suggesting that urban respondents are more likely to use other banks instead of SFBs. This implies that entrepreneurs in urban areas may not rely exclusively on SFB services.

4.34 Difference in Usage Challenges Across Gender

H₀: There is no significant difference in challenges associated with usage of SFB's financial services based on their gender

H₁: There is significant difference in challenges associated with usage of SFB's financial services based on their gender

Table 4.33

Mann Whitney U Test on Challenges Associated with Usage

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
UE1	Male	116	191.72	15453.000	-0.039	0.969
	Female	267	192.12			
UE2	Male	116	189.83	15234.500	-0.295	0.768
	Female	267	192.94			
UE3	Male	116	189.52	15198.500	-0.311	0.756
	Female	267	193.08			
UE4	Male	116	190.06	15261.000	-0.265	0.791
	Female	267	192.84			
UE5	Male	116	198.15	14772.500	-0.876	0.381
	Female	267	189.33			
UE6	Male	116	194.39	15208.500	-0.305	0.760
	Female	267	190.96			
UE7	Male	116	201.40	14396.000	-1.198	0.231
	Female	267	187.92			
UE8	Male	116	200.13	14543.500	-1.048	0.294
	Female	267	188.47			
UE9	Male	116	199.60	13457.500	-2.234	0.026
	Female	267	174.51			
UE10	Male	116	206.46	13809.000	-1.822	0.069
	Female	267	185.72			

Source: Compiled from primary data

Table 4.33 presents the result of Mann-Whitney *U* Test carried out to check the difference in challenges faced by male and female respondents while using financial services of Small Finance Banks. The findings indicate that in majority of the challenges such as limited branches or ATMs, inconvenient banking hours, difficulty in finding CDMs, hidden charges, high interest rates on loans, non user-friendly online banking UE6, frequent technical issues UE7, unresponsive customer service representatives and limited comprehension of diverse financial products, there was no

significant difference between male and female respondents because all the p-values on these items were greater than 0.05.

A distinct variation was observed in the use of other bank accounts as the primary account. The p value in this case was 0.026 and mean rank of the female respondents was 174.51 as compared to that of the male respondents, which was 199.60. This indicates that the majority of male entrepreneurs use other bank accounts as primary account rather than SFB. This indicates that male entrepreneurs may not rely exclusively on SFB accounts.

4.36 Difference in Usage Challenges by Nature of Business Activity

H₀: There is no significant difference in challenges associated with usage of SFB's financial services based on their nature of business activity

H₁: There is significant difference in challenges associated with usage of SFB's financial services based on their nature of business activity

Table 4.34

Kruskal Wallis H Test on Usage Challenges Based on Nature of Business Activity

	Nature of Business activity	N	Mean Rank	Kruskal-Wallis H	df	p
UE1	Manufacturing	124	210.12	14.154	2	0.001
	Trading	142	197.56			
	Service	117	166.04			
UE2	Manufacturing	124	186.41	8.204	2	0.017
	Trading	142	209.39			
	Service	117	176.82			
UE3	Manufacturing	124	216.32	12.475	2	0.002
	Trading	142	171.68			
	Service	117	190.88			
UE4	Manufacturing	124	165.31	16.667	2	< .001
	Trading	142	212.39			
	Service	117	195.54			

	Nature of Business activity	N	Mean Rank	Kruskal-Wallis H	df	p
UE5	Manufacturing	124	214.46	11.350	2	0.003
	Trading	142	179.70			
	Service	117	183.12			
UE6	Manufacturing	124	162.13	16.015	2	< .001
	Trading	142	206.29			
	Service	117	206.31			
UE7	Manufacturing	124	176.52	4.296	2	0.117
	Trading	142	199.69			
	Service	117	199.08			
UE8	Manufacturing	124	157.65	46.424	2	< .001
	Trading	142	236.51			
	Service	117	174.38			
UE9	Manufacturing	124	174.97	6.762	2	0.034
	Trading	142	193.07			
	Service	117	208.75			
UE10	Manufacturing	124	169.04	76.763	2	< .001
	Trading	142	155.54			
	Service	117	260.59			

Source: Source: Compiled from primary data

Table 4.34 show the result of the Kruskal-Wallis H Test conducted to check whether the nature of business activity affects the challenges faced in using financial services of Small Finance Banks. It is found that the three groups differ significantly ($p < 0.05$) on most of the challenges, indicating that the nature of the business activity has an impact on how the individuals experience SFB services.

In the case of manufacturing units, reported more problems with limited access to branches and ATMs ($p = 0.001$, mean rank = 210.12) and with using cash deposit machines ($p = 0.002$, mean rank = 216.32). These users also showed concern over high interest rates ($p = 0.003$) and found online services difficult to use ($p < .001$).

Service sector users had higher scores for limited knowledge of products ($p < .001$, mean rank = 260.59), showing they find it difficult to comprehend different banking products. Some groups also had a stronger customer service issue ($p < .001$). Only one challenge, technical issues with online platforms (UE7, $p = 0.117$) did not show any major difference, showing that all groups faced this problem at a similar level.

Table 4.35

Dunn's Pairwise comparison with Bonferroni Corrections on Usage Challenges Based on Nature of business Activity

Sl. No.	Items	Comparison Groups	z	p
1	Limited branches or ATMs	Manufacturing – Trading	1.59	0.336
		Manufacturing – Service	3.72	<.001
		Trading – Service	2.28	0.068
2	Inconvenient banking hours	Manufacturing – Trading	-1.62	0.318
		Manufacturing – Service	0.8	1
		Trading – Service	2.41	0.047
3	Limited CDMs of SFB for cash deposit	Manufacturing – Trading	3.22	0.004
		Manufacturing – Service	1.94	0.158
		Trading – Service	-1.17	0.729
4	Hidden charges for services	Manufacturing – Trading	-3.69	<.001
		Manufacturing – Service	-2.49	0.038
		Trading – Service	1.06	0.874
5	High interest rates on credit/loan	Manufacturing – Trading	2.88	0.012
		Manufacturing – Service	2.71	0.02
		Trading – Service	-0.03	1
6	Mobile banking services not user-friendly	Manufacturing – Trading	-3.16	0.005
		Manufacturing – Service	-3.44	0.002
		Trading – Service	-0.44	1
7	Customer service representatives unresponsive	Manufacturing – Trading	-6.18	<.001
		Manufacturing – Service	-1.31	0.571
		Trading – Service	4.74	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
8	Use of other Bank A/c as primary account	Manufacturing – Trading	–1.17	0.73
		Manufacturing – Service	–2.58	0.03
		Trading – Service	–1.52	0.389
9	Limited comprehension of diverse financial products	Manufacturing – Trading	1.14	0.767
		Manufacturing – Service	–6.92	<.001
		Trading – Service	–8.26	<.001

Source: Compiled from primary data

Table 4.35 presents the post hoc results of Dunn's Pairwise Comparison with Bonferroni Corrections, conducted to examine and confirm the significant differences in usage challenges among respondents based on the nature of their business activity. The findings indicate that manufacturing firms have more challenges with hidden charges ($p < .001$), high interest rate on loan ($p = 0.012$), the user friendliness of mobile banking ($p = 0.005$) and limited CDMs ($p = 0.004$). Service companies can be distinguished by greater challenges regarding the limited number of branches ($p < .001$), inconvenient banking hours ($p = 0.047$), and, in particular, a limited comprehension of various financial products ($p < .001$).

In general, Manufacturing firms are hindered by procedural and cost-related issues, Service firms have problems with accessibility and awareness, whereas Trading firms have comparatively fewer challenges in usage of various services of Small Finance Banks.

4.37 Difference in Usage Challenges by Type of Organisation

H₀: There is no significant difference in the challenges associated with usage of financial product and services from SFB based on their type of organization

H₁: There is significant difference in the challenges associated with usage of financial product and services from SFB based on their type of organization

Table 4.36*Mann Whitney U Test on Usage Challenges based on Type of Organisation*

	Type of Organisation	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
UE1	Sole Proprietorship	338	192.72	7362.000	-0.412	0.680
	Partnership	45	186.60			
UE2	Sole Proprietorship	338	188.53	6431.500	-1.954	0.051
	Partnership	45	218.08			
UE3	Sole Proprietorship	338	190.12	6969.500	-0.985	0.325
	Partnership	45	206.12			
UE4	Sole Proprietorship	338	186.84	5859.500	-2.931	0.003
	Partnership	45	230.79			
UE5	Sole Proprietorship	338	189.43	6737.000	-1.520	0.129
	Partnership	45	211.29			
UE6	Sole Proprietorship	338	190.10	6963.500	-1.007	0.314
	Partnership	45	206.26			
UE7	Sole Proprietorship	338	187.08	5943.500	-2.606	0.009
	Partnership	45	228.92			
UE8	Sole Proprietorship	338	190.11	6964.500	-1.017	0.309
	Partnership	45	206.23			
UE9	Sole Proprietorship	338	196.83	5972.500	-2.565	0.010
	Partnership	45	155.72			
UE10	Sole Proprietorship	338	190.12	6969.500	-0.985	0.325
	Partnership	45	206.12			

Source: Compiled from primary data

Table 4.36 presents the result of Mann Whitney *U* test on challenges associated with usage of financial products and services based on type of business organisation. From the result, it is evident that most of the *p* values are greater than 0.05. It indicates that there is no significant difference in the challenges associated with usage of financial product and services from SFB based on their type of organization.

However, the challenges like hidden charges for banking services ($p = 0.003$), frequent technical issues with online banking ($p = 0.009$) and use of other bank account as primary account ($p = 0.010$) were showed significant differences.

The result shows that the partnership units were faced more challenges in respect of hidden charges for banking services (mean rank = 230.79) and frequent technical issues with online banking (mean rank = 228.92), While sole proprietorship units were faced more challenges regarding knowledge of new schemes of the bank (mean rank = 196.83).

4.38 Quality of Banking Services of SFB

Table 4.37

Descriptive Statistics on Quality of Services

Items						Median Score
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
24 X 7 digital banking services	248 (64.8)	98 (25.6)	0 (0)	1 (0.3)	36 (9.4)	5
wide range of tailored products & services	263 (68.7)	83 (21.7)	0 (0)	7 (1.8)	30 (7.8)	5
Transaction alert messages sent via mobile	70 (18.3)	276 (72.1)	0 (0)	30 (7.8)	7 (1.8)	4
Pass book updating facility at branches.	116 (30.3)	165 (43.1)	65 (17.0)	7 (1.8)	30 (7.8)	4
Instant credit at affordable rates during difficult times	257 (67.1)	83 (21.7)	1 (0.3)	12 (3.1)	30 (7.8)	5
No service down time due to server problem	147 (38.4)	186 (48.6)	13 (3.4)	24 (6.3)	13 (3.4)	4
Transparent credit terms with prior customer intimation	156 (40.7)	183 (47.8)	0 (0)	26 (6.8)	18 (4.7)	4
Various repayment options as per repayment capacity	63 (16.4)	199 (52.0)	30 (7.8)	64 (16.7)	27 (7.0)	4
Repayment period based on customer preference	0 (0)	80 (20.9)	24 (6.3)	194 (50.7)	85 (22.2)	2

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Median Score
Different Modes of repayment facilities	90 (23.5)	247 (64.5)	8 (2.1)	32 (8.4)	6 (1.6)	4
No high penalty for default of dues.	106 (27.7)	220 (57.4)	19 (5.0)	24 (6.3)	14 (3.7)	4
Top up loans for further financial needs	194 (50.7)	152 (39.7)	0 (0)	25 (6.5)	12 (3.1)	5
Top up loans & further credit to non-defaulters	302 (78.9)	44 (11.5)	0 (0)	12 (3.1)	25 (6.5)	5
Affordable micro loans for growth and job creation	288 (75.2)	58 (15.1)	0 (0)	13 (3.4)	24 (6.3)	5
Financial literacy & training programmes	98 (25.6)	242 (63.2)	6 (1.6)	19 (5.0)	18 (4.7)	4
High-quality customer care services	250 (65.3)	96 (25.1)	0 (0)	18 (4.7)	19 (5.0)	5

Source: Compiled from primary data

Table 4.37 shows that respondents expressed a very high level of satisfaction with most of the quality aspects of services of the bank. Majority respondents strongly agreed that 24x7 digital banking services (64.8%), a wide range of tailored products for small businesses (68.7%), instant credit facilities at affordable rates (67.1%), top-up loans (50.7%), micro-loans for business growth (75.2%), and high-quality customer care (65.3%) are major strengths, all with a median score of 5.

The basic service factors like transaction alerts, passbook update facilities, transparent credit terms, flexible repayment options, and low penalties for defaults received high satisfaction (median score = 4). Moreover, respondents were not satisfied with the repayment terms (median score = 2) showing that customer preferences on longer repayment terms are not given due considerations while determining repayment terms.

4.39 Difference in Quality of Banking Services Across Gender

H₀: There is no significant difference in quality of SFB's financial services based on the gender

H₁: There is significant difference in quality of SFB's financial services based on the gender

Table 4.38

Mann Whitney U Test on Quality of SFBs Financial Services Based on Gender

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
QB1	Male	116	182.53	14387.500	-1.309	0.191
	Female	267	196.11			
QB2	Male	116	184.44	14609.500	-1.079	0.280
	Female	267	195.28			
QB3	Male	116	196.48	14966.500	-0.663	0.507
	Female	267	190.05			
QB4	Male	116	186.50	14847.500	-0.681	0.496
	Female	267	194.39			
QB5	Male	116	182.73	14410.500	-1.303	0.193
	Female	267	196.03			
QB6	Male	116	196.28	14989.500	-0.548	0.584
	Female	267	190.14			
QB7	Male	116	200.78	14468.000	-1.127	0.260
	Female	267	188.19			
QB8	Male	116	201.51	14383.000	-1.202	0.229
	Female	267	187.87			
QB9	Male	116	196.10	15010.000	-0.519	0.604
	Female	267	190.22			
QB10	Male	116	186.60	14860.000	-0.742	0.458
	Female	267	194.34			
QB11	Male	116	186.23	14816.500	-0.757	0.449
	Female	267	194.51			
QB12	Male	116	186.75	14876.500	-0.681	0.496
	Female	267	194.28			
QB13	Male	116	187.05	14911.500	-0.810	0.418
	Female	267	194.15			

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
QB14	Male	116	183.53	14503.000	-1.307	0.191
	Female	267	195.68			
QB15	Male	116	183.60	14512.000	-1.144	0.252
	Female	267	195.65			
QB16	Male	116	186.19	14811.500	-0.806	0.420
	Female	267	194.53			

Source: Compiled from primary data

Table 4.38 reveals the result of Mann-Whitney U test conducted for investigating whether there are any significant differences in quality of services on the basis of gender. All 16 quality indicators had p-values greater than 0.05, indicating that there is no significant statistical difference in the perception towards the quality of financial services offered by Small Finance Banks on the basis of gender. So, it can be concluded that both men and women generally have a similar view about the quality of services provided by Small Finance Banks.

4.40 Difference in Quality of Banking Services Based on Location

H₀: There is no significant difference in quality of SFB's financial services based on their location

H₁: There is significant difference in quality of SFB's financial services based on their location

Table 4.39

Mann Whitney U Test on Quality of SFBs Financial Services Based on Location

	Location	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
QB1	Rural Area	190	188.31	17634.500	-0.767	0.443
	Urban Area	193	195.63			
QB2	Rural Area	190	196.77	17429.000	-1.025	0.305
	Urban Area	193	187.31			
QB3	Rural Area	190	194.19	17918.500	-0.489	0.625
	Urban Area	193	189.84			

	Location	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
QB4	Rural Area	190	195.48	17673.500	-0.648	0.517
	Urban Area	193	188.57			
QB5	Rural Area	190	194.31	17895.500	-0.489	0.625
	Urban Area	193	189.72			
QB6	Rural Area	190	194.94	17776.500	-0.566	0.571
	Urban Area	193	189.11			
QB7	Rural Area	190	196.10	17555.500	-0.793	0.428
	Urban Area	193	187.96			
QB8	Rural Area	190	196.49	17482.500	-0.854	0.393
	Urban Area	193	187.58			
QB9	Rural Area	190	193.76	18001.500	-0.334	0.738
	Urban Area	193	190.27			
QB10	Rural Area	190	193.16	18114.500	-0.240	0.810
	Urban Area	193	190.86			
QB11	Rural Area	190	197.69	17254.000	-1.124	0.261
	Urban Area	193	186.40			
QB12	Rural Area	190	187.31	17444.500	-0.915	0.360
	Urban Area	193	196.61			
QB13	Rural Area	190	194.67	17828.500	-0.656	0.512
	Urban Area	193	189.38			
QB14	Rural Area	190	193.65	18021.000	-0.384	0.701
	Urban Area	193	190.37			
QB15	Rural Area	190	192.88	18168.500	-0.180	0.857
	Urban Area	193	191.14			
QB16	Rural Area	190	194.65	17832.000	-0.553	0.580
	Urban Area	193	189.39			

Source: Compiled from primary data

Table 4.39 presents the result of Mann-Whitney U test carried out to identify whether there is any significant statistical difference of perception between rural and urban respondents regarding the quality of financial services. The p-values of all the 16 service quality indicators were greater than 0.05, indicating that there is no statistical

variation across different geographical location. These findings conclude that both rural and urban population experience the same level of SFB services, with similar quality in all different geographical locations.

4.41 Difference in Quality of Banking Services by Nature of Business Activity

H₀: There is no significant difference in quality of SFB's financial services based on their nature of business activity

H₁: There is significant difference in quality of SFB's financial services based on their nature of business activity

Table 4.40

Kruskal Wallis H Test on Quality of SFBs Financial Services Based on Nature of Business

Nature of Business activity		N	Mean Rank	Kruskal-Wallis H	df	p
QB1	Manufacturing	124	216.25	12.905	2	0.002
	Trading	142	176.56			
	Service	117	185.04			
QB2	Manufacturing	124	212.94	50.924	2	< .001
	Trading	142	149.33			
	Service	117	221.60			
QB3	Manufacturing	124	200.61	1.965	2	0.374
	Trading	142	189.92			
	Service	117	185.40			
QB4	Manufacturing	124	265.45	147.030	2	< .001
	Trading	142	112.82			
	Service	117	210.26			
QB5	Manufacturing	124	212.90	32.057	2	< .001
	Trading	142	157.42			
	Service	117	211.83			
QB6	Manufacturing	124	193.74	3.250	2	0.197
	Trading	142	181.01			
	Service	117	203.50			

Nature of Business activity		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
QB7	Manufacturing	124	204.35	36.909	2	< .001
	Trading	142	152.99			
	Service	117	226.26			
QB8	Manufacturing	124	180.71	3.251	2	0.197
	Trading	142	191.62			
	Service	117	204.42			
QB9	Manufacturing	124	214.70	9.519	2	0.009
	Trading	142	184.97			
	Service	117	176.47			
QB10	Manufacturing	124	229.96	30.210	2	< .001
	Trading	142	176.15			
	Service	117	171.00			
QB11	Manufacturing	124	199.31	1.923	2	0.382
	Trading	142	183.21			
	Service	117	194.91			
QB12	Manufacturing	124	236.27	41.215	2	< .001
	Trading	142	158.40			
	Service	117	185.85			
QB13	Manufacturing	124	200.41	25.040	2	< .001
	Trading	142	166.65			
	Service	117	213.85			
QB14	Manufacturing	124	222.76	27.069	2	< .001
	Trading	142	170.14			
	Service	117	185.93			
QB15	Manufacturing	124	201.00	1.817	2	0.403
	Trading	142	189.82			
	Service	117	185.11			
QB16	Manufacturing	124	225.02	23.129	2	< .001
	Trading	142	175.36			
	Service	117	177.21			

Source: Compiled from primary data

Table 4.40 presents the Kruskal-Wallis H test results, which shows that the way users rate the quality of Small Finance Bank services varies based on their nature of business. It is evident from the result that out of the 16 service quality indicators, 11 items showed significant differences between manufacturing, trading, and service sectors ($p < 0.05$).

In the case of items such as transaction alert messages ($p = 0.374$), uninterrupted service delivery ($p = 0.197$), flexibility in loan repayment ($p = 0.197$), penalty-related fairness ($p = 0.382$), and financial literacy programmes ($p = 0.403$), the p -values are reported greater than 0.05. This indicates no significant differences, indicating that responses for these items were consistent across all types of business activities.

Table 4.41

Dunn's Pairwise comparison with Bonferroni Corrections on Quality of Services Based on Nature of Business Activity

Sl. No.	Items	Comparison Groups	z	p
1	24x7 Digital Banking Services Online	Manufacturing – Trading	3.03	0.007
		Manufacturing – Service	2.62	0.026
		Trading – Service	-0.27	1
2	Wide Range of Products & Services	Manufacturing – Trading	5.34	<.001
		Manufacturing – Service	-0.76	1
		Trading – Service	-6.04	<.001
3	Passbook Updating Facility	Manufacturing – Trading	11.56	<.001
		Manufacturing – Service	4.14	<.001
		Trading – Service	-7.10	<.001
4	Credit Facilities Instantly at Affordable Rates	Manufacturing – Trading	4.52	<.001
		Manufacturing – Service	0.09	1
		Trading – Service	-4.36	<.001
5	Transparent Credit Terms & Conditions	Manufacturing – Trading	3.77	<.001
		Manufacturing – Service	-1.72	0.259
		Trading – Service	-5.48	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
6	Flexible Repayment Period	Manufacturing – Trading	2.21	0.081
		Manufacturing – Service	2.92	0.011
		Trading – Service	0.83	1
7	Different Kinds of Repayment Facilities	Manufacturing – Trading	4.43	<.001
		Manufacturing – Service	4.95	<.001
		Trading – Service	0.75	1
8	Top-up Loans & Credit (Further Needs)	Manufacturing – Trading	6.15	<.001
		Manufacturing – Service	3.98	<.001
		Trading – Service	–1.95	0.154
9	Top-up Loans Granted to Non-defaulters	Manufacturing – Trading	3.05	0.007
		Manufacturing – Service	–1.37	0.514
		Trading – Service	–4.42	<.001
10	Small, Affordable Micro Loans to Grow Business	Manufacturing – Trading	4.72	<.001
		Manufacturing – Service	3.48	0.001
		Trading – Service	–1.05	0.881
11	High-quality Customer Care Services	Manufacturing – Trading	3.93	<.001
		Manufacturing – Service	4.05	<.001
		Trading – Service	0.31	1

Source: Compiled from primary data

The post hoc findings show that in most of the areas, manufacturing firms stand apart with trading units with the biggest difference especially in digital banking services ($p=0.007$), pass book updating facility ($p < .001$), different kinds of repayment facilities ($p < .001$), top-up loans ($p < .001$) and high-quality customer care service ($p < .001$). The service units show significant difference with the trading units in the areas such as wide range of products ($p < .001$), pass book updating facility ($p < .001$), transparent credit terms ($p < .001$), and affordable credit facilities ($p < .001$). Overall, entrepreneurs running Manufacturing units shows significant difference when compared to trading and service units.

The above analysis shows that all micro-entrepreneurs do not view the quality of services received from the Small Finance Banks in the same way. Their opinions seem

to depend on the type of business they are involved in. The majority of the users shared the view that SFBs provide reliable services with fair policies and customer support. Entrepreneurs of manufacturing units were highly satisfied with quality of services, particularly in respect of loan processing, wide range of financial products, access to additional credit, and the use of online services. On the other hand, traders were less satisfied with several services. This could mean that some of the services are not meeting their expectations.

At the same time, there were also a few areas like digital performance, loan repayment flexibility, and awareness programmes where responses were almost the same across all groups. This shows that some of the services are delivered consistently irrespective of the business type. These results indicate that SFBs might have to adjust their strategy and be more specific in their solutions, as they will be able to accommodate every type of business better and provide their services in a more inclusive and efficient manner.

4.42 Assessment of Level of Financial Inclusion

The financial inclusion of micro entrepreneurs has been performed using a financial inclusion index. The Financial Inclusion Index (FI-Index) is a composite score out of 100 (where the lowest score is 0, represent no inclusion to the highest score is 100, represent full inclusion) that is used to assess financial inclusion in India by the Reserve Bank of India. It is calculated using 97 indicators in banking, investment, insurance, postal and pension segments combined in to 3 weighted sub- indices: Access (35 percent), Usage (45 percent), and Quality (20 percent) (RBI FI index, 2021). The index is released on an annual basis and gives a full picture of the availability of financial services, their active utilization and quality.

4.42.1 Methodology of Financial Inclusion Index Development

A good measure of financial inclusion should incorporate information on all possible dimensions, be easy and simple to compute and remain comparable across countries (Sarma, 2008). In this study, the researcher developed the Financial Inclusion Index using three key dimensions: Access, Usage, and Quality.

- I. Access dimension was measured using indicators such as availability of Bank accounts, Loan products and Transactional services. For measuring access, the

average percentages of respondents who had an access to each account or service were averaged across indicators.

- II. Usage dimension was calculated using 15 indicators that included deposit, withdrawal, loan products, and digital transactions and weights were assigned to their usage frequency. In Usage, the proportion of services used by the respondents was averaged.
- III. Quality dimension was measured by using 16 items that were related to the service and rated using a 5-point Likert scale, which were further converted to mean and index scores. In the case of Quality, service-related items were converted into a single score per item by adding the percentages of strongly agree and agree responses and averaging them across all items.

The total Financial Inclusion Index is the weighted average of the three indices. The overall financial inclusion index is calculated by providing weightage as per the directions of RBI FI Index, 2021, where the weights are assigned as Access -35 percent, Usage- 45 percent, and Quality - 20 percent. The level of financial inclusion has been measured as Low (0-39.99%), Medium (40-69.99%) and High level (70-100%) of financial inclusion. (Sharma,2008).

As per the methodology, the following results are generated.

Table 4.42

Categorization of Financial Inclusion Level and Result

Dimension	Weight (%)	Result (%)	Composite Index (%)
Access	35	55.72%	52.29%
Usage	45	36.17%	
Quality	20	82.57%	

Source: Compiled using FII Index

The total Financial Inclusion Index score of 52.29% indicates a medium level of financial inclusion based on study of 383 micro entrepreneurs. As per the result of the study, micro entrepreneurs have good access to basic banking services (55.72%) and are highly satisfied with service quality (82.57%). But, their actual usage of financial services remains low at only 36.17%.

The study shows that the respondents are having complete access to various services like Debit cards, micro loans, mobile banking and ATM services and also good satisfaction rates above 85% for most of the quality indicators. Still, the entrepreneurs are not significantly utilising the available credit products and other services. The conversion of existing access and quality services into active usage, particularly for digital banking services and credit facilities could support business growth.

4.43 Conclusion:

Small Finance Banks have played a significant role in promoting the financial inclusion of micro-entrepreneurs in Kerala by improving accessibility, usage and quality dimensions of financial services. The findings reveal that micro-entrepreneurs have substantial access to core banking facilities, as most can easily reach SFB branches and ATMs and complete loan procedures efficiently. The bank provide access to wider range of financial services to meet the diverse requirements of the entrepreneurs. Most of the entrepreneurs are able to secure credit from Small Finance Banks quickly and conveniently through simplified loan procedures. They also encourage micro-entrepreneurs to actively use various services such as micro-loans, mobile banking, debit cards and UPI based transactions, facilitating both traditional and digital financial practices.

The quality dimension of the banks was ensured by transparency of service delivery, credit terms, customer care, and digital banking services. The focus of the bank on customised credit products, financial literacy and prompt customer assistance has significantly contributed to improving entrepreneurs' trust and satisfaction. The Financial Inclusion Index computed for the respondents based on three dimensions indicates an overall medium level of inclusion. This also gives scope for innovative measures to enhance the effectiveness of financial inclusion initiatives. On a whole, SFBs are playing a transformative role in financing micro-entrepreneurs in Kerala and leading them towards inclusive and sustainable financial development.

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Chapter 5

ANALYSIS OF CONTRIBUTION OF SMALL FINANCE BANKS IN ECONOMIC EMPOWERMENT OF WOMEN MICRO ENTREPRENEURS

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5.1 Introduction

Economic empowerment of women, particularly at the micro-entrepreneurial level, is highly significant for building a fair and sustainable economy. Generally, to start and expand micro-enterprises, women face diverse challenges. Women entrepreneurs usually find it hard to access loans, lack formal training, and are many times limited by family or societal norms. Small Finance Banks play a very significant role by providing formal banking services to underserved and marginalized sections, including women micro-entrepreneurs. It assists women entrepreneurs to become financially stable, expand their businesses and have control of their earnings. SFBs not only offer financial support to women entrepreneurs but also contribute to make them more confident, empowered in their decisions, and improve their quality of life.

This chapter presents the analysis and discussion of contributions made by Small Finance Banks on the basis of primary data collected exclusively for this objective. It focused on the economic empowerment attained by the micro women entrepreneurs as a result of availing banking services from SFBs. It involves the evaluation of the influence of banking services on different aspects of business growth like income generation, asset creation, business development and financial independence. The analysis was based on the contributions made by the SFBs towards enhancing women entrepreneurship and developing additional skills, self-esteem, self-confidence, economic freedom and financial awareness of the women entrepreneurs in order to measure the overall empowerment.

5.2 Contribution to Economic Empowerment of Women Entrepreneurs

A comprehensive analysis of contributions of SFBs for the economic empowerment of micro entrepreneurs was carried out using both descriptive and inferential statistical

techniques. The different dimension of contributions such as business growth, entrepreneurship development initiatives, additional skills, self-esteem and self-confidence, economic freedom and economic awareness were analysed using the descriptive statistics including mean rank and median values. The Mann-Whitney U test was used to investigate the differences of business growth and contributions for the enhancement of women entrepreneurship on the basis of location and type of organisation. In order to analyse the pre-post need satisfaction levels of entrepreneurs, Wilcoxon Signed Rank test was used. The Kruskal-Wallis H test was used to investigate the differences of business growth and contributions of SFB on the basis of educational qualification and nature of business activity. Additionally, the study used the Dunn's pairwise post-hoc comparison with Bonferroni corrections to identify the differences between different specific groups. The analysis utilised different tests to investigate and confirm various elements to derive meaningful insights into the contributions of SFBs for the economic empowerment of micro entrepreneurs.

5.3 Business Growth of Women Micro Entrepreneurs after Availing Financial Services

Table 5.1

Descriptive Statistics on business growth of women micro entrepreneurs

(n=267)			
Sl. No.	Items	Mean Rank	Median
1	Increase in business contacts	9.19	5
2	Business income increased	9.04	4
3	Production or sales increased	8.96	4
4	Regular payment of taxes and dues ensured	8.81	4
5	Increase in working capital	8.51	4
6	Increase in number of customers	7.99	4
7	Improvement in business infrastructure	7.13	4
8	Penetration into new markets	7.03	4
9	Increase in savings	6.67	4

Sl. No.	Items	Mean Rank	Median
10	Expansion of business operations / number of branches	4.83	4
11	Development and launch of new products or services	4.69	4
12	Regular payment of wages ensured	4.36	3
13	Generation of additional job opportunities	3.8	3

Source: Compiled from primary data

Table 5.1 illustrates the business growth of women micro-entrepreneurs after availed financial services from SFB. It is evident that the women entrepreneurs are showing positive perception towards the services of small finance banks.

Among the various indicators, increase in business contacts (mean rank = 9.19, median = 5), increase in business income (mean rank = 9.04, median = 4), and increase in production or sales (mean rank = 8.96, median = 4) were the most highly ranked outcomes. These results show that the significant improvement of entrepreneurs' market connections, revenue generation, and sales turnover has been substantially supported by financial services.

Significant improvements were also observed in the regular payment of taxes and dues (mean rank = 8.81), increase in working capital (mean rank = 8.51), and increase in number of customers (mean rank = 7.99). similarly, business infrastructure (mean rank = 7.13), market penetration (mean rank = 7.03), and increased savings (mean rank = 6.67) were also showed moderate improvements, indicating that the stabilisation and moderate development of business operations were facilitated by financial support of SFBs.

On other hand, relatively lower mean ranks were recorded for expansion of business operations or number of branches, development and launch of new products or services, regular payment of wages, and generation of additional job opportunities. This means that even though financial services enhanced financial performance and operational efficiency of women micro entrepreneurs, it did not respond much to the generation of employment and expansion of physical operations.

Overall, the analysis has shown that SFBs have played a major role in different fields of business growth and performance of women micro entrepreneurs.

5.4 Difference in Business Growth of Women Entrepreneurs Based on Location

H₀: There is no significant difference in the business growth of women entrepreneurs after availing financial services from SFB based on their location.

H₁: There is significant difference in the business growth of women entrepreneurs after availing financial services from SFB based on their location.

Table 5.2

Mann Whitney U Test on Growth Perspective of Women Entrepreneurs

Location of Business		N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
GWT1	Rural Area	167	170.49	14376.000	-0.002	0.998
	Urban Area	100	170.51			
GWT2	Rural Area	167	170.22	14334.000	-0.054	0.957
	Urban Area	100	170.74			
GWT3	Rural Area	167	170.76	14336.500	-0.053	0.958
	Urban Area	100	170.27			
GWT4	Rural Area	167	167.61	13921.500	-0.529	0.597
	Urban Area	100	173.01			
GWT5	Rural Area	167	173.82	13854.000	-0.624	0.533
	Urban Area	100	167.62			
GWT6	Rural Area	167	174.03	13821.000	-0.689	0.491
	Urban Area	100	167.44			
GWT7	Rural Area	167	168.39	14045.000	-0.425	0.671
	Urban Area	100	172.33			
GWT8	Rural Area	167	167.66	13930.000	-0.579	0.563
	Urban Area	100	172.96			
GWT9	Rural Area	167	170.16	14325.000	-0.067	0.947
	Urban Area	100	170.79			
GWT10	Rural Area	167	167.11	13843.000	-0.658	0.510
	Urban Area	100	173.44			

Location of Business		N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
GWT11	Rural Area	167	161.78	13001.000	-1.581	0.114
	Urban Area	100	178.07			
GWT12	Rural Area	167	163.91	13337.500	-1.254	0.210
	Urban Area	100	176.22			
GWT13	Rural Area	167	165.31	13558.500	-1.003	0.316
	Urban Area	100	175.00			

Source: Compiled from primary data

Table 5.2 makes it evident that all the *p* values are greater than 0.05. This shows that there is no significant difference in the business growth of women entrepreneurs after availing financial services from Small Finance Banks based on their geographical location.

5.5 Difference in Business Growth by Educational Qualification

H₀: There is no significant difference in the business growth of women entrepreneurs after availing financial services from SFB based on educational qualification.

H₁: There is significant difference in the business growth of women entrepreneurs after availing financial services from SFB based on educational qualification.

Table 5.3

Kruskal Wallis H Test on Growth Perspective of Women Entrepreneurs

Educational Qualification		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
GWT1	High school or less	47	130.10	15.711	3	0.001
	Senior secondary	116	150.87			
	Bachelor's degree	66	108.89			
	Technical/Professional	38	130.95			
GWT2	High school or less	47	142.15	14.583	3	0.002
	Senior secondary	116	145.84			
	Bachelor's degree	66	106.11			
	Technical/Professional	38	136.24			

Educational Qualification		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
GWT3	High school or less	47	126.28	16.736	3	0.001
	Senior secondary	116	140.25			
	Bachelor's degree	66	111.36			
	Technical/Professional	38	163.79			
GWT4	High school or less	47	111.38	34.363	3	< .001
	Senior secondary	116	151.41			
	Bachelor's degree	66	99.23			
	Technical/Professional	38	169.21			
GWT5	High school or less	47	126.00	22.715	3	< .001
	Senior secondary	116	145.68			
	Bachelor's degree	66	102.52			
	Technical/Professional	38	162.91			
GWT6	High school or less	47	150.20	4.860	3	0.182
	Senior secondary	116	135.56			
	Bachelor's degree	66	121.52			
	Technical/Professional	38	130.88			
GWT7	High school or less	47	114.76	12.630	3	0.006
	Senior secondary	116	136.87			
	Bachelor's degree	66	125.45			
	Technical/Professional	38	163.91			
GWT8	High school or less	47	98.66	39.836	3	< .001
	Senior secondary	116	159.80			
	Bachelor's degree	66	110.17			
	Technical/Professional	38	140.34			
GWT9	High school or less	47	139.30	4.854	3	0.182
	Senior secondary	116	135.53			
	Bachelor's degree	66	119.67			
	Technical/Professional	38	147.64			
GWT10	High school or less	47	137.24	18.009	3	< .001
	Senior secondary	116	137.53			
	Bachelor's degree	66	107.23			
	Technical/Professional	38	165.70			

Educational Qualification		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
GWT11	High school or less	47	103.77	26.893	3	< .001
	Senior secondary	116	145.02			
	Bachelor's degree	66	112.83			
	Technical/Professional	38	174.51			
GWT12	High school or less	47	102.91	40.596	3	< .001
	Senior secondary	116	150.22			
	Bachelor's degree	66	103.61			
	Technical/Professional	38	175.74			
GWT13	High school or less	47	86.10	49.081	3	< .001
	Senior secondary	116	156.13			
	Bachelor's degree	66	110.66			
	Technical/Professional	38	166.22			

Source: Compiled from primary data

Table 5.4 indicates that most of the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there are statistically significant differences in the business growth of women entrepreneurs after availing financial services from Small Finance Banks based on their educational qualification.

In the case of items such as increase in number of customers ($p = 0.182$) and increase in savings ($p = 0.182$), *p* values reported are greater than 0.05. This indicates that there no statistically significant differences, showing that responses for these items were consistent across all groups of educational qualification.

Table 5.4

Dunn's Pairwise Comparison with Bonferroni Corrections on Business Growth Based on Educational Qualifications

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Business income has increased	High school or less – Senior secondary	0.445	1
		High school or less – Bachelor's degree	2.858	0.026
		High school or less – Technical/Professional	0.917	1
		Senior secondary – Bachelor's degree	2.879	0.024
		Senior secondary – Technical/Professional	0.645	1
		Bachelor's degree – Technical/Professional	–1.590	0.671
2	Production / Sale has increased	High school or less – Senior secondary	1.73	0.502
		High school or less – Bachelor's degree	3.85	<.001
		High school or less – Technical/Professional	1.26	1
		Senior secondary – Bachelor's degree	2.71	0.04
		Senior secondary – Technical/Professional	–0.073	1
		Bachelor's degree – Technical/Professional	–2.117	0.206
3	Improved infrastructure	High school or less – Senior secondary	0.652	1
		High school or less – Bachelor's degree	2.397	0.099
		High school or less – Technical/Professional	–1.580	0.685
		Senior secondary – Bachelor's degree	2.126	0.201
		Senior secondary – Technical/Professional	–2.326	0.12
		Bachelor's degree – Technical/Professional	–3.725	0.001
4	Expanded business operations	High school or less – Senior secondary	–0.910	1
		High school or less – Bachelor's degree	2.367	0.108
		High school or less – Technical/Professional	–2.306	0.127
		Senior secondary – Bachelor's degree	3.703	0.001
		Senior secondary – Technical/Professional	–1.799	0.432
		Bachelor's degree – Technical/Professional	–4.439	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
5	Develop & launch new products/se rvices	High school or less – Senior secondary	0.906	1
		High school or less – Bachelor's degree	3.273	0.006
		High school or less – Technical/Professional	–1.118	1
		Senior secondary – Bachelor's degree	2.887	0.023
		Senior secondary – Technical/Professional	–2.027	0.256
		Bachelor's degree – Technical/Professional	–4.029	<.001
6	Increased savings	High school or less – Senior secondary	1.208	1
		High school or less – Bachelor's degree	1.42	0.934
		High school or less – Technical/Professional	–1.398	0.973
		Senior secondary – Bachelor's degree	0.412	1
		Senior secondary – Technical/Professional	–2.598	0.056
		Bachelor's degree – Technical/Professional	–2.677	0.045
7	Increased number of customers	High school or less – Senior secondary	–2.500	0.075
		High school or less – Bachelor's degree	0.955	1
		High school or less – Technical/Professional	–1.437	0.904
		Senior secondary – Bachelor's degree	3.695	0.001
		Senior secondary – Technical/Professional	0.535	1
		Bachelor's degree – Technical/Professional	–2.307	0.126
8	Increased business contacts	High school or less – Senior secondary	1.66	0.578
		High school or less – Bachelor's degree	3.3	0.006
		High school or less – Technical/Professional	–1.170	1
		Senior secondary – Bachelor's degree	2.13	0.197
		Senior secondary – Technical/Professional	–2.740	0.037
		Bachelor's degree – Technical/Professional	–4.110	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
9	Generates more job opportunities	High school or less – Senior secondary	–0.914	1
		High school or less – Bachelor's degree	0.784	1
		High school or less – Technical/Professional	–3.184	0.009
		Senior secondary – Bachelor's degree	1.859	0.378
		Senior secondary – Technical/Professional	–2.778	0.033
		Bachelor's degree – Technical/Professional	–3.936	<.001
10	Regular payment of wages	High school or less – Senior secondary	–1.290	1
		High school or less – Bachelor's degree	1.75	0.48
		High school or less – Technical/Professional	–3.240	0.007
		Senior secondary – Bachelor's degree	3.38	0.004
		Senior secondary – Technical/Professional	–2.510	0.072
		Bachelor's degree – Technical/Professional	–4.840	<.001
11	Regular payment of tax & dues	High school or less – Senior secondary	–2.978	0.017
		High school or less – Bachelor's degree	0.246	1
		High school or less – Technical/Professional	–3.462	0.003
		Senior secondary – Bachelor's degree	3.36	0.005
		Senior secondary – Technical/Professional	–1.320	1
		Bachelor's degree – Technical/Professional	–3.743	0.001

Source: Compiled from primary data

Table 5.4 presents the post hoc analysis conducted to identify the difference in perception of business growth of women entrepreneurs among different educational groups. The analysis shows that women entrepreneurs with a Bachelor's degree showed more significant performance as they report higher income, increase in sales,

product development, and business expansion when compared to those with only high school or senior secondary education ($p < 0.05$). Women who have technical or professional qualification also demonstrated better performance in aspects like improved infrastructure, job creation, and regular payment of wages and taxes, when compared to lower educational groups ($p < 0.05$).

However, there are only less differences between bachelor's and technical/professional groups, indicating both groups benefit from higher education levels. Limited growth can be observed with those who have high school or senior secondary education, indicating lack of exposure and financial knowledge prevented them from full utilisation of SFB services.

Overall, the results indicate a clear positive association between level of education and business growth. Entrepreneurs with higher educational qualifications are better equipped to utilise financial services from Small Finance Banks, leading to superior business growth.

5.6 Difference in Business Growth by Type of Organisation

H₀: There is no significant difference in the growth of the business after availing financial services from SFB based their type of organization

H₁: There is significant difference in the growth of the business after availing financial services from SFB based their type of organization

Table 5.5*Mann Whitney U Test on Growth of the Business Based on Type of Organization*

Type of Organisation		N	Mean Rank	Mann-Whitney U	z	p
GWT1	Sole Proprietorship	248	133.26	2172.000	-0.631	0.528
	Partnership	19	143.68			
GWT2	Sole Proprietorship	248	132.86	2072.500	-0.968	0.333
	Partnership	19	148.92			
GWT3	Sole Proprietorship	248	133.59	2255.500	-0.358	0.721
	Partnership	19	139.29			
GWT4	Sole Proprietorship	248	132.31	1936.000	-1.359	0.174
	Partnership	19	156.11			
GWT5	Sole Proprietorship	248	132.85	2070.000	-0.953	0.341
	Partnership	19	149.05			
GWT6	Sole Proprietorship	248	132.54	1993.500	-1.247	0.212
	Partnership	19	153.08			
GWT7	Sole Proprietorship	248	130.18	1408.000	-3.354	0.001
	Partnership	19	183.89			
GWT8	Sole Proprietorship	248	129.12	1146.500	-4.345	< .001
	Partnership	19	197.66			
GWT9	Sole Proprietorship	248	127.97	860.500	-5.262	< .001
	Partnership	19	212.71			
GWT10	Sole Proprietorship	248	134.20	2306.500	-0.169	0.866
	Partnership	19	131.39			
GWT11	Sole Proprietorship	248	128.65	1028.500	-4.245	< .001
	Partnership	19	203.87			
GWT12	Sole Proprietorship	248	131.50	1736.000	-2.087	0.037
	Partnership	19	166.63			
GWT13	Sole Proprietorship	248	130.34	1447.500	-3.092	0.002
	Partnership	19	181.82			

Source: Compiled from primary data

Table 5.5 indicates that most of the p values are greater than 0.05. It means that there is no significant difference in the growth of the business after availing financial services from SFB based on their type of organization. Both sole proprietorship and partnerships firms experience similar kind of growth in these areas.

However, growth parameters like business infrastructure ($p = .001$), entry into new markets ($p < 0.001$), increase in savings ($p < .001$), launch of new products ($p < .001$), regular payment of wages ($p = 0.037$) and job creation ($p = 0.002$) show statistically significant difference between these two groups. For these indicators, mean ranks are much higher for partnership firms when compared to sole proprietors. This indicates that partnership units report comparatively higher growth in their business.

5.7 Contribution of SFB for Enhancement of Women Entrepreneurship

Table 5.6

Descriptive Statistics on Contribution for Enhancement of Women Entrepreneurship

Sl. No.	Items	Mean Rank	Median
1	Financial Literacy Programmes	6.05	5
5	Micro Banking Schemes	5.90	5
2	Skill Training Programmes	5.60	4
3	Marketing Avenues for Selling Products	5.34	4
4	Linking to Govt. Schemes	5.25	4
6	Capacity Building Programmes	3.36	4
8	Leadership Training Programmes	2.95	4
7	Ultra Poor Micro Finance Loans	2.34	3

Source: Compiled from primary data

Table 5.6 which show the descriptive analysis on the contribution of Small Finance Banks highlights various initiatives undertaken by SFBs towards the enhancement of women entrepreneurship. The financial literacy programmes (mean rank = 6.05; median = 5) are reported as the most significant contribution of SFBs, indicating its vital role in improving financial literacy of women micro entrepreneurs.

Other schemes such as micro banking (mean = 5.90; median = 5) and skill training (mean = 5.60; median = 4) are also ranked significantly indicating the effort SFBs make to facilitate financial inclusion and entrepreneurial competency development of women.

Other initiatives like marketing avenues for selling products (mean = 5.34; median = 4) and linkages to government schemes (mean = 5.25; median = 4) also ranked moderately indicating SFBs' involvement in support for access markets and government benefits.

On the contrary, capacity building programmes (mean = 3.36; median = 4), leadership training programmes (mean = 2.95; median = 4), and ultra-poor microfinance loans (mean = 2.34; median = 3) were ranked relatively lower. This denotes the limited role of SFBs in offering the leadership growth and specialized financial assistance to the poorest groups.

These findings imply that SFBs are making substantial contributions to women entrepreneurship particularly in financial literacy, micro banking and skill training programmes, even though leadership training and ultra poor microfinance programmes can be enhanced further.

5.8 Difference in Contribution for Women Entrepreneurship Based on Location

H₀: There is no significant difference in the contribution of SFB for enhancement of women entrepreneurs based on location.

H₁: There is significant difference in the contribution of SFB for enhancement of women entrepreneurs based on location.

Table 5.7

Mann Whitney U Test on Contribution of SFB Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
ETW1	Rural Area	167	169.16	14167.000	-0.269	0.788
	Urban Area	100	171.66			
ETW2	Rural Area	167	169.48	14217.000	-0.199	0.842
	Urban Area	100	171.38			

Location of Business		N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
ETW3	Rural Area	167	169.55	14228.000	-0.181	0.856
	Urban Area	100	171.32			
ETW4	Rural Area	167	167.07	13835.500	-0.667	0.505
	Urban Area	100	173.48			
ETW5	Rural Area	167	171.79	14174.000	-0.361	0.718
	Urban Area	100	169.38			
ETW6	Rural Area	167	168.04	13989.000	-0.480	0.632
	Urban Area	100	172.64			
ETW7	Rural Area	167	168.61	14079.000	-0.349	0.727
	Urban Area	100	172.14			
ETW8	Rural Area	167	162.65	13137.000	-1.529	0.126
	Urban Area	100	177.32			

Source: Compiled from primary data

Table 5.7 presents the Mann Whitney *U* Test conducted to check whether the contribution of SFB on enhancement of women entrepreneurship differs between business units of rural areas and urban areas. The results show that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the contribution of SFB for enhancement of women entrepreneurs based on their geographical location. This suggests that, in general, business units located both in urban and rural areas experience similar levels of contribution of SFBs.

5.9 Difference in Contribution for Women Entrepreneurship by Educational Qualification

H₀: There is no significant difference in the contribution of SFB for enhancement of women entrepreneurs based on their educational qualification

H₁: There is significant difference in the contribution of SFB for enhancement of women entrepreneurs based on their educational qualification

Table 5.8

*Kruskal Wallis H Test on Contribution for enhancement of women entrepreneurship
Based on Education Qualification*

	Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
ETW1	High school or less	47	125.89	13.206	3	0.004
	Senior secondary	116	144.71			
	Bachelor's degree	66	140.04			
	Technical/Professional	38	100.84			
ETW2	High school or less	47	86.72	58.490	3	< .001
	Senior secondary	116	128.45			
	Bachelor's degree	66	139.08			
	Technical/Professional	38	200.58			
ETW3	High school or less	47	137.45	5.916	3	0.116
	Senior secondary	116	124.42			
	Bachelor's degree	66	150.51			
	Technical/Professional	38	130.32			
ETW4	High school or less	47	117.55	15.142	3	0.002
	Senior secondary	116	136.06			
	Bachelor's degree	66	156.93			
	Technical/Professional	38	108.21			
ETW5	High school or less	47	139.36	45.468	3	< .001
	Senior secondary	116	144.49			
	Bachelor's degree	66	99.65			
	Technical/Professional	38	155.00			
ETW6	High school or less	47	151.10	4.122	3	0.249
	Senior secondary	116	133.03			
	Bachelor's degree	66	124.42			
	Technical/Professional	38	132.46			
ETW7	High school or less	47	125.43	5.486	3	0.139
	Senior secondary	116	129.41			
	Bachelor's degree	66	152.11			
	Technical/Professional	38	127.14			

Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
ETW8	High school or less	47	84.56	3	< .001
	Senior secondary	116	145.62		
	Bachelor's degree	66	134.70		
	Technical/Professional	38	158.46		

Source: Compiled from primary data

Table 5.8 makes it evident that most of the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is a significant difference in the contribution of SFB for enhancement of women entrepreneurs based on their educational qualification. While, in the case of marketing avenues for selling products (*p* = 0.116), capacity building programmes (*p* = 0.249), and ultra poor micro finance loans (*p* = 0.139), no significant difference was observed since *p* values are less than 0.05. This indicates that the perception of SFB's contribution in these areas is fairly similar across different educational qualifications.

Table 5.9

*Dunn's Pairwise comparison with Bonferroni Corrections on Contribution of SFB
Based on Educational Qualification*

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Financial Literacy Programmes	High school or less – Senior secondary	0.837	1
		High school or less – Bachelor's degree	0.799	1
		High school or less – Technical/Professional	2.781	0.033
		Senior secondary – Bachelor's degree	0.07	1
		Senior secondary – Technical/Professional	2.393	0.1
		Bachelor's degree – Technical/Professional	2.126	0.201

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
2	Skill Training programmes	High school or less – Senior secondary	–0.760	1
		High school or less – Bachelor's degree	–1.775	0.455
		High school or less – Technical/Professional	–5.557	<.001
		Senior secondary – Bachelor's degree	–1.288	1
		Senior secondary – Technical/Professional	–5.563	<.001
		Bachelor's degree – Technical/Professional	–4.091	<.001
3	Linking to Government schemes	High school or less – Senior secondary	1.407	0.956
		High school or less – Bachelor's degree	–0.872	1
		High school or less – Technical/Professional	1.987	0.281
		Senior secondary – Bachelor's degree	–2.471	0.081
		Senior secondary – Technical/Professional	1.017	1
		Bachelor's degree – Technical/Professional	2.794	0.031
4	Micro banking schemes	High school or less – Senior secondary	2.298	0.129
		High school or less – Bachelor's degree	5.233	<.001
		High school or less – Technical/Professional	–0.026	1
		Senior secondary – Bachelor's degree	3.74	0.001
		Senior secondary – Technical/Professional	–1.999	0.274
		Bachelor's degree – Technical/Professional	–4.648	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
5	Leadership Training programmes	High school or less – Senior secondary	–2.309	0.126
		High school or less – Bachelor's degree	–1.732	0.499
		High school or less – Technical/Professional	–3.228	0.007
		Senior secondary – Bachelor's degree	0.359	1
		Senior secondary – Technical/Professional	–1.631	0.617
		Bachelor's degree – Technical/Professional	–1.757	0.473

Source: Compiled from primary data

Table 5.9 shows the post hoc analysis conducted on the contribution of SFBs for the enhancement of women entrepreneurship to examine the differences between different educational groups. From the result, it is evident that women entrepreneurs with a Bachelor's degree showed more significant difference in respect of programmes such as financial literacy ($p = 0.033$), skill training ($p < .001$) and micro banking schemes ($p < .001$) when compared to other educational groups. Women entrepreneurs with lower education levels show the least differences. Overall, SFB support is more effective for empowering women entrepreneurs who have higher formal education.

5.10 Pre-Post Business Needs Satisfaction Level of Women Entrepreneurs

Table 5.10

Wilcoxon Signed-Rank Test for Pre-Post Satisfaction of Business Needs

Items	Ranks	N	Mean Rank	<i>z</i>	<i>p</i>
Purchase of Materials	Negative Ranks	36	98.00	-10.429	< .001
	Positive Ranks	204	124.47		
	Ties	27			

Items	Ranks	N	Mean Rank	z	p
Payment of Wages	Negative Ranks	23	129.07	-12.159	< .001
	Positive Ranks	242	133.37		
	Ties	2			
Payment of Expenditures	Negative Ranks	21	148.48	-12.156	< .001
	Positive Ranks	246	132.76		
	Ties	0			
Purchase of Assets	Negative Ranks	67	89.62	-6.488	< .001
	Positive Ranks	151	118.32		
	Ties	49			
Better working conditions	Negative Ranks	24	114.85	-11.650	< .001
	Positive Ranks	225	126.08		
	Ties	18			

Source: Compiled from primary data

Table 5.10 shows the Wilcoxon Signed Rank test performed to measure the business need satisfaction level of women entrepreneurs before and after availing financial services from SFBs. The result revealed that the p values are less than 0.05 in all the scenarios. It indicates that a statistically significant improvement in customer satisfaction is seen in all areas after availing the financial services from Small Finance Banks. Z-values ranging from -6.488 to -12.159 and *p*-values of <.001 are shown by all the items. The highest shift was observed in payment of expenditures, with 246 positive ranks (mean rank = 132.76), indicating its substantial improvement after availing services from SFB. Similarly, payment of wages and better working conditions also showed strong positive shifts, with 242 and 225 positive ranks respectively, with a mean rank of 133.37 and 126.08 respectively. The respondents who reported improvement in terms of purchase of materials or goods, with 204 positive ranks (mean rank = 124.47) and purchase of assets showed a moderate positive shift, with 151 positive ranks (mean rank = 118.32). The results of this test confirm that Small Finance Banks have significantly contributed to the enhancement of financial strength and operational capability of women entrepreneurs in their all-important business functions.

5.11 Additional Skills Acquired Through Services of SFB

Table 5.11

Descriptive Statistics on Additional Skill Obtained

Sl. No	Items	Mean Rank	Median
1	Capable to start self-employment /business	2.27	5
2	Capable of producing/ selling more products or Services on commercial basis	2.08	4
3	Attained managerial skills to work in service sector	1.65	4

Source: Compiled from primary data

Table 5.11 presents the descriptive statistics of the additional skills acquired by respondents as a result of their affiliation with Small Finance Banks. The analysis reveals that the highest mean rank (2.27) and median (5) among the listed skill areas indicate that SFBs have significantly contributed to enhancing the capability of micro women entrepreneurs to start self-employment or business ventures. It is also evident that SFBs have enabled them to produce and sell more products or services on a commercial basis (mean rank = 2.08, median = 4) through the financial support and exposure provided.

However, the managerial skill acquired to work in the service sector showed the lowest mean rank of 1.65 and a median of 4, indicating that the support of SFBs in developing managerial skills for service sector was relatively low compared to their contribution to entrepreneurial skills.

5.12 Economic Freedom and Financial Awareness Acquired Through SFB Services

Table 5.12

Descriptive Statistics on Economic Freedom and financial Awareness obtained

Sl. No.	Items	Mean Rank	Median
1	Freedom in Spending on Consumption Expenditure of Business	4.5	5
5	Awareness of Financial Services	4.29	5
2	Freedom in Spending on Satisfying Personal Needs	4.23	4
3	Awareness of Government Schemes	3.47	4
4	Freedom in Spending on Entertainment and Recreation Expenditure	2.74	4
6	Awareness of Insurance Schemes	2.07	3

Source: Compiled from primary data

Table 5.12 which presents the descriptive statistics on economic freedom and financial awareness indicate that respondents experience a high degree of economic freedom in spending for business needs (mean rank = 4.5, median = 5). Similarly, awareness of financial services is also high (mean rank = 4.29, median = 5), indicating the effectiveness of the financial literacy initiatives for women micro entrepreneurs organised by the SFBs.

Economic freedom in spending for personal needs is moderately high (mean rank = 4.23 and median = 4), implying that the respondents were felt freedom in using their resources for personal needs. However, the freedom to spend on entertainment and recreation had a lower mean rank of 2.74 and a median of 4, indicating that financial constraints had made recreational spending a relatively lower priority.

A moderate level of awareness was reported concerning government schemes with a mean rank of 3.47 and a median of 4. This indicates the need for some education and improvement in this area. In contrast, awareness of insurance schemes is significantly low (mean rank = 2.07, median = 3), indicating a greater need for awareness creation and dissemination of information about insurance products and their benefits.

5.13 Self Esteem and Self Confidence Acquired Through SFB Services

Table 5.13

Descriptive Statistics on Self Esteem and Self Confidence

Sl. No	Items	Mean Rank	Median
1	Able to take business decisions	4.46	4
2	Able to target new customers	4.27	4
3	Able to Manage Finance	3.43	4
4	Interact freely in public places and market places	3.07	4
5	Communicate with Government officials and outsiders	2.91	4
6	Less fearful and more hopeful about future uncertainties:	2.86	4

Source: Compiled from primary data

Table 5.13 presents the descriptive statistics on the contribution of Small Finance Banks towards self-esteem and self-confidence of women micro entrepreneurs. Respondents feel highly confident in taking business decisions (mean rank = 4.46, median = 4) and targeting new customers (mean rank = 4.27, median = 4). They are also able to manage finance (mean rank = 3.43, median = 4) and interact freely in public and market places at a moderate level (mean rank = 3.07, median = 4). These findings highlight the improved decision-making and financial capabilities of micro women entrepreneurs.

The lowest mean ranks were observed for the confidence level in communicating with government officials and outsiders (mean rank = 2.91, median = 4) and for being less fearful and more hopeful about future uncertainties (mean rank = 2.86, median = 4). This denotes lower confidence among respondents in these areas, showing that they experience some apprehension regarding future risks and business uncertainties.

5.14 Conclusion

Small Finance Banks significantly contributed to economic empowerment of women entrepreneurs through operational and financial improvements after availing financial services. The highest reported areas of performance included increased business

contacts, higher business income, improved production or sales, enhanced infrastructure, greater working capital, better savings, new market penetration, and timely payment of expenses. SFBs also made significant contributions for the enhancement of women entrepreneurship. The most appreciated contributions were financial literacy programmes, tailored micro banking schemes and the provision of micro loans to women entrepreneurs to meet their long-term financial requirements. Skill Training programmes, marketing avenues for selling products, linkage to various Government schemes, Capacity-building Programmes and Leadership Training Programmes were also played a considerable role in strengthening micro women entrepreneurs.

Small Finance Banks have contributed the micro women entrepreneurs with the capability to start self-employment and also made them capable of producing or selling more products or services on commercial basis. They also reported a high level of economic freedom and awareness of financial services. Moreover, they also reported a high level of self-esteem and self-confidence as a contribution of Small Finance Bank and the respondents feel confident in taking business decisions, targeting new customers, and managing finances, which highlights their improved decision-making and financial capabilities. Overall analysis confirms that the SFBs have made a significant contribution for the economic empowerment of women micro entrepreneurs in Kerala.

Chapter 6

ANALYSIS OF SATISFACTION OF MICRO ENTREPRENEURS WITH SMALL FINANCE BANK SERVICES

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6.1 Introduction

This chapter analyses and evaluates the extent to which micro-entrepreneurs are satisfied with the financial services provided by Small Finance Banks. The customer satisfaction towards the various areas like access and responsiveness, credit terms, repayment facilities, financial products, transaction cost and digital banking services were analysed and examined. An assessment of the convenience of transactions, transparency of terms and conditions, responsiveness of bank employees, digital accessibility of services, and overall customer service was carried out to measure customer satisfaction with various banking services. This makes it possible to identify the strengths and weaknesses of SFBs and helps improve banking practices, particularly in institutions that aim to promote financial inclusion.

6.2 Satisfaction of Micro Entrepreneurs with SFB Services

An inclusive analysis of customer satisfaction of micro entrepreneurs towards various banking services of SFBs was carried out using both descriptive and inferential statistical techniques. The different financial dimensions of satisfaction level such as credit terms, banking products, access and responsiveness, repayment facilities, transaction cost and digital banking services were analysed using the descriptive statistics including mean rank and median values. A Principal Component Analysis (PCA) was conducted to reduce complexity in the data and to identify the basic aspects driving satisfaction of the respondents.

The Mann-Whitney U test was used to investigate the differences of level of customer satisfaction of micro enterprise customers on the basis of gender, location and type of organisation. The Kruskal-Wallis H test was used to investigate the differences of level of satisfaction of micro entrepreneurs on the basis of educational qualification

and nature of business activity. Besides, the study used the Dunn's pairwise post-hoc comparison with Bonferroni corrections to identify the differences between different specific groups. The analysis employed different tests to examine and confirm various elements to derive meaningful perceptions about the customer satisfaction of micro entrepreneurs towards various banking services, policies and provisions of SFBs.

6.3 Principal Component Analysis

Principal Component Analysis is one of the statistical techniques applied for the reduction of the number of variables in a complex dataset and retaining as much of the initial information as possible. It particularly works best for larger dataset that contain interrelated variables, as it changes them into a smaller set of uncorrelated components known as principal components. Every component explains some degree of variation that may exist within the data and thus the initial components tend to represent the majority of the variance (Gewers et al., 2021; Mukherjee et al., 2018).

The main object of PCA is to reveal hidden patterns and bring out structure of data in a manner that can be interpreted easily. PCA enables the researcher to focus on the most significant dimensions while avoiding the loss of significant information. PCA is also an effective method in research since it allows finding important variables that influence the responses, uncover hidden relationships, and ease the interpretation of multivariate data (Gewers et al., 2021; Mukherjee et al., 2018).

6.3.1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity are initial tests of statistics that are employed to determine whether data is appropriate for factor analysis or Principal Component Analysis (PCA). KMO test is employed to assess the proportion of the variance among variables which could be common variance, whereby the values that are closer to 1 imply that factor analysis is appropriate. The value of KMO that exceeds 0.6 is considered to be acceptable. The significant result ($p < 0.05$) implies that the variables are closely related to each other, and it is reasonable to use multivariate methods, such as PCA.

Table 6.1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.812
Bartlett's Test of Sphericity	Approx. Chi-Square	26743.253
	<i>df</i>	861
	<i>P</i>	< .001

Source: Compiled from primary data

Table 6.1 shows that the Kaiser-Meyer-Olkin measure of sampling adequacy generated a value of 0.812. As per this value, it implies that the dataset is appropriate for factor analysis or Principal Component Analysis (PCA). Generally, KMO value above 0.8 is regarded as highly acceptable. In addition to this, Bartlett's Test of Sphericity also showed a statistically significant result (Chi-Square = 26,743.253; *df* = 861; *p* < .001), confirming that the correlation matrix is not an identity matrix.

6.3.2 Total Variance Explained

Total Variance Explained table is an important output in Principal Component Analysis. It identifies the proportion of variance in the entire dataset that is explained by each principal component. It allows the importance of each component by showing the eigenvalues, the percentage of variance explained and the cumulative variance that is captured. Most of the information of the data is normally retained in the first components and therefore it is possible to minimize the number of dimensions without losing much of the information.

Table 6.2

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	25.762	61.338	61.338	25.762	61.338	61.338	20.426	48.634	48.634
2	2.407	5.731	67.069	2.407	5.731	67.069	4.713	11.221	59.855
3	2.012	4.791	71.860	2.012	4.791	71.860	3.290	7.835	67.690

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
4	1.573	3.745	75.605	1.573	3.745	75.605	2.021	4.813	72.503
5	1.260	3.000	78.605	1.260	3.000	78.605	1.862	4.434	76.937
6	1.043	2.483	81.089	1.043	2.483	81.089	1.744	4.152	81.089

Extraction Technique: Principal Component Analysis

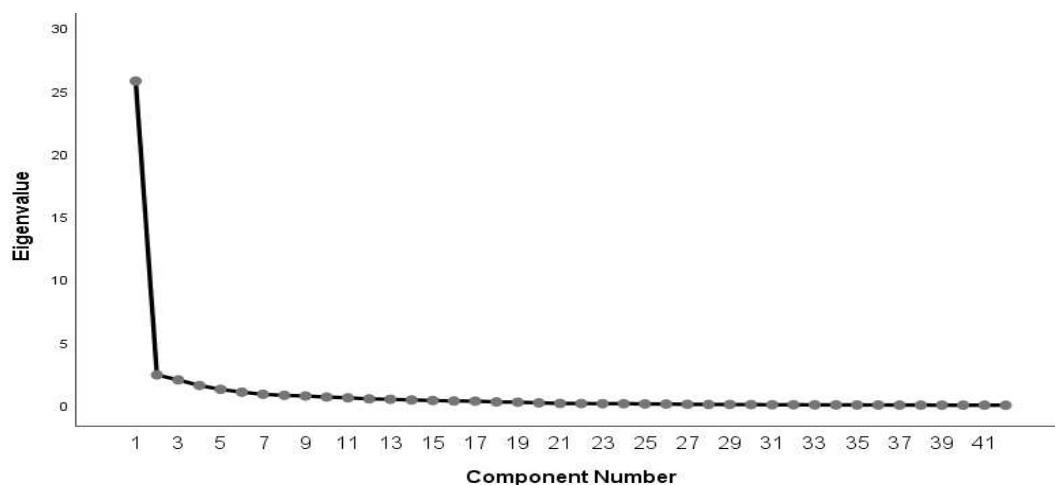
Source: Compiled from primary data

Table 6.2 which shows the total variance explained summarizes the amount of variance in the data which can be explained by each principal component. In the Initial Eigenvalues and Extraction Sums of Squared Loadings, the first 6 factors possess eigen-values larger than 1 and account for 81.089% of the total variance, so these components could have preserved most significant knowledge of the original data.

After rotation, the first factor accounts for 48.634%, with the remaining contributors showing loadings in the range of 4.152%-11.221% and delete the last code until cumulative variance contribution explained reaches 81.089%. This means that the smaller set of six components give a meaningful and interpretable summary of the data with minimal information loss.

Figure 6.1

Scree Plot



Source: Compiled from primary data

Based on the scree plot in 1 eigen value 6 components were identified and its detailed descriptive statistics are as follows:

6.4 Satisfaction Towards Access and Responsiveness

Table 6.3

Descriptive Statistics of Satisfaction with Access and Responsiveness

Sl. No.	Items	Mean Rank	Median
1	Accessibility and availability of the services	6.1	5
2	Quality of information and guidance	5.8	5
3	Level of support in terms of financing and loans	5.69	5
4	Responsiveness in addressing concerns and queries	5.48	4

Source: Compiled from primary data

Table 6.3 presents the results of descriptive statistics of access and responsiveness of the services of SFBs by micro enterprise customers. The accessibility and availability of services were reported with a highest average score (mean rank = 6.10, median = 5), closely followed by the quality of information and guidance (mean rank = 5.80, median = 5) and the level of support in terms of financing and loans provided by SFBs (mean rank = 5.69, median = 5). The result shows that these institutions are able to meet the basic financial needs of micro-entrepreneurs and mostly accessible and proactive in providing business related assistance.

However, responsiveness in addressing concerns and queries recorded the moderately lowest mean rank of 5.48 and median value of 4, but was still relatively high. While it indicates the overall satisfaction of the customers, they experience slightly lower perception in terms of concerns and queries of the customers, indicating the need for improvement in timely communication and responsiveness to customer issues.

6.5 Satisfaction Towards Credit Terms

Table 6.4

Descriptive Statistics on Satisfaction with Credit Terms

Sl. No.	Items	Mean Rank	Median
1	Requirement of Collateral Security for granting loans	6.47	5
2	Speed and timeliness in processing loans	6.42	5
3	Period of credit granted by SFB	3.8	4
4	Maximum credit limit allowed by SFB for micro loans	3.07	4
5	Interest rate on loans and advances	2.18	2

Source: Compiled from primary data

Table 6.4 which presents the analysis of credit terms of SFBs showed a dual perception of micro-enterprise borrowers. Collateral security requirements for granting loan (mean rank = 6.10, median = 5) and the speed and timeliness in processing loans (mean rank = 6.10, median = 5) were reported with highest scores. These findings imply that borrowers are highly satisfied with the speed and timeliness of loan disbursement and the exemption of collateral securities for granting loans.

On the other hand, interest rates on loans and advances received the lowest mean rank of 2.18 and median score of 2, which demonstrated high degrees of dissatisfaction with the cost of borrowing. The Credit limit and period of credit granted by the bank also shows moderately lower mean ranks and median scores, implying an increased demand for entrepreneurs to enhance credit limit and credit period in future.

6.6 Satisfaction Towards Financial Products and Services

Table 6.5

Descriptive Statistics on various aspects of Financial Products and Services

Sl. No.	Items	Mean Rank	Median
1	Customer alert messages delivered through SMS	6.24	5
2	Micro banking services provided by SFB	6.13	5
3	Rate of interest given by the SFB on deposits	6.11	5
4	Range and diversity of services offered by SFB	5.58	5
5	Training & awareness programmes conducted by SFB	4.31	4

Source: Compiled from primary data

Table 6.5 indicates that micro-enterprise customers have a relatively favourable perception about various aspects of banking products and services of SFB. The customer alert message received via SMS reported highest mean rank of 6.24 and median score of 5, implies a very high satisfaction for real-time communication for the services of the bank. Similarly, micro banking services (mean rank = 6.13, median = 5) and rate of interest on deposits provided by the bank (mean rank = 6.11, median = 5) also ranked very high, showing a substantial performance of SFBs in delivering essential banking and savings services.

The range and diversity of services offered by the SFB (mean rank = 5.58, median = 5) showing highest scores, indicating that customers acknowledge service variety and SFBs are relatively efficient in providing the basic banking and saving requirements of the segments in the underserved area. In contrast, relatively the lowest average score was recorded for the training and awareness programme of SFBs (mean rank = 4.31, median = 4). Although the score continues to show a generally positive perception, it reflects a relatively lower priority for the awareness and training efforts of the bank.

6.7 Satisfaction Towards Repayment Facilities

Table 6.6

Descriptive Statistics on Satisfaction with Repayment Facilities

Sl. No.	Items	Mean Rank	Median
1	Customer support services available for repayment issues	5.05	5
2	Repayment Notifications provided to the borrowers	4.83	4
3	Different modes of repayment facility offered by SFB	3.81	4
4	Repayment Frequency of loan instalment fixed by SFB	2.95	3

Source: Compiled from primary data

Table 6.6 which shows the descriptive statistics on repayment facilities indicate that the respondents showed the highest level of satisfaction with customer support services available for repayment issues (mean rank = 5.05, median = 5) followed by repayment notifications to borrowers (mean rank = 4.83, median = 4), highlighting

the effective assistance in resolving repayment-related concerns and timely communication regarding instalments.

However, different modes of repayment facility were ranked moderately (mean rank = 3.81, median = 4) and repayment frequency of loan instalments fixed by SFB scored comparatively lower (mean rank = 2.95, median = 3), indicating a lower satisfaction due to limited flexibility and convenience in repayment options and schedules.

6.8 Satisfaction Towards Transaction Cost

Table 6.7

Descriptive Statistics on satisfaction with Transaction Cost

Sl. No.	Items	Mean Rank	Median
1	Transaction cost for ATM service	4.21	5
2	Fee and charges for various banking services	4.07	5
3	Penalty for default in repayment of loans and advances	3.34	4
4	Processing fee, documentation and other charges for loans	3.23	4

Source: Compiled from primary data

Table 6.7 reveals that the transaction cost for ATM services (mean rank = 4.21, median = 5) and fees and charges for various banking services (mean rank = 4.07, median = 5) reported with a moderate satisfaction of the respondents. These findings indicate that customers can afford the cost of normal banking transactions as they found it fairly reasonable.

However, respondents were not satisfied with the penalty for default in repayment of loans and advances (mean rank = 3.34, median = 4) and processing fee, documentation and other charges for loans (mean rank = 3.23, median = 4) as these items received lower scores. It implies that the borrowers perceived these costs as relatively high or heavy. On the whole, the results show that although customers are much satisfied with normal service fee, they are less satisfied with loan related and penalty fees charged by SFBs.

6.9 Satisfaction Towards E-Banking Services

Table 6.8

Descriptive Statistics on Satisfaction with E-Banking Services

Sl. No.	Items	Mean Rank	Median
1	Speed and timeliness of online transfer of funds	5.81	5
2	Digital App for online loan application and approval	5.59	5
3	Online Account opening and verification facility	5.14	5
4	Online banking transaction services provided by SFB	5.02	5
5	Mobile banking App facility	4.95	5
6	Security features of e-banking services	4.52	4
7	E-Statement facility	3.26	4
8	Transaction alert messages delivered through E-mail	1.71	2

Source: Compiled from primary data

Table 6.8 showing the descriptive statistics on e-banking services demonstrate that respondents expressed relatively very high satisfaction with the speed and timeliness of online fund transfers (mean rank = 5.81, median = 5) and digital apps used for online loan applications and approvals (mean rank = 5.59, median = 5). It indicates prompt, user-friendly and accessible digital loan services.

Similarly, the respondents were also highly satisfied with the online account opening and verification (mean rank = 5.14) and online banking transaction services provided by SFB (mean rank = 5.02), showing the acceptance of core e-banking services by the entrepreneurs.

The respondents were also satisfied with the mobile banking app facilities (mean rank = 4.95) and security features of e-banking services (mean rank = 4.52, median = 4), implying that while customers appreciate digital access, security and system reliability.

The results show that respondents are moderately satisfied with the e-statement facility offered by SFBs (mean rank = 3.26, median = 4). However, they reported lower satisfaction with transaction alert messages delivered through e-mail (mean

rank = 1.71, median = 2). This indicates the significant communication gap in e-mail-based alerts and highlights the need for real-time notifications to micro-entrepreneurs.

6.10 Difference in Access & Responsiveness Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their gender.

Table 6.9

Mann Whitney U Test on Satisfaction on Access and Responsiveness Based on Gender

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
AR1	Male	116	191.00	15370.50	-0.133	0.894
	Female	267	192.43			
AR2	Male	116	193.16	15352.00	-0.150	0.881
	Female	267	191.50			
AR3	Male	116	186.34	14830.00	-0.778	0.436
	Female	267	194.46			
AR4	Male	116	187.83	15002.00	-0.555	0.579
	Female	267	193.81			

Source: Compiled from primary data

Table 6.9 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with the access and responsiveness of SFBs. The result shows that all the *p* values are greater than 0.05. Therefore, it indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness aspect of small finance banks based on their gender.

6.11 Difference in Credit Terms Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the Credit Terms of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the Credit Terms of Small Finance Banks based on their gender.

Table 6.10

Mann Whitney U Test on Satisfaction on Credit Terms Based on Gender

	Gender	N	Mean Rank	Mann-Whitney U	z	p
CT1	Male	116	181.93	14318.00	-1.343	0.179
	Female	267	196.37			
CT2	Male	116	197.31	14870.50	-0.674	0.500
	Female	267	189.69			
CT3	Male	116	187.84	15003.50	-0.680	0.496
	Female	267	193.81			
CT4	Male	116	191.18	15391.00	-0.136	0.892
	Female	267	192.36			
CT5	Male	116	198.15	14772.50	-0.807	0.420
	Female	267	189.33			

Source: Compiled from primary data

Table 6.10 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with the credit terms of SFBs. The result shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of small finance banks based on their gender.

6.12 Difference in Financial Service Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the various aspects of Financial Services of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the various aspects of Financial Services of Small Finance Banks based on their gender.

Table 6.11

Mann Whitney U Test on Satisfaction on Financial Products and Services Based on Gender

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
FP1	Male	116	188.28	15055.00	-0.500	0.617
	Female	267	193.61			
FP2	Male	116	188.62	15093.50	-0.528	0.598
	Female	267	193.47			
FP3	Male	116	188.15	15039.50	-0.594	0.553
	Female	267	193.67			
FP4	Male	116	190.66	15330.00	-0.218	0.828
	Female	267	192.58			
FP5	Male	116	179.90	14082.00	-1.654	0.098
	Female	267	197.26			

Source: Compiled from primary data

Table 6.11 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with various aspects of the financial products and services of SFBs. The result shows that all the *p* values are greater than 0.05. Therefore, there is no significant difference in the satisfaction level of the micro-entrepreneurs with the various aspects of financial products and services of small finance banks based on their gender.

6.13 Difference in Repayment Facility Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the Repayment Facilities of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the Repayment Facilities of Small Finance Banks based on their gender.

Table 6.12

Mann Whitney U Test on Satisfaction on Repayment Facilities Based on Gender

	Gender	N	Mean Rank	Mann-Whitney U	z	p
RF1	Male	116	189.04	15142.50	-0.419	0.675
	Female	267	193.29			
RF2	Male	116	195.08	15129.00	-0.405	0.685
	Female	267	190.66			
RF3	Male	116	191.40	15416.50	-0.076	0.939
	Female	267	192.26			
RF4	Male	116	184.71	14640.50	~	0.354
	Female	267	195.17			

Source: Compiled from primary data

Table 6.12 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with repayment facilities of SFBs. The result shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of small finance banks based on their gender.

6.14 Difference in Transaction Cost Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the Transaction Cost of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the Transaction Cost of Small Finance Banks based on their gender.

Table 6.13*Mann Whitney U Test on Satisfaction on Transaction Cost Based on Gender*

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
TC1	Male	116	191.75	15457.50	-0.031	0.975
	Female	267	192.11			
TC2	Male	116	196.03	15019.00	-0.495	0.621
	Female	267	190.25			
TC3	Male	116	191.84	15467.50	-0.021	0.983
	Female	267	192.07			
TC4	Male	116	192.63	15413.00	-0.081	0.935
	Female	267	191.73			

Source: Compiled from primary data

Table 6.13 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with the transaction cost of SFBs. The result shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost aspect of small finance banks based on their gender.

6.15 Difference in E-Banking Service Satisfaction Across Gender

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of Small Finance Banks based on their gender.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of Small Finance Banks based on their gender.

Table 6.14

Mann Whitney U Test on Satisfaction on E-Banking Services Based on Gender

	Gender	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>P</i>
EB1	Male	116	191.13	15385.00	-0.120	0.905
	Female	267	192.38			
EB2	Male	116	194.15	15236.50	-0.278	0.781
	Female	267	191.07			
EB3	Male	116	190.66	15330.00	-0.190	0.849
	Female	267	192.58			
EB4	Male	116	184.68	14636.50	-1.484	0.138
	Female	267	195.18			
EB5	Male	116	182.07	14334.00	-1.372	0.170
	Female	267	196.31			
EB6	Male	116	190.31	15289.50	-0.215	0.829
	Female	267	192.74			
EB7	Male	116	184.15	14575.50	-1.133	0.257
	Female	267	195.41			
EB8	Male	116	188.29	15055.50	-0.694	0.488
	Female	267	193.61			

Source: Compiled from primary data

Table 6.14 shows the results of the Mann–Whitney *U* Test conducted to examine whether there is a significant difference between male and female respondents in their satisfaction with the e-banking services of SFBs. The result shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of small finance banks based on their gender.

6.16 Difference in Access & Responsiveness Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the Access & Responsiveness of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs the Access & Responsiveness of Small Finance Banks based on their educational qualification.

Table 6.15

Kruskal Wallis H Test on Satisfaction on Access and Responsiveness Based on Educational Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
AR1	High school or less	80	229.85	32.077	3	< .001
	Senior secondary	163	202.85			
	Bachelor's degree	87	156.47			
	Technical/Professional	53	159.82			
AR2	High school or less	80	178.36	53.522	3	< .001
	Senior secondary	163	215.72			
	Bachelor's degree	87	132.06			
	Technical/Professional	53	238.02			
AR3	High school or less	80	180.71	13.644	3	0.003
	Senior secondary	163	209.29			
	Bachelor's degree	87	190.63			
	Technical/Professional	53	158.13			
AR4	High school or less	80	192.55	0.371	3	0.946
	Senior secondary	163	192.37			
	Bachelor's degree	87	187.43			
	Technical/Professional	53	197.54			

Source: Compiled from primary data

Table 6.15 shows that most of the p values are less than 0.05. Therefore, the null hypothesis has been rejected. It indicates that there is significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of small finance banks based on their educational qualification. While, in the case of quality of information and guidance ($p = 0.946$), no significant difference was observed ($p > 0.05$), showing that the perception of entrepreneurs regarding this aspect is fairly similar across different educational groups.

Table 6.16

Dunn's Pairwise comparison with Bonferroni Corrections on Satisfaction on Access & Responsiveness by Education

Sl. No.	Items	Comparison Groups	z	p
1	Accessibility & availability of services	High school or less – Senior secondary	2.075	0.228
		High school or less – Bachelor's degree	4.867	<.001
		High school or less – Technical/Professional	3.619	0.002
		Senior secondary – Bachelor's degree	3.542	0.002
		Senior secondary – Technical/Professional	2.269	0.14
		Bachelor's degree – Technical/Professional	-0.613	1
2	Responsiveness in addressing concerns & queries	High school or less – Senior secondary	-2.780	0.032
		High school or less – Bachelor's degree	2.9	0.022
		High school or less – Technical/Professional	-4.050	<.001
		Senior secondary – Bachelor's degree	6.26	<.001
		Senior secondary – Technical/Professional	-2.140	0.192
		Bachelor's degree – Technical/Professional	-6.690	<.001
3	Level of support in financing & loans	High school or less – Senior secondary	-2.248	0.148
		High school or less – Bachelor's degree	-0.608	<.001
		High school or less – Technical/Professional	0.844	1
		Senior secondary – Bachelor's degree	1.61	0.644
		Senior secondary – Technical/Professional	2.87	0.025
		Bachelor's degree – Technical/Professional	1.396	0.976

Source: Compiled from primary data

Table 6.16 show the post hoc analysis results which indicate that significant differences exist in customer satisfaction in respect of access and responsiveness. The micro entrepreneurs with bachelor's degree consistently show significant differences, when compared with high school and senior secondary groups in all aspects ($p < 0.05$). Overall, this shows that customers with higher education are more satisfied with the SFB services when compared with less educated groups.

6.17 Difference in Credit Terms Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the Credit Terms of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs the Credit Terms of Small Finance Banks based on their educational qualification.

Table 6.17

Kruskal Wallis H Test on Satisfaction on Credit Terms Based on Educational Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis H	df	p
CT1	High school or less	80	147.14	43.379	3	< .001
	Senior secondary	163	189.22			
	Bachelor's degree	87	197.37			
	Technical/Professional	53	259.45			
CT2	High school or less	80	185.66	14.999	3	0.002
	Senior secondary	163	188.19			
	Bachelor's degree	87	175.37			
	Technical/Professional	53	240.58			
CT3	High school or less	80	207.58	8.179	3	0.042
	Senior secondary	163	195.86			
	Bachelor's degree	87	174.45			
	Technical/Professional	53	185.43			
CT4	High school or less	80	201.90	47.836	3	< .001
	Senior secondary	163	209.29			
	Bachelor's degree	87	141.57			
	Technical/Professional	53	206.66			

	Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
CT5	High school or less	80	152.76	23.371	3	< .001
	Senior secondary	163	216.42			
	Bachelor's degree	87	184.63			
	Technical/Professional	53	188.24			

Source: Compiled from primary data

Table 6.17 shows that *p* values of all items are less than 0.05. therefore, the null hypothesis has been rejected. It indicates that there is a significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of small finance banks based on their educational qualification.

Table 6.18

Dunn's Pairwise comparison with Bonferroni Corrections on Credit Terms Based on Educational Qualification

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Interest Rate	High school – Senior secondary	–3.231	0.007
		High school – Bachelor's degree	–3.379	0.004
		High school – Technical/Professional	–6.023	<.001
		Senior secondary – Bachelor's degree	–0.612	1
		Senior secondary – Technical/ Professional	–3.967	<.001
		Bachelor's degree – Technical/ Professional	–3.149	0.01
2	Maximum Credit Limit	High school – Senior secondary	–0.183	1
		High school – Bachelor's degree	0.588	1
		High school – Technical/Professional	–2.708	0.041
		Senior secondary – Bachelor's degree	0.876	1
		Senior secondary – Technical/ Professional	–2.872	0.025
		Bachelor's degree – Technical/ Professional	–3.277	0.006
3	Processing Speed & Time	High school – Senior secondary	1.123	1
		High school – Bachelor's degree	2.708	0.041
		High school – Technical/Professional	0.796	1
		Senior secondary – Bachelor's degree	2.004	0.27
		Senior secondary – Technical/ Professional	–0.072	1
		Bachelor's degree – Technical/ Professional	–1.581	0.683

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
4	Collateral Security	High school – Senior secondary	–0.704	1
		High school – Bachelor's degree	5.192	<.001
		High school – Technical/Professional	–1.227	1
		Senior secondary – Bachelor's degree	6.79	<.001
		Senior secondary – Technical/Professional	–0.768	1
		Bachelor's degree – Technical/ Professional	–5.835	<.001
5	Period of Credit	High school – Senior secondary	–4.760	<.001
		High school – Bachelor's degree	–2.003	0.271
		High school – Technical/Professional	–2.375	0.105
		Senior secondary – Bachelor's degree	2.573	0.061
		Senior secondary – Technical/Professional	1.424	0.927
		Bachelor's degree – Technical/Professional	–0.649	1

Source: Compiled from primary data

Table 6.18 which shows post hoc analysis results indicate that micro entrepreneurs with a Bachelor's degree differ significantly from both lower and higher technical groups, especially in interest rates, credit limits, collateral requirements, and processing speed. Overall, the study shows significant difference in satisfaction level of entrepreneurs with bachelor's degree, while entrepreneurs with technical/professional qualification show relatively less differences.

6.18 Difference in Financial Services Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the financial services of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the financial services of Small Finance Banks based on their educational qualification.

Table 6.19

Kruskal Wallis H Test on Satisfaction on Financial Services Based on Educational Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
FP1	High school or less	80	188.64	19.861	3	< .001
	Senior secondary	163	211.63			
	Bachelor's degree	87	186.90			
	Technical/Professional	53	145.08			
FP2	High school or less	80	193.20	10.014	3	0.018
	Senior secondary	163	205.40			
	Bachelor's degree	87	172.79			
	Technical/Professional	53	180.52			
FP3	High school or less	80	188.10	27.904	3	< .001
	Senior secondary	163	216.40			
	Bachelor's degree	87	167.99			
	Technical/Professional	53	162.26			
FP4	High school or less	80	184.68	22.295	3	< .001
	Senior secondary	163	212.72			
	Bachelor's degree	87	179.10			
	Technical/Professional	53	160.50			
FP5	High school or less	80	200.43	19.003	3	< .001
	Senior secondary	163	210.92			
	Bachelor's degree	87	160.71			
	Technical/Professional	53	172.47			

Source: Compiled from primary data

Table 6.19 shows that all the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is a significant difference in the satisfaction level of the micro-entrepreneurs with the financial products and services of small finance banks based on their educational qualification.

Table 6.20

Dunn's Pairwise comparison with Bonferroni Corrections on Financial Services Based on Educational Qualification

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Range & Diversity of Services	High school or less – Senior secondary	–1.7823	0.448
		High school or less – Bachelor's degree	0.0346	1
		High school or less – Technical/Professional	2.0629	0.235
		Senior secondary – Bachelor's degree	1.8797	0.361
		Senior secondary – Technical/Professional	3.8349	< .001
		Bachelor's degree – Technical/Professional	2.0703	0.231
2	Micro Banking Services	High school or less – Senior secondary	–1.090	1
		High school or less – Bachelor's degree	1.709	0.525
		High school or less – Technical/Professional	0.32	1
		Senior secondary – Bachelor's degree	3.12	0.011
		Senior secondary – Technical/Professional	1.292	1
		Bachelor's degree – Technical/Professional	–1.183	1
3	Rate of Interest on Deposits	High school or less – Senior secondary	–2.5130	0.072
		High school or less – Bachelor's degree	1.5056	0.793
		High school or less – Technical/Professional	1.2361	1
		Senior secondary – Bachelor's degree	4.3515	< .001
		Senior secondary – Technical/Professional	3.5364	0.002
		Bachelor's degree – Technical/Professional	–0.0709	1
4	Customer Alert Messages (SMS)	High school or less – Senior secondary	–2.609	0.055
		High school or less – Bachelor's degree	0.558	1
		High school or less – Technical/Professional	1.218	1
		Senior secondary – Bachelor's degree	3.343	0.005
		Senior secondary – Technical/Professional	3.598	0.002
		Bachelor's degree – Technical/Professional	0.748	1
5	Training & Awareness Programmes	High school or less – Senior secondary	–0.819	1
		High school or less – Bachelor's degree	2.588	0.058
		High school or less – Technical/Professional	0.984	1
		Senior secondary – Bachelor's degree	3.868	< .001
		Senior secondary – Technical/Professional	1.802	0.429
		Bachelor's degree – Technical/Professional	–1.284	1

Source: Compiled from primary data

Table 6.20 shows the post hoc analysis, makes it clear that entrepreneurs with senior secondary and bachelor's degree indicate significant difference in satisfaction level when compared with technical/professional groups in aspects such as range of services, deposits, SMS alerts, and training programmes. The results show that the level of education influences satisfaction of such services since significant differences are primarily observed between higher qualification and senior secondary or bachelor's degree levels.

6.19 Difference in Repayment Facility Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their educational qualification.

Table 6.21

Kruskal Wallis H Test on Satisfaction on Repayment Facilities Based on Educational Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis H	df	p
RF1	High school or less	80	157.98	22.128	3	<.001
	Senior secondary	163	214.71			
	Bachelor's degree	87	184.30			
	Technical/Professional	53	186.14			
RF2	High school or less	80	184.92	1.033	3	~
	Senior secondary	163	194.66			
	Bachelor's degree	87	188.46			
	Technical/Professional	53	200.33			
RF3	High school or less	80	240.19	44.809	3	<.001
	Senior secondary	163	192.26			
	Bachelor's degree	87	136.94			
	Technical/Professional	53	208.85			

	Educational Qualification	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
RF4	High school or less	80	200.43	19.003	3	<.001
	Senior secondary	163	210.92			
	Bachelor's degree	87	160.71			
	Technical/Professional	53	172.47			

Source: Compiled from primary data

Table 6.21 shows that most of the *p* values are less than 0.05. therefore, the null hypothesis has been rejected. It indicates that there is a significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of small finance banks based on their educational qualification.

Table 6.22

Dunn's Pairwise comparison with Bonferroni Corrections on Satisfaction on Repayment Facilities Based on Educational Qualification

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Different modes of repayment facility	High school or less – Senior secondary	-4.645	<.001
		High school or less – Bachelor's degree	-1.92	0.329
		High school or less – Technical/Professional	-2.392	0.101
		Senior secondary – Bachelor's degree	2.551	0.064
		Senior secondary – Technical/Professional	1.306	1
		Bachelor's degree – Technical/Professional	-0.74	1
2	Repayment notifications to borrowers	High school or less – Senior secondary	3.5	0.003
		High school or less – Bachelor's degree	6.63	<.001
		High school or less – Technical/Professional	1.14	1
		Senior secondary – Bachelor's degree	4.14	<.001
		Senior secondary – Technical/Professional	-1.72	0.512
		Bachelor's degree – Technical/Professional	-4.69	<.001

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
3	Customer support for repayment issues	High school or less – Senior secondary	0.435	1
		High school or less – Bachelor's degree	-0.329	1
		High school or less – Technical/Professional	-1.591	0.67
		Senior secondary – Bachelor's degree	-0.832	1
		Senior secondary – Technical/Professional	-2.152	0.188
		Bachelor's degree – Technical/Professional	-1.33	1

Source: Compiled from primary data

Table 6.22 which shows the post hoc results indicate that entrepreneurs with different educational qualifications experience significant differences, but not much in customer support for repayment issues. The study reveals that the entrepreneurs with bachelor's degree show significant differences when compared to high school and senior secondary groups.

6.20 Difference in Transaction Cost Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their educational qualification.

Table 6.23

Kruskal Wallis H Test on Satisfaction with Transaction Cost Based on Educational Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis H	df	P
TC1	High school or less	80	183.97	10.644	3	0.014
	Senior secondary	163	188.98			
	Bachelor's degree	87	179.63			
	Technical/Professional	53	233.72			
TC2	High school or less	80	205.93	13.487	3	0.004
	Senior secondary	163	173.50			
	Bachelor's degree	87	190.64			
	Technical/Professional	53	230.11			
TC3	High school or less	80	180.86	16.227	3	0.001
	Senior secondary	163	197.63			
	Bachelor's degree	87	166.94			
	Technical/Professional	53	232.64			
TC4	High school or less	80	196.05	0.231	3	0.972
	Senior secondary	163	192.25			
	Bachelor's degree	87	189.10			
	Technical/Professional	53	189.87			

Source: Compiled from primary data

Table 6.23 shows that most of the p values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is a significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of small finance banks based on their educational qualification. In the case of processing fee and documentation charges ($p = 0.972$), there are no significant differences in satisfaction level among different educational groups.

Table 6.24

Dunn's Pairwise comparison with Bonferroni Corrections on Transaction Cost

Sl. No	Items	Comparison Groups	z	p
1	Processing fee & other charges for loans	High school or less – Senior secondary	-0.364	1
		High school or less – Bachelor's degree	0.144	1
		High school or less – Technical/Professional	-3.178	0.009
		Senior secondary – Bachelor's degree	0.543	1
		Senior secondary – Technical/Professional	-3.243	0.007
		Bachelor's degree – Technical/Professional	-3.363	0.005
2	Penalty for default in repayment	High school or less – Senior secondary	2.284	0.134
		High school or less – Bachelor's degree	0.905	1
		High school or less – Technical/Professional	-1.825	0.408
		Senior secondary – Bachelor's degree	-1.301	1
		Senior secondary – Technical/Professional	-4	<.001
		Bachelor's degree – Technical/Professional	-2.658	0.047
3	Fee & charges for banking services	High school or less – Senior secondary	-1.265	1
		High school or less – Bachelor's degree	0.769	1
		High school or less – Technical/Professional	-3.717	0.001
		Senior secondary – Bachelor's degree	2.204	0.165
		Senior secondary – Technical/Professional	-3.073	0.013
		Bachelor's degree – Technical/Professional	-4.465	<.001

Source: Compiled from primary data

Table 6.24, which shows the post hoc findings indicate that entrepreneurs who have technical/professional qualification have showed significant differences in satisfaction with processing fees, penalties and banking charges when compared to other groups. Over all, it shows that education level determines the differences in satisfaction level with the charges and fees of Small Finance Banks.

6.21 Difference in E-Banking Service Satisfaction by Educational Qualification

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking transactions of Small Finance Banks based on their educational qualification.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking transactions of Small Finance Banks based on their educational qualification.

Table 6.25

Kruskal Wallis H Test on Satisfaction on E-Banking Services Based on Education Qualification

	Educational Qualification	N	Mean Rank	Kruskal-Wallis H	df	p
EB1	High school or less	80	217.70	10.659	3	0.014
	Senior secondary	163	193.48			
	Bachelor's degree	87	172.11			
	Technical/Professional	53	181.32			
EB2	High school or less	80	205.14	49.860	3	< .001
	Senior secondary	163	217.74			
	Bachelor's degree	87	126.78			
	Technical/Professional	53	200.07			
EB3	High school or less	80	198.17	15.238	3	0.002
	Senior secondary	163	208.94			
	Bachelor's degree	87	170.78			
	Technical/Professional	53	165.42			
EB4	High school or less	80	188.93	12.535	3	0.006
	Senior secondary	163	203.09			
	Bachelor's degree	87	173.45			
	Technical/Professional	53	192.97			
EB5	High school or less	80	191.24	3.806	3	0.283
	Senior secondary	163	201.59			
	Bachelor's degree	87	178.28			
	Technical/Professional	53	186.19			

Educational Qualification		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
EB6	High school or less	80	143.69	67.243	3	< .001
	Senior secondary	163	185.13			
	Bachelor's degree	87	264.95			
	Technical/Professional	53	166.31			
EB7	High school or less	80	197.59	2.704	3	0.440
	Senior secondary	163	197.36			
	Bachelor's degree	87	185.49			
	Technical/Professional	53	177.76			
EB8	High school or less	80	196.94	25.869	3	< .001
	Senior secondary	163	204.94			
	Bachelor's degree	87	159.50			
	Technical/Professional	53	198.08			

Source: Compiled from primary data

Table 6.25 shows that most of the p values are less than 0.05. therefore, the null hypothesis has been rejected. It indicates that there is a significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of small finance banks based on their educational qualification.

Table 6.26

Dunn's Pairwise comparison with Bonferroni Corrections on E-banking services

Sl. No.	Items	Comparison Groups	z	p
1	Online banking transaction services	High school vs Senior secondary	1.921	0.328
		High school vs Bachelor's degree	3.247	0.007
		High school vs Technical/Profession	1.861	0.377
		Senior secondary vs Bachelor's degree	1.809	0.423
		Senior secondary vs Technical/Profession	0.434	1
		Bachelor's degree vs Technical/Profession	-0.973	1

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
2	Security features of e-banking	High school vs Senior secondary	-0.925	1
		High school vs Bachelor's degree	5.146	<.001
		High school vs Technical/Profession	-0.492	1
		Senior secondary vs Bachelor's degree	6.964	<.001
		Senior secondary vs Technical/Profession	0.242	1
		Bachelor's degree vs Technical/Profession	-5.046	<.001
3	E-Statement facility	High school vs Senior secondary	-0.880	1
		High school vs Bachelor's degree	2.06	0.236
		High school vs Technical/Profession	1.483	0.828
		Senior secondary vs Bachelor's degree	3.314	0.006
		Senior secondary vs Technical/Profession	2.413	0.095
		Bachelor's vs Technical/Profession	-0.309	1
4	Speed & timeliness of fund transfer	High school vs Senior secondary	-1.696	0.539
		High school vs Bachelor's degree	1.558	0.715
		High school vs Technical/Profession	-1.395	0.978
		Senior secondary vs Bachelor's degree	3.57	0.002
		Senior secondary vs Technical/Profession	-0.107	1
		Bachelor's degree vs Technical/Profession	-2.797	0.031
5	Transaction alerts via E-mail	High school vs Senior secondary	-3.013	0.016
		High school vs Bachelor's degree	-7.827	<.001
		High school vs Technical/Profession	-0.777	1
		Senior secondary vs Bachelor's degree	-6.031	<.001
		Senior secondary vs Technical/Profession	1.714	0.52
		Bachelor's degree vs Technical/Profession	6.121	<.001
6	Digital App for loan application	High school vs Senior secondary	-0.863	1
		High school vs Bachelor's degree	3.705	0.001
		High school vs Technical/Profession	-1.014	1
		Senior secondary vs Bachelor's degree	5.217	<.001
		Senior secondary vs Technical/Profession	-0.395	1
		Bachelor's degree vs Technical/Profession	-4.305	<.001

Source: Compiled from primary data

Table 6.26 shows the result of the post hoc analysis conducted for examining the differences among different educational group in respect of satisfaction on digital banking services. The result indicates that educational qualification plays a significant role in the satisfaction level of various e-banking services. Specifically, the entrepreneurs having bachelor degrees are showing significant differences than other groups particularly in respect of security features ($p < .001$), transaction alert messages ($p < .001$), speed of funds transfer ($p = 0.002$) and use of digital apps ($p < .001$), showing that they are more concerned of satisfaction with digital banking facilities.

6.22 Difference in Access & Responsiveness Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the access & responsiveness of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the access & responsiveness of Small Finance Banks based on their location.

Table 6.27

Mann Whitney U Test on Satisfaction of Access and Responsiveness based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	Z	p
AR1	Rural Area	190	196.63	17454.500	-0.933	0.351
	Urban Area	193	187.44			
AR2	Rural Area	190	192.90	18163.500	-0.176	0.860
	Urban Area	193	191.11			
AR3	Rural Area	190	194.54	17852.000	-0.527	0.598
	Urban Area	193	189.50			
AR4	Rural Area	190	192.73	18196.000	-0.147	0.883
	Urban Area	193	191.28			

Source: Compiled from primary data

Table 6.27 shows that all the p values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their location.

6.23 Difference in Credit Terms Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their location.

Table 6.28

Mann Whitney U Test on Satisfaction on Credit Terms Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	Z	p
CT1	Rural Area	190	190.54	18057.000	-0.294	0.769
	Urban Area	193	193.44			
CT2	Rural Area	190	199.50	16910.000	-1.434	0.152
	Urban Area	193	184.62			
CT3	Rural Area	190	192.57	18227.000	-0.140	0.889
	Urban Area	193	191.44			
CT4	Rural Area	190	190.33	18017.000	-0.418	0.676
	Urban Area	193	193.65			
CT5	Rural Area	190	188.26	17625.000	-0.738	0.460
	Urban Area	193	195.68			

Source: Compiled from primary data

Table 6.28 shows that all the p values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their location.

6.24 Difference in Financial Service Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the financial services of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the financial services of Small Finance Banks based on their location.

Table 6.29

Mann Whitney U Test on Satisfaction on Financial Products Based on the Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
FP1	Rural Area	190	193.11	18123.500	-0.225	0.822
	Urban Area	193	190.90			
FP2	Rural Area	190	192.24	18289.500	-0.056	0.955
	Urban Area	193	191.76			
FP3	Rural Area	190	188.96	17758.000	-0.705	0.481
	Urban Area	193	194.99			
FP4	Rural Area	190	189.08	17781.000	-0.711	0.477
	Urban Area	193	194.87			
FP5	Rural Area	190	200.53	16713.500	-1.755	0.079
	Urban Area	193	183.60			

Source: Compiled from primary data

Table 6.29 shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the financial products and services of Small Finance Banks based on their location.

6.25 Difference in Repayment Facility Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their location.

Table 6.30

Mann Whitney U Test on Satisfaction on Repayment Facilities Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
RF1	Rural Area	190	191.50	18240.500	-0.106	0.916
	Urban Area	193	192.49			
RF2	Rural Area	190	194.42	17874.500	-0.480	0.631
	Urban Area	193	189.61			
RF3	Rural Area	190	199.52	16906.000	-1.434	0.151
	Urban Area	193	184.60			
RF4	Rural Area	190	191.19	18182.000	-0.154	0.878
	Urban Area	193	192.79			

Source: Compiled from primary data

Table 6.30 shows that all the p values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their location.

6.26 Difference in Transaction Cost Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their location.

Table 6.31

Mann Whitney U Test on Satisfaction on Transaction Cost Based on Location

Location of Business		N	Mean Rank	Mann-Whitney U	z	p
TC1	Rural Area	190	190.00	17954.500	-0.379	0.705
	Urban Area	193	193.97			

	Location of Business	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
TC2	Rural Area	190	198.31	17137.000	-1.167	0.243
	Urban Area	193	185.79			
TC3	Rural Area	190	196.84	17415.000	-0.955	0.340
	Urban Area	193	187.23			
TC4	Rural Area	190	194.88	17788.000	-0.561	0.575
	Urban Area	193	189.17			

Source: Compiled from primary data

Table 6.31 shows that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their location.

6.27 Difference in E-Banking Service Satisfaction Based on Location

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of Small Finance Banks based on their location.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of Small Finance Banks based on their location.

Table 6.32

Mann Whitney U Test on Satisfaction on E-Banking Services Based on Location

	Location of Business	N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
EB1	Rural Area	190	190.14	17982.500	-0.384	0.701
	Urban Area	193	193.83			
EB2	Rural Area	190	194.29	17899.000	-0.447	0.655
	Urban Area	193	189.74			
EB3	Rural Area	190	198.03	17189.000	-1.286	0.199
	Urban Area	193	186.06			
EB4	Rural Area	190	192.92	18160.500	-0.280	0.779
	Urban Area	193	191.10			
EB5	Rural Area	190	193.56	18038.000	-0.325	0.745
	Urban Area	193	190.46			

Location of Business		N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
EB6	Rural Area	190	187.16	17414.500	-0.927	0.354
	Urban Area	193	196.77			
EB7	Rural Area	190	199.72	16867.500	-1.678	0.093
	Urban Area	193	184.40			
EB8	Rural Area	190	190.33	18017.500	-0.470	0.638
	Urban Area	193	193.65			

Source: Compiled from primary data

Table 6.32 show that all the *p* values are greater than 0.05. It indicates that there is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of Small Finance Banks based on their location.

6.28 Difference in Access & Responsiveness Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their business activity.

Table 6.33

Kruskal Wallis H Test on Satisfaction on Access and Responsiveness Based on Business Activity

Nature of Business activity		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
AR1	Manufacturing	124	231.48	75.831	2	< .001
	Trading	142	136.55			
	Service	117	217.45			
AR2	Manufacturing	124	238.27	45.566	2	< .001
	Trading	142	156.06			
	Service	117	186.58			
AR3	Manufacturing	124	214.46	16.213	2	< .001
	Trading	142	168.64			
	Service	117	196.54			

Nature of Business activity	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
Manufacturing	124	217.91	13.258	2	< .001
AR4 Trading	142	181.74			
Service	117	176.99			

Source: Compiled from primary data

Table 6.33 shows that all the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It indicates that there is significant difference in the satisfaction level of the micro-entrepreneurs with the access and responsiveness of Small Finance Banks based on their nature of business activity.

Table 6.34

Dunn's Pairwise comparison with Bonferroni Corrections on Access & Responsiveness Based on Business Activity

Sl. No.	Construct	Comparison Groups	<i>z</i>	<i>p</i>
1	Accessibility & availability of services	Manufacturing – Trading	7.74	<.001
		Manufacturing – Service	1.13	0.778
		Trading – Service	–6.46	<.001
2	Responsiveness in addressing concerns & queries	Manufacturing – Trading	6.39	<.001
		Manufacturing – Service	4.07	<.001
		Trading – Service	–2.09	0.11
3	Level of support in financing & loans	Manufacturing – Trading	3.77	<.001
		Manufacturing – Service	1.5	0.402
		Trading – Service	–2.16	0.092
4	Quality of information & guidance	Manufacturing – Trading	2.701	0.021
		Manufacturing – Service	3.307	0.003
		Trading – Service	0.754	0.023

Table 6.34 shows the post hoc analysis which indicates that entrepreneurs running manufacturing and trading sectors differ the most, with significant differences in satisfaction level across accessibility and responsiveness (*p* < .001), support in

financing & loans ($p < .001$), and quality of information and guidance ($p = 0.021$). Manufacturing also shows significant difference from service sector on responsiveness ($p < .001$) and quality of information and guidance ($p = 0.023$). Overall, this shows that SFBs are perceived as more supportive by manufacturing entrepreneurs when compared to other groups.

6.29 Difference in Credit Terms Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their nature business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their nature business activity.

Table 6.35

Kruskal Wallis H Test on Satisfaction on Credit Terms Based on Business Activity

	Nature of Business activity	N	Mean Rank	Kruskal-Wallis H	df	p
CT1	Manufacturing	124	162.53	17.547	2	< .001
	Trading	142	210.08			
	Service	117	201.28			
CT2	Manufacturing	124	194.16	0.691	2	0.708
	Trading	142	186.50			
	Service	117	196.39			
CT3	Manufacturing	124	217.15	28.819	2	< .001
	Trading	142	165.76			
	Service	117	197.18			
CT4	Manufacturing	124	214.26	30.429	2	< .001
	Trading	142	164.13			
	Service	117	202.23			
CT5	Manufacturing	124	202.25	2.106	2	0.349
	Trading	142	185.25			
	Service	117	189.32			

Source: Compiled from primary data

Table 6.35 shows that most of the p values are less than 0.05. Therefore, the null hypothesis has been rejected. It indicates that there is significant difference in the satisfaction level of the micro-entrepreneurs with the credit terms of Small Finance Banks based on their nature of business activity.

Table 6.36

Dunn's Pairwise comparison with Bonferroni Corrections on Credit Terms Based on Business Activity

Sl. No.	Construct	Comparison Groups	z	p
1	Interest Rate	Manufacturing – Trading	–3.669	<.001
		Manufacturing – Service	–3.138	0.005
		Trading – Service	0.373	1
2	Processing Speed & Time	Manufacturing – Trading	4.91	<.001
		Manufacturing – Service	2.01	0.134
		Trading – Service	–2.760	0.017
3	Collateral Security	Manufacturing – Trading	4.97	<.001
		Manufacturing – Service	1.22	0.672
		Trading – Service	–3.640	<.001

Source: Compiled from primary data

Table 6.36 shows the post hoc analysis, which indicates that the entrepreneurs of manufacturing units and trading units differ significantly in satisfaction level across all three sectors such as interest rate, processing speed, and collateral security, with highly significant p -values ($p < .001$). Significant differences are also seen between trading and service in processing speed ($p = 0.017$) and collateral security ($p < .001$) indicating that entrepreneurs in trading sector experiences the most distinct differences compared to the other two sectors.

6.30 Difference in Financial Products Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the financial products of Small Finance Banks based on their business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the financial products of Small Finance Banks based on their business activity.

Table 6.37

Kruskal Wallis H Test on Satisfaction on Financial Products Based on Business Activity

Nature of Business activity		N	Mean Rank	Kruskal-Wallis H	df	p
FP1	Manufacturing	124	217.18	17.792	2	< .001
	Trading	142	167.67			
	Service	117	194.85			
FP2	Manufacturing	124	225.44	52.647	2	< .001
	Trading	142	153.79			
	Service	117	202.93			
FP3	Manufacturing	124	218.57	36.885	2	< .001
	Trading	142	159.05			
	Service	117	203.82			
FP4	Manufacturing	124	205.60	5.963	2	0.051
	Trading	142	181.97			
	Service	117	189.76			
FP5	Manufacturing	124	249.19	72.754	2	< .001
	Trading	142	152.14			
	Service	117	179.77			

Source: Compiled from primary data

Table 6.37 shows that most of the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is significant difference in the

satisfaction level of the micro-entrepreneurs with the financial products and services of Small Finance Banks based on their nature of business activity.

Table 6.38

Dunn's Pairwise comparison with Bonferroni Corrections on Financial Products Based on Business Activity

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Range & diversity of services	Manufacturing – Trading	3.88	<.001
		Manufacturing – Service	1.83	0.203
		Trading – Service	-1.93	0.161
2	Micro banking services	Manufacturing v– Trading	6.91	<.001
		Manufacturing – Service	2.13	0.099
		Trading – Service	-4.6	<.001
3	Rate of interest on deposits	Manufacturing – Trading	5.51	<.001
		Manufacturing – Service	1.39	0.494
		Trading – Service	-3.99	<.001
4	Training & awareness programmes	Manufacturing – Trading	7.95	<.001
		Manufacturing – Service	5.76	<.001
		Trading – Service	-1.88	0.181

Source: Compiled from primary data

Table 6.38 which shows the Dunn's pairwise comparisons indicate that satisfaction levels of entrepreneurs of manufacturing and trading units differ significantly across all four constructs ($p < .001$), while manufacturing and service units also differ in training and awareness programmes ($p < .001$). Trading and service units also show significant differences in micro banking services ($p < .001$) and rate of interest on deposits ($p < .001$). Overall, the results shows that satisfaction level in respect of financial products & services of SFB vary significantly by nature of business, with the strongest differences between manufacturing units and trading units.

6.31 Difference in Repayment Facility Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of Small Finance Banks based on their business activity.

Table 6.39

Kruskal Wallis H Test on Satisfaction on Repayment Facilities Based on Business Activity

	Nature of Business activity	N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
RF1	Manufacturing	124	222.59	21.003	2	< .001
	Trading	142	180.32			
	Service	117	173.76			
RF2	Manufacturing	124	187.31	0.518	2	0.772
	Trading	142	195.98			
	Service	117	192.15			
RF3	Manufacturing	124	235.50	54.780	2	< .001
	Trading	142	144.66			
	Service	117	203.35			
RF4	Manufacturing	124	219.33	13.361	2	0.001
	Trading	142	177.48			
	Service	117	180.66			

Source: Compiled from primary data

Table 6.39 shows that most of the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is significant difference in the satisfaction level of the micro-entrepreneurs with the repayment facilities of small finance banks based on their nature of business.

Table 6.40

Dunn's Pairwise comparison with Bonferroni Corrections on Repayment Facilities Based on Business Activity

Sl. No.	Construct	Comparison Groups	<i>z</i>	<i>p</i>
1	Different modes of repayment facility	Manufacturing vs Trading	3.501	0.001
		Manufacturing vs Service	4.223	<.001
		Trading vs Service	0.913	1
2	Repayment Notifications to borrowers	Manufacturing vs Trading	7.03	<.001
		Manufacturing vs Service	2.47	0.04
		Trading vs Service	-4.370	<.001
3	Customer support for repayment issues	Manufacturing vs Trading	2.992	0.008
		Manufacturing vs Service	2.991	0.008
		Trading vs Service	0.143	1

Source: Compiled from primary data

Table 6.40 shows post hoc analysis which indicates that there are significant differences between satisfaction level of entrepreneurs of manufacturing units and trading units as well as manufacturing and service units in repayment facilities ($p < .001$), repayment notifications ($p < .001$), and customer support ($p < .001$); while trading and service differ only in repayment notifications ($p < .001$). Overall, this reveals that manufacturing entrepreneurs show more significant difference in satisfaction on repayment facilities of SFBs when compared to the other groups.

6.32 Differences in Transaction Cost Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their business activity.

Table 6.41*Kruskal Wallis H Test on Satisfaction on Transaction Cost Based on Business Activity*

Nature of Business activity		N	Mean Rank	Kruskal-Wallis H	df	p
TC1	Manufacturing	124	207.96	13.439	2	0.001
	Trading	142	201.74			
	Service	117	163.26			
TC2	Manufacturing	124	229.81	32.266	2	< .001
	Trading	142	165.64			
	Service	117	183.92			
TC3	Manufacturing	124	210.47	6.563	2	0.038
	Trading	142	181.32			
	Service	117	185.39			
TC4	Manufacturing	124	196.06	2.911	2	0.233
	Trading	142	199.13			
	Service	117	179.03			

Source: Compiled from primary data

Table 6.41 shows that most of the p values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is significant difference in the satisfaction level of the micro-entrepreneurs with the transaction cost of Small Finance Banks based on their nature of business.

Table 6.42*Dunn's Pairwise comparison with Bonferroni Corrections on Transaction Cost Based on Business Activity*

Sl. No.	Items	Comparison Groups	z	p
1	Processing fee & other charges for loans	Manufacturing – Trading	0.186	1
		Manufacturing – Service	3.397	0.002
		Trading – Service	3.323	0.003
2	Penalty for default in repayment	Manufacturing – Trading	-0.073	1
		Manufacturing – Service	1.182	0.712
		Trading – Service	1.292	0.589

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
3	Fee & charges for banking services	Manufacturing – Trading	1.936	0.159
		Manufacturing – Service	1.975	0.145
		Trading – Service	0.133	1

Source: Compiled from primary data

Table 6.42 show the post hoc analysis results, which indicate that the satisfaction level for processing fees and other charges, entrepreneurs of service units significantly differ from both manufacturing and trading ($p = 0.002$ & 0.003), while manufacturing and trading do not differ significantly ($p = 1$). In terms of penalty for default and banking service fee, there are no substantial differences between the three types of businesses after bonferroni adjustment, indicating that the levels of satisfaction with these factors are relatively similar.

6.33 Difference in E-Banking Facilities Satisfaction by Business Activity

H₀: There is no significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking facilities of Small Finance Banks based on their business activity.

H₁: There is significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking facilities of Small Finance Banks based on their business activity.

Table 6.43

Kruskal Wallis H Test on Satisfaction on E-Banking Facilities Based on Business Activity

Nature of Business activity		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
EB1	Manufacturing	124	229.81	32.266	2	< .001
	Trading	142	165.64			
	Service	117	183.92			
EB2	Manufacturing	124	202.50	43.911	2	< .001
	Trading	142	150.59			
	Service	117	231.13			

Nature of Business activity		N	Mean Rank	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
EB3	Manufacturing	124	204.81	10.466	2	0.005
	Trading	142	172.43			
	Service	117	202.18			
EB4	Manufacturing	124	207.63	24.416	2	< .001
	Trading	142	171.39			
	Service	117	200.44			
EB5	Manufacturing	124	226.02	34.433	2	< .001
	Trading	142	158.98			
	Service	117	196.03			
EB6	Manufacturing	124	172.02	55.651	2	< .001
	Trading	142	241.44			
	Service	117	153.17			
EB7	Manufacturing	124	224.89	24.821	2	< .001
	Trading	142	176.70			
	Service	117	175.72			
EB8	Manufacturing	124	211.23	35.475	2	< .001
	Trading	142	164.87			
	Service	117	204.55			

Source: Compiled from primary data

Table 6.43 shows that all the *p* values are less than 0.05. Therefore, the null hypothesis has been rejected. It means that there is significant difference in the satisfaction level of the micro-entrepreneurs with the e-banking services of small finance banks based on their nature of business activity.

Table 6.44

Dunn's Pairwise Comparison with Bonferroni Corrections on E-Banking Services Based on Business Activity

Sl. No.	Items	Comparison Groups	<i>z</i>	<i>p</i>
1	Online banking transaction services	Manufacturing – Trading	5.49	<.001
		Manufacturing – Service	3.83	<.001
		Trading –Service	–1.45	0.438
2	Security features of e-banking services	Manufacturing –Trading	3.89	<.001
		Manufacturing – Service	–2.26	0.071
		Trading vs Service	–6.16	<.001
3	E-Statement facility provided by SFB	Manufacturing vs Trading	2.706	0.02
		Manufacturing vs Service	0.226	1
		Trading vs Service	–2.431	0.045
4	Speed and timeliness of transfer of funds	Manufacturing vs Trading	4.203	<.001
		Manufacturing vs Service	0.905	1
		Trading vs Service	–3.204	0.004
5	Mobile banking app facility provided by SFB	Manufacturing vs Trading	5.55	<.001
		Manufacturing vs Service	2.52	0.035
		Trading vs Service	–2.86	0.013
6	Transaction alert messages delivered through e-mail	Manufacturing vs Trading	–5.42	<.001
		Manufacturing vs Service	1.45	0.44
		Trading vs Service	6.84	<.001
7	Online account opening & verification facility	Manufacturing vs Trading	3.977	<.001
		Manufacturing vs Service	4.331	<.001
		Trading vs Service	0.556	1
8	Digital app for online loan application	Manufacturing vs Trading	5.203	<.001
		Manufacturing vs Service	0.759	1
		Trading vs Service	–4.338	<.001

Source: Compiled from primary data

Table 6.44 show the post hoc analysis which indicates that the satisfaction level of entrepreneurs of manufacturing units and trading units differ significantly in most e-banking services, with entrepreneurs of manufacturing units often showing higher significant differences, while differences between trading and service units are less consistent. The satisfaction level on online banking transactions ($p < .001$), mobile banking apps ($p < .001$), online account opening ($p < .001$) and digital loan applications ($p < .001$) show significant differences, indicating that the nature of business activity influences the usage of e-banking facilities.

6.34 Differences in Satisfaction levels Across Type of Organisation

H₀: There is no significant difference in the satisfaction level of availing financial services from SFB based on their type of organization

H₁: There is significant difference in the satisfaction level of availing financial services from SFB based on their type of organization

Table 6.45

Mann Whitney U Test on Satisfaction Level of Availing Services Based on Type of Organization

Type of Organisation		N	Mean Rank	Mann-Whitney U	z	p
Access and Responsiveness						
AR1	Sole Proprietorship	338	184.26	4988.000	-4.305	0.061
	Partnership	45	250.16			
AR2	Sole Proprietorship	338	192.50	7435.000	-0.271	0.787
	Partnership	45	188.22			
AR3	Sole Proprietorship	338	189.46	6747.000	-1.453	0.146
	Partnership	45	211.07			
AR4	Sole Proprietorship	338	192.13	7562.500	-0.070	0.945
	Partnership	45	191.06			

Type of Organisation		N	Mean Rank	Mann-Whitney U	z	p
Credit Terms						
CT1	Sole Proprietorship	338	195.48	6427.500	-1.932	0.053
	Partnership	45	165.83			
CT2	Sole Proprietorship	338	188.47	6413.500	-1.861	0.063
	Partnership	45	218.48			
CT3	Sole Proprietorship	338	188.86	6544.000	-2.134	0.033
	Partnership	45	215.58			
CT4	Sole Proprietorship	338	192.69	7373.000	-0.474	0.636
	Partnership	45	186.84			
CT5	Sole Proprietorship	338	190.44	7078.000	-0.851	0.395
	Partnership	45	203.71			
Financial Products						
FP1	Sole Proprietorship	338	191.58	7462.000	-0.237	0.813
	Partnership	45	195.18			
FP2	Sole Proprietorship	338	188.67	6480.500	-2.158	0.031
	Partnership	45	216.99			
FP3	Sole Proprietorship	338	188.03	6261.500	-2.549	0.011
	Partnership	45	221.86			
FP4	Sole Proprietorship	338	189.25	6675.000	-1.854	0.064
	Partnership	45	212.67			
FP5	Sole Proprietorship	338	192.70	7370.000	-0.395	0.693
	Partnership	45	186.78			
Repayment Facilities						
RF1	Sole Proprietorship	338	186.73	5823.500	-3.103	0.002
	Partnership	45	231.59			
RF2	Sole Proprietorship	338	193.03	7257.500	-0.563	0.574
	Partnership	45	184.28			
RF3	Sole Proprietorship	338	191.97	7596.000	-0.014	0.989
	Partnership	45	192.20			
RF4	Sole Proprietorship	338	194.79	6662.000	-1.474	0.140
	Partnership	45	171.04			

Type of Organisation		N	Mean Rank	Mann-Whitney <i>U</i>	<i>z</i>	<i>p</i>
Transaction Cost						
TC1	Sole Proprietorship	338	195.77	6330.000	-1.971	0.049
	Partnership	45	163.67			
TC2	Sole Proprietorship	338	185.75	5491.000	-3.197	0.001
	Partnership	45	238.98			
TC3	Sole Proprietorship	338	195.62	6382.500	-1.971	0.049
	Partnership	45	164.83			
TC4	Sole Proprietorship	338	193.18	7206.000	-0.635	0.525
	Partnership	45	183.13			
E-Banking Services						
EB1	Sole Proprietorship	338	188.42	6395.000	-2.048	0.041
	Partnership	45	218.89			
EB2	Sole Proprietorship	338	189.91	6899.500	-1.123	0.261
	Partnership	45	207.68			
EB3	Sole Proprietorship	338	195.52	6416.500	-2.070	0.038
	Partnership	45	165.59			
EB4	Sole Proprietorship	338	192.53	7425.500	-0.447	0.655
	Partnership	45	188.01			
EB5	Sole Proprietorship	338	189.03	6600.000	-1.708	0.088
	Partnership	45	214.33			
EB6	Sole Proprietorship	338	194.78	6664.500	-1.471	0.141
	Partnership	45	171.10			
EB7	Sole Proprietorship	338	194.38	6799.000	-1.431	0.153
	Partnership	45	174.09			
EB8	Sole Proprietorship	338	191.35	7384.500	-0.507	0.612
	Partnership	45	196.90			

Source: Compiled from primary data

Table 6.45 presents the results of Mann Whitney *U* test conducted to examine the satisfaction level of the respondents based on six constructs. The first constructs dealt with the satisfaction level in respect of the access and responsiveness of the micro

enterprise customers of the SFBs and it shows that there is no significant difference in satisfaction level based on type of organisation because most of the p values are greater than 0.05. This shows that entrepreneurs running both sole proprietorship and partnership units experience same level of satisfaction on access and responsiveness of SFBs.

In the case of credit terms, financial products, repayment facilities, and e-banking services also, in each construct, most of the p values are greater than 0.05. It indicates that the satisfaction levels of respondents with the services of SFBs regarding credit terms, financial products, repayment facilities, and e-banking services show no significant difference based on the type of organization.

But in the case of transaction cost, most of the p values are less than 0.05. hence the null hypothesis has been rejected. It shows that there is significant difference in the satisfaction level of respondents towards transaction cost of SFBs based on type of organisation. While examining the mean ranks sole proprietors are showing significant difference regarding processing fee & other charges for loans (mean rank=195.77) and fee & charges for banking services (mean rank=195.62) and entrepreneurs running partnership firms showing significant difference in satisfaction level in respect of penalty for default in repayment (mean rank=238.98).

Considering all the constructs, it can be concluded that there is no significant difference in the satisfaction levels of micro-entrepreneurs availing financial services from SFBs based on their type of organization, except in the case of credit terms.

6.35 Conclusion

The overall analysis clearly shows that micro-entrepreneurs in Kerala are highly satisfied with the various financial services provided by Small Finance Banks. They expressed a very high satisfaction in areas such as accessibility, responsiveness, and quality of services, mainly in areas such as fast loan disbursement, collateral requirements, and customer support services. Micro-entrepreneurs largely depend on SFBs, as they are able to access efficient credit facilities and responsive service systems. However, certain aspects such as loan interest rates, repayment periods, and

training or awareness programmes require further improvement to enhance the overall service experience compared to other areas.

Moreover, the findings indicate that the overall performance of these banks, particularly the affordable transaction services, convenient e-banking facilities, and secure online platforms were highly rated by the micro entrepreneurs. At the same time, areas such as limited communication through email alerts, lower credit limits, and restricted repayment options indicate some level of dissatisfaction, indicating the need for greater customisation and flexibility of banking services. On the whole, Small Finance Banks have significantly contributed to the financial inclusion of the micro entrepreneurs by providing effective and efficient financial services.

Chapter 7

ANALYSIS OF LINKAGES BETWEEN CONTRIBUTIONS AND BUSINESS GROWTH - STRUCTURAL EQUATION MODELING

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7.1 Introduction

This chapter presents the analysis and interpretation of the primary data using Partial Least Squares Structural Equation Modeling (PLS-SEM). It analyses and discusses the relationships among key variables influencing the business growth and performance of micro-entrepreneurs associated with Small Finance Banks. This approach confirms the statistical reliability and validity of the data and also ensure the capability of explaining the causal linkages among the studied variables. It aims to make an assessment of both the measurement model and the structural model for validating the conceptual framework.

An overall evaluation of indicator reliability, internal consistency reliability, convergent validity, and discriminant validity of the measurement model were carried out for the study. It was followed by testing the path coefficients, coefficient of determination, and effect sizes to assess the structural relationships among the various constructs. Thus, this chapter provides a systematic presentation regarding the execution of PLS-SEM analysis. It also makes a meaningful interpretation of empirical findings that validate the relationships between various dimensions of Small Finance Bank services and business performance of micro entrepreneurs.

7.2 Partial Least Squares Structural Equation Modeling

It is an advanced statistical methodology used to analyse the complex associations between observed and latent variables. It is particularly suitable for exploratory research and theory generation; where distributional assumptions of the data cannot be met in the strict sense or where the sample size is small. PLS-SEM allows for a joint evaluation of measurement models and structural model where relationships between the constructs and their indicators, and relationships between the constructs

are respectively assessed. It provides a strong approach to the examination of direct effects as well as indirect effects in a statistical framework. Its flexibility and forward-looking nature lend itself for great value to the social sciences, the business research, and the applied disciplines where models tend to be complex and multidimensional.

PLS-SEM was preferred over CB (Covariance-Based) SEM because it is more flexible in dealing with non-normal data, suitable for smaller sample sizes and can be applied in complex models that include both formative and reflective constructs. It does not have a rigid distributional assumption and it aims to maximize explained variance in the dependent (output) variable. The technique assumes linear relationships between constructs, the adequate indicators, and clearly defined directional routes based on theoretical justifications. Due to these benefits, PLS-SEM is suitable in studies where prediction and understanding are more important than the strict model fit validation.

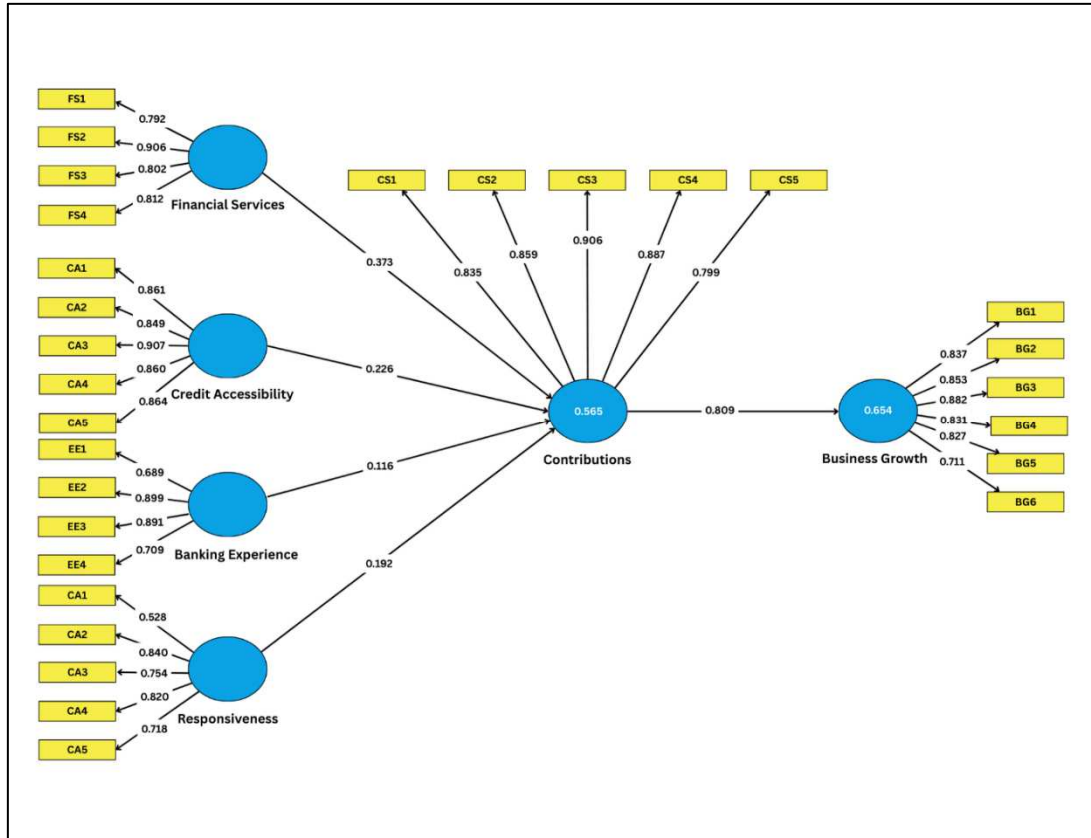
For assessing the effectiveness of different factors towards development of the micro entrepreneurs measured with PLS SEM. This follows the sequence presented below.

7.3 Internal Consistency and Convergent Validity

Assessment of the reliability and validity of a measurement model usually involves evaluation of both internal consistency and convergent validity of data. Internal consistency is used to measure the degree to which the items in a construct relate to each other and is used to show that all of the items are measuring the same concept. Consistency can be usually evaluated by indicators such as Cronbach's alpha or composite reliability (CR), in which values above 0.70 are considered to represent acceptable consistency (Hair et al., 2014). On the other hand, convergent validity usually measures how the indicators of a specific construct effectively align to capture a shared conceptual meaning. This is generally tested using Average Variance Extracted (AVE) where the value of 0.50 and above indicates that the construct captures a large percentage of variance of the indicators. It is important to establish sufficient levels of internal consistency and convergent validity of data in order to enhance the credibility of the measurement model and thereby support the interpretability of findings.

Figure 7.1

Measurement Model



Source: PLS SEM output

Cronbach's alpha (α), composite reliability (CR) and rho_A were used to test the internal consistency of the measurement model and they collectively measure the reliability of the constructs. Convergent validity, on the other hand, was analysed by using the Average Variance Extracted.

Table 7.1

Construct Reliability and Validity

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Business Growth	0.905	0.909	0.927	0.681
Contributions	0.910	0.914	0.933	0.736

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Credit Accessibility	0.919	0.928	0.939	0.754
E-Banking Experience	0.813	0.840	0.877	0.645
Financial Services	0.848	0.858	0.898	0.688
Responsiveness	0.788	0.814	0.856	0.548

Source: Compiled from primary data

The results of the table reveal that the Cronbach alpha value in all constructs is above the suggested norm of 0.70 which reveals strong reliability of data. Also, the constructs have rho_A and composite reliability of more than 0.70, which is in line with the recommendations of Nunnally (1994). Hence, the results of the study ensure that both the constructs demonstrate good internal consistency.

In addition, the constructs have Average Variance Extracted values above the acceptable limit of 0.50, as per the Fornell and Larcker (1981) suggestions. This implies that the constructs have enough variance of their indicators and hence they are confirming convergent validity. The overall result confirms the validity of the measurement model, which can be used to represent the theoretical constructs.

7.4 Discriminant Validity

Discriminant validity at the construct level was assessed using the Fornell and Larcker criterion as well as the Heterotrait-Monotrait (HTMT) ratio. Compared to the other methods, HTMT is considered as a stronger method of assessing discriminant validity. It gives a better evaluation of whether the constructs are different from one another. In the case of HTMT, the values below or equal to 0.90 are acceptable, as per the suggestion of Gold et al. (2001). In case the HTMT value falls within this range, it means that there is no excessive overlap between the constructs and that the constructs are sufficiently distinct.

Fornell and Larcker criterion further supplements this by comparing square root of the AVE of each construct with its correlation values with other constructs. A construct

has discriminant validity when the square root of the AVE is more than the correlations with any other construct. The combination of these two approaches gives a complete assessment of discriminant validity. The table shows the results of HTMT, which indicates that the measurement model is able to achieve discriminant validity across all constructs. This makes sure that the constructs employed in the model are conceptually and empirically distinct.

Table 7.2

Heterotrait-Monotrait Ratio – Matrix

Constructs	Business Growth	Contributions	Credit Accessibility	E-Banking Experience	Financial Services
Business Growth					
Contributions	0.885				
Credit Accessibility	0.657	0.655			
E-Banking Experience	0.635	0.596	0.511		
Financial Services	0.666	0.757	0.692	0.552	
Responsiveness	0.688	0.697	0.590	0.813	0.685

Source: Compiled from primary data

Table 7.2 shows that all values are lower than 0.90 which make it evident that the construct in the measurement model discriminate well empirically and the measurement model is proved as reliable and valid.

7.4.1 Fornell and Larcker Criteria: Under the criterion provided by Fornell and Larcker, the square root of the AVE of a particular latent variable in the model must be greater than the correlations it has with other latent variables in the model. This principle is applied to determine discriminant validity that a construct should be more related to its own indicators than to any other construct in the model. When the square root of the AVE exceeds the correlations with other constructs, it ensures that the latent variable is distinct and that it measures a unique concept in the theoretical construct. This comparison assists in proving that the constructs are not only related but also sufficiently differentiated from one another.

Table 7.3 depicts the Fornell-Larcker analysis for discriminant validity of the measurement model.

Table 7.3

Fornell-Larcker criterion

Constructs	Business Growth	Contribution	Credit Accessibility	E-Banking Experience	Financial Services	Responsiveness
Business Growth	0.825					
Contributions	0.809	0.858				
Credit Accessibility	0.607	0.608	0.868			
E-Banking Experience	0.562	0.530	0.468	0.803		
Financial Services	0.594	0.674	0.607	0.486	0.829	
Responsiveness	0.593	0.597	0.526	0.662	0.561	0.740

Source: Compiled from primary data

Table 7.3 shows the square root of the values of the AVE along the diagonal, whereas the off-diagonal values show the correlations between the latent variables. It can be observed that the diagonal values are always higher than the corresponding off-diagonal values. This shows that the criteria of discriminant validity are satisfied because the constructs have more relationship with its own indicators as compared to other latent variables. It can therefore be concluded that discriminant validity has been successfully established in this model.

7.5 Indicator Reliability

Outer loading values are one of the main measures to determine the reliability of indicators in structural equation modeling. These are the values that show the strength of the relationship between each observed indicator and the latent construct that is associated with it. The higher values of outer loading reveal that an indicator is measuring the construct that it is supposed to measure reliably. The generally accepted criterion of outer loadings is 0.70 or higher, which implies that the indicator measures a significant proportion of variance in the latent variable. However, a loading of 0.40

to 0.70 can be accepted when the indicator makes a significant contribution to the construct, and the reliability and validity of the model are satisfactory. It is important to evaluate the outer loading values to ensure that every indicator is a good representation of the underlying construct and thus add to the reliability and strength of the model. Table 3.37 shows the outer loading values of the variables.

Table 7.4

Cross Loadings

Constructs	Business Growth	Contributions	Credit Accessibility	E-Banking Experience	Financial Services	Responsiveness
BG1	0.837					
BG2	0.853					
BG3	0.882					
BG4	0.831					
BG5	0.827					
BG6	0.711					
CS1		0.861				
CS2		0.849				
CS3		0.907				
CS4		0.860				
CS5		0.864				
CA1			0.835			
CA2			0.859			
CA3			0.906			
CA4			0.887			
CA5			0.799			
EE1				0.689		
EE2				0.899		
EE3				0.891		
EE4				0.709		
FS1					0.792	
FS2					0.906	
FS3					0.802	
FS4					0.812	
RS1						0.728
RS2						0.840
RS3						0.754
RS4						0.820
RS5						0.718

Source: Compiled from primary data

Table 7.4 shows that most of the outer loading values are equal to or higher than 0.70, and this means that most indicators contribute strongly to their respective latent constructs. This is a commonly accepted criterion in the measurement models because it implies that the indicators are reliable in measuring their respective constructs. For some indicators with the outer loading values of between 0.40 and 0.70, it was decided to retain them in the model. This decision was based on the fact that their elimination did not result in an improved value of some key indices like the Average Variance Extracted or the composite reliability which are used to measure the validity and reliability of the constructs.

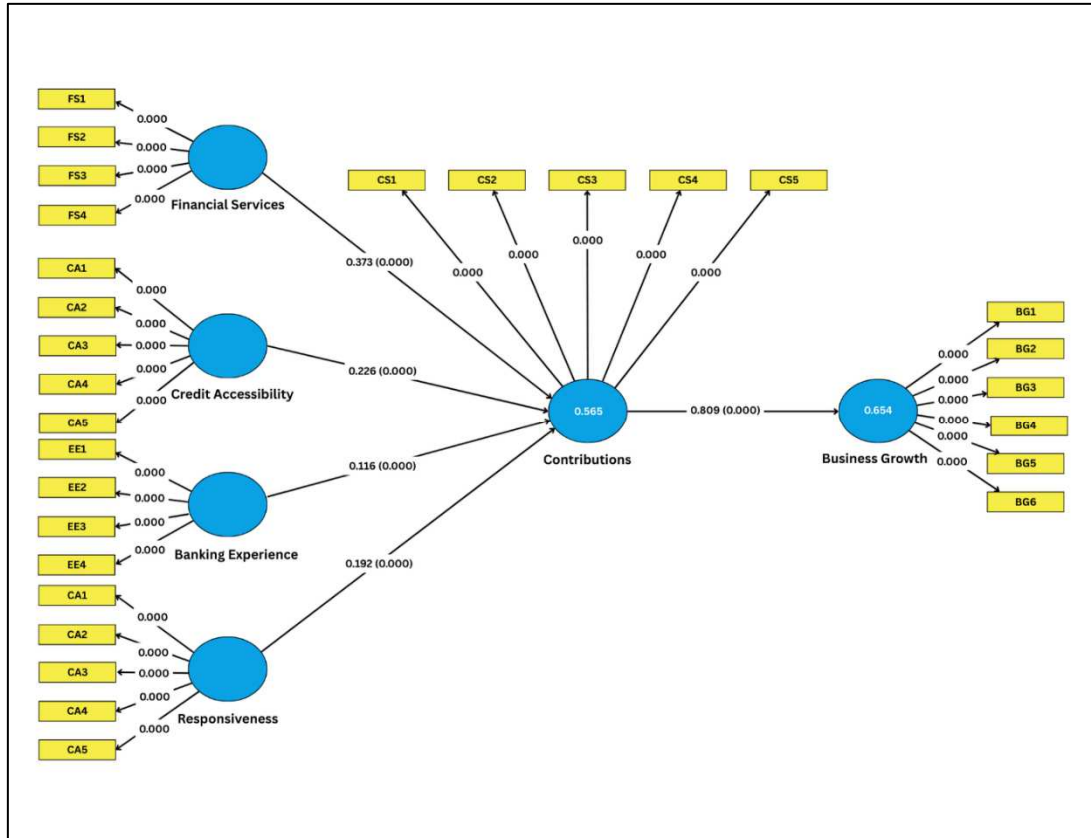
By a thorough examination of how these indicators affected the overall model, it was ensured that their inclusion did not affect the quality of the measurement model. Rather, maintaining them in the model preserved the overall structural reliability of the model and the ability to test the entire construct validity. The model, therefore, met the norm for indicator reliability, which proves that the indicators observed are consistent and appropriate to measure their respective constructs.

7.6 Structural Model

The structural model in PLS-SEM is evaluated mainly in terms of path coefficients that can show the strength and direction of relationships among constructs. These coefficients are tested to find out whether the hypothesized relationships are statistically significant or not. Also, endogenous constructs in the model are computed using the coefficient of determination (R^2). R^2 represents the percentage of the total variance in an endogenous variable that is attributed to its predictor variables, and hence provides a measure of the ability of the model to explain the variables. The higher the R^2 value, the more effective are the predictor constructs in explaining the variance in the outcome variable which in turn helps in supporting the overall strength of the structural model (Rahi, 2017). All of this analysis gives a full picture of the hypothesized relationships and the predictive ability of the model.

Figure 7.2

Structural Model



Source: PLS SEM output

7.6.1 Variance Inflation Factor (VIF)

VIF is a significant statistic in Partial Least Squares Structural Equation Modeling (PLS-SEM) which is usually used to measure collinearity between the predictor variables. Collinearity is a situation where two or more predictor variables in a model are strongly correlated and this may lead to increase in standard errors and affect the accuracy of the model estimates. VIF is employed to show the extent to which a predictor variable is affected by the rest of the predictors in the model. The accepted level of VIF is typically below 5, showing low to moderate collinearity and VIF above 5 (or above 10 in some strict guidelines) may be high collinearity. Examining VIF, can help researchers to identify and correct collinearity issues in order to have the regression estimates unbiased and to maintain the predictive accuracy of the model. Generally, 3.3 are considered to be a better recommended norm in PLS SEM.

Table 7.5

VIF (Collinearity Statistics)

Relationship	VIF
Contributions -> Business Growth	1.000
Credit Access -> Contributions	1.747
E-Banking Experience -> Contributions	1.871
Financial Services -> Contributions	1.840
Responsiveness -> Contributions	2.123

Source: Compiled from primary data

The table 7.5 indicates that the inner VIF values of the latent variables are all fall below the acceptable level of 3.3 as proposed by Rahi (2017). This implies that there is no concern of lateral multicollinearity or collinearity between the latent variables in the model. When the VIFs fall within this acceptable range, it is a confirmation that the predictor variables are not too much overlap in explaining variance confirming that the structural paths in the model are reliable and not affected by multicollinearity. Thus, the absence of multicollinearity problems confirms the stability of the structural model.

7.6.2 Computation of R - Square

Table 7.6*R - Square*

Constructs	R-square	Adjusted R-square
Business Growth	0.654	0.654
Contributions	0.565	0.563

Source: Compiled from primary data

Based on the R-square values listed, and using the suggested guidelines of Cohen (1988) in interpreting the R-square values ($R^2 < 0.02$ - Very weak, $0.02 \leq R^2 < 0.13$ - Weak, $0.13 \leq R^2 < 0.26$ - Moderate, $R^2 \geq 0.26$ - Substantial explanatory power), the model has been found to demonstrate varying degrees of explanatory power across the constructs:

Based on the values of R-square provided, the model shows a substantial explanatory power for both constructs:

- The R-square of 0.654 of Business Growth shows that about 65.4 percent of the variance of Business Growth is explained by the factors like Contributions, which shows a strong predictive power. This implies that the model is capable of capturing the main factors that affect the business growth contributed by small finance banks.
- Similarly, the R-square of 0.565 of Contributions implies that about 56.5 percent of the variance in Contributions can be attributed to predictors like Credit Accessibility, E-Banking Experience, Financial Services and Responsiveness. This is also an indication of a high degree of explanatory power.

Based on the guidelines of Cohen (1988) in which R^2 values of 0.26 or higher indicate that there is a strong explanatory power, both constructs in the model are found to have strong relationships, which affirms the efficacy of the model in explaining business growth of micro entrepreneurs in the context of small finance banking services.

7.6.3 Structural Model Evaluation

For analysing the relation between the constructs, PLS Structural Equation Modeling (SEM) was employed to test the following null hypotheses.

1. H_0 : Contributions have no significant positive effect on business growth.
2. H_0 : Credit accessibility has no significant positive effect on contributions.
3. H_0 : E-Banking experience has no significant positive effect on contributions.
4. H_0 : Financial services have no significant positive effect on contributions.
5. H_0 : Responsiveness has no significant positive effect on contributions.

7.6.4 Path Estimation and Testing of Hypothesis

Path estimation is the primary technique for analysing path relationships and it form the basis of hypothesis testing in the structural equation model. The regression coefficients were used to test each of the hypothesized relationships as they show the

strength and direction of the relationship between the constructs. These coefficients determine how much the measured data is in support of the hypothesized associations.

The statistical significance of the relationships between the paths was evaluated with the help of t-values and p-values obtained in the PLS bootstrapping process. Bootstrapping measures the standard errors of path coefficients by first resampling the original data which in turn measures the accuracy of the structural model. The t-values are obtained using these standard errors and are used to determine whether the coefficients of the paths are statistically significant. The p-values indicate how possible the relationships observed are because of chance. The combination of t-values and p-values is used to decide which path is statistically valid and whether the proposed relationships in the data are supported, making sure that the structural model shows the relationships between the constructs.

7.6.5 Structural Model Results

Table 7.7

Path coefficients

Relationship	Path Coefficient (β)	Sample mean (M)	Standard deviation (STDEV)	T statistics ($ O/STDEV $)	p value
Contributions -> Business Growth	0.809	0.809	0.013	60.062	<.001
Credit Accessibility -> Contributions	0.226	0.228	0.031	7.300	<.001
E-Banking Experience -> Contributions	0.116	0.116	0.027	4.243	<.001
Financial Services -> Contributions	0.373	0.374	0.038	9.733	<.001
Responsiveness -> Contributions	0.192	0.189	0.044	4.356	<.001

Source: Compiled from primary data

The structural equation model shows that there are several statistically significant relationships among the important constructs in the context of Small Finance Banks. It is important to note that, Contributions by the bank have a high positive impact on Business Growth ($\beta = 0.809$, $p = 0.000$) and this implies that the more contributions the bank makes such as financial literacy, skill training, and other developmental initiatives, the more the growth direction of businesses served by the bank is enhanced. A number of factors are identified to affect these Contributions. Credit

Accessibility has positive influence in Contributions ($\beta = 0.226$, $p = 0.000$), indicating that the easier the accessibility of credit facilities, the more the bank is likely to contribute to the businesses. On the same way, Financial Services have a significant positive correlation with Contributions ($\beta = 0.373$, $p = 0.000$), which indicates the significance of the broad service offerings on the contributions of the bank to the development of micro entrepreneurs. The impact of Responsiveness on Contributions is also positive and statistically significant ($\beta = 0.192$, $p = 0.000$), which illustrates the importance of immediate and active service delivery in increasing the bank engagement. Lastly, E-Banking Experience also turns out to be a major predictor of Contributions ($\beta = 0.116$, $p = 0.000$) with the implication that the more positive the digital service experience, the more positive the perceived value and the contributions of the bank.

7.6.6 Model Fit Summary

Table 7.8

Summary of Model Fit

Model Fit Index	Obtained Value	Recommended Threshold
SRMR (Standardized Root Mean Square Residual)	0.056	≤ 0.08 (Good fit)
NFI (Normed fit Index)	0.912	≥ 0.90 (Acceptable)
RMS_theta (Root Mean Square Theta)	0.097	≤ 0.12 (Acceptable)

Source: Compiled from primary data

Table 7.8 shows that obtained SRMR value of 0.056 ensures that model fit is good, indicating a minimal residual discrepancy between observed and predicted correlations. The NFI value of 0.912 exceeds the suggested norm of 0.90, shows an acceptable model fit. Similarly, RMS_theta value of 0.097 is considerably lower than the maximum value of 0.12 indicating suitable internal consistency and measurement reliability. Together, these indices demonstrate that the PLS-SEM model achieves an overall fit and is theoretically and statistically well specified.

7.6.7 F-Square

Effect size is a very important metric of structural equation modeling (SEM) that determines the effect of an exogenous construct on an endogenous construct. It helps to find out the relative importance of each predictor variable in the model. In PLS-SEM, the effect size is commonly measured by F-square, and these quantify the responsiveness of the coefficient of determination (R^2) of the endogenous construct when a specific exogenous construct is added or omitted to the model.

A higher F-square value implies that the exogenous construct contributes significantly in explaining the variance of the endogenous construct, and hence playing an important role in the model. The general rules of interpreting F-square values shows that 0.02, 0.15, and 0.35 are the values representing the small, medium, and large effect size, respectively. The constructs that have low F-square values can show a small contribution and imply that their inclusion may not be significant to the explanatory power of the model.

Effect size is a supplement to other measures such as path coefficients and R^2 since it gives more information on the degree of relationship within the model. It enables researchers to focus on constructs on the basis of their contribution to the dependent variables and also helps in the refinement of the model by pointing out those constructs that have minimum effect. Overall, effect size allows to better comprehend the dynamics of the model and improves interpretation of results. The F-square values are as follows.

Table 7.9

F-Square

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	p values
Contributions -> Business Growth	1.89	1.911	0.185	10.232	0.001
Credit Accessibility -> Contributions	0.067	0.07	0.019	3.509	0.001
E-Banking Experience -> Contributions	0.017	0.018	0.008	2.024	0.043
Financial Services -> Contributions	0.173	0.177	0.036	4.785	0.001
Responsiveness -> Contributions	0.04	0.041	0.019	2.112	0.035

Source: Compiled from primary data

Based on Cohen's (1988) recommendations for interpreting effect size, the F-square values in the model provide an insight on the strength of each of the predictor variables in the model to its respective dependent variable within the structural model of Small Finance Banks:

- Contributions → Business Growth has an F-square of 1.89 and it is much more than 0.35 cutoff, which means the effect size is very large. This implies that the services offered by the bank including financial services, training, financial literacy, developmental programmes etc., are very influential in stimulating the growth of businesses among the customers.
- Financial Services → Contributions has F-square of 0.173, falls in the medium effect size category, shows that the scope and quality of financial services provided by the bank makes a huge contribution to the perceived role of the bank in the development of its customers, but not as predominantly as the direct influence on growth.
- Credit Accessibility → Contributions has F-square of 0.067, which falls under the category of small effect size. This result is statistically significant but it means that the practical level of impact is not high, showing that although credit accessibility has a significant influence on the overall bank support, it is not the main driver of the support.
- Responsiveness → Contributions, which has F-square of 0.04, also portrays small effect size, which means that timely and efficient service responses have small but still positive impact on the perceived contributions of the bank.
- E-Banking Experience → Contributions show the lowest F-square of 0.017 which is slightly below mark of small effect size, which shows that the digital banking experiences, although statistically significant, have a little impact on the overall perception of the customers on the contributions of the bank.

7.6.8 Q Square Predict

The Q2 predict value in PLS-SEM determines the predictive relevance of the model in terms of its ability to predict the observed values of endogenous constructs. It is obtained by cross-validation of the model (PLS predict) where the model is compared to actual data. The value of a Q2 predict above zero means that the model is predictive and values above 0.35 represent high predictive accuracy. In contrast to R2, which describes variance, Q2 predict is out-of-sample prediction, which means that the model is not only statistically correct but also useful in practice. Thus, Q2 predict ensures the predictive strength and accuracy of the model in the real world.

Table 7.10

Q Square Predict

Items	Q ² predict	PLS-SEM_RMSE	LM_RMSE
BG1	0.154	0.873	0.877
BG2	0.420	0.866	0.95
BG3	0.349	0.856	0.871
BG4	0.503	0.155	0.425
BG5	0.255	0.19	0.281
BG6	0.373	0.797	0.799
CA1	0.222	0.97	0.971
CA2	0.312	0.873	0.877
CA3	0.471	0.878	0.879
CA4	0.210	0.829	0.831
CA5	0.467	0.688	0.765
CS1	0.455	0.809	0.888
CS2	0.551	0.652	0.727
CS3	0.519	0.866	0.95
CS4	0.382	0.856	0.871
CS5	0.531	0.873	0.877
EE1	0.507	0.878	0.879
EE2	0.383	0.829	0.831
EE3	0.396	0.688	0.765

Items	Q ² predict	PLS-SEM_RMSE	LM_RMSE
EE4	0.154	0.873	0.877
FS1	0.441	0.878	0.879
FS2	0.188	0.829	0.831
FS3	0.285	0.688	0.765
FS4	0.302	0.809	0.888
RS1	0.317	0.652	0.727
RS2	0.331	0.77	0.798
RS3	0.345	0.883	0.897
RS4	0.359	0.77	0.798
RS5	0.373	0.883	0.897

Source: Compiled from primary data

The table of Q² predict results shows that the Q² values of all constructs are positive, and the PLS-SEM model has significant predictive relevance to all indicators. Most of the predict values of the Q² are above the threshold of 0.35 (BG² = 0.420, CS² = 0.551, EE¹ = 0.507), indicating a strong predictive power, and few of the constructs have moderate predictive accuracy such as BG¹ (0.154) and FS² (0.188). Moreover, PLS-SEM RMSE values are always smaller or equal to LM-RMSE values, which proves that the PLS-SEM model produces smaller errors in prediction and is more effective than a linear regression level. On the whole, these results confirm that the PLS-SEM model has a vigorous out-of-sample predictive performance, which guarantees the reliability and practical implementation of the structural relationships.

7.7 Conclusion

The present study provides useful information on the factors that drive business growth of micro entrepreneurs served by the Small Finance Banks which are more customer-oriented and include credit accessibility, digital banking experience, responsiveness, and quality of financial services. The results of the structural model indicate that the contribution that the customers made in terms of savings, investments, and product engagement arise out as the most powerful determinant of business growth. This highlights the key role of customer engagement in maintaining the positive trend of SFBs.

The analysis shows that the availability of credit and financial services exert significant influence on customer satisfaction, which means that the availability of financial instruments and the successful presentation of services play a pivotal role in improving customer-bank relations. The impact of the e-banking experience and responsiveness is statistically significant, but the impact is rather small, which implies that further innovation and personalization in these aspects are needed. Overall, the model proves to have a strong explanatory power, as it confirms that strategic emphasis on inclusive, accessible, and technology-enabled banking practices is essential in terms of promoting faster growth and enhancing outreach in the small finance banking sector.

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Chapter 8

FINDINGS AND DISCUSSIONS

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8.1 Introduction

This chapter presents the major findings of the study which are arranged in accordance with the objectives of the research. Beginning with the structure, it presents the broader trends of financial products and service patterns of 11 SFBs in India. The role of SFBs in financial inclusion of micro entrepreneurs and their specific contributions to economic empowerment of women micro entrepreneurs are also presented. The findings further reveal the extent of satisfaction across different service areas of the bank and the relationships among key variables influencing the business growth and performance of micro-entrepreneurs.

8.2 Findings of the Study

The analysis of the data collected from primary and secondary sources revealed some valuable findings which may be useful for the policy makers, stakeholders of banking sector and micro business entrepreneurs. The key findings which were presented on the basis of the objectives of the study are as follows

8.2.1 Findings on Structure and Financial Product Portfolio of SFBs

- All Small Finance Banks in India have a similar capital structure and all of them follow a uniform regulatory procedure as prescribed the RBI.
- Almost all SFBs meet or exceed the requirement of allocating 75% of their Adjusted Net Bank Credit (ANBC) to Priority Sector Lending (PSL) confirming their alignment with financial inclusion goals. PSL of ESAF SFB was 92%, AU SFB 90.5%, Utkarsh SFB 86.78%, Unity SFB around 85%, Equitas SFB 81.67%, and Capital SFB 77.47%. Whereas Shivalik SFB was able to meet only 62.27% of ANBC in the FY 2023-24, which is lower than the required limit.

- All the SFBs have increased their presence in rural and semi-urban areas since its inception. A total of 7,512 SFB branches were operating in India, of which more than 25 percent are in unbanked areas as required by the RBI. AU SFB has established 1,720 branches all over the country, where as Shivalik SFB has 79 branches only.
- As per the RBI norms, 50% of the total loans of SFBs consist of small loans up to ₹25 lakhs, and this has been consistently followed by all SFBs in India.
- All SFBs offer basic deposit products such as savings account, current account, fixed deposit, and recurring deposit. Additionally, Equitas SFB, Ujjivan SFB, and Capital SFB offer Tax Saver Fixed Deposits. Ujjivan SFB provides customised deposit products such as Senior Citizen and Minor Accounts. Capital SFB, ESAF SFB, Equitas SFB, Ujjivan SFB, and Utkarsh SFB also provide NRE/NRO deposit accounts for non-resident customers. AU SFB, Capital SFB, Jana SFB, and Utkarsh SFB offer Certificates of Deposit.
- Micro loans form the major part of the lending of all SFBs, and all of them focus mainly on micro banking. In FY 2024-25, micro loans represent 70.02% of total loans of ESAF SFB.
- ESAF SFB, Equitas SFB, Jana SFB, Ujjivan SFB, Suryoday SFB, and Utkarsh SFB operate joint liability group (JLG) loans targeting small and women entrepreneurs.
- All SFBs are actively involved in MSME/SME lending, which generally consists of business loans, working capital, and term loans.
- Ujjivan SFB has introduced a specialized loan, namely the Street Vendor Loan.
- Capital SFB, ESAF SFB, Shivalik SFB, Slice SFB, and Ujjivan SFB offer Agricultural and allied sector loans
- Affordable housing loans are offered by Equitas SFB, ESAF SFB, Suryoday SFB, Ujjivan SFB, and Utkarsh SFB.

- AU SFB, Equitas SFB, and Utkarsh SFB offer loans to financial institutions such as NBFCs and MFIs.
- All SFBs widely use technology to reduce costs and improve efficiency. Internet Banking, Mobile Banking, UPI, Debit Cards, ATMs and POS terminals are the common digital services offered by them.
- A high level of digital adoption was observed among SFBs. In the FY 2023-24, 98.5% of savings accounts of Shivalik SFB were opened through online mode. Equitas SFB also opened 56% of its savings accounts through online in the same year.
- ESAF SFB registered a growth of 148% increase in Micro ATMs, which stood at 5,024 units, showing an increase of online services to rural and doorstep banking users.
- AU SFB, Equitas SFB, and ESAF SFB have started to offer advanced e-banking services such as video banking, WhatsApp banking and chatbot services.
- Shivalik SFB, Capital SFB, Ujjivan SFB, Suryoday SFB, ESAF SFB and Utkarsh SFB provide digital account opening and video KYC facilities.
- Equitas SFB and AU SFB have implemented API banking and digital wealth management platforms.
- ESAF SFB, Ujjivan SFB, and Shivalik SFB provides BBPS enabled bill payment services.
- All SFBs distribute third-party insurance products, including life, health, and general insurance.
- Government pension schemes such as APY and NPS are offered by ESAF SFB, Suryoday SFB, and Utkarsh SFB.
- Mutual fund distribution and 3-in-1 trading account facilities are available in AU SFB, Equitas SFB, Capital SFB, and Jana SFB

- Micro-insurance and credit-linked insurance products are specifically found in Jana SFB and Utkarsh SFB.
- All SFBs offer locker facilities and remittance services as part of their customer convenience offerings.
- Doorstep banking services are available in ESAF SFB, Suryoday SFB, and Unity SFB, not found in many others. Similarly, Point of Sale (POS) terminals and merchant solutions are available in AU SFB, ESAF SFB, Capital SFB, and Slice SFB.
- Foreign exchange and money transfer services are provided by Capital SFB and ESAF SFB.
- Financial literacy programmes are conducted and reported by AU SFB, ESAF SFB, and Ujjivan SFB.
- Trade finance and non-fund-based facilities like bank guarantees and letters of credit are provided by AU SFB, ESAF SFB, and Ujjivan SFB.
- The Total Deposits of Most of the SFBs showed a significant growth, which increased more than 10 times over the period, with a TGR of 38.37 % and high CAGR of 42.04%.
- AU SFB achieved a multi-fold increase in total deposit base. Ujjivan SFB grew its base over eight times, Equitas SFB by more than seven times, and Utkarsh SFB by over five times since FY 2018. Whereas, Capital SFB showed the lowest level of increase in deposit growth with a TGR of 15.87% and CAGR of 16.54%.
- CASA ratio showed diverse trends in respect of CASA over the eight-year period. Some SFBs improved their low-cost deposits, while others showed fluctuations or declines. ESAF SFB and Capital SFB have built better low-cost deposits over the years.
- In case of Total Borrowings, several banks like ESAF SFB, Equitas SFB, Jana SFB, and Ujjivan SFB, reduced their dependence on borrowings over the years.

Whereas, AU SFB, Capital SFB and Utkarsh have increased their dependence on borrowings.

- Most of the SFBs showed a high and stable growth in lending activities, with a TGR of 28.92 per cent and yearly CAGR of 32.10%. Slice SFB recorded a significant decline in total loans and advances in FY 2023-24, but showed a substantial increase in advances during FY 2024-25.
- Micro entrepreneurs were completely observing the local licensing regulations, 100% being registered under the corporation or the panchayat. A majority (68.4%) had Udyam registration, though over one-third were still outside this system. There was also high GST compliance with 96.6% having registration under GST system, which shows that they are highly involved in the formal tax system. Nevertheless, the registration of LMPC and FSSAI is still very low among micro-entrepreneurs.

8.2.2 Findings on the Role of SFBs in Financial Inclusion of Micro Entrepreneurs

The study analyses how Small Finance Banks promote financial inclusion, especially in terms of their accessibility, facilitation to credit, and consistency of financial services. The findings are presented systematically which are related to the essence of financial inclusion, including the access, usage, and quality of SFB products and services.

8.2.2.1 Access to SFB Products and Services

- The services of the SFB are easily accessible to majority of the respondents, as the SFB branches and ATMs were located within a short distance of their business units.
- The loan processing of SFBs is very fast, as the majority of respondents receive their loans within 1 to 7 days.

- The existing banking hours of SFBs are convenient and preferred by the majority of micro-entrepreneurs.
- Most of the respondents have opened Savings Bank Accounts (93.21%) in SFB. Only 60.1percent have opened Current Account (60.1%) which typically require more minimum balance.
- The primary reason for opening a bank account is to obtain loans or credit from the SFB. Some respondents have opened accounts for doing business transactions, while only a few opened accounts for savings or to receive government benefits or grants.
- The primary motives for making deposits in SFBs are to earn a higher rate of interest and to access credit facilities in the future.
- The main reasons for availing loans from SFBs are the absence of collateral requirements. the fast and timely processing of loan requests and also the use of modern technology in lending services.
- The need to maintain a high minimum balance and lack of information on new schemes are the most common challenge of micro entrepreneurs in accessing banking services.
- There is no gender differences in challenges faced while accessing financial products and services from Small Finance Banks.
- The nature of business activity has a significant influence in challenges faced while accessing financial services from SFBs. Traders faces higher difficulty in respect of account opening formalities, high bank charges and fees, collateral security needs, and extensive documentation. Service sector entrepreneurs felt a lack of awareness about new schemes and financial products.
- The type of organization has no major influence on access challenges. At the same time, there were certain challenges with sole proprietorship units in respect of

account opening and collateral security, whereas partnership units faced the issue related to awareness of new bank schemes.

- Location of the business unit has no significant impact on access challenges. However, urban entrepreneurs found the high minimum balance requirement slightly more challenging than rural units.

8.2.2.2 Usage of SFB Products and Services

- All the respondents use basic services such as microloans, ATM or debit cards, mobile banking apps, and ATM facilities, showing that these services form the core of their banking activities.
- UPI service is widely used by most of the respondents. A high majority of respondents using it regularly (94.8%) and a large majority using it daily (88.3%).
- Internet banking is used by some customers (32.6%), and a smaller group uses electronic transfer methods such as NEFT, RTGS and IMPS (25.6%).
- Some entrepreneurs use credit-related services such as term loans (19.8%), overdraft facilities (30%) and cash credit (14.4%). Only a few respondents use services like TReDS or credit cards.
- The usage frequency of various services of SFBs shows that most of the entrepreneurs make deposits and withdrawals every month.
- Majority of the users (96.9%) take micro loans only when needed, while term loans are used by only a smaller proportion of respondents.
- Services like overdraft and cash credit are rarely used by the respondents. Around 70% of the respondents have never used overdraft and 85.6% of respondents have never used cash credit.
- Debit cards are commonly used by micro entrepreneurs, with most of them using them either weekly or monthly.

- Mobile banking apps are used regularly by many respondents, mainly on a weekly basis, In the case of online banking website, most of the respondents are not using it.
- The use of ATM is relatively equal with 41.5% using it once a month and 40.7% of the respondents using it once a week.
- Micro entrepreneurs use both digital and traditional methods of banking services.
- More than half of the customers showing limited reliance on physical banking services. They visit the bank branch only when necessary.
- Micro entrepreneurs largely use mobile or online banking for fund transfers (80.9%) and balance inquiries (90.1%).
- Micro entrepreneurs depend heavily on business correspondents for making loan applications and repayment of loans.
- Deposits are mostly made in person at bank branches, while only a very small number of respondents use online methods for depositing.
- The educational qualification of micro-entrepreneurs has no impact on the mode of fund transfer or balance enquiry. All education groups use mobile or online banking services for checking their account balance.
- The educational qualification influences how micro-entrepreneurs access their account statements. Those with higher or professional education prefer mobile or online banking, while those with lower education levels depend more on bank branch or business correspondents
- The educational qualification of micro-entrepreneurs influences the mode of loan application and loan repayment. Business correspondents are primarily used by respondents who have lower education levels and those with higher or technical education rely more on bank branches.

- The educational qualification of micro-entrepreneurs affects the mode of making deposits. Respondents who had education up to school level showed dependence on business correspondents, whereas the respondents with bachelors or technical degree solely used bank branches.
- High rate of interest on loan and lack of cash deposit machines are the major challenges in the usage of SFB services.
- The location of the business has no influence on the challenges in using SFB financial services. However, many urban entrepreneurs use other bank accounts as their primary accounts, which limits the use of SFB accounts.
- There is no gender-based difference in the challenges related to the use of SFB financial services. However, many male respondents use other bank accounts as their primary accounts, which limits their use of SFB accounts.
- The nature of business activity highly influences the usage of SFB's financial services. Manufacturing entrepreneurs face relatively more difficulties with limited access to branch or ATM, difficulty in finding CDMs, high interest rates on loans, and unfriendly online services. Service sector entrepreneurs face the issue related to limited number of branches, inconvenient banking hours and limited understanding of diverse financial products due to a lack of financial literacy.
- The type of organization has no significant influence on the challenges in using SFB financial services. However, partnership units faced relatively more challenges in respect of hidden charges and online banking related technical issues, while sole proprietorship units were faced more challenges regarding knowledge of new bank schemes.

8.2.2.3 Quality of SFB Products and Services

- Micro-entrepreneurs generally had a positive perception of quality of services of Small Finance Banks.

- The highly rated service qualities of SFBs by micro entrepreneurs include 24×7 digital banking services, a wide range of tailored products for small businesses, instant credit facilities at affordable rates, top-up loans, microloans for business growth, and high-quality customer care services.
- The male and female respondents generally have a similar view of quality of financial services provided by SFB.
- The urban and rural entrepreneurs experience the same level of SFB services, with similar quality in all different geographical locations.
- The nature of business activity has a significant influence on the quality of financial services provided by SFB.
- Manufacturing entrepreneurs highly rated the quality of digital banking services, passbook updating facilities, repayment facilities, top-up loans, and customer care services. Service units also highly rated the qualities such as the availability of a wide range of products, passbook updating facilities, transparent credit terms, and affordable credit facilities. However, manufacturing units rated the quality of various SFB services significantly higher compared to both trading and service units.
- The Financial Inclusion Index based on access, usage and quality dimensions shows an overall medium level of inclusion among the micro entrepreneurs.
- As per Financial inclusion index, micro entrepreneurs have good access to basic banking services and a high rating of service quality, but show a lower actual usage of financial services.

8.2.3 Findings on Contribution of SFB in the Economic Empowerment of Women Micro Entrepreneurs

- SFBs contributed to positive business growth among women micro-entrepreneurs after they availed financial services.

- SFB services were highly contributed to increases in business contacts, business income, and production or sales of women micro entrepreneurs. Significant improvements were also seen in the regular payment of taxes and dues, working capital levels, and the customer base after they availed financial services.
- Business infrastructure, market penetration, and savings of women micro entrepreneurs showed moderate improvement. However, no improvement was observed in business expansion, introduction of new products or services, regular payment of wages, or creation of job opportunities.
- The urban and rural women entrepreneurs experience same level of economic empowerment after availing financial services from SFB.
- The educational qualification has a significant influence on business growth of women entrepreneur. Entrepreneurs with higher educational qualifications are better equipped to utilise SFB financial services effectively, resulting in improved business growth.
- Women entrepreneurs with a Bachelor's degree showed better business performance, with higher income, increased sales, product development, and business expansion compared to those with lower education levels. Those with technical or professional qualifications also showed better results in improved infrastructure, job creation, and regular payment of wages and taxes.
- Women entrepreneurs operating Partnership and Sole proprietorship units experience almost same level of business growth after they availed financial services from SFB. Partnership units experienced more growth in areas such as business infrastructure, entry into new markets, increase in savings, launch of new products, regular payment of wages, and job creation.
- Financial literacy programmes are the most significant contribution of SFBs toward enhancing women entrepreneurship
- Skill Training programmes and micro banking schemes also played a significant role in for promoting women entrepreneurship.

- Initiatives like marketing avenues for selling products and linkages to government schemes also played a considerable role in enhancement of women entrepreneurship.
- Capacity building programmes, leadership training programmes, and ultra-poor microfinance loans are less available and low impact on women entrepreneurship.
- Women entrepreneurs in both urban and rural areas experience the similar level of economic empowerment from SFBs
- Educational qualification has a significant impact on the contribution of SFB for enhancing women entrepreneurship. SFB support is more effective for empowering women entrepreneurs who have higher formal education.
- Pre-post evaluation shows that women micro-entrepreneurs experienced significant improvements in meeting their business needs after availing financial services from SFBs. The highest improvements were seen in payment of expenditures, better working conditions, and payment of wages.
- Small Finance Banks have supported women micro-entrepreneurs in starting self-employment and strengthened their ability to produce or sell more products or services on a commercial basis. But SFB were not able to impart managerial skills required for service sector.
- Women micro-entrepreneurs attained a high level of economic freedom, especially in spending for business needs, followed by personal needs and recreation expenses.
- Women entrepreneurs obtained a high awareness of financial services and government schemes through SFBs. However, obtained only a low awareness on insurance schemes.
- Women micro-entrepreneurs attained a high level of self-esteem and self-confidence as a result of SFB services. They became more confident in taking business decisions, reaching new customers, and managing finances.

- SFBs made little improvement in communication with government officials and outsiders, and in building confidence about future uncertainties among women micro-entrepreneurs.

8.2.4 Findings on Satisfaction Level of Micro Entrepreneurs with SFB Services

- Micro entrepreneurs are highly satisfied with the access and availability of SFB services, quality of information and guidance, and the financial and loan support offered by SFBs.
- Responsiveness to customer concerns and queries showed comparatively lower satisfaction among the respondents.
- The micro entrepreneurs are highly satisfied with the speed and timeliness of loan disbursement and the exemption of collateral requirements for granting loans.
- Most of the micro entrepreneurs are dissatisfied with the Interest charged on loans and advances by the SFBs.
- Some of the respondents are also not satisfied with the credit limit and period of credit granted by the Small Finance Banks.
- Micro entrepreneurs are highly satisfied with services such as the customer alert messages, micro-banking services, rate of interest on deposits and wide range of services.
- Micro entrepreneurs are not highly satisfied with the training and awareness programme of SFBs.
- Respondents are highly satisfied with the customer support services available for repayment issues. They are also satisfied with the different modes of repayment facilities and repayment notifications provided to borrowers.
- Micro entrepreneurs revealed a relatively lower satisfaction with the repayment schedules designed by the bank.

- Micro entrepreneurs are satisfied with the transaction cost for ATM services and fees and charges for various banking services.
- The micro entrepreneurs are not fully satisfied with the penalty for default in repayment of loans, processing and documentation charges.
- The micro entrepreneurs are highly satisfied with the various digital services offered by the SFBs particularly with the speed and timeliness of online fund transfers, digital apps used for online loan applications and approvals, online account opening and verification and online banking transaction services provided by SFB.
- The micro entrepreneurs are also satisfied with the mobile banking app and security features of e-banking services. However, they are highly dissatisfied with the absence of transaction alert messages through email.
- The male and female micro entrepreneurs generally have a similar view satisfaction level in respect of the access and responsiveness, credit terms, financial products, repayment facilities, transaction cost and e-banking services of SFB.
- Educational qualification has a significant influence on the satisfaction levels of micro-entrepreneurs with various services of SFB. Those with a bachelor's degree show significantly higher satisfaction in access and responsiveness, credit terms, repayment facilities, and e-banking services. Senior secondary and bachelor's degree holders show significantly higher satisfaction with financial products, while those with technical or professional qualifications show significantly higher satisfaction with transaction costs.
- Micro entrepreneurs from both urban and rural area experience same level of satisfaction in respect of the access and responsiveness, credit terms, financial products, repayment facilities, transaction cost and e-banking services of SFB.
- The nature of business activity has a significant influence on the satisfaction levels of micro-entrepreneurs with various services of SFB. Manufacturing

entrepreneurs show significantly higher satisfaction with access and responsiveness, repayment facilities, and e-banking services. Trading entrepreneurs show significantly higher satisfaction with credit terms. While, Entrepreneurs engaged in manufacturing and trading activities show significantly higher satisfaction with financial products and services than service sector entrepreneurs.

- Service-sector entrepreneurs showed significantly higher satisfaction with processing fees and other charges compared to manufacturing and trading units. All the entrepreneur are showing similar level of satisfaction for penalties on default and bank charges in respective of business activity.
- Entrepreneurs operating sole proprietorship and partnership units experience same level of satisfaction on access and responsiveness, credit terms, financial products, repayment facilities, and e-banking services.
- The type of organisation has a significant influence on satisfaction with transaction cost for various services. Sole proprietors showed significantly higher satisfaction for processing fees and other loan charges, as well as fees for banking services. Partnership firms showed significantly higher satisfaction with penalties for repayment defaults.

8.2.5 Findings on Factors Driving Business Growth of Micro Entrepreneurs

The study used PLS-SEM to explain the relationships between different observed and latent variables, to understand the key variables influencing the business growth and performance of micro-entrepreneurs associated with Small Finance Banks. The major findings of the study, which are based on the assessment of the structural model, are as follows:

- Contributions of Small Finance Banks have a significant positive correlation with Business growth of micro entrepreneurs ($\beta = 0.809$, $p < 0.001$). The contributions such as the financial services, literacy programmes, skill training and

developmental services provided by SFBs are substantially influence business growth of micro entrepreneurs.

- The Financial Services offered by SFB have a significant positive relationship with total contributions ($\beta = 0.373$, $p < 0.001$). The quality and scope of financial services provided by SFB form a key part of its contributions to micro-entrepreneurs.
- Credit Accessibility have a positive impact ($\beta = 0.226$, $p < 0.001$) on contributions of the bank. Easier access to credit enhances the bank's overall contribution to micro entrepreneurs.
- Responsiveness also has positive effect on total contributions of the bank ($\beta = 0.192$, $p < 0.001$). Timely and responsive service delivery of the bank increases the total contributions to entrepreneurs.
- E-banking experience was identified as a significant factor which leads to increase in contributions ($\beta = 0.116$, $p = < 0.001$). More positive the online service experience, the more positive the perceived value and the contributions of the bank.

8.3 Results and Discussion

The first objective of the research is to study the structure and financing pattern of Small Finance Banks reveal that Small Finance Banks operate under a well-structured regulatory framework designed specifically for financial inclusion objectives. The SFBs are established under the Section 22 of the Banking Regulation Act, 1949, have higher Capital Adequacy Ratios (15% as compared to 9% in the case of universal banks) and they must lend a fixed percent of the Adjusted Net Bank Credit to the priority sectors. These facts align with that of Arora et al. (2018) who highlighted that the regulatory structure of SFBs is deliberately designed to provide financial inclusion services to underserved sectors. The structural geographic financial inclusion can be seen through the collective network of 7,512 branches spread across India with a mandate to set up at least 25 percent of the branches in unbanked rural locations.

The technology integration of SFBs showed that they have managed to achieve impressive digital transformation, with banks recording a high rate of digital account opening of up to 98.5 percent. These findings support the report of Mohanty (2015) who indicated that the use of technology to access formal financial services can reduce cost and improve service delivery. The composition of loan portfolio indicates a high focus on micro banking (70.02% in case of ESAF SFB) and MSME lending, which proves the specialization of these institutions. The compliance rates on Priority Sector Lending are always above the required 75 percent with some banks recording over 90 percent allocation, which is a good indication of the successful implementation of financial inclusion requirements. The varying CASA ratios of SFBs reflect the success in the creation of low-cost deposit bases implying uniqueness in the customer acquisition and retention strategies across the SFBs. The deposit and advance growth analysis indicates their multi-fold increase in eight years with AU SFB recording a huge growth in advances confirming the scalability of the SFB model.

The second objective of the study analyses the role of Small Finance Banks in financial inclusion of Micro Entrepreneurs demonstrates that SFBs have significantly enhanced financial inclusion among micro-entrepreneurs in Kerala across all three dimensions: access, usage, and quality. The accessibility results indicate that 63% of the respondents were located within 5-10 km of SFB branches, and 91% received loans within 1-7 days, which shows better geographic and procedural accessibility. This rapid loan processing aligns with research by Ravikumar (2019) who found that small finance banks provide credit facility to unserved and underserved people and business units using high technology and low-cost operations. The savings accounts (93.21) and the current account (60.1) have a high adoption rate, which depicts an effective inclusion of micro-entrepreneurs in the formal banking system.

The use of online financial services became one of the prominent strengths, as 94.8 percent of respondents reported using UPI services and 61.9 percent used mobile banking on a weekly basis. This is in line with an analysis by World Bank Group (2024), in which financial inclusion programmes are found to be useful in improving financial literacy and access among entrepreneurs. The shift towards online banking

features, as opposed to the physical ones, where 58.5% visiting a physical bank only when needed, signifies the successful behaviour change to formal financial systems. The patterns of usage indicate that there is a high reliance on the business correspondents in making loan applications (67.4%) and making loan repayments (88.5%), which indicates the success of the BC model in accessing rural customers.

Service quality indicators showed an overall positive result, with a median score of 5 across for most of the indicators, particularly for 24x7 digital banking services, a wide range of tailored products for small businesses, instant credit facilities at affordable rates, top-up loans, micro-loans for business growth, and high-quality customer care. SFBs have successfully addressed the provision of affordable financial products and services which are essential for achieving the goal of financial inclusion as emphasised by the report of World Bank Group (2024). However, the study revealed an important disagreement with repayment periods, where the median score was only 2, implies a lack of customer involvement in deciding repayment terms.

The total Financial Inclusion Index score of 52.29% indicates a medium level of financial inclusion of the micro entrepreneurs based of the FI index of RBI. As per the result of the study, micro entrepreneurs have good access to basic banking services and are highly satisfied with service quality of services. But, their actual usage of financial services remains low which need to be improved through awareness and literacy programmes.

The analysis of contribution of Small Finance Banks in economic empowerment of women micro-entrepreneurs, the third objective of the study, provides convincing evidence of SFBs' significant contribution with improvements observed across multiple dimensions of entrepreneurial development. The highest improvement was recorded in increased business contacts indicating enhanced networking and linkages. These results align with the works of Abebe & Kegne (2023) and Khursheed (2022) who found that the microfinance services play an important role in the development of women entrepreneurship by enhancing their access to markets and business opportunities.

The improvements in financial discipline, which can be found by the better capacity to pay taxes and dues, are also in line with current literature regarding the impact of micro loans. Other studies on microfinance services in Ethiopia (Abebe & Kegne, 2023) showed the same tendencies with women entrepreneurs, showing better financial management ability when they had access to formal financial services. The analysis showed that there was an increase in the management of working capital leading to the enhancement of the operational efficiency. Furthermore, job creation in businesses was not much improved, implying that even though businesses expanded, job creation was still limited.

Successful product customisation is indicated by the appreciation of MSME loans and micro-banking plans specifically designed to benefit women. This is consistent with the results of Andrade et al. (2023) concerning public development banks, whereby special programmes targeting women entrepreneurs reveal more success rates. Financial literacy programmes were also highly appreciated, which confirms the argument that the non-financial services are effective to complement the credit provision. According to the pre-post satisfaction analysis, there were statistically significant improvements in every business operation area, although the payment of expenditures showed the greatest positive change, indicating that the operations improved significantly.

Women entrepreneurs reported enhanced economic freedom, particularly in business expenditure decisions, and improved self-confidence in business decision-making. These results are consistent with the study of women micro-entrepreneurs by Women World Banking (2024) in Nigeria, whereby women were able to obtain financial services, which provided them with more economic empowerment and confidence in business. The research has been unable to identify any significant location-based variation in the outcomes of empowerment, which indicates that SFBs are successfully linking the gap between urban and rural regions. Nevertheless, there were considerable differences in educational qualification, whereby the women having senior secondary education are effectively utilising the financial services, suggesting the need for education-specific interventions.

The fourth objective to analyse the satisfaction level of micro entrepreneurs with the services of Small Finance Bank reveals consistently high satisfaction levels across multiple service dimensions, with overall median score of 5 for most service categories. Customer satisfaction with financial and loan support services and quality of information and guidance received the highest rating. Such a high customer satisfaction level is in contrast to the banking experience of the past and confirms the findings of Balemba (2017) who observed that specialized financial institutions tend to have higher customer satisfaction rates than traditional banks because of their intense service delivery model.

Satisfaction level towards credit-related services were varied. Speed of loan disbursement and collateral-free lending received highest satisfaction, while interest rates on loans showed the lowest satisfaction. This finding aligns with research on customer satisfaction of microfinance services (Balemba, 2017), where customers appreciate service quality but attach utmost importance to cost of financial services. The dissatisfaction with credit limits and credit periods suggests unmet demand for larger and long-term credit facilities among growing micro-enterprises.

E-banking services were highly rated, especially online transfer of funds and electronic applications. In contrast, the lowest satisfaction score was registered in email transaction alerts, showing that digital communication preferences are not fully satisfied. The statistical data indicated that there were significant differences in terms of educational qualifications, where the senior secondary educated respondents had varying patterns of satisfaction on various dimensions of the service. Satisfaction also depended on nature of business with trading enterprises always registering low levels of satisfaction as compared to manufacturing and services.

Satisfaction towards repayment facilities was moderate, with customer support services rated highest, but flexibility for repayment frequency showing lower satisfaction. This shows a need for more flexible repayment options as per the cash flow levels of business firms. Satisfaction towards transaction cost was reasonable, with processing fees and documentation fees received fairly moderate scores, but there are concerns about the hidden costs. The general satisfaction trends confirm the

efficiency of the SFB model, with a notable focus on particular improvement points in the service, specifically the competitive interest rates and flexibility in repayment.

8.4 Conclusion

The results of the study provide substantial information about the role and contribution of Small Finance Banks towards the development of micro-entrepreneurship in Kerala. The research offers significant inferences for entrepreneurs, banking institutions and other stakeholders to take right decisions.

Small Finance Banks have been providing accessibility to financial services among micro-entrepreneurs in Kerala. The banks have successfully removed many barriers like collateral norms, complicated paperwork, and time-consuming application formalities that have previously excluded the micro-entrepreneurs out of the formal financial systems. The study also reveals that SFBs have developed a more gender-inclusive financial system. Women are significantly underrepresented in the employment market although they constitute nearly half of the population in India; however, SFBs have made significant contribution toward addressing this disparity. The study demonstrates that there has been significant growth in the business income, financial discipline, and market access of the women entrepreneurs, which indicates that SFBs are effectively addressing the gender-based financial exclusion.

These achievements of the Small Finance Banks can be used as a model regarding financial inclusion activities in India and other emerging economies. Furthermore, the ongoing innovation, policy support and customer-based service provision are critical in sustaining this success. The study gives a foundation for policy makers and practitioners to have an inclusive financial system that will contribute to the entrepreneurship and economic development at grass root level.

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Chapter 9

**IMPLICATIONS AND
RECOMMENDATIONS OF THE STUDY**

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9.1 Introduction

This chapter presents the key implications and practical suggestions based on the study findings on the financial inclusion role and contribution of Small Finance Bank. The insights focus on the role of Small Finance Banks in promoting financial inclusion among business organisations, particularly micro-entrepreneurs who rely on them for growth and stability. The recommendations aim to enhance the effectiveness of financial services and other initiatives of SFB through targeted interventions. These insights will enable policymakers, banks and entrepreneurs to make valid decisions that ensure financial inclusion, support business growth and empowerment of women entrepreneurship.

9.2 Theoretical Implications

This research contributes to theoretical analysis of financial inclusion and niche banking model in developing economies:

1. Validation of the Niche Banking Model for Inclusion: The findings of the study support and prove the theoretical formulation of differentiated banking by demonstrating that Small Finance Banks are an effective vehicle of financial inclusion and promotion of entrepreneurship. The results show that regulatory norms like increased Capital Adequacy Ratio (15%) and the mandate to lend 60% ANBC to Priority Sector Lending can be used to effectively address the needs of underserved sectors.
2. Multidimensional Measurement of Financial Inclusion: The findings confirm that the Financial Inclusion parameters are effective in measuring SFB performance in terms of access, usage, and quality. Although micro-entrepreneurs have good

access to banking services and rate their quality highly, the actual usage of financial services remains low. This confirms that active usage must be promoted through awareness and different initiatives since access alone is not enough for financial inclusion.

3. **Refinement of Entrepreneurship Development Theory:** The results of the analysis contribute to the refinement of entrepreneurial development theory. It supports existing theories that microloan services significantly contribute to entrepreneurial development, particularly by improving business contacts, business income and financial discipline.

9.3 Practical Implications

The results provide practical implications, which can be used by different stakeholders to maintain and further develop the success of the SFB model:

1. **Significance of Non-Financial Initiatives:** The importance of non-financial services like financial literacy programmes and skill training are confirmed by the result of the study. Consistent investment in the area of non-financial initiatives along with supportive regulatory incentives and guidelines plays a vital role in improving the service usage and business growth.
2. **Intervention for PSL Discrepancies is Required:** A need for monitoring the regulatory compliance like compulsory requirement of 60% priority sector lending are ensured by the study. It will help to ensure full regulatory compliance and to take immediate policy actions.
3. **Flexible Credit Design is Needed:** The research indicates that regulators have to motivate SFBs to offer more flexible repayment plans as opposed to traditional loan designs. These repayment plans should match the cash-flow patterns of different micro-enterprises, as many customers are dissatisfied with the current repayment periods.
4. **Enhancement of Digital Value Perception is Needed:** The study ensures the necessity to improve the overall user e-banking experience and usefulness of their

digital services rather than relying only on high adoption digital services by the customers. The settling of issues such as absence of email alerts and low digital financial literacy make customers feel more confident and find real value in using online services.

5. **Need Solution for Interest Rate and Term Related Complaints:** The study confirms the immediate need to review loan interest rates and reconsider the credit limits and repayment periods, as these are major sources of dissatisfaction. Transparent and reasonable pricing helps to retain growing micro-entrepreneurs who may otherwise shift their primary banking activities to other banks.
6. **Need Shifting of Focus through Technology Adoption:** The study confirms the necessity of focusing on digital adoption by the micro entrepreneurs so that they can gradually shift away from depending on business correspondents for loan applications and repayments.

9.4 Recommendations

The following recommendations are made in light of the findings and conclusions of the research, which may be useful to the small Finance Banks, Government and other Policy makers and the Micro enterprise customers of banks.

9.4.1 Structure and Financial Product Portfolio of Small Finance Banks

1. **PSL Compliance Monitoring should be Enhanced:** Some SFBs are not adhering to the Priority Sector Lending requirement. Institutions which fail to meet the 75% PSL requirement should be regularly monitored by authorities to ensure the achievement of financial inclusion objectives.
2. **Make Aware of Various Registrations:** Measures may be taken to promote awareness about the various business registrations since some of respondents lack Udyam, LMPC and FSSAI registrations. The government have to take efforts to educate micro-entrepreneurs about the importance and benefits of formal business registrations, which can improve their access to credit and other schemes. Micro-

entrepreneurs should also take necessary steps to comply with all required business registrations.

3. **Expand Essential Niche Financial Products:** SFBs offer different and unique products and services across the country. All SFBs should be encouraged to provide essential niche products such as tax-saver fixed deposits, NRE/NRO accounts, senior citizen and minor accounts, and specialized loans like street vendor loans. Offering these niche products is essential to ensure consistency across banks and to provide wide and more reliable financial solutions for customers.
4. **Promote Innovative Services:** Regulatory authorities need to encourage SFB to implement digital tools that are customer-centric and user-friendly such as API banking, digital wealth, micro-ATM, and video KYC to ensure that banking becomes easier and quicker to customers.
5. **Micro Banking Services should be Enhanced:** SFBs should take measures to increase their micro banking activities, including joint liability group loans and agricultural financing. As micro loans account for major part of lending, these services should be maintained across all institutions, as they are key to the financial inclusion role of SFBs.
6. **Strengthen Financial Literacy Outreach:** SFBs should conduct financial literacy programmes more frequently and ensure they are accessible to all customers, including low educated and those who are in rural area. The extension of these sessions will benefit the majority of micro-entrepreneurs in knowing about banking services and making viable financial choices.
7. **Digital Access for Rural Customers should be Improved:** SFBs should provide digital literacy support to help rural entrepreneurs to use online services confidently. Strengthening cybersecurity and offering user-friendly online applications will also make online banking safer and easier for all customers.
8. **Monitor and Support Financial Health of SFBs:** In order to track reverse and negative tendencies, the policy makers should monitor and address financial

performance of banks in this sector. This is important as there is significant reduction in total deposits of Slice SFB (25.5% in FY 2023-24) and its total advances to ₹802.43 crore in the same year.

9. Increase CASA ratio by Connecting Better with Customers: Banks with lower CASA should focus on healthy customer relationships and offer easy, attractive schemes that encourage people to maintain low-cost deposits.
10. Borrowing Trends should be Observed: The total borrowings of the Unity SFB and Shivalik SFB showed significant increase in FY 2023-2. Hence the policy makers are expected to monitor the borrowing trends of such institutions so that their funding mix remains sustainable and stable.
11. Explore Non-credit products and Investment: Micro-entrepreneurs are advised to consider savings, insurance and investment opportunities provided by SFBs along with credit-related products in order to gain financial security and make savings.

9.4.2 Role of Small Finance Banks in the Financial Inclusion of Micro Entrepreneurs

1. Make Current Account Affordable: High minimum balance requirement on bank account is the primary challenge in maintaining current account for business. SFBs should aim at reducing these requirements or providing micro-entrepreneurs with zero-balance accounts, as part of its goal to serve underserved sectors.
2. Access Barriers should be Minimised: SFBs should revise and simplify account opening formalities and documentation process, particularly among traders, to facilitate banking among micro entrepreneurs. SFBs should take measures to easier account opening by using simple online methods.
3. Use of Net Banking should be Promoted: The usage of net banking services such as RTGS, NEFT and IMPS should be promoted among entrepreneurs. This will reduce dependence on other support channels and increase the overall usage of net banking services.

4. **Encourage Active Use of SFB Account Among Urban and Male Customers:** SFBs should take measures to encourage urban and male customers to use their SFB account as their primary bank account. This will help improve the active usage of SFB financial services.
5. **Provide Financial Literacy for Low-Educated Groups:** Financial literacy programmes should be given particularly for micro-entrepreneurs with lower education levels. This will help reduce their dependence on business correspondents and branch visits for basic services like account statements, loan applications, and repayments. Also encourage them more independent use of digital platforms.
6. **Link Incentives to Digital Use:** SFBs must provide incentives to their customers for using online channels. This will encourage more people to bank digitally and reduce their dependence on Business Correspondents and branch visits.
7. **Reduce High Rate of Interest on Loans:** High loan interest rates are a major challenge faced by entrepreneurs. SFBs should check whether their interest rates are reasonable and affordable for micro-entrepreneurs without affecting their financial viability.
8. **Introduce Express Loan Options:** SFBs should continue to keep loan processing quick and smooth. The SFBs may introduce expression loan options to make access to credit faster and more convenient.
9. **Improve access to CDMs:** SFBs should improve the availability and functioning of Cash Deposit Machines, as many users struggle to find CDMs for cash deposits. Increasing the number of CDMs and ensuring they work reliably, especially in areas with many micro businesses, will help address this major challenge.
10. **Make Digital Services Easier for All Users:** SFBs must strive to make their digital platforms easier and more stable to use. It should be simple and easy for less educated entrepreneurs. Services in local languages should be provided so as to enhance comfort and accessibility.

11. **More Flexible Repayment Options should be Offered:** SFBs should introduce more flexible, customer-friendly repayment plans that give micro-entrepreneurs greater freedom in setting their repayment schedules. This is essential to address the current low satisfaction among borrowers with the repayment periods offered.
12. **Strengthen Support Through Business Correspondents:** Many rural customers depend on the support of business correspondents. SFBs should enhance the BC network by providing regular training and ensure proper service support. This will help customers receive more reliable assistance at the community level.
13. **Sector-Specific Needs should be Addressed:** SFBs should develop exclusive services to match the various needs of different business types, such as traders and service providers. Necessary awareness campaigns should be conducted to meet the different needs of each business sector. This can be done by sharing targeted information on new schemes with service-sector entrepreneurs and simplifying formalities for sole proprietors.
14. **Increase Active Financial Usage:** Micro entrepreneurs are having only a medium level of financial inclusion due to low usage of various products. Hence SFBs should conduct awareness and guidance programmes to help customers move from simply having access to actually using financial services. This will enhance financial inclusion in general.
15. **Make Services Charges Clear and Transparent:** Bank should ensure that all charges related to loans are clearly disclosed. This will reduce customer dissatisfaction caused by hidden charges.
16. **Strengthen Service Quality and Support:** Maintain high service quality through constant training of staff members. Provide effective digital support to customers to ensure that the customers get adequate and consistent services.

9.4.3 Contribution to Women Micro Entrepreneurs

1. **Promote Product Innovation and Business Expansion:** SFBs need to offer special credit services that encourage women entrepreneurs for products innovation and

business growth. This can be achieved by introducing product innovation credit schemes and business promotion loans.

2. **Employee Welfare and Job Creation should be Encouraged:** The women micro-entrepreneurs should be given employee-support credit schemes so that their workers can receive regular financial assistance. SFBs should also introduce specialised products that motivate women entrepreneurs to generate employment opportunities.
3. **Financial Literacy and Skill Training should be Continued:** SFBs should continue and enhance regular financial literacy and skill training to entrepreneurs. These programmes should be offered to all new customers, as they are the most widely valued non-monetary support for women entrepreneurs.
4. **Improve Entrepreneurship Support Programmes:** SFBs need to enhance capacity-building programmes, leadership training and ultra-poor microfinance loans since they are currently limited in scope and effectiveness. These programmes should be made more practical, frequent, and closely in line with the real business needs of women entrepreneurs.
5. **Support and Train Low Educated Women:** SFBs should provide regular training and guidance for women entrepreneurs with lower education levels. Using local language and practical demonstrations will help them confidently use banking services and thereby effectively utilise the contributions of the bank.
6. **Asset Acquisition Schemes should be Introduced:** SFBs have to provide personalized credit schemes that assist women entrepreneurs to acquire necessary business assets. This will facilitate long-term business sustainability, particularly because most women are currently finding it difficult to purchase assets with the available SFB services.
7. **Managerial Skills for Women Entrepreneurs should be Promoted:** Provide sector-specific management training and mentorship programmes for women entrepreneurs in the service sector. Such programmes will enable them to enhance their business competence and performance.

8. **Provide Insurance Awareness:** Basic awareness campaigns and clear information about the significance of insurance coverage should be provided. This will help micro-entrepreneurs to understand and use insurance schemes to safeguard their businesses.
9. **Confidence and Communication Support should be Strengthened:** SFBs should conduct simple mentoring and confidence building sessions to help women micro entrepreneurs communicate more comfortably with government officials and other stakeholders. Constant motivation and awareness will also make them feel more secure and equipped to face future challenges.
10. **Education Based Support should be Provided:** SFBs should offer custom-made support for entrepreneurs with different educational backgrounds. This may involve customised financial literacy trainings and easy to use product offering to have every category gain the same out of SFB services and get empowered economically.
11. **Nationwide Literacy Programmes should be Implemented:** The government and RBI should collaborate to implement comprehensive financial literacy programmes in order to help the micro entrepreneurs in understanding diverse financial products offered by various banks. This will lead to the accomplishment of financial inclusion goals envisaged by the government.
12. **Participate Actively in Bank-Supported Programmes:** Micro entrepreneurship will be required to take an active role in the development programmes and financial literacy training provided by SFBs and enhance business planning, tax literacy and marketing techniques.

9.4.4 Customer Satisfaction with SFB Products and Services

1. **Provide Easier Loans and flexible Repayment Options:** Interest rates on loans and repayment plans should be re-examined to match the cash flow of small businesses. This will make loans more affordable and improve overall satisfaction of micro entrepreneurs.

2. **Responsiveness to Customer Concerns should be Improved:** SFBs should respond faster and more effectively to customer queries and complaints. Customer support services and timely communication should be improved to ensure overall satisfaction. Customers should also feel confident to bring any complaints to the notice of the bank.
3. **Enhance Credit Limit and Period of Credit:** To meet the higher financial needs of entrepreneurs, SFBs should increase credit limits. The repayment period should also be extended to give borrowers more time to repay comfortably.
4. **Impart Training and Awareness:** To reduce customer dissatisfaction, SFBs should provide regular training and awareness programmes for micro-entrepreneurs regarding the use of new schemes and services.
5. **Default charges and Processing fees should be Minimised:** The regulatory authorities should take measures to direct SFBs to reduce penalties for loan repayment defaults, as well as processing and documentation charges.
6. **Review Terms and Conditions:** Entrepreneurs have to understand all terms and conditions related to loan and credit. They should review interest rates and other charges and ensure a clear understanding of all associated costs before availing credit.
7. **Enhance Transaction Alerts through E-mail:** To ensure timely updates, SFBs should enhance online communication by enabling email alerts by default. Bank can also introduce and communicate the customers about the new products and schemes via WhatsApp to give live updates.
8. **Regular Feedback should be Ensured:** Micro entrepreneurs have to give regular feedback to banks through available platforms to report service gaps, delays or dissatisfaction as this will help SFBs better respond to customer needs.

9.4.5 Factors Driving Business Growth of Micro Entrepreneurs

1. **Prioritize and Expand Comprehensive Contributions:** SFBs should maintain the delivery of a combination of financial and non-financial offerings like financial

literacy services, micro banking, entrepreneurship training and other developmental services. It will further boost business performance as it has very large impact on business growth.

2. **Provide Financial Services as a Major Driver:** The bank should expand its range of credit products and offer flexible repayment options, as these are key factors that enhance the bank's contribution and support business growth.
3. **Credit Accessibility should be Maintained:** Make efforts to make credit products more and more available through simplifying loan processes and providing loans when needed. This will enhance the contributions of the bank and thereby performance of the business.
4. **Responsiveness should be Accelerated:** Prompt and helpful customer service should be maintained by the bank to address queries, resolve issues quickly, and build trust among customers.
5. **Broaden the E-Banking Services:** Make e-banking services simpler and more user-friendly, particularly for first-time and rural users. Providing guidance and support on using mobile apps, UPI, and online transactions will increase digital adoption and reduce dependence on branch and business correspondents.

9.5 Scope for Further Research

The following topics may be considered for further research in the area of Small Finance Banks

1. A study on cross-state comparison of SFB effectiveness in different socio-economic contexts can be conducted to investigate the effectiveness in states with different infrastructure and regulatory environments.
2. Analysis of digital banking services of Small Finance Banks and its impact on business performance can be undertaken to study the effectiveness of various technology-oriented services of SFBs on growth outcomes of business units.

3. The industry-specific analysis of effectiveness of Small Finance Banks across manufacturing, trading, and services may be undertaken to analyse to develop service delivery models.
4. Comparative effectiveness of SFB services in rural vs. urban contexts may be studied to formulate the location-specific service strategies.
5. An analysis of role of SFBs in delivering government financial inclusion programmes may be conducted to examine the effectiveness of this integration.
6. Behavioural Finance and Decision-Making Patterns of micro-entrepreneurs towards banking services may be conducted to strategically develop product design and delivery.
7. A study may be undertaken to analyse the Environmental and Social Impact on lending strategies of SFB to examine its contribution to environmental sustainability and social development goals.
8. A study on impact of fintech partnerships on SFB service delivery and customer experience may be undertaken to examine how these innovations can enhance effectiveness of SFB.
9. An analysis of impact of RBI regulations on SFB performance and customer outcomes
10. Can be conducted to examine how regulatory changes affect SFB operations and customer service quality.
11. Optimal pricing strategies for micro-finance products can be developed by undertaking a study on the Interest Rate Sensitivity and Pricing Strategy Analysis of Small finance Banks.

9.6 Conclusion

This research examined the role of the Small Finance Banks in financing micro-entrepreneurs in Kerala. The study employed a multi-stage random sampling technique, and primary data were collected using a structured interview schedule. The

results clearly underscores that SFBs have played a significant role in promoting financial inclusion among micro-entrepreneurs by enhancing access to banking services, frequent usage, and providing quality services. The financial inclusion index indicates a moderate level of inclusion and which reveals the need for greater innovation, outreach, and more tailored financial solutions to further improve the actual usage of banking services. The study highlights the contributions of SFBs to the empowerment women entrepreneurs through better access to credit, financial literacy programmes and special micro-banking schemes which have helped them to strengthen their businesses, improve their income and increase their financial independence. The micro-entrepreneurs reported a high degree of satisfaction with the accessibility of banking services, e-banking facilities, and overall service delivery of the SFBs. In short, the research reveals that the Small Finance Banks are playing a transformative role in the inclusive and sustainable financial development in the state. However, the study suggests a redesign of the rate of interest on loans, repayment duration, credit limits, and repayment schedules. These improvements will make SFB financing more efficient, affordable and helpful towards long-term entrepreneurial development.

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APPENDICES

Appendix A

Interview Schedule

The Role of Small Finance Banks in Financing Micro Entrepreneurs in Kerala

(i) General Information

Sl. No.	District:
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1) Name: -	
2) Gender (Please tick as $\sqrt{}$)	
a) Male	
b) Female	
c) Others	
3) Age (in completed years)	
4) Marital Status (Please tick as $\sqrt{}$)	
a) Single	
b) Married	
c) Widow /widower	
d) Divorced	
5) Educational Qualification (Please tick as $\sqrt{}$)	
a) High school or less	
b) Senior secondary (Class 11-12)	
c) Bachelor's degree	
d) Master's degree	
e) Technical/Professional	
f) Any other (Specify)	
6) Average Monthly Income of the last year (in Rupees)	
7) Location of your Business: (Please tick as $\sqrt{}$)	
a) Rural area	
b) Urban area	
8) Nature of business activity: (Please tick as $\sqrt{}$)	
a) Manufacturing	

b) Trading			
c) Service			
d) Others (Specify)			
9) Total Capital Investment in business: (in Rupees)			
10) Type of registration? (Please tick as ✓)			
a) Udyam		c) Legal Metrology	
b) fssai		d) Corporation/Panchayath	
		e) GST	
		f) Others, Specify	
11) Type of organisation: (Please tick as ✓)			
a) Sole Proprietorship			
b) Partnership			
c) One Person Company			
d) Joint Stock Company			
e) Co-operative Society			
f) Others (Specify)			
12) Period/Year of doing present business: (in completed years)			

(ii) Financial inclusion of micro entrepreneurs (a) Access to Banking Services

13. Type of bank accounts opened in SFB? (Please tick as ✓)	
a) Saving Account	
b) Current Account	
14. Type of bank deposits opened in SFB? (Please tick as ✓)	
a) Fixed Deposit Account	
b) Recurring Deposit Account	
15. Please give your reasons for opening bank a/c or deposit in SFB (Please Rank as 1,2,3, etc.)	
a) To do business transactions	
b) To Avail Loan / Credit	
c) To Receive Govt. Grant /Benefit	
d) To Save /deposit	
16. Distance of Small Finance Bank branch from your business Unit (in Km)	

17. Distance of SFB ATM counter from your business Unit (in Km)	
18. Bank Transaction timings are convenient? (Please tick as✓)	
a) Yes	
b) No	
19. If No, do you want special timings other than routine business hours? (Please tick as✓)	
a) Morning session (before 9 am)	
b) Evening session (after 5:30 pm)	
c) Holiday sessions	
e) Any other (specify)	

20. To what extent do you agree or disagree with the reasons for making savings in SFB?					
Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) SFB offers high rate of interest on deposit					
b) SFB offers Safety of Investment					
c) I can easily withdraw as per my need					
d) I can avail overdraft facility					
e) It enables me to avail credit facility in future					
f) It is reliable than other avenues					

21. Have you ever availed any loan/borrowed money from Small Finance Bank?					
a) Yes					
b) No					
22. To what extent do you agree or disagree with the reasons for availing loan from SFB? (Please tick as✓)					
Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) Loan borrowing procedure is simple					

b) Loan carries low rate of interest					
c) Loan arrangements will be made by SFB					
d) Collateral security is not required for loan					
e) Low processing, documentation and other charges for loans in SFB					
f) SFB process loan requests speedily and timely					
g) Provides efficient and prompt customer service					
h) Results in less mental stress than dealing with local money lenders					
i) SFB provides favourable repayment options					
j) Provides innovative micro unit specific products					
k) Adopts latest technology in providing loans					

23. Average days taken to obtain loan from SFB	
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24.Out of the following, please tick the financial Products/services /Facilities availed from SFB		
	Yes	No
a) Micro Loans		
b) Term Loan (Business Loan)		
c) Over Draft		
d) Cash credit		
e) TReDS (Bills Discounting)		
f) Credit Card		
g) Debit card / ATM card		
h) Mobile Banking App		
i) Net Banking / Online banking		
j) UPI		
k) Electronic Fund Transfer (NEFT/RTGS/IMPS)		
l) ATM service		

25. To what extent do you agree or disagree that the following challenges were faced by you while accessing financial product and services from SFB.					
Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) Account Opening formalities are complex and difficult.					
b) Bank charges and fees are very high					
c) Bank insist security for availing various financial products					
d) Extensive Documentation is required to avail a financial product					
e) No. of Bank officials are insufficient to meet its customer requirements					
f) Adequate information is not available regarding new schemes/ financial products					
g) There are delays in the processing of applications and approval for loans or other financial products					
h) The bank's services are not accessible for individuals with disabilities.					
i) Minimum balance requirement on Bank Account is very high					

(b) Usage of Financial Services

26. Please indicate your frequency of usage of various services of SFB (Please tick as ✓)							
	Daily	Weekly	Monthly	Once in 6 months	Once in a year	Need based	Never
1. Deposit							
2. Withdrawal							
3. Micro Loans							
4. Term Loan (Business Loan)							

5. Over Draft							
6.Cash credit							
7.TReDS (Bills Discounting)							
8. Credit Card							
9. Debit card / ATM card							
10.Mobile Banking App							
11.Net Banking / Online banking							
12. UPI							
13.Fund Transfer (NEFT/RTGS/IMPS)							
14. ATM service							
15.Other banking services (by visiting SFB branch)							

27. How many times did you availed credit /loan from SFB?	
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28. Mention the Mode of Usage for various banking services (Please tick as ✓)			
	Mobile/Online banking	Banking at Branch	Use of service of BC
a) Fund Transfer			
b) Balance Enquiry			
c) Bank Account Statement			
d) Loan Application			
e) Repayment of Loan			
f) Making Deposit			

29.To what extend you agree with the following challenges associated with usage of SFB's financial services?					
Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) There are limited SFB branches or ATMs in my area.					
b) Non-functioning of bank in convenient time					
c) Difficulty in finding CDMs of SFB for cash deposit.					
d) Bank imposing hidden charges for their services.					
e) Bank charging high interest rates on credit/loan.					
f) Bank's online or mobile banking services are not user-friendly					
g) Facing frequent technical issues with online banking platforms or mobile Apps.					
h) Customer service representatives are unresponsive or provide little service.					
i) Use of other Bank Account as primary Account					
j) Limited comprehension of diverse financial products due to lack of financial literacy.					

(b) Quality of banking Services

30. To what extend you agree or disagree with the Quality of services provided by the SFB					
Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a) SFB provides 24 X 7 digital banking services online					
b) SFB provides wide range of products & services tailored to the needs of small business units.					

e) Transaction alert message is delivered in mobile phone or Email.					
f) Pass book updating facility is provided in SFB branches					
g) Getting credit facilities instantly at affordable rates in difficult times (Whenever any need arises)					
h) There is no service down time due to server problem					
j) Credit terms & conditions of SFB are transparent and clearly informing customers before granting credit					
k) SFB provides various repayment options according to the repayment capacity of the customers					
l) Repayment period is determined as per the suggestions of the customers					
m) SFB provides different kinds of repayment facilities (like ECS, cheque, bank deposit, mobile/online transfer, EMI)					
n) SFB does not charge high penalty for default in payment of dues.					
o) SFB provides Top up loans & credit in case of further financial needs					
p) Top up loans & further credit facilities are granted to those who are not making default in earlier repayments					
q) SFB provides small, affordable micro loans to businesses, helping them grow and create jobs					
r) Offer financial literacy & training programs to help customers understand and manage their finances effectively.					
s) Bank consistently delivers high-quality customer care services that meet my expectations.					

III. Contribution of Small Finance banks in the economic empowerment of micro women entrepreneurs. (Questions applicable to Women Entrepreneurs only)

31. To what extent do you agree with the growth of your business after availing financial services from SFB

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
a) My business income has increased					
b) Production / Sale has increased					
c) Lead to improved infrastructure					
d) Expanded business operations (No. of branches/ units increased)					
e) Facilitated to develop and launch new products or services.					
f) Lead to increased Working Capital					
g) My savings have increased					
h) Increased the number of customers					
i) Able to penetrate new markets					
j) Increased the business contacts					
k) Able to generates more job opportunities					
l) Able to make regular payment of wages					
m) Able to make regular payment of tax & dues					

32. To what extent do you agree or disagree with the following which you consider as the contribution of SFB for enhancement of Women entrepreneurship

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
a) Financial literacy programs of SFB contribute to the advancement of women entrepreneurship.					
b) Skill Training programs of SFB promote women entrepreneurship					
c) SFB provides Marketing Avenues for selling products					

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
d) SFB helps customers Linking to Govt. schemes					
e) SFB provides Micro banking schemes to meet their business needs.					
f) Capacity building programs of SFB promote women entrepreneurship					
g) SFB provides Ultra poor Micro finance loans to support business					
h) Leadership Training programs of SFB result in enhancement of women entrepreneurship.					
i) SFB provides MSME Loans to Entrepreneurs to meet their long-term financial requirements.					

33. Mention the type of business needs which were satisfied after availing loans and other formal financial services from SFB: (ED=1, DS=2, N=3, S=4, ES=5)

Type of Business needs	Before availing	After availing
1) Purchase of Materials/Goods		
2) Payment of Wages		
3) Payment of Expenditures		
4) Purchase of Assets		
5) Better working conditions		

34. To what extend you agree with areas of additional skills obtained due to various services availed from SFB

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.Capable to start self-employment (Business)					
2.Capable of producing/ selling more products on commercial basis					
3. Attained managerial skills to work in service sector					

35. To what extent do you agree with type of economic freedom enjoyed & financial awareness obtained due to credit and other services availed from SFB.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1) Enjoy economic freedom in spending on satisfying personal needs					
2) Enjoy freedom in spending on consumption expenditure of business					
3) Enjoy freedom in spending on entertainment and recreation expenditure					
4) Obtained awareness of Government schemes					
5) Obtained awareness of financial services					
6) Obtained awareness of insurance schemes					

36. To what extent do you agree with the category of self-esteem & self- confidence that you may show in day to-day business activities due to the loan and other services availed from SFB.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1) Able to take business decisions					
2) Able to target new customers					
3) Able to Manage Finance					
4) Communicate with Government officials and outsiders					
5) Interact freely in public places and market places					
6) Less fearful and more hopeful about future uncertainties:					

IV. Satisfaction level of the institutional customers with the services of Small Finance banks.

37. Please rate your overall satisfaction with the services provided by Small Finance Banks					
Statement	Extremely Satisfied	Satisfied	Neutral	Dissatisfied	Extremely dissatisfied
Access & Responsiveness					
1) Accessibility and availability of the services provided by SFB					
2) Responsiveness of SFBs in addressing your concerns & queries					
3) Level of support provided by SFBs in terms of financing and loans					
4) Quality of information and guidance provided by SFBs to help you with your business?					
Credit Terms					
5) Interest rate on loans and advances					
6) Maximum credit limit allowed by SFB for micro loans					
7) Speed and timeliness in processing loans					
8) Requirement of Collateral Security for granting loans					
9) Period of credit granted by SFB					
Financial Products/Services					
10) Range and diversity of services offered by SFB					
11) Micro banking services provided by SFB					
12) Rate of interest given by the SFB on deposits					
13) Customer alert messages delivered through SMS					
14) Training & awareness programs conducted by SFB					
Repayment Facilities					
15) Different modes of repayment facility offered by SFB					
16) Repayment Frequency of loan instalment fixed by SFB					
17) Repayment Notifications provided to the borrowers					

18) Customer support services available for repayment issues					
Transaction Cost					
19) Processing fee, documentation and other charges for loans					
20) Penalty for default in repayment of loans and advances					
21) Fee and charges for various banking services					
22) Transaction cost for ATM service					
E-banking Services					
23) Online banking transaction services provided by SFB					
24) Security features of E-banking services offered by SFB					
25) E-Statement facility provided by SFB					
26) Speed and timeliness of online transfer of funds					
27) Mobile banking App facility provided by SFB					
28) Transaction alert messages delivered through E-mail					
29) Online Account opening and verification facility					
30) Digital App used for online loan application and approval					
38. Any feedback or suggestions you wish to give for improvement of banks services and customer satisfaction					

Appendix B

Financial Inclusion Index Construction Methodology

1. Access Index - Calculation

Access measures the various banking products and services availed by the micro entrepreneurs. The Access dimension of financial inclusion was calculated by using 15 indicators covering bank products and services. The access index is the average of the sum of access percentages across number of access indicators.

Access Index = Sum of access percentage / Number of access indicators

Table of Calculation of Access index

Access Indicator	Frequency	Access Percentage
Bank Accounts		
Savings Bank Account	357	93.21
Current Account	230	60.1
Loan Products		
Micro Loans	383	100
Term Loan (Business Loan)	76	19.8
Over Draft	115	30
Cash Credit	55	14.4
TReDS	25	6.5
Credit Card	12	3.1
Transactional Products		
Debit/ATM Card	383	100
Mobile Banking App	383	100
Net Banking / Online banking	125	32.6
UPI	363	94.8
Electronic Fund Transfer	98	25.6
ATM service	383	100
Total		780.11

Source: Compiled from primary data

$$\text{Access Index} = \frac{780.11}{14} = 55.72$$

2. Usage Index – Calculation

Usage index is used to measure the level and frequency of use. Daily, weekly or monthly usage were treated as active usage. The usage dimension of financial inclusion was calculated using 14 indicators covering usage of various bank products and services. The index is the average of the usage percentages of indicators.

Usage Index = Sum of active-usage percentages / Number of usage indicators

Table of Calculation of Usage index

Usage Indicator	Weighted Score Calculation	Weighted Score	Usage
			Percentage
Bank Accounts			
Deposit	$45 \times 5 + 187 \times 4 + 99 \times 3 + 12 \times 2 + 40 \times 1$	1334	58.05
Withdrawal	$94 \times 5 + 252 \times 4 + 25 \times 3 + 12 \times 1$	1565	68.1
Loan Products			
Micro Loan	$12 \times 2 + 371 \times 1$	395	17.19
Term Loan	$76 \times 1 + 307 \times 0$	76	3.31
Overdraft	$7 \times 3 + 12 \times 2 + 96 \times 1 + 268 \times 0$	141	6.14
Cash Credit	$6 \times 3 + 49 \times 1 + 328 \times 0$	67	2.92
TReDS	$25 \times 1 + 358 \times 0$	25	1.09
Credit Card	$12 \times 1 + 371 \times 0$	12	0.52
Transactional Products			
Debit / ATM Card	$190 \times 5 + 162 \times 4 + 24 \times 3 + 7 \times 1$	1677	72.98
Mobile Banking App	$92 \times 6 + 237 \times 5 + 19 \times 4 + 29 \times 3 + 6 \times 1$	1906	82.94
Net Banking	$8 \times 6 + 31 \times 5 + 47 \times 4 + 18 \times 3 + 21 \times 1 + 258 \times 0$	466	20.28
UPI	$338 \times 6 + 20 \times 5 + 5 \times 4 + 20 \times 0$	2148	93.47
E-Fund Transfer	$7 \times 5 + 58 \times 4 + 18 \times 3 + 15 \times 1 + 285 \times 0$	336	14.62
ATM Service	$19 \times 6 + 156 \times 5 + 159 \times 4 + 30 \times 3 + 19 \times 1$	1639	71.32
Branch Services	$19 \times 4 + 100 \times 3 + 40 \times 2 + 224 \times 1$	680	29.59
Total			542.52

Source: Compiled from primary data

$$\text{Usage Index} = \frac{542.52}{15} = 36.17$$

3. Quality Index – Calculation

Quality index measures the perceived service standards. The quality dimension of financial inclusion was calculated using 16 indicators covering quality of various banking services. The quality index represents the average of the positive response percentages of indicators.

Quality Index = Sum of positive response percentages / Number of quality items

Table of Calculation of Quality index

Quality Indicators	Positive Score Calculation	Quality Percentage
Loan Products		
Wide range of tailored products	(263 + 83) / 383	90.34
Instant credit at affordable rates	(257 + 83) / 383	88.77
Transparent credit terms	(156 + 183) / 383	88.51
Top-up loans & further credit	(194 + 152) / 383	90.34
Credit for non-defaulters	(302 + 44) / 383	90.34
Affordable micro loans	(288 + 58) / 383	90.34
Default charges	(106 + 220) / 383	85.12
Transactional Services		
24x7 digital banking service	(248 + 98) / 383	90.34
Transaction alerts	(70 + 276) / 383	90.34
Passbook updating facility	(116 + 165) / 383	73.37
Various repayment options	(63 + 199) / 383	68.41
Customised Repayment Period	(0 + 80) / 383	20.9
Diverse repayment facilities	(90 + 247) / 383	87.99
Customer support		
Financial literacy programmes	(98 + 242) / 383	88.77
Service Reliability	(147 + 186) / 383	86.95
High-quality customer care	(250 + 96) / 383	90.34
Total		1321.17

Source: Compiled from primary data

$$\text{Quality Index} = \frac{1321.6}{16} = 82.57$$

4. Overall Financial Inclusion index – Weighted Calculation

The overall financial inclusion index is calculated by providing weightage as per the directions of RBI FI Index, 2021, where the weights are assigned as Access -35 percent, Usage- 45 percent, and Quality - 20 percent.

Access Index: 55.72%

Usage Index: 36.17%

Quality Index: 82.57%

$$\begin{aligned}\text{Overall FII} &= (\text{Access} \times 0.35) + (\text{Usage} \times 0.45) + (\text{Quality} \times 0.20) \\ &= (55.72 \times 0.35) + (36.17 \times 0.45) + (82.57 \times 0.20) \\ &= 19.50 + 16.28 + 16.51\end{aligned}$$

Overall Financial Inclusion Index = 52.29%

Categorization of Financial Inclusion Level and Result

Range (%)	Category	Result
0 – 39.99	Low	52.29% (Medium Financial Inclusion)
40 – 69.99	Medium	
70 – 100	High	

Source: Compiled using FII Index