FROM DEMONETISATION TO COVID-19: Insights on the Dynamics between Informality and Financial Inclusion from the City of Kolkata, India

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ABSTRACT

The policy of demonetisation (2016) and outbreak of Covid-19 (2020) that accelerated digitalisation were claimed by the Indian government as two events that would reduce the role of informality as a barrier to financial inclusion. This thesis challenges this top-down narrative through a bottom-up approach, based on quantitative and qualitative data collected over eight months of fieldwork in the city of Kolkata, India.

Drawing on existing literature on informality, financial inclusion, and their relations shaped by multiple and intersecting social factors, the thesis develops an analytical framework for assessing the role of informality in financial inclusion with empirical evidence collected in the field. The scope of the concept of financial inclusion is broadened to cover the access to and use of a wide range of traditional and digital financial services. Three forms of informality—economic, urban, and financial—are specified and a typology of financial informality is advanced to explain its more complex implications for financial inclusion. This thesis also improves the theoretical rationale for the linkages between informality and other intersecting social factors, including class, gender, occupation, education, and age, and identifies systemic challenges to financial inclusion that are unrecognised or underestimated by the government.

Empirical research finds that while Demonetisation and Covid-19 managed to reduce some forms of financial informality associated with the use of cash in saving, payment, and borrowing through their catalytic effects on digitalisation, other informal financial practices persisted or even increased, serving as substitutes for or supplements to insufficient and dysfunctional formal ones. There also persisted economic and urban informality, intersecting social inequalities, and systemic failures as barriers to broad-based financial inclusion. These serve to counter the narrative of the government that ignored other impact mechanisms of these two events and exaggerated the welfare effects of digitalisation.

(Word Count: 293)

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LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
BC	Business Correspondent
BJP	Bharatiya Janata Party
BPL	Below Poverty Line
BPM	Business Process Management
BTCA	Better Than Cash Alliance
CIBIL	Credit Information Bureau (India) Limited
CMIE	The Centre for Monitoring the Indian Economy
COD	Cash on Delivery
CPI-M	Communist Party of India (Marxist)
DBT	Direct Benefit Transfer
DDP	District Domestic Product
EPFO	Employees' Provident Fund Organisation
FII	Financial Inclusion Insights
FIP	Financial Inclusion Plan
FLC	Financial Literacy Centre
FYP	Five-Year Plan
GCC	General Credit Card
GDP	Gross Domestic Product
GST	Goods and Services Tax
GVA	Gross Value Added
GVC	Global Value Chain
ICT	Information and Communications Technology
IL&FS	Infrastructure Leasing & Financial Services
ILO	International Labour Organisation
INC	Indian National Congress
IRDP	Integrated Rural Development Programme
IT	Information Technology
JAM	Jan Dhan-Aadhaar-Mobile
KCC	Kisan Credit Card

KYC	Know Your Customer
LIC	Life Insurance Corporation
LPG	Liquefied Petroleum Gas
MFI	Microfinance Institution
MFIN	Microfinance Institutions Network
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MSME	Micro, Small, and Medium-Sized Enterprise
MUDRA	Micro Units Development and Refinance Agency
NABARD	National Bank for Agriculture and Rural Development
NASSCOM	National Association of Software and Service Companies
NBFC	Non-Bank Finance Company
NGO	Non-Governmental Organisation
NPA	Non-Performing Asset
NPCI	National Payments Corporation of India
OBC	Other Backward Class
OTP	One Time Passcode
PMC	Punjab and Maharashtra Cooperative
PMJDY	Pradhan Mantri Jan Dhan Yojana
POS	Point of Sale
RBI	Reserve Bank of India
ROSCA	Rotating Saving and Credit Association
RRB	Regional Rural Bank
RSS	Rashtriya Swayamsevak Sangh
SAA	Service Area Approach
SC	Scheduled Caste
SDP	State Domestic Product
SFB	Small Finance Bank
SHG	Self-Help Group
SIDBI	Small Industries Development Bank of India
ST	Scheduled Tribe
TMC	Trinamool Congress
UPI	Unified Payments Interface

CHAPTER 1

Introduction

> Experts across the world have advocated demonetisation over the years...In India, too, demonetisation has been recommended since the 1970s...[T]he common man now has access to a wide variety of alternate digital payment mechanisms, ranging from RuPay cards to online wallets and USSD payments...Digital transactions should not be viewed only as a short-term substitute to help through the period of cash shortage. That is not my objective...Once informal small businesses begin to have an electronic trail of their cash flow, they will find it easier to access credit. They can expand and escape from the vicious circle of small size due to informality and lack of credit. Similarly, digital transactions will protect workers by ensuring they get their statutory benefits, which are often not paid when informal cash payment is made. Hence, digitalisation is a major reform with multiple benefits. (Modi, 2016; in *India Today*)

The quotation above is from a speech made by the Indian Prime Minister Narendra Modi in an interview with *India Today* on 29 December 2016—51 days after the sudden demonetisation announcement that immobilised 86 per cent of the country's currency in circulation—with reference to formalisation and financial inclusion. The narrative that Demonetisation[1] would address pressing twin challenges of informality and financial exclusion in India was premised on the assumptions that Demonetisation accelerated digitalisation, and digitalisation reduced the role of informality, here in forms of informal employment and informal cash payment, as a barrier to financial inclusion in forms of access to credit and other formal financial services.

This also applies to Covid-19, as the event was narrated as another catalyst for digitalisation. For instance, Modi retweeted the message of Union Finance Minister Nirmala Sitharaman that celebrated a record high amount of digital transactions in July 2022, and remarked:

> This is an outstanding accomplishment. It indicates the collective resolve of the people of India to embrace new technologies and make the economy cleaner. Digital payments were particularly helpful during the COVID-19 pandemic. (Modi, 2022; in *First Post*)

[1] In the rest of the thesis, "Demonetisation" refers to the specific demonetisation in 2016.

By attributing the adoption of digital payments to the pandemic, the government rhetorically linked Covid-19 to digitalisation.

Yet did Demonetisation and Covid-19 exert an impact on financial inclusion through and only through digitalisation? Did these two events advance financial inclusion as projected? If so, was it achieved by reducing informality or simply circumventing it? And if not, did financial inclusion remain constrained by persistent informality? What about other challenges to broad-based financial inclusion not mentioned in Modi's speech? These questions challenge the assumptions that the state-led narrative was constructed on and form the foundation for analytical content of this thesis. They were raised through a retrospection of my personal experience and stories I heard of Demonetisation and Covid-19.

On 8 November 2016 when the government announced the demonetisation of all 500 and 1,000 Indian Rupee banknotes, I was an exchange student in Kolkata, holding more than 5,000 Indian Rupees (less than 50 British Pounds in value) in demonetised banknotes. As a foreigner, I perhaps experienced difficulties of a different kind from those experienced by the locals. I could only get my demonetised banknotes exchanged at a discounted rate in the airport located more than four miles away from the place where I lived. My Indian friend who offered to help exchange my demonetised banknotes in her name waited in long queues outside bank branches but failed because all the branches were short of smaller-denomination and replacement banknotes. I could not even withdraw money for daily use from my credit card as ATMs also ran out of cash. It was pure luck that when I only had 50 Indian Rupees in hand, I received my passbook and cheque book (and much later debit card) that I applied for before the announcement of Demonetisation for getting an Indian scholarship. With this account, I managed to deposit all my demonetised banknotes and withdraw replacement banknotes in a

bank branch specialised for non-residents. When I received scholarship payments via bank transfer in early January 2017, cash withdrawal limits persisted. I had to use card payments in supermarkets and high-end restaurants despite concerns about payment security, before I completed my exchange programme in mid-January that year. Limits on cash withdrawal from current accounts were only removed on 30 January.

Three years after the announcement of Demonetisation, inspired by my personal experience of being more financially included, I returned to Kolkata, this time as a DPhil student, to conduct research on the impact of the event on financial inclusion. I initially planned to make a rural-urban comparison. People living in villages who had poorer access to financial services and experienced less digital transformation were likely to be impacted by Demonetisation in ways completely different from those living in cities. One week before my planned date to complete interviews in Kolkata and travel to a nearby village, Covid-19 spread fast in India (though not that fast in West Bengal) and the whole nation was brought into lockdown on 24 March 2020. The nationwide lockdown was initially intended for 21 days but extended three times to the end of May to limit movement of the entire population of India as a preventive measure against the pandemic. This constrained me from stepping out of the block I lived in, let alone conducting any further face-to-face interviews. Having only two masks at hand, I reduced the frequency of going out and used more online services, like online shopping, online food delivery, and online bill payments. Online services that involved delivery were suspended in the early phase of the lockdown, but later recovered in a way that promoted online payments, as cash on delivery (COD) was no longer accepted as a payment option. It was in this context that I used online payments for the first time in India despite cybersecurity concerns,[2] and

[2] I had concerns over cybersecurity since the first day I arrived in India, because my Indian friends kept warning me against linking my account to mobile apps to make online payments and telling me the news that many accounts were hacked and money stolen could not be recovered. Therefore as long as there was COD option, I would not risk using online payment even though I knew well how to use it.

changed to conduct phone and online interviews on the impact of Covid-19 on financial inclusion.[3]

The very fact that I reduced my reliance on cash, overcame the fear of card and cyber fraud, used banking services, and adopted digital payments indicates reduced informality and improved financial inclusion under the impact of Demonetisation and Covid-19. My experience is valid insofar as it suggests the hardships that one might suffer from Demonetisation and Covid-19 and the possible linkages between reduced informality and improved financial inclusion. Some people experienced more difficulties than I did and switched faster from a person who had not used any banking service to a person who actively used a mobile money account. There were also people who were so financially stressed by the prolonged economic disruption resulting from Demonetisation and Covid-19 that they stopped saving money in the bank. Some might have not experienced any difficulty at all, either because they only used small-denomination cash in everyday life and could continue doing so despite restrictions on cash payment and movement or because they were already familiar with digital payment and could use various digital tools to cope with any situation. The former exemplified an extreme form of informality, while the latter the opposite. They both contributed little to financial inclusion, but for different reasons.

These and many other personal experiences form the key focus of the thesis and challenge the narrative of the Modi government that failed to take the diversity of individual experiences into account. Financial inclusion is also a concept broader than the simple ownership of bank accounts commonly used in existing literature and the access to credit and use of digital

[3] I used phone and online interviews interchangeably when I was in India depending on whether the phone call or the online call had better connection when I conducted the interview.

payments stressed by the government. There are many other milestones relating to the use of these accounts for saving, payment, and borrowing purposes through traditional and digital means and relating to the frequency of account use. These milestones are created to determine different stages of financial inclusion, which can be used to measure changes in financial inclusion. In this vein, I define financial inclusion as the generation of access to and use of a full range of basic and advanced formal financial services for people who currently do not have access to or use them. What constrained one person from opening a bank account, depositing and withdrawing cash, applying for a loan, and using card and online payment and what incentivised the person to change may not apply to others, as social identity shaped personal experiences of financial exclusion and inclusion and of Demonetisation and Covid-19.

The identity can be linked with the wider social structure of informality in forms of employment and housing. They are widely studied in relations between informality and financial inclusion as to how informal workers and enterprises and slum dwellers suffer from financial exclusion and how they can benefit from financial inclusion (for instance, see Solo, 2008; Marsili, 2013; Kanbur, 2017), but are less studied in the context of financial inclusion resulting from Demonetisation and Covid-19. Informal financial practices in contrast are repeatedly mentioned in India's state-led narrative of the contributions that Demonetisation and Covid-19 can make to reducing cash usage, informal credit, and black money and to promoting financial inclusion (for instance, see Kotak, 2017; Dhoot, 2021), but are seldom explicitly analysed as a form of informality in the studies of relations between informality and financial inclusion. Financial practices that are deemed informal include legal use of informal financial institutions and services and illegal conduct in financial activities. A stereotype is that the former is associated with poverty, while the latter is common among the rich (for instance, see "elite informality" in Pow, 2017; Moatasim, 2019). Financial informality as such is not

necessarily the opposite of financial inclusion, as those who actively use digital payments can still be reliant on informal financial institutions. Nor is it necessarily a constraint to financial inclusion, as financial market manipulation can attract investment in stocks that would otherwise be made in cash.

To generate a comprehensive understanding of informality and its relations with financial inclusion in the context of Demonetisation and Covid-19, I follow Polese's (2021:3) definition of informality as "an activity, performed by an individual or a group of individuals (organization, family, clan), that eventually bypasses the state or the overarching entity regulating the life of that group or society", and focus on these three forms of informality mentioned above: economic, urban, and financial informality.

Other social factors—like class, caste, gender, age, education, and locality—may also have a role to play in shaping one's access to and use of financial services and one's response to Demonetisation and Covid-19. Many other challenges to financial inclusion independent of one's identity also remain to be explored. All these complicate the role of informality in the process of financial exclusion and inclusion and the mechanisms of change for people from different sections of society under the impact of Demonetisation and Covid-19, and further challenge the narrative of Modi that these two events could produce broad-based financial inclusion without measures taken to address informality and other barriers to it.

Therefore based on a wide range of personal experiences of people living in the city of Kolkata, which accommodates diverse socio-economic groups at different stages of financial inclusion ranging from the most basic to the most advanced and diverse financial institutions offering

financial services ranging from the informal to the digitalised, the thesis aims to explore two questions:

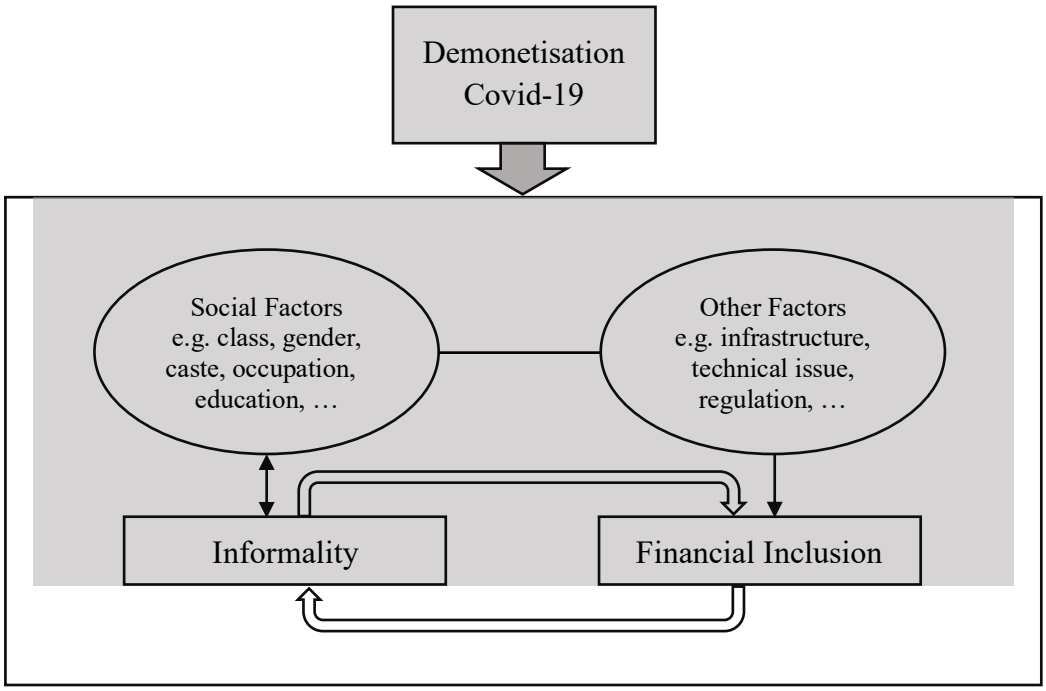
(1) To what extent did Demonetisation and responses to Covid-19 reduce the role of informality as a barrier to financial inclusion?

(2) What challenges to financial inclusion remained despite Demonetisation and Covid-19?

The aim of the research questions is to critically assess the validity of the Indian government's claims to address informality as a barrier to financial inclusion through Demonetisation and more widely a programme of digitalisation facilitated by the policy and the unexpected event of Covid-19. The fundamental assumptions mentioned at the beginning of the chapter that underpin the claims are tested, and the formulation of research questions using the language of policymakers is not a passive acceptance of the top-down narrative but an active engagement with the underlying assumption that informality always serves as a barrier to financial inclusion so as to better evaluate the effectiveness of government policies through a bottom-up approach.

In answering these research questions, I examine the general patterns and detailed narratives of change in informality and financial inclusion or the lack thereof under the impact of Demonetisation and Covid-19 with quantitative and qualitative data collected in the field (see Chapter 4). The thesis aims to illustrate how the two events disturbed the interplay between informality and financial inclusion with a focus on the changing role of informality as a barrier to financial inclusion (see Figure 1.1). More specifically, it covers the intersections of informality and other pre-existing social inequalities in shaping individual experiences of financial exclusion and inclusion during Demonetisation and Covid-19 and other challenges independent of one's identity that remain to be tackled by the government despite these two promoting events.

Figure 1.1 The Scope of the Study (Grey Area)



Source: Author's visualisation.

The research is important in that it links two of the world's most pressing development challenges underpinned by the need to formalise the informal and financially include the excluded. India is a country replete with various forms of informality that has long constrained broad-based financial inclusion (see Chapter 4). It faces country-specific challenges in formalisation and financial inclusion, as domestic and global factors combine to perpetuate informality despite economic growth and generate demand for digital financial services when there persists a lack of access to and use of most basic traditional ones (see Chapter 2). Demonetisation and Covid-19 are commonly perceived and officially narrated as two catalytic events that serve to address these challenges (see Chapter 3).

Yet existing literature on Demonetisation and Covid-19 primarily focused either on their impact on informality (for instance, see Kurosaki, 2019; Kesar et al., 2021) or on financial inclusion (for instance, see Daya and Mader, 2018; Arunachalam and Crentsil, 2020). Scholars

who did mention both informality and financial inclusion were often reluctant to specify a linkage between them (for instance, see Guérin et al., 2017; Meagher, 2021). Few attempted to probe into whether and how these two events reduced the role of informality as a barrier to financial inclusion, what challenges remained, and why they failed to address these challenges. Even less did the research at the micro level to collect data of such fine granularity and covered such a comprehensive range of different forms of informality and financial inclusion as this thesis has done to answer these questions.

Through the lens of the city of Kolkata, the thesis found that countering to the narrative of the government, informality was not necessarily a barrier to financial inclusion and Demonetisation and Covid-19 had limited promoting effects on financial inclusion, constrained by certain forms of persistent informality, social inequalities, and other systemic challenges. Though not generalisable to the entire country like those based on macro-level analysis, the findings of the thesis allow an in-depth insight into the intersections between informality and other social factors in financial exclusion and inclusion, the diversity of individual demands for financial services, and limitations of one-size-fits-all approaches to financial inclusion and digitalisation like Demonetisation and responses to Covid-19. These challenge the idea that India can skip the process of formalisation and leapfrog into a cashless society, and can be a valuable input into the planning and prioritisation of financial inclusion policies at national level.

1.1 Thesis Structure and Chapter Plan

This thesis comprises of seven chapters, which are organised around two main themes: the role of informality as a barrier to financial inclusion and the narrative of financial inclusion. These two themes are interconnected and each of the two empirical chapters primarily focuses on one of the themes and responds to the corresponding theoretical or policy-centric chapter within the context of Demonetisation and Covid-19 in India.

After this introduction, the second chapter deals with theoretical concepts of informality and financial inclusion used throughout the study and reviews relevant scholarship that serves to frame the relations between informality and financial inclusion, particularly in the context of India featuring entrenched informality, complex demands for financial inclusion, and intersecting social factors shaping the access to and use of formal financial services. In doing so, it identifies three forms of informality—economic, urban, and financial informality—that have implications for financial inclusion, and broadens the concept of financial inclusion to reflect the diversity of demands for a wide range of formal financial services. While the review confirms that many forms of informality are barriers to financial inclusion, it is not necessarily a negative attribute, and some forms are even promoters of financial inclusion. In this way, the chapter, beyond ascertaining the scope of informality and financial inclusion, justifies the empirical analysis of informality in its various forms, in intersection with social identities, as a barrier to financial inclusion under the impact of Demonetisation and Covid-19 in Chapter 5 and its more complex role in Chapter 6.

Chapter 3 shifts the focus from theoretical review to policy review. It begins by introducing India's top-down narratives of financial inclusion and corresponding promotion policies.

Limitations of existing policies evaluated through a detailed engagement with relevant literature explain why the government increasingly prioritised digitalisation even before Demonetisation and Covid-19. Following this, the chapter reviews how the government unintentionally changed to take more extreme measures—Demonetisation and the Covid-19 lockdown—to promote financial inclusion and how the measures were justified as catalysts for digitalisation and ultimately a cashless economy. Other potential mechanisms of their impact on financial inclusion that are missing in the official narrative and their socio-economic consequences are also discussed. The key aim of this chapter is to present how the Indian government conveyed the message that financial inclusion is beneficial for people from all sections of society and that Demonetisation and responses to Covid-19 could address challenges to financial inclusion that previous promotion policies failed to address, particularly those related to informality. Bottom-up narratives, showing localised perceptions and experiences, are provided in Chapter 6 to empirically challenge this state-led narrative.

On the basis of conceptual and contextual information provided by Chapter 2 and 3, the first half of Chapter 4 advances the understanding of prevalent informality and financial exclusion in India and of Demonetisation and Covid-19 by situating them in a global setting and outlining the background to the two events. The second half of the chapter narrows down to contextual details of Kolkata in which this research is set and specifies methodologies used in the research. Familiarity with the city of Kolkata was not the only reason why I chose to conduct field research there. Kolkata, as the capital of the state of West Bengal, accommodates people from different sections of society engaged in different forms of informality. This allowed me to collect information-rich data with great variation in personal experiences of financial exclusion and inclusion during Demonetisation and Covid-19. The chapter further explains and provides

justification for the mixed methods used to collect, analyse, and interpret data relating to Demonetisation and the qualitative, digital methods adopted in the context of Covid-19.

These three chapters undergird the study and create the foundation for the empirical evidence I present in the forthcoming chapters. Chapter 5, the first empirical chapter, is concerned with the dynamics between informality and financial inclusion. It presents data on the extent of financial inclusion promoted by Demonetisation and Covid-19 and the role informality, class, and other social factors played in constraining broader financial inclusion. The patterns of financial exclusion and inclusion through interaction with financial institutions of varying degrees of informality and use of traditional and digital financial services are described and statistically analysed where possible. This shows that people from different sections of society had different experiences of Demonetisation and Covid-19 and it was related to different forms of informality. Both quantitative and qualitative data collected in the field point to the persistence of economic, urban, and financial informality as barriers to financial inclusion despite some reduced use of cash in saving, payment, and borrowing under the impact of Demonetisation and Covid-19, and beyond informality, the persistence of class and other social-factor-related barriers.

There is a need to look beyond the outcome measures and probe deeper into personal experience narratives of financial exclusion and inclusion in Chapter 6. Engagement with the field site allowed me to collect granular data, and three key themes emerged from the data. The first pertains to the intersectionality of social identities in shaping people's financial practices, responses to Demonetisation and Covid-19, and even perceptions of financial inclusion. Rich qualitative data are employed in case comparison and description to present detailed evidence that countering to the top-down narratives, social inequalities in financial inclusion persisted

and contributed to greater financial informality. The second core theme of the chapter is about other challenges to financial inclusion and ultimately a cashless society beyond the scope of social identities that everyone within the system could face. Narratives of difficulties people experienced in accessing and using formal financial services, particularly digital ones, further challenge the idea that India has been prepared to go cashless. The third theme involves a critical rethinking of the role played by informality in financial inclusion in resonance with literature review in Chapter 2. A typology of financial informality is advanced to categorise and explain its more complicated implications for financial inclusion, and further to challenge the idea that informality is always a barrier to financial inclusion.

The two empirical chapters involving different data granularity combine in a complementary way to answer the research questions as to the extent to which Demonetisation and responses to Covid-19 reduced the role of informality as a barrier to financial inclusion and other remaining challenges to financial inclusion. Chapter 7 ties together key empirical findings to draw out a series of conclusions and policy suggestions, and elaborates methodological, empirical, and theoretical contributions that the thesis makes to existing literature. It highlights how the empirical material presented in this thesis contributes to a more nuanced understanding of the dynamic interplay between informality and financial inclusion in contemporary India and its policy implications for promoting financial inclusion and reducing informality. At the end of the chapter, I outline the limitations of this study and point to future directions for research.

1.2 Intended Contributions

Apart from serving as a good example of how field researchers who planned or were already on field excursions managed unexpected challenges and turned them into new research opportunities, the thesis aims to make contributions in three fields: methodological, empirical, and theoretical.

The methodological contributions include the use of mixed methods to study various dimensions of financial services, the way these dimensions were studied from perspectives of users and providers of financial services, and the use of digital methods in fieldwork. Through mixed methods not only could the access to and use of financial services be measured, but the range of financial service options available to people from different sections of society and their attitudes to these options be researched in depth. Triangulation using different data sources could overcome the limitations of reliance on data from a single source, as the users of financial services were only familiar with the services they used and the providers tended to exaggerate the coverage of their services. The methods thus allowed me to look beyond the outcome measures and extend to mechanisms that created such outcomes, and the mechanisms could be examined in the interactive patterns of user-provider framework to explore barriers to broader financial inclusion. Phone and online interviews used when there were disruptions to face-to-face interviews exemplified how field research could be done in a post-Covid world and how digital methods could be used as a supplement to, if not a substitute for, traditional methods.

The thesis also addresses the empirical gap in the study of the relations between informality and financial inclusion and in the study of the impact of Demonetisation and Covid-19 on them.

Data of fine granularity collected in the field allow for a deeper insight into interactions between different forms of informality and their dynamic interplay with financial inclusion in a comprehensive fashion that is largely missing in existing debates that focus either on a certain form of informality or access to and use of certain financial services. On this basis, the study allows for critical assessment of the effectiveness of government policies on addressing informality as a barrier to financial inclusion, while existing studies either focus on the extent to which Demonetisation and Covid-19 reduced informality or promoted financial inclusion. What remained barriers to the use of a full range of financial services, including informality in its various forms and intersecting social inequalities embedded in this specific urban setting, were part of what remained to be resolved by the Indian government if a cashless economy is the ultimate goal of financial inclusion.

While drawing on extensive literature to interrogate complex implications of informality for financial inclusion, this thesis through the empirical study aims to make some theoretical contributions to existing literature by re-conceptualising informality and financial inclusion in ways that reflect contemporary era features and advancing a typology of financial informality to specify its different roles in financial inclusion and broader social inclusion. The forms of informality that are identified as important for financial inclusion and the typology can be developed into an analytical framework for categorising informality and assessing government policies that aim to promote financial inclusion through addressing informality as a barrier to it. This analytical framework has the potential to be extended to other contexts.

CHAPTER 2

Conceptualising the Relations between Informality and Financial Inclusion in the Context of India

The relations between informality and financial inclusion at the core of the thesis remain under-theorised. Informality and financial inclusion have individually been widely studied in existing literature, with different meanings attached to the two concepts and different ways used to conceptualise them. There is more extensive literature on implications of informality for social inclusion through its linkages with formality than relations between informality and financial inclusion, though financial inclusion is an important dimension of social inclusion. Starting with a review of the complex role of informality in inclusive development rooted in early ideological debates in the 1970s, this chapter critically engages with the idea of informality as a barrier to financial inclusion.

As the research project is situated in contemporary India, the concepts of informality and financial inclusion have to take into account era features such as the development of mobile technologies and digital payments. In a context of uneven development associated with diverse demands for financial services and the government push towards a cashless economy, informality and financial inclusion are conceptualised with a special focus on the use of cash and digital payment services.

The chapter has two aims: (1) to explore potential implications of informality for financial inclusion; and (2) to define the scope of the two concepts used throughout the thesis. They

intertwine to form an integral part of the theoretical and conceptual basis for the empirical analysis of the patterns of the dynamics between different forms of informality and financial inclusion in Chapter 5 and interpretation of the patterns with advancement of a typology of informality to explain the implications in Chapter 6.

Section 2.1 reviews how informality has been conceptualised across disciplines. The section focuses on early debates framed in three main approaches embedded in economics and development disciplines before extending to other potentially useful ways to capture informality. It further identifies the linkages between formal and informal worlds and their complex implications for social inclusion, and locates Indian experiences within these global debates. Section 2.2 reviews how a specific form of social inclusion—financial inclusion—has been conceptualised by scholars, institutions, and policy makers and identifies recurring conceptual dimensions that need to be considered in its conceptualisation. The section further questions the welfare effects of financial inclusion and illustrates challenges of concurrent traditional and digital financial inclusion facing India. Combining key findings from these two sections, Section 2.3 gathers scattered empirical evidence showing the interplay between informality and financial inclusion to determine the forms of informality that have implications for financial inclusion and explore how the implications can be typologised and tested empirically. The section further specifies the conceptualisations of the two concepts that are most suitable for the research project conducted in the context of India and identifies the social factors that are most relevant to the research for further intersectionality analysis.

2.1 Informality

Since being coined by the economic anthropologist Keith Hart ([1971] 1973) in his seminal work *Informal Income Opportunities and Urban Employment in Ghana* to describe economic activities outside the wage sector, the conception of "informality" has been widely debated. To interest economists by using a language they were familiar with, the term "the informal sector" was used, and most economists saw it in quantitative terms as "a sector of small-scale, low-productivity, low-income activities without the benefit of advanced machines" (Hart, 2006: 27). The formal and informal in this context appear to be separate entities as if being located in different places, like agriculture and manufacturing. With debates centred around the formal-informal dualism and the boundary between them determined by the state, the concept of informality is developed. It clarifies the scope of the concept that various conceptualisations of informality, including the one applied to the research project of relations between informality and financial inclusion in the context of India, can fit into.

2.1.1 Conceptualisation of Informality

Most conceptualisations of informality and debates about it revolve around two issues: the "dual sector" understanding of (in)formality and the role of the state. These two issues are discussed to justify the conceptualisation of informality as a catchall concept that can be refined to reflect context specificity. Like in this study of relations between informality and financial inclusion, the concept of informality is not confined to the scope of economics, but include other disciplines that have implications for financial inclusion, and the role of the Indian

government needs to be taken into account to specify the boundary between the formal and informal.

The concept of "the informal sector" raised by Keith Hart has been criticised on the grounds that informal work did not constitute a "sector" in the sense of a specific industry, but rather a broad set of extremely diverse economic activities (Marx, 2018; Rosaldo, 2021). So is two-sector division of the urban economy (Moser, 1978), based on systems of production (capitalist and peasant forms of production) (McGee, 1973), types of economy (firm-centred and bazaar-type economies) (Geertz, 1963), circuits (the upper and lower circuits) (Santos, 1973), and characteristics of the sector (high profit/wage and low profit/wage sectors) (Brown, 1974). The term "informal economy" was instead adopted by scholars for a better grasp of informal economic activities, including heterogeneous practices occurring both in rural and urban jobs (e.g. Agarwala, 2018); in formal and informal firms (e.g. Chen, 2012); in the Global South and Global North (e.g. Chen, 2009; Purser, 2009); among employees and employers (e.g. Breman, 2020); among the poor and the rich (e.g. Tonkiss, 2013); and—according to some definitions—in paid and unpaid activities (e.g. Maich, 2020) and licit and illicit trades (e.g. Chen, 2006). This concept, however, has to be used with caution as it still risks homogenising the diverse activities to whichever segment the scholars refer (Bromley, 1978; Sethuraman, 1976), as exemplified by the debates of three schools of thought in Subsection 2.1.2.

Beyond the scope of informal enterprises and workers, the concept of "informality" has also been used in development microeconomics with notions such as informal arrangements, exchanges, transactions, norms, and contracts that operate in fragmented markets (labour, land, insurance, and credit) (Sindzingre, 2006). They are supported by informal mechanisms like personal networks, clientelism, trust, and reputation, and underlie mechanisms of tied labour,

sharecropping, and risk-pooling. The adjective "informal" can therefore be attached to research objects across disciplines like housing (Turner, 1968), institutions (North, 1990; 1991), land management (Leaf, 1992), governance (Christiansen and Piattoni, 2003; 2012), and planning (Roy, 2005). These various forms of economic and political exchange, as Rosaldo (2021) argued, are facets of the informal economy, which is detailed in Subsection 2.1.3.

This identification of economic activities and relations that exist between the two ideal types of the formal and informal has further resulted in a dissatisfaction with any formal-informal division of the economy. While scholars, state-policy actors, and international agencies have continued to work with the problematic binaries aimed at quantifying informal activities (Rakowski, 1994), issues of flawed classification and accounting processes and unspecified linkages between the formal and informal were raised by Bromley (1978). Attempts have been made to instead think of informality as a continuum with a blurred formal-informal boundary. Cobb et al. (2009) propose a "spectrum of informality", and Chen (2006) finds workers and units move along the continuum and operate simultaneously at different points on it. This notion of continuum became increasingly influential in informality studies beyond the scope of the narrowly-defined economy (Thomassen, 2014, 2015; Knudsen and Frederiksen, 2015).

Along the continuum of informality, what activities are defined as informal is contingent on the state's objectives, and the role of the state is contextualised. The concept of informality is ideologically embedded in a state-centred perspective, as Hart (2006) explicitly derived it from Max Weber's theory of bureaucratic rationalisation. In line with this view, Polese and Morris (2015: 3) began with the premise that "informality exists as long as there is a state," or another authority instituting its "formality". The state can be viewed as a regulatory entity choosing the boundaries of the legal, the allowed, and the moral (Van Schendel and Abraham, 2005; Polese,

2012), making the alleged characteristics of informal practices not objectifiable criteria, but influenced by policy and operationalisation objectives (Sindzingre, 2006; Steenberg, 2016). The formal-informal continuum therefore characterises a continuum of the reach of official governance mechanisms in different economic activities that needs to be specified in each context (Guha-Khasnobis et al., 2006). The role of the state may be weakening in a neoliberal world economy accompanied by a digital revolution in communications (Hart, 2001), but its control over one or more areas of life in reducing and producing informality persists (Haid, 2017). This generates further debates over the "right" reach of government, which are discussed in Subsection 2.1.4.

The idea of the rational state is particularly challenged in the context of India by Harriss-White (2002), in her seminal work on informality *India Working: Essays on Society and Economy*, with the finding of regulative limits of the formal bureaucracy that in some cases render the state an enabler of the operation of the informal economy or even itself an informalised entity. The formal-informal frontier between state and economy has been reconceived by Prakash (2015) as a political space pervaded with informal politics of rent-giving and seeking and by Roy (2009) as a class-specific feature of the structure of state power for accumulation and authority. Harriss-White (2002) has further argued that being unregulated by the state does not necessarily mean being unstructured, as the blurred boundary between the formal and informal sectors is also a division of castes and gender that are manipulated to control labour and segment the labour market. This necessitates and justifies recasting "formalisation" from a top-down, legalistic process to one that privileges the collective capacities and needs of those engaging in informal practices from non-state-centred perspectives (Steenberg, 2016; Rosaldo, 2021), like this thesis aims to achieve.

The growing number of cross-discipline and cross-area studies featuring "informality" and debates over its conceptualisation make it difficult to reach a consensus on what informality means. An attempt to develop it into a widely agreed and shared theorisation has been made by Polese (2021: 3) to define informality as "an activity, performed by an individual or a group of individuals (organisation, family, clan), that eventually bypasses the state or the overarching entity regulating the life of that group or society". This may happen because informal practices emerge in areas that a state fails to regulate (beyond the state) or because the practices replace ineffective state mechanisms (in spite of the state) (Polese et al., 2018).

While the definition brings heterogeneous practices within and outside the scope of the informal economy into the umbrella term of informality and acknowledges the role of the state and other regulatory entities in choosing the boundary of the formal and informal, one should be careful when using this conception in empirical analysis. On the one hand, informality is such an intuitive and mouldable idea (Peattie, 1987) adaptable to various contexts, research objects, and ideologies that can hardly be exhausted in empirical research. One has to decide on the forms of informality most relevant to specific contexts and research topics. On the other hand, the ideology implicit in the concept naturalises the gaze of the state by depicting it as the only legitimate perspective that society can be viewed from (Steenberg, 2016; Pratt, 2019). One has to recognise and reflect on this limitation, particularly when informality is conceived using the language of policymakers. These two aspects are considered in conceptualising informality for empirical research on its relations with financial inclusion in the context of India in Section 2.3.

2.1.2 Embedded in Economics: Three Approaches to Informality

Among the various forms of informality, the concept of economic informality developed in early economics and development economics debates through three distinctive dimensions (dualist, legalist, and structuralist) is most extensively discussed. It is the foundation of other approaches to informality. Each of the dimensions has a different perspective on what the informal sector is composed of and what factors create, reduce, or expand the informal sector, as reviewed in sequence in the following subsections. These dynamics are found to co-exist in the context of India. The abundant literature on nuanced differences among informal economic activities framed in these three approaches can be drawn on to exemplify the heterogeneity of informal practices that complicates the role of informality in social inclusion and further financial inclusion.

2.1.2.1 Dualist Approach to Informality

The dualist theory of the 1970s was the earliest conception of informality, and the International Labour Organisation (ILO) was the most important institutional actor in developing and promoting the theory. It located informal activity in forms of production (easy entry, small scale, labour intensiveness, reliance on indigenous resources and unsophisticated technology) distinct from its formal counterpart (ILO, 1972).

The approach primarily identifies the informal sector as composed of survival strategies of the permanent poor, while recognising the existence of a small group of entrepreneurs (owners of micro-enterprises) with growth potential (Rakowski, 1994). The former offers little scope for capital accumulation and capacity for expansion (Souza and Tokman, 1976), while the latter is

a source of economic dynamism, even capital accumulation, allowing people to maintain themselves in the urban areas where market demand is concentrated (Hart, 2006). Despite these differences, both are perceived to operate in isolation from the formal sector (Chen, 2005), which distinguishes the dualist theory from other schools of thought.

The isolation, stemming from the redundancy of the labour force featuring low human capital and the inability of a capital-intensive industrialisation process to absorb the surplus (Rakowski, 1994), is viewed as a major cause of informality. This is closely associated with the two-sector model elaborated by Lewis (1954) in his analysis of the unlimited labour surplus moving from agriculture to industry, and the post-colonial expansionary logic of capital that is inherently exclusionary in nature (Sanyal, 2007). The large section of the informal sector composed of marginal economic activities, alternatively termed as the "excluded" sector (Bairoch, 1976) or the "non-capitalist" segment (Kesar et al., 2022), has an independent economic logic of existence derived from the consumption needs of the excluded population that constrain them from accumulating and formalising their operation. Micro-enterprises in contrast are residualised by the formal sector in the absence of any graduation path to it (ILO, 1972).

2.1.2.2 Legalist Approach to Informality

The legalist perspective, most widely associated with Hemando de Soto and the think tank of primarily economists and lawyers he founded at the Institute of Liberty and Democracy, revolutionised debate concerning the causes of informality and the role of the informal sector in economic growth.

Different from the dualist school, micro-enterprises that comprise the informal sector in the legalist perspective work under the same logic as capitalist businesses and provide a potential path to prosperity for the poor (De Soto, 1989; Maloney, 1999, 2004). They choose to stay informal because the terms and conditions for operating a unit in the formal sector are so rigid that bypassing formal procedures allows them to avoid costs in forms of taxes, time, and effort (De Soto, 1989). Informal work arrangements (with small size as a consequence) are therefore "a rational response by micro-entrepreneurs to over-regulation by government bureaucracies" (Becker, 2004: 10), and the divide between formal and informal economies is "not structural but legal, bureaucratic, of state making" (Annis and Franks, 1989: 10).

Costs of legalising and content of laws and regulations are therefore not passively accepted as contextual variables that impact informality and productivity, but are a major cause of informality (Rakowski, 1994). This approach—neoliberal in its ideological position—has been incorporated into the work of neoliberal economists, policy advisors, and non-governmental organisations (NGOs).

2.1.2.3 Structuralist Approach to Informality

The structuralist perspective, rooted in neo-Marxist and dependency traditions, emphasises the manner in which the informal sector is subsumed under and incorporated into specific relations of production and circuits of accumulation (Castells and Portes, 1989; Rakowski, 1994). It mainly identifies two ways that the informal sector can be linked to capitalist economic processes: one is through a capitalist appropriative class process within the "interior" sphere of capital in the form of informalised wage employment; the other is through a dispersion of the circuit of capital to its "outside" in forms of unwaged "non-standard" employment

arrangements such as subcontracting, gig work, and platform work (Kesar et al., 2022). The informal sector is therefore perceived to comprise informal workers in the formal sector, gig workers, and subcontracting enterprises.

The juxtaposition of an abundant labour supply and extensive labour legislation is viewed as the fundamental cause of the maintenance and growth of the informal sector (Portes and Sassen-Koob, 1987), as they sustain a specific form of relations of production that is exploitative in nature (Castells and Portes, 1989). Informalisation of wage employment in the formal sector which has traditionally been a site for secure employment relations reflect the power of capital in shaping the outcomes of its "internal" struggles with labour (Kesar et al., 2022). Such capital-labour relations also disperse beyond the "interior" of capital to reconfigure the non-capitalist production processes without formally internalising them. On the one hand, subcontracting enterprises are subordinated to formal capitalist enterprises, for dependence on their provision of raw materials, equipment, technology, and market access, and also for their control over personal relations and institutional means of accumulation like credit facilities, contracts, and licences (Gerry, 1974; Kesar et al., 2022). On the other hand, subcontracting enterprises support modern capitalist accumulation, as they serve to reduce direct wage and labour reproduction costs, squeeze labour rights, respond quickly to market changes, and provide cheap goods and services to maintain formal enterprise profitability, flexibility, and competitiveness (Portes et al., 1989; Portes and Schauffler, 1993; Portes, 1996; Bhattacharya, 2017). While it is acknowledged that subcontracting enterprises can transform towards capitalist modes of production under certain conditions (Moser, 1978; Portes et al., 1989), the interdependence of formal and informal activity is popularly posited as one that is more exploitative than benign (Gerry, 1974; Harriss-White, 2019). This also applies to informal and non-standard employment that informalises wage work (Carr and Chen, 2002).

A different take on the informal sector as composed of informal entrepreneurs who prioritise personal and social development is grouped under post-structural theories. In this perspective, lack of autonomy and self-esteem in formal wage employment is less tolerable than precariousness of informal self-employment (Brennan and Pettit, 2005; Morris, 2012; Morris and Polese, 2013). Informal entrepreneurship is also pursued for social, redistributive, political, and identity reasons, rather than purely for profit-motivated reasons (Biles, 2008; Williams et al., 2009; Williams and Gurtoo, 2012). Informal activity in this context is a representation of resistance against the dominant Western paradigm of development, formal wage employment, and state intervention in daily practices of local communities (Chakrabarty, 2000; Escobar, 2011), and informality is an alternative to formality, which is no longer perceived as a desirable objective.

These schools of thought are often viewed as incompatible and mutually exclusive (Amin et al., 2002; Chen, 2012; Banks et al., 2020), representing fundamentally different approaches to social theory and policy. However, recent studies increasingly emphasise complementary co-existence of the three (or four, if post-structuralism is considered) perspectives on economic informality, enabled by a complex and heterogeneous informal economy. Dualists focus more on traditional and survival activities; legalists on informal enterprises and entrepreneurs; structuralists on petty production and subcontracting (Rosaldo, 2019); and post-structuralists on informal social enterprises (Ladan and Williams, 2019). While dualist and structuralist rationales are more applicable to relatively deprived populations, legalist and post-structuralist rationales are more applicable to relatively affluent populations (Evans et al., 2006; Gurtoo and Williams, 2009; Williams and Nadin, 2010).

These diverse informal economic activities, underpinned by dualist, legalist, structuralist, and post-structuralist logics for engaging in the informal sector, are found to co-exist in the region where Ladan and Williams (2019) conducted empirical research, and the motives vary across different social classes. Each tends to have different implications for inclusive development and policy, complicating the role of economic informality in social inclusion. It is more so in the case of India where Harriss-White (2019) finds that the co-existence in time and space of these theorised dimensions of informality is not only enabled by economic segmentation within classes but also social segmentation between classes along caste and gender lines that obstruct the mobility of resources and labour. These social institutions that further complicate the role of economic informality are reviewed in detail in Section 2.3.

2.1.3 Other Forms of Informality as Facets of the Informal Economy

In contrast to state and institution-centred accounts of informality, geographers, planners, and other social scientists have been putting society at the centre of inquiry and emphasising social, financial, and political aspects of informality neglected by orthodox economic approaches (Boanada-Fuchs and Fuchs, 2018; Polese, 2021). Associated forms of informality in different empirical domains, including informal housing, informal institutions, and informal financial and political exchanges, that are heavily related to the informal economy add new dimensions to the complexity of economic informality, while themselves are involved in diverse activities. Many of these forms of informality have a significant presence in India and need to be considered in identifying the forms of informality that have implications for financial inclusion.

The creation of "settlements not regulated by the state that allow migrants and poor people to survive" is called "urban informality" by Polese (2021: 9).[4] It has a strong association with the idea of economic informality. For instance, Hart ([1971] 1973) discovered the nuances of the informal economy when he lived in a slum, and his conceptualisation of informality came out of the lives of slum dwellers. De Soto (1989) provided a detailed analysis of the inner workings of the informal economy, of which informal housing constitutes an integral part. Rapid growth of urban informal settlements is to a large extent associated with intensified industrialisation, featuring a surplus of labour moving from villages to cities and a shortage of better-paying formal jobs and affordable formal accommodation (Dikovic, 2018). This is exactly what happened in India that led to the growth of slums (Dutta, 2003; Kundu, 2003; Dutt, et al., 2019). Poor migrants and urban residents who stay unemployed or in low-income informal employment are forced into the informal housing sector. These many overlaps between economic and urban informality result in what Moser (1978: 1051) called "confusion" about the actual meaning of the informal sector, which has, at different times, been regarded as synonymous with people living in informal settlements. The confusion of economic activity with places is criticised by Bromley (1978) and a number of contemporary authors.

Beyond providing low-cost housing options and livelihood to people engaged in the informal sector, informal settlements accommodate more complex economic, social, and political processes. Living in slums and squatter settlements can be a strategic way to have better access to employment opportunities available in urban centres (Fernandez, 2018). Over decades of improvisation, some informal settlements not only develop into informal industrial districts by inserting individual houses into a larger productive network (Chattaraj, 2018), but self-

[4] The term "urban informality" is also used in the works of Zhang (2017, 2018) to describe informal settlements featuring ill-protected property rights and poor quality of living.

sufficient economies with their own bars, supermarkets, beauty salons, clubs, and in some cases own justice system, health, education, infrastructure, water and electricity supply (Pruijt, 2013; Fernandez, 2018; Suska, 2018). They can also function in diverse political activities like protesting, campaigning, networking workshops and in electoral politics by serving as "vote banks" (Pruijt, 2013). A good case in point is Dharavi, the largest slum in Mumbai, as well as in India (Zhang, 2018).

Similar to the two-sector approach to economic informality, a dual-market framework has been employed to analyse the complexity of urban informality. As Smolka and Biderman (2011) find, informal settlements co-exist with formal settlements and are structurally interdependent with them to constitute well-functioning housing and land markets. Residents who can afford to live in formal settlements may choose to stay informal for opportunistic reasons and institutional reasons like community ties, inertia, and lower risk aversion.

Apart from informal housing and various forms of informal governance within informal settlements, there are other ways to capture informality closely associated with the informal economy. Those engaged in financial practices can be broadly grouped under "financial informality". For instance, informality of the worker is defined by the ILO as "essentially a work arrangement wherein the worker has no access to social security" (Mehrotra, 2022: 3). In the absence of social insurance for informal workers who have limited ability to mitigate risks, particularly on account of imperfect labour and credit markets (Besley, 1995; Zeller and Sharma, 1998), microinsurance that combines positive features of formal insurance (prepaid, scientifically organised) and informal insurance (built on local information and resources) has emerged in India to fill the gap (Guha-Khasnobis and Ahuja, 2006). Various civil society associations are involved in the process, either as intermediate agencies (or semi-formal

financial institutions) negotiating with formal insurance providers or as insurers themselves underwriting risk (or informal financial institutions).

The informal economy in developing countries also suffers from the absence of formalised savings and credit systems (Tchuigoua, 2015; Medina et al., 2017). Local systems that exist in the traditional society like rotating savings and credit associations (ROSCAs) (or informal financial institutions) and others regulated by monetary authorities like microfinance schemes (or semi-formal financial institutions) serve to mobilise savings and provide credit for the population engaged in informal economic activities (Osuagwu et al., 2021). The informal and semi-formal credit systems are perceived as a pillar of support for the informal economy and its reproduction (Marsili, 2013), and are found to have played a significant role in women's empowerment in India (Sedai et al., 2021). ROSCAs that choose to use a bank account to deposit the informally collected funds create a link between the formal and informal financial systems, and their co-existence is understood under the concept of financial dualism (Osabuohien and Duruji, 2007). Similar to what is observed in the housing market, people are not necessarily forced to use informal savings and credit in lack of access to formal ones, but choose to do so for distrust of banks (Le and Nguyen, 2009) and preference for tailored services with better terms provided by informal financial institutions (Oloyede, 2008).

These and many other informal (and in some cases semi-formal) service exchanges are embedded in a complex and entangled relational framework that predates state regulation and continues to allow people to survive, build trust and sociability networks, and get access to employment, property, credit, consumer goods, education, medical care, and information (Day et al., 1999; Morris and Polese, 2013; Makovicky and Henig, 2018). The distinctive form of social relations that "[articulates] private interests and human needs against the rigid control of

the state" (Ledeneva, 1998: 7) is perceived as informal. Formality and informality in this context are interconnected and interdependent: formal constraints limit but also enable informal ways of circumventing them, while informal relations and knowledge of how to follow, enforce, or bend a rule are instrumental to the functioning of the formal order and formal institutions (Ledeneva, 2009, 2018; Portes and Sensenbrenner, 2018).

Cash plays an important role in constructing the bonding relations, though it is acknowledged that not all currencies are monetary, material, or even tangible (Pardo, 1996). Bribery and other informal practices that facilitate the flow of resources between private individuals, state enterprises, and the political and bureaucratic structures of government almost always refer to cash payments that leave no trace by the official authorities (Rogoff, 2016; Mcleod-Hatch, 2018; Rupp, 2018; Webb, 2018). Private employers and workers can reach an oral agreement that part or all of the workers' wages will be paid in cash and will not be officially recorded (Ognjenović, 2018). Friends or family members are often paid on a cash-in-hand basis for specific household tasks such as childcare, cleaning, and home improvement (Schneider and Williams, 2013). These activities, either legal or illegal, form part of the informal economy in a broad sense, and partially explain why the use of cash is employed as an indicator of the informal economy (Feld and Schneider, 2010; Hassan and Schneider, 2016; Williams and Schneider, 2016).

Like economic informality, context specificities need to be taken into account in understanding these various forms of informality, particularly financial informality that is insufficiently conceptualised and studied in existing literature. What constitute informal financial practices, what financial institutions are categorised as informal (and semi-formal), and to what extent the use of cash can be conceived as informal remain to be specified in Section 2.3. The review

of informal practices across disciplines, including the economic ones in the previous subsection, generates a deeper insight into the inherent heterogeneity of informality, which complicates the role of informality as a barrier to social inclusion.

2.1.4 Formal-Informal Linkages, Social Inclusion, and Policy Implications

Informality has conventionally been designated as a sign of or even as synonymous with poverty (Portes, 1996), and most informality studies concentrate on the urban poor, who commonly work in the informal sector, live in informal settlements, and access services, rights, and entitlements through informal channels (Banks et al., 2020). Informal workers receive lower wages and fewer benefits and have poorer working conditions (Rakowski, 1994), while work and working conditions are essential contributors to social inequality in education, health, and indebtedness (Mirowsky and Ross, 2003; Burgard and Lin, 2013; Mehrotra et al., 2020). Other scholars further find systemic discrimination on the basis of gender (Sethuraman, 1998; Chen, 2001; Chen et al., 2004), race (Mukhija and Loukaitou-Sideris, 2014), ethnicity (Ould Moctar, 2018), and caste (Agarwala, 2013) that perpetuate hierarchies between and within the formal and informal labour markets.

The association between development and formalisation of economic and residency status and the value placed on formality as superior have underpinned many repressive policy responses against informality (Banks et al., 2020). But is informality necessarily and always a negative attribute that should eventually be liquidated? Are formal structures the best for every section of society? As the previous review finds that heterogeneous informal practices that tend to have different implications for inclusive development and policy are lumped together under the umbrella term of informality, the role of informality is likely to be more complex than

anticipated. The implications are very often more relevant to the formal economy, but the policies have an indirect impact on the informal economy through formal-informal linkages. To generate a deeper insight into the linkages, the subsection further unpacks the concept of informality, starting with an engagement with the three major schools of thought, while other informal practices beyond the economic realm are also covered. As India features co-existence of three dimensions of economic informality, along with urban, financial, and other forms of informality, the complex implications of informality for inclusive development identified in other contexts also apply to the country, and the relations between informality and financial inclusion can also be analysed this way.

Dualists subscribe to the notion that the informal sector has few (if any) linkages to the formal sector (Sethuraman, 1976; Tokman, 1978), but they implicitly assume that the nature of the relations between them is a benign one (Weeks, 1975; Moser, 1978). Informal activities are perceived as a social welfare and employment "safety net", particularly in countries that have a dysfunctional welfare system (Rakowski, 1994). While some proponents of the dualist approach propose macroeconomic policies that emphasise expanding formal sector employment and increasing income to accommodate the marginal poor, others completely reject Western models of development and encourage cultivating and nourishing entrepreneurial talents among the poor themselves (ILO, 1972; Weeks, 1975; Moser, 1978; Rakowski, 1994; Chen, 2006). More specifically, they advocate an increased government role in providing appropriate technologies, credit, and business development support and redirecting final demand towards the informal sector, developing closer linkages between the formal and informal sectors through subcontracting and credit, and reducing the level of discrimination against the informal sector by the formal sector.

Legalists, in contrast, focus on formal-informal linkages embedded in the relationship between the informal sector and the formal regulatory environment, while they acknowledge that capitalist interests in the formal sector—called "mercantilist" interests by De Soto—collude with governments to set the bureaucratic rules (Chen, 2006). Therefore, rather than formalisation of the informal sector, they advocate for government deregulation to encourage economic freedom, entrepreneurship, and competitive capitalist development (De Soto, 1989; Rakowski, 1994). The policy suggestions include relaxation of institutional constraints that discourage business growth in the informal sector, particularly lack of property rights that denies them access to formal credit (Raj and Sen, 2016; Hawkins, 2020). Liberalisation of the property rights system by granting titles to micro-entrepreneurs in slums and shanty towns was proposed by De Soto (2000), as it allows them to collateralise their property for enterprise expansion.[5] NGOs that embrace the types of micro-level interventions advocated by the legalist school further promote poverty alleviation and micro-enterprise development through credit and training programmes, and increasingly engage in dialogue with governments and the private sector (Korten, 1987; Paul, 1988).

The structuralist framework is built on intrinsic linkages between the formal and informal sectors. It differs from the dualist and legalist frameworks in that the vulnerability of informal workers is not attributed to "their lack of integration into the mainstream economy", but to "their hyper-exploited positions within it" (Rosaldo, 2021: 7). Therefore structuralists advocate improving the situation of informal workers through state regulation on the unequal commercial relations between big businesses and subordinated informal producers and the

[5] This argument has been widely criticised. For instance, Breman (2003) refuted De Soto's assumption that the informal sector consists largely of people who own property, as the majority of those who use the property do not actually own it, while Manders (2004) focused on his failure to recognise the complex linkages between property rights and other factors of development, like national politics, national culture, national economics, national legal systems, and globalisation.

unequal employment relations between big businesses and informal wage workers (Rakowski, 1994; Chen, 2006). A more radical solution is to increase autonomy of the informal sector by cutting off its links with large capitalist enterprises, which necessitates a fundamental change in the overall political and economic structure (Moser, 1978), as exploitation is at the interests of domestic and foreign capital with acquiescence or even support of the state to create new spheres of accumulation (Bryant, 1976; Portes et al., 1989; Rosaldo, 2019; Samson, 2015). Myriad poverty alleviation and transfer schemes supported by governments and NGOs are in this context perceived more as means to construct the consent of the excluded and maintain the hegemony of capital than means to reduce inequalities between the formal and informal economies (Sanyal, 2007).

Different schools of thought have different policy priorities given their perceptions of formal-informal linkages. It is implied in their discourse that economic informality has complex implications for social inclusion and the implications are activity-specific, not necessarily negative. On the one hand, the informal sector composed of marginal economic activities (following the dualist logic) and subcontracting economic activities (following the structuralist logic) is excluded or suppressed by the formal sector, left little space for accumulation. On the other hand, it accommodates surplus workers who otherwise have no source of income and even supplements the dysfunctional formal system by supporting livelihoods and delivering community self-help under precarious circumstances. It is further acknowledged either implicitly or explicitly by all three schools of thought that the informal sector can form the seedbed for enterprise development with the potential of formalisation or operation under the same logic as capitalist businesses featuring higher income and productivity. Non-state institutions, either as substitutes to the state or intermediaries between the state and society, serve to narrow the formal-informal disparities.

What makes the implications of economic informality for social inclusion more complex is that it is not confined to the urban poor, but encompasses actions of higher-income populations, business interests, and the state that have an impact on the society as a whole. This complexity has to be taken into account in the analysis of the role of informality in financial inclusion, as the same informal practices can have different implications for the welfare of different stakeholders, and the implications are highly contextualised.

While dualist and structuralist rationales are more applicable to relatively deprived populations, legalist rationales are more applicable to relatively affluent populations who choose to operate informally for the sake of enlightened self-interest (Breman, 2003; Evans et al., 2006; Gurtoo and Williams, 2009; Williams and Nadin, 2010). Informal employment that allows individuals to evade income tax, while having a short-term positive impact on their economic situation, cannot be relied upon for sustainable development considering the absence of social security and insurance benefits (Bruns, 2018; Ognjenović, 2018). Subcontracting and informal work arrangements are exploited by big businesses to maximise profit by minimising social tax payments and mandatory contributions to the state pension and health funds (Ognjenović, 2018; Banks et al., 2020). The loss of tax revenue from under-reported economic activity and the problem of massive poverty among the elderly turn out to be a burden for local authorities and a loss for the whole society. The informal practices that enjoy state sanction or are even practices of the state in conspiracy with capital in some contexts are criminalised and rendered illegal in other contexts (Roy, 2009). Whether informality offers strategies for survival or accumulation and whether informal practices are classified as legal or illegal depend on how different groups are integrated into formal and informal processes and on their positioning vis-à-vis the state in the specific context (Ranganathan, 2014; Banks et al., 2020).

Similar complexity can also be found in the role of informality in the housing, consumer, and financial markets. While informal settlements may violate the state's regulations or someone else's private property rights, preventing people from accessing public spaces or their own assets (Dikovic, 2018), they help to address urban housing shortage with minimal expenditure and provide the flexibility and adaptability that formal housing based on standardised solutions fails to provide (Weinstein, 2008; Watson, 2009; Fernandez, 2018). Informal consumer access based on personal relations is seen as necessary to compensate for the dysfunctional and inefficient planned economy (Grossman, 1977; Holzlehner, 2014), while informal exchanges, either through traditional or digital means, allow households with inadequate incomes to consume at a middle-class level (Kovács et al., 2017). The informal financial sector complements and makes up for weaknesses in the formal financial market (Elliott and Yan, 2013), and serves as a substitute during financial liberalisation (Lensink et al., 2006). The implications of the informal practices beyond the realm of economics for social inclusion are also subject to context, and similar economic and spatial processes can lead to different outcomes for different groups.

While empirical research finds that interventions by formal sector actors can generate positive effects within the informal sector (Nugent and Swaminathan, 2006), the identified diverse informal practices and their complex implications for social inclusion through formal-informal linkages suggest that there exists no simple rule that increasing or decreasing formalisation will necessarily improve or worsen the welfare of the poor and the society at large (Guha-Khasnobis et al., 2006). To what extent the state should be involved and in what way, or the "right" reach of government, needs to be decided on a case by case basis, taking all stakeholders into account. The analysis of informality also highlights the need to look beyond formalisation to possibilities for negotiating more advantageous terms of inclusion (Banks et al., 2020). These

policy considerations apply to the case of financial inclusion, as it is an important dimension of social inclusion. Recognising the context-specific nature of informality and social inclusion, I focus on the dynamics of informality in India to explore challenges for inclusive development unique to the country that have further implications for financial inclusion.

2.1.5 Informality and Challenges for Inclusive Development in India

As briefly mentioned in previous subsections, the informal economy in India features co-existence of informal economic activities following the dualist, legalist, and structuralist logics, segmented by social institutions of class, gender, and caste. This subsection elaborates on how the theorised dimensions of informality co-exist and persist under the impact of domestic policies that through complex direct and indirect mechanisms influence the informal economy and how this is reinforced by global structural factors. Place (like Indian specificities) and era (like the development of mobile technologies and digital payments under globalisation) effect is further brought in to explain the widened disparity and blurred boundary between the formal and informal in the new digital age. Associated challenges for inclusive development identified in the subsection can find their variants in the realm of financial inclusion.

The two-sector model put forward by Lewis (1954) describes a path whereby a developing economy can foster the growth of a capitalist sector to employ excess labour available from the subsistence sector. The reallocation of labour from agriculture to non-agriculture in India, however, hardly approximates this Lewisian trajectory (Roy, 2008). The ongoing process of migration in a delayed and incomplete manner is not initiated by rising productivity in agriculture, but rural distress intensified by incomplete land reforms (Bandyopadhyay, 1986; Radhakrishnan, 1990; Appu, 1996; Mearns, 1998), and the surplus uneducated and unskilled

labour cannot be fully absorbed by the formal sector due to its capital- and skill-intensive nature. This is closely related to development policies implemented in India after independence: the import-substitution strategy with a focus on heavy industry that cannot generate immediate broad-based formal employment; the reservation policy that reserves consumer products for exclusive manufacture by the small-scale sector; and central and state government labour laws that are not applicable to small enterprises (Mehrotra, 2019; Singh, 2021). They combine to result in a sustained expansion of the petty commodity production sector governed by informal institutions (D'Costa, 2014).

The informal sector in India involves "non-capitalist" production, "pre-capitalist" production, subcontracted production, and informal wage work (D'Costa, 2016; Bhattacharya and Kesar, 2018; Bhattacharya and Kesar, 2020; Kesar and Bhattacharya, 2020). "Non-capitalist" production is carried out by small-scale household enterprises without any hired workers. Marked by isolation from the circuit of capital and prioritisation of the logic of subsistence of households over the logic of accumulation in enterprises, this type of enterprise is akin to the dualist perception of informality and comprises the majority of informal enterprises in India (Harriss-White, 2012; Kesar et al., 2022). "Pre-capitalist" production is carried out by relatively larger informal establishments that employ at least one regular hired worker. Considerations of accumulation, expansion, and profit maximisation in India's regulatory regime perversely incentivise this type of enterprise to remain small, akin to the legalist logic of informality (Bardhan, 1984). Large capitalist enterprises are also incentivised to circumvent labour laws and take advantage of reservations by owning small-scale enterprises, subcontracting the production to them, or casualising formal workers. The informal units that are incorporated in the circuit of capital via subcontracting linkages and informal wage labour in capitalist production units are akin to what structuralists perceive as the informal sector.

Globalisation and economic growth do not eliminate or even reduce informality, but are themselves a cause of informalisation. On the one hand, the inflow of international capital accelerates the ongoing process of land acquisition that forces displaced rural residents to join the already underemployed informal labour pool (Levien, 2011; D'Costa, 2014, 2016). On the other hand, formal enterprises are compelled under competitive pressure to adopt automated production systems and reduce labour cost through subcontracting, outsourcing, and casualisation, and thus create jobs of neither desirable volume nor type (Harriss-White, 2010; D'Costa, 2014, 2016). Therefore in spite of substantial movements across categories of the informal sector during the high-growth period after liberalisation, the mass of the population continuously recreate informal spaces without being formalised (Bhattacharya and Kesar, 2018). The persistent co-existence of informal economic activities underpinned by dualist, legalist, and structuralist logics suggests that the complexity of economic informality as a barrier to social inclusion also applies to the Indian case, and the persistence of economic informality suggests that other associated forms of informality, like urban informality and financial informality, also persist.

While there is abundant literature on how informality is structured by social institutions such as class, caste, gender, age, education (see Harriss-White, 2002), what makes the Indian case more complex—the way the economy grows and integrates into global production networks and global value chains (GVCs)—is less discussed. The engine of growth is shifting to the service sector before India completes industrialisation, as it increasingly engages with fragmented production processes in software, Information Technology (IT) services, and routine back-office functions (Ozawa, 2011; Whittaker et al., 2020). Among them, high-value

services, accounting for a significant portion of output and export, generate little employment,[6] while most unskilled rural migrants are absorbed by low-value informal services, including rickshaws, roadside tea stalls, and other subsistence activities (Behera and Tiwari, 2015). The large formal-informal (or modern-traditional) disparity and "out-of-sequence" sectoral shift in the digital era pose new challenges for inclusive development to India.

The large formal-informal income disparity builds up to sharp social divisions (D'Costa and Bagchi, 2012), which are starkly etched in a landscape of bourgeois enclaves and slums (Roy, 2009). Meanwhile, social problems associated with different stages of development that previously unfolded sequentially over a longer span of time occur simultaneously (Whittaker et al., 2007, 2010; Whittaker et al., 2020), reflected in the co-existence of under-nutrition (communicable) and over-nutrition (non-communicable) diseases (Subramanian et al., 2007; Ravishankar, 2012) and the co-existence of demands for basic and higher education.[7] The form of informality prominent in the digital era—gig work operated through digital platforms—complicates the existing formal-informal dichotomy. Rooted in similar rationales and socio-economic functions, digital gig work does not necessarily reduce precarious employment, and may even exacerbate it (Sharma, 2018). All these create "policy stretch" for the state and other institutions that deliver public services, as sustainable economic development requires commensurate social development (Whittaker et al., 2020).

[6] See National Association of Software and Service Companies' (NASSCOM) report "IT-BPM Sector in India 2019: Decoding Digital". IT and Business Process Management (BPM) account for more than 6% of Gross Domestic Product (GDP) and 25% of exports, but generate less than 1% of employment.

[7] At one end, India enforced free and compulsory primary education since 2010 and improves in literacy rates. As per data from the World Bank, adult literacy rate in India has increased from 48.2% in 1991 to 74.4% in 2018. At the other end, there is dramatic rise in the number of higher education institutions and the gross enrolment ratio. As per data from the All India Survey on Higher Education, the total number of higher education institutions (including universities, colleges, and standalone institutions) increased from 39,732 in 2011-12 to 51,649 in 2018-19, and the gross enrolment ratio increased from 18.8% in 2011-12 to 26.3% in 2018-19.

The India-specific review of informality confirms the persistent co-existence of complex implications of informality for social inclusion identified in the general review, intensified by era features afoot in the global economy. Digital gig work and other informal practices that reflect digital era features need to be taken into account in conceptualising informality in the context of India. Challenges for social inclusion associated with the co-existence of the "traditional" informal sector and the "modern" formal sector have implications for the analysis of challenges for financial inclusion, which is an important dimension of social inclusion, and further the conceptualisation of the concept to reflect diverse demands for financial services. Social institutions that segment the informal economy also intersect with other forms of informality in ways that have implications for financial inclusion, which I detail in Section 2.3.

2.2 Financial Inclusion

The term "financial inclusion" has gained importance since the early 2000s in the context of prevalent poverty in the world. The World Bank identifies a direct correlation between financial exclusion and poverty, and views financial inclusion as a building block for both poverty reduction and opportunities for economic growth in the Universal Financial Access 2020 initiative.[8] More inclusive financial systems are further linked to more sustainable economic growth and development in the 2030 Sustainable Development Goals.[9]

[8] See https://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020.
[9] The developmental goals that are associated with financial inclusion include eradicating poverty; ending hunger, achieving food security and promoting sustainable agriculture; profiting health and well-being; achieving gender equality and economic empowerment of women; promoting economic growth and jobs; supporting industry, innovation, and infrastructure; reducing inequality; and strengthening the means of implementation through greater savings mobilisation for investment and consumption.

The discourse on "financial inclusion" is therefore constructed on the sufferings of the global poor in homogenised terms from a condition of "financial exclusion", expressed in their inability to access formal financial services, which constrains them from engaging in productive activities and managing external shocks (Taylor, 2012). This necessitates the proliferation of institutions and technologies to provide financial services to the marginalised majority. In the money arena, great emphasis is placed on the digitalisation of money, ranging from government cash transfers to mobile money, to facilitate savings and transfers, increase financial transparency, and reduce corruption (Musaraj and Small, 2018). It is in this context that the current global campaign toward financial inclusion (and digital financial inclusion)—a campaign that resonates with earlier policies that advocate the formalisation of the informal economy—can be situated and understood.

The World Bank defines financial inclusion as access to useful and affordable financial products and services that meet the needs of individuals and businesses, delivered in responsible and sustainable ways,[10] and using a mobile phone or other digital technology is viewed as one such way.[11] While being able to have access to a transaction account is a first step toward broader financial inclusion, the products and services covered extend to transactions, payments, savings, credit, and insurance, and the focus of financial inclusion moves from access to usage of accounts for countries where most of the population have accounts. Quality measures that describe whether financial products and services match clients' needs, the range of options available to customers, and clients' awareness and understanding of financial products are also important indicators of financial inclusion.[12]

[10] See https://www.worldbank.org/en/topic/financialinclusion/overview#1.
[11] See https://www.worldbank.org/en/topic/financialinclusion/publication/digital-financial-inclusion.
[12] See https://www.worldbank.org/en/topic/financialinclusion/brief/how-to-measure-financial-inclusion.

These dimensions, along with the increasing deployment of digital means to reach otherwise financially excluded and underserved populations and other factors that need to be considered in conceptualising financial inclusion, make the conception of "financial inclusion" as debatable as that of "informality". Subsection 2.2.1 reviews existing debates to specify the scope of the concept that various conceptualisations of financial inclusion, including the one that best reflects Indian specificities, can fit into. As mentioned in the analysis of implications of informality for social inclusion, the same informal economic practices like tax evasion can have different welfare effects on the same group of people in the short and long term and have different welfare effects on people from different sections of society. This necessitates a deeper insight into the welfare effects of financial inclusion in Subsection 2.2.2 to add social welfare as an important dimension to the analysis of implications of informality for financial inclusion. Subsection 2.2.3 further reviews challenges for financial inclusion facing India for a more contextualised conceptualisation of the concept.

2.2.1 Conceptualisation of Financial Inclusion

One of the most difficult but critical issues in analysing financial inclusion is to conceptualise what it exactly is so as to set financial inclusion targets, identify barriers, craft policies, and monitor progress in reaching the targets. While the concept is initially associated with the demands of the poor, the World Bank (2007) extends the scope to cover the middle classes, and scholars like Sarma (2008) and Chattopadhyay (2011) extend it further to cover all sections of society. Beyond the target beneficiary and sector of financial inclusion and the dimension, type, delivery channel, target sector of financial services, other conceptual dimensions not mentioned or specified in the World Bank definition further complicate the conceptualisation of financial inclusion.

Table 2.1 Dimensions and Spectrums of Positions in Conceptualising Financial Inclusion

Conceptual Dimension	Spectrum of Positions		
(1) Dimension of Financial Services	Access/usage/quality e.g. Baruah and Bezbaruah (2020)	Full range of dimensions of financial services e.g. Amidžic et al. (2014), Demirgüç-Kunt and Singer (2017), Ravi (2019)	
(2) Type of Financial Services	Basic financial services e.g. Rojas-Suarez (2010), Amidžic et al. (2014)	Full range of basic and advanced financial services e.g. ADB (2014), Ravi (2019)	
(3) Delivery Channel of Financial Services	Traditional channels e.g. Rojas-Suarez (2010), Amidžic et al. (2014)	Full range of traditional and digital channels e.g. Mader (2016), Ravi (2019), Draboo (2020)	
(4) Provider of Financial Services	Banks e.g. Dev (2006), Rojas-Suarez (2010), Amidžic et al. (2014)	Formal financial institutions e.g. Sarma (2008), Demirgüç-Kunt and Singer (2017)	All financial institutions e.g. Goyal (2013), Ravi (2019)
(5) Target Sector of Financial Inclusion	Household/business e.g. Bara (2013), Sharma et al. (2019)	All sectors of society e.g. World Bank (2007)	
(6) Target Beneficiary of Financial Inclusion	The marginalised e.g. Rangarajan (2008), Mader (2016), Ravi (2019)	The poor and the middle classes e.g. World Bank (2007)	All sections of society e.g. Sarma (2008), Chattopadhyay (2011), RBI (2019)
(7) Purpose of Conceptualisation	Country specific analysis e.g. Chattopadhyay (2011), Goedecke et al. (2018), Taylor and Horst (2019)	Cross-country comparison e.g. Rojas-Suarez (2010), Amidžic et al. (2014), Nuzzo and Piermattei (2020)	
(8) Goal of Financial Inclusion	Financial exclusion reduction e.g. Amidžic et al. (2014), Nuzzo and Piermattei (2020)	Universal access to formal financial services e.g. Rangarajan (2008)	A cashless society e.g. Mader (2016), Kandpal and Mehrotra (2019)

Source: Author's own review and summary.

This subsection identifies conceptual dimensions that recur in literature engaging with financial inclusion, not always with a common emphasis, to propose a way to frame the complex concept. It is useful to think of all the many conceptualisations of financial inclusion as existing along a continuum of various combinations of conceptual dimensions. The concept is therefore not limited to a specific set of values, but varies across a continuum of values depending on the positions of researchers (and policy makers). Table 2.1 lists the spectrums of positions in each identified conceptual dimension and in some cases specifies positions somewhere in the middle between two opposite ends of the spectrum. The conceptualisation of financial inclusion in the specific context of India can be created by breaking the concept down this way and choosing the position from each of the spectrums.

The dimensions include but not limited to: (1) the dimension of financial services, varying in emphasis on their accessibility (access), usage (usage), and/or usefulness and affordability (quality); (2) the type of financial services involved, including basic financial services like deposits and loans, and more advanced ones like payments, insurances, and pensions; (3) the delivery channel of financial services, including traditional ones through which financial institutions deliver services by non-electronic means and digital ones through which financial institutions deliver services by electronic means; (4) the provider of these financial services, including formal financial institutions like banks, post offices, cooperatives, and other financial institutions, partially or not subject to regulation by the government, for a comprehensive understanding of the financial inclusion ecosystem; (5) the target sector of financial inclusion, varying in emphasis on the household sector that consists of individuals or groups of individuals and the business sector that consists of enterprises; (6) the target beneficiary of financial inclusion, further varying from an emphasis on the marginalised section of society that are unbanked or underbanked to the incorporation of the better-off sections of society until

all stakeholders are brought into the analysis; (7) the purpose of conceptualisation, ranging from country specific analysis to cross-country comparison with varying emphases on the depth or thickness in description and cross-cultural comparability or consistency of the concept of financial inclusion; and (8) the goal of financial inclusion, ranging from reducing financial exclusion, providing universal access to formal financial services, to achieving a cashless society with the advent of the digital era.

Some of the conceptual dimensions are interlinked to reflect the positions of researchers (and policy makers) and further their ways to approach questions related to financial inclusion. For instance, researchers (like area specialists) interested in country-specific analysis emphasise more the quality dimension of financial services, while researchers (like macroeconomists) interested in cross-country comparison place more emphasis on the access and usage dimensions of financial services and in some cases include quality indicators that can be quantified and standardised. The dimension of financial services usually has implications for the type of data needed and the methods used to collect, analyse, and interpret the data, which I detail in Chapter 4. The goal of financial inclusion interlinks with the type of financial services that researchers (and policy makers) focus on, the delivery channel and provider of these services, and its target beneficiary. Those who envision universal access to formal financial services through financial inclusion place more emphasis on the importance of basic financial services delivered through traditional channels via banks and cooperatives for the marginalised section of society. Those who envision a cashless society, in contrast, place more emphasis on the importance of digital payments supported by banks and fintech companies for all sections and sectors of society.

The scope of financial inclusion is also supposed to reflect context specificities. For instance, while mobile banking has not taken off in the United States, it has achieved some success in India, if not as broad as that of the path-breaking mobile money project M-Pesa in Kenya (Parks, 2018). Digital delivery channels of financial products and services cannot be factored out when conceptualising financial inclusion in the latter two countries. Various combinations of positions in consideration of contextual factors form so distinct understandings of financial inclusion that I have to decide on the scope of financial inclusion that is most suitable for the specific project of relations between informality and financial inclusion conducted in contemporary India.

2.2.2 Welfare Effects of Financial Inclusion

While financial inclusion is in general perceived as an enabler of reducing poverty and boosting prosperity, that achieved through certain approaches is questioned as to its effects on social welfare, particularly among the poor that financial inclusion aims to accommodate. This subsection reviews debates over two controversial approaches—disbursement of microcredit and use of digital methods—to challenge the idea that financial inclusion is always something desirable and beneficial to all. This serves to enrich the discussion of implications of informality for financial inclusion by viewing it as a means to social inclusion, rather than an end in itself.

Microcredit is employed to advance financial inclusion and cast as a global moral imperative within the financial inclusion paradigm (Taylor, 2012). Its expansion is closely associated with the scheme of neoliberal policy-making and finance-dominated capitalism featuring a new regime of accumulation where capital takes the form of the ownership of securities, shares, and

other financial assets (Lavinas, 2017) and profits occur through financial channels to the detriment of production and trade (Krippner, 2012). In this context, poverty is framed as the outcome of exclusion from the mainstream financial system (which is not necessarily the case), and market-based provision of microcredit is proposed to replace public provision grounded in principles of redistribution (Lavinas, 2018).

Various promotion policies have been implemented to subsidise and expand microcredit, and the state has played an active role in the process. It either facilitates the provision of subsidised credit towards the target population (Taylor, 2012) or itself dominates the micro-lending sector through its agency (Hossein, 2015, 2016). By providing access to microcredit, financial inclusion is argued to economically and socially empower individuals, particularly the poor, by allowing them to (1) better integrate into the economy with a reliable and affordable source of financing to capitalise on otherwise unrealisable market opportunities; (2) better discipline themselves in managing credit risk exposure and accumulating savings and other financial assets to facilitate the development of an investor mentality; and (3) better cope with uneven income flows and unexpected economic shocks and secure access to health and education services for long-term human capital development (United Nations, 2006; Smith and Thurman, 2007; Demirgüç-Kunt et al., 2008; Rosenberg, 2010).

The first claim has been criticised for neglecting the fact that many of the poorest households use microcredit for consumption rather than productive purposes, and even if they intend to, they cannot use it productively without specialised skills, market competitiveness, and capital to increase productivity and expand production (Kalpana, 2005; Taylor, 2012). The second claim, based on the false assumption of rational borrower behaviour, tends to encourage and normalise household over-indebtedness and reliance on all sorts of lines of credit (Lavinas,

2017, 2018). The growing level of household debt adversely impacts well-being and leads to a vicious cycle of debt (Guérin et al., 2011; Fine, 2013; Palley, 2013), or impoverishment through debt (Guérin et al., 2014).

The third claim instead shifts the emphasis of the financial inclusion discourse on microcredit from a direct route out of poverty to a tool to manage the symptoms of poverty (or from poverty alleviation to poverty stabilisation), but whether it serves as a social policy fostering a more homogeneous society is still debatable (Taylor, 2012). Subsidised debt-financed spending on education, health, and housing at the expense of the provision of public goods and services indeed shifts the burden of debt from the state to low-income and poor households and individuals (Lavinas, 2017, 2018). Bateman (2010) contends that the institutional emphasis on microcredit displaces resources from potentially more effective measures of addressing poverty and marginalisation, and leads to an erosion of social protection systems.

Therefore though microcredit is cast as the best way of improving overall welfare, a number of studies show that its impact on welfare variables is modest at best (see Duvendack et al., 2011). Empirical research further finds that the universalised pretensions of the claims obscure location-specific social relations and institutional processes that reproduce and reinforce existing inequalities. Massive demand for credit induced by reduction of input subsidies and tariffs increases social differentiation on the basis of class, caste, and gender that structure unequal access to agrarian surpluses and distribution of risk in India (Taylor, 2012). Race- and class-based political manipulation in the allocation of microfinance oppresses the historically excluded entrepreneurial poor and has a profound impact on social peace and stability in Trinidad and Tobago (Hossein, 2015, 2016).

Innovative approaches that collateralise social policy to expand coverage and range of services associated with microcredit not only reinforce the idea of credit as welfare (Lavinas, 2018), but operate at the interests of capital in ways that further discriminate against the very populations that the policy claims to serve and place them at a further disadvantage. For instance, consigned credit launched by the Brazilian government, while facilitating an intense process of financial inclusion, was biased towards civil servants, formal salaried employees, and retirees and pensioners (Lavinas, 2017, 2018). The U.S. government-insured mortgages designed to reverse historically exclusionary policies subjected black homebuyers to new forms of discrimination and exploitation in real estate practices and mortgage financing, as real estate investors manipulated them into purchasing deteriorated houses with the mortgages and profited from their defaults (Taylor, 2019). Homebuilders and mortgage lenders also benefited financially from the housing mandate, as homebuyers paid to repair the houses and paid down payments and interest to banks. Similarly, the housing policy of individual titling influenced by De Soto (2000) that aimed to improve access to credit among slum dwellers instead exacerbated their difficulties to find a place in the cities, as associated rising land and housing prices led to gentrification of slum areas: squatters were evicted; renters lost their bargaining power vis-à-vis landlords; and private owners were bought out by middle-income households (Desai and Loftus, 2013). Land in this context was not a factor enabling credit access but a source of profitable investment, bound up within broader flows of speculative capital. These two cases exemplify how social policy can be exploited through the practice or rhetoric of microcredit inclusion to the detriment of social welfare.

Like microcredit inclusion, digital financial inclusion can also act as a form of "adverse inclusion" that negatively impacts the welfare of marginalised and vulnerable groups. Financial technologies, like mobile money, credit cards, and digital government cash grants, are not

always used in ways anticipated by the designers of such technologies (see Ossandón et al., 2018). It can be partially explained by the findings of Mader (2016) that digital money brings extra costs for the poor, directly related to the purchase of handsets, electricity, and airtime and indirectly related to product and service prices marked up by payment-receiving businesses to cover transaction fees, even if customers are not made to directly pay for them; digital transactions generate data that can be used to supervise and further discriminate among the poor and generate new paternalist forms of governmental power over them; and digitalisation facilitates a more efficient flow of capital from the poor to the rich and empower those who control the new monetary infrastructures, which further argued by Meagher (2021) facilitates the shift of financial risks to previously hard-to-reach populations.

In a similar vein, Natile (2020), focusing on Kenya's M-Pesa programme, criticises digital financial inclusion as an intervention emerging from a broader project to advance Western capitalist interests rather than a development strategy for gender equality. It privileges a logic of opportunity over a politics of redistribution, favouring the expansion of the mobile money market over improving the lives of the intended beneficiaries. The ability to pay using mobile money, however, cannot be equated with the access to needed resources and services, as payment can only be made by those who can afford to pay and revenues from fees levied on micropayments are accrued to mobile payment companies.

All these challenge the idea of financial inclusion as an enabler of social inclusion, as expansion of microcredit and digitalisation of financial services that serve to advance financial inclusion do not necessarily promote the welfare of disadvantaged groups. Social welfare is therefore an important dimension that needs to be considered in analysing the implications of informality for financial inclusion and making policy suggestions.

2.2.3 Challenges for Financial Inclusion in India

To locate Indian debates within the global understandings of financial inclusion and identify important aspects that must be incorporated into the country-specific conceptualisation, this subsection draws on challenges identified in the analysis of inclusive development to explore challenges for financial inclusion facing India.

Given the large social divide associated with the formal-informal income disparity and simultaneous occurrence of social problems that historically unfolded sequentially, what are identified as double challenges in health and education (Whittaker et al., 2010; Whittaker et al., 2020) find their equivalence in the financial realm. At one end of the spectrum, there persist demands for access to most basic financial services. According to the Global Findex Report of 2017, India has the second largest unbanked population at 190 million people. At the other end of the spectrum, the better-off sections of the population demand up-to-date products and services facilitated by online payments and aspire to create wealth by exploiting this market potential. As a dominant sector in Indian economic development, the IT industry performs a crucial role in satisfying middle-class dreams of achievement and as a source of idealistic professions (Kumar et al., 2020). This is best illustrated in the fast-growing number and size of fintech and fintech-facilitated start-ups,[13] and a significant share of them are funded by foreign capital, which inevitably shapes the digital landscape in India.[14]

[13] See NASSCOM's Indian Start-up Ecosystem 2017: Traversing the Maturity Cycle. Fintech start-ups provide digital financial services like digital payment, lending, and insurance, while fintech-facilitated start-ups include e-commerce, food delivery and taxi aggregators that offer digital payment options.
[14] See NASSCOM's Indian Start-up Ecosystem 2017: Traversing the Maturity Cycle.

Spill-overs of technologies further create new patterns of demand for digital financial services. The internet access evolution marked by the shift from desktop to mobile in China—leader in the mobile payments trend—allows India to skip the website development phase and concentrate research and development on mobile apps.[15] Foreign smart phone companies, ranging from branded Samsung and Xiaomi to numerous unknown brands specially designed for the Indian market, establish manufacturing plants and sell low-end smart phones in India (Jeffrey and Doron, 2013). They reduce the price of smart phones to a level affordable for a larger section of the population below the middle class and the rich.[16] The availability of advanced network technology also reshapes domestic industries by allowing latecomers like Reliance Jio to skip the phase of 2G and 3G cell tower construction and maintenance, and leapfrog into 4G. Intensified competition with existing telecommunications companies renders mobile data prices in India among the world's lowest.[17] All these facilitate the penetration of digitalisation into lower strata of society, blurring the boundaries between the rich and the poor in terms of demand for digital financial services. This is exemplified by the case of digital gig workers, who are mainly from humble backgrounds but use online platforms to accept work on a task-by-task basis. This form of work, while rooted in similar rationales and socio-economic functions as informal practices involving cash transactions (Kovács et al., 2017), to some extent revolutionises their way of using digital payments, though most consumers still prefer using cash to pay for online services.[18]

[15] This is partially supported by the finding that 65% e-commerce sales in India were generated by mobile and tablet in 2016. See NASSCOM's Indian Start-up Ecosystem Maturing 2016.
[16] See Financial Inclusion Insights (FII)'s 2013 Annual Report: Financial Inclusion in India and 2018 Annual Report: Financial Inclusion in India. While only 5% Indian adults had access to smart phone in 2013, 17% owned at least one smart phone in 2018.
[17] See World Mobile Data Pricing 2022.
[18] Nielsen's Global Connected Commerce Survey shows that 83% consumers in India preferred using cash on delivery for online purchases in 2015; Superfly Insights shows that India was the first country where Uber enabled cash payments and 65% of all payments are made in cash in 2017.

The demands for advancement to digital payments, intensified by era features afoot in the global economy into which India is integrating, before the demands for access to basic financial services are satisfied create double challenges in financial inclusion for policy makers in India. Earlier developers achieved almost universal access to basic formal financial services when the internet exploded into the mainstream in the late 1990s and raised challenges of building digital infrastructure. This is illustrated in Table 2.2, which shows that during the phase when most countries were consolidating online banking and developing new online services, less-developed countries like India were still building basic financial infrastructure. This indicates that India's transition to a cashless society is not only about developing digital financial infrastructure, but addressing the issue of serving the unbanked.

Table 2.2 Demographic Branch and ATM Penetration in Various Countries: 2004/05 and 2018 (Number per 100,000 Adults)

	Commercial Bank Branches			ATMs		
Country	2004	2018	% change	2005	2018	% change
High Income	23.76	20.22	-1.07	62.25	67.92	0.70
Upper Middle Income	10.84	14.54	2.44	15.40	54.38	19.47
Middle Income	7.59	10.28	2.53	9.26	32.85	19.59
Lower Middle Income	4.54	7.96	5.38	2.60	18.79	47.90
Low Income	1.14	3.05	11.99	0.24	4.06	121.36
India	8.93	14.50	4.45	2.29	21.66	65.07

Source: International Monetary Fund, Financial Access Survey.

Note: ATM: automated teller machine; % change is annual average.

The policy stretch created by the simultaneity of "basic" and "advanced" challenges for financial inclusion was evident during Demonetisation and Covid-19, as the two events led to more pressing demands for the government to address social problems associated with access to and use of a wide range of traditional and digital financial services. To capture the diversity of demands and nuances of change under the impact of these two events, the dynamic and multifaceted nature of financial inclusion has to be incorporated into its conceptualisation. The

conceptualisation also needs to reflect a critical engagement with digitalisation, pertaining to its relative importance and priority, in consideration of insufficient public resources for tackling both challenges simultaneously.

2.3 Re-Conceptualisation of Informality and Financial Inclusion

As reviewed in previous sections, "informality" is an umbrella term that covers a broad category of informal practices, and "financial inclusion" is not confined to bank access and use but covers a wide range of financial services. Subsection 2.3.1 reviews the relations between informality and financial inclusion to narrow down the scope of the project to three forms of informality—economic, urban, and financial informality—that have more direct implications for financial inclusion. Informality is not necessarily a barrier to financial inclusion, like what is found in the analysis of inclusive development, and its complexity is rooted in the heterogeneity of informal practices. Subsection 2.3.2 further refines the conceptualisation of informality and financial inclusion by taking Indian specificities and practical concerns into account, as the conception of the two concepts guides the research design. Social factors that have a role to play in the process and need to be considered in the research design are also discussed.

2.3.1 Relations between Informality and Financial Inclusion

The literature that engages with both informality and financial inclusion predominantly concentrates on three specific forms of informality—economic, urban, and financial informality. Among the three forms of informality, the relations between economic and urban

informality and financial inclusion are more explicitly studied, while more complex implications of financial informality for financial inclusion are less explicitly studied, necessitating a synthesis of relevant information from a range of sources. This subsection first reviews the interplay between economic and urban informality and financial inclusion, and then drawing on formal-informal linkages and their implications for inclusive development analysed in Subsection 2.1.4, examines the role of financial informality in financial inclusion.

A consensus has been reached that economic and urban informality are barriers to financial inclusion among studies that conceive financial inclusion as access to banks at the local and macro levels. Scholars like Solo (2008), King (2012), and Kanbur (2017) find that informal workers and slum dwellers tend to be financially excluded because banks have a preference for clients who have a steady income and proof of a registered residential address. This preference is related to their cost and risk management (Gelb and Castrillon, 2019; Boitano and Abanto, 2020) and the "mindset" in officialdom that is itself formal in nature (Kanbur, 2014). Solo (2008) further finds lower bank presence on a per capita basis in neighbourhoods featuring more informal settlements. Cross-country evidence confirms the negative correlation between informality (measured by the proportion of the population working outside the formal sector) and financial inclusion (measured by the proportion of the population owning a bank account), particularly among countries where opening a bank account requires proof of income or employment (Gelb and Castrillon, 2019).

Economic and urban informality further hinder access to and use of other more advanced financial services. Informal workers, either in the informal or formal sector, are excluded from public social insurance and are too poor to afford voluntary and contributory private provision (Mehrotra et al., 2020). The informal nature of their contract and hence of their income

disqualifies informal workers from obtaining credit from formal financial institutions (Polese, 2018), as it is difficult for the institutions to assess their repayment capacity (Sharma et al., 2019). Informal enterprises also face such informality-related exclusion, as lack of clear and complete documentation of assets and cash flows affects their creditworthiness evaluation and access to bank loans (Boitano and Abanto, 2020). Wily (2006) finds that credit to invest in production and mortgages to obtain the credit are dependent upon the holding of statutory title deeds, or formal entitlement to property, that is lacking in informal settlements. Cash dominates the payments systems of trading and supply chains in the informal sector, and as people engaged in this sector mainly receive their incomes and make payments in cash, they are less likely to use cashless means of payments, or become digitally financially included (Jones, 2008; Ghosh et al., 2017).

Therefore despite heterogeneity of informal economic practices (as informal workers, micro-entrepreneurs, subcontracting enterprises) and multiple purposes of living in informal settlements (for a basic livelihood and other economic, social, and political purposes) and their complex implications for inclusive development identified in Section 2.1, economic and urban informality are always barriers to financial inclusion. Digital gig work that complicates the role of economic informality in financial inclusion remains understudied.

Conversely, financial inclusion is argued to contribute to reducing informality. It forms the basis for conversion to full economic citizenship, which refers to the engagement of individuals and enterprises in formal processes including legal employment and business registration, and grants them access to fair interest rates, a variety of financial products, and benefits and tax advantages enjoyed by those forming part of the formal system (Marsili, 2013). The access to banking services increases their savings and investments and participation in the formal

economy (Solo, 2008), and the provision of credit integrates informal enterprises into the formal system and eventually makes them tax-paying and registered entities with capital increase, new technology acquisition, and operation expansion (Marsili, 2013; Kanbur, 2014). This resonates with De Soto's (1989, 2000) idea of informal enterprises in slums as an untapped reservoir of entrepreneurial energy. The positive correlation between financial inclusion and formalisation is strengthened in the digital era with increased mobile penetration and internet usage (Kelikume, 2021). Financial and digital technologies connect informal actors to the benefits of credit, cash transfers, employment, and social services in a cheaper and more efficient way (Meagher, 2021) and facilitate the process for informal enterprises to register and operate as formal enterprises (Klapper et al., 2019).

However, financial inclusion through access to microcredit and use of digital methods does not guarantee reduced informality and in some cases even reinforces informality that it aims to reduce, as indirectly mentioned in the discussion of welfare effects of financial inclusion. For instance, collateralisation of social and housing policy had a bias against informal workers (Lavinas, 2017, 2018) and failed to accommodate informal settlers (Taylor, 2019). Whether microcredit increases productivity and promotes registration depends on whether it is structured and sized in ways that generate productive returns and whether borrowers are willing to and have the capacity to use it productively (Bannerjee, 2013). Empirical evidence suggests that most microcredit fails to transform informal enterprises into formal ones (Karlan and Zinman, 2011). Differential interest rates that classify and price people on the basis of credit risk, while incorporating previously excluded groups, can entrap them into a vicious cycle of debt (Langley, 2009; Fourcade and Healy, 2013). This is particularly true for those who take out expensive education loans but still find it difficult to get a formal job (Seamster and Charron-Chénier, 2017). While digitalisation enables informal workers and slum entrepreneurs

to establish a credit history with data generated from digital transactions, payments, and other non-traditional sources (Klapper et al., 2019), it does not generate access to cheap credit that allows them to capitalise on market opportunities. This is best exemplified in the case of digital gig workers, who remain far away from the formal financial ecosystem despite digital records of income (Shah, 2020). Nor can the data be ultilised by tax authorities to bring individuals and enterprises into the tax net, as they lack human resources to do so (Mehrotra, 2020).

When it comes to financial informality, in contrast, there is little controversy over the positive effects of financial inclusion on reducing it, as access to and use of formal financial services inevitably reduce informal financial practices. The implications of financial informality for financial inclusion, however, are more complex, and the complexity stems from diverse formal-informal linkages associated with heterogeneous informal financial practices.

As Madestam (2014) frames in a "theory of informal finance", informal credit affects people's access to credit in two main ways: informal lenders either substitute for banks by channelling formal funds to bank-rationed borrowers or complement banks by helping them to monitor the use of the credit. While the former segments the credit market and reduces people's direct access to banks, the latter improves their relationship with banks by allowing for larger formal loans to them. The extent to which informal credit substitutes for or complements bank credit depends on informal lenders' bargaining power, and its interest rates rise as the credit market becomes segmented. Money lenders have a bad reputation for usury in most countries (Ghate, 1988). While microcredit saves people from money lenders, it also charges higher interest rates than formal credit and creates severe problems of over-indebtedness and escalating debt traps (Taylor, 2012). It does not change much in the digital era, as local credit providers, institutionalised via mobile money projects, still provide credit on terms biased against

borrowers (Natile, 2020). Their high interest rates suggest that informal and semi-formal financial institutions are substitutes for formal institutions in a segmented credit market, and the substitution has negative implications for financial inclusion.

Empirical evidence, however, also finds that informal financial sectors exist to supplement underdeveloped formal sectors, but not in ways that lead to bank credit expansion as identified by Madestam (2014). Critics of banks and microfinance institutions (MFIs) claim that the attitude of local managers and staff running these programmes towards their clients from different socio-economic backgrounds explains why people do not trust formal and semi-formal financial institutions and diversify their access to financial devices, including informal ones (Hossein, 2016, 2017). The informal institutions are not limited to money lenders, but include social networks that provide flexible loan terms with tailored repayment plans to people in need to cope with income-related shocks (Besley, 1995; Pearlman, 2010) and to informal enterprises to start a new business and manage risk (Benjamin et al., 2012; Polese, 2018), and more controversial ROSCAs.

While ROSCAs have been criticised for taking advantage of legal loopholes to compete with banks, getting involved in or creating serious scandals, and diminishing public trust in the financial system (Eeckhout and Munshi, 2010), not only is credit with ROSCAs less costly than it would be in the formal financial system (Oloyede, 2008; Polese, 2018), but saving is more convenient and rewarding, particularly in the context where banks are located far away and bank savings interest rates are extremely low (Kovács et al., 2017; Imami et al., 2018). They also provide coping tools for livelihood survival, tailor financial services to the real, day-to-day needs of members of the group, enhance social solidarity between them that can be used on other occasions, and preserve their dignity when fair access to financial resources is denied

by the state and formal institutions (Hossein, 2013, 2014; Imami et al., 2018; Osabuohien and Ola-David, 2018; Vélez-Ibáñez, 2018).

People's reliance on informal institutions in forms of indebtedness, help, and support networks that function beyond redistribution of cash reduces their demands for formal financial services (Polese, 2021), but the scheme that obliges people to put money aside every month and de facto forces them into some saving habits can also be seen as a way of promoting financial inclusion (Imami et al., 2018). Such developmental role of informality can also be found in the case of microinsurance (Guha-Khasnobis and Ahuja, 2006). Semi-formal insurance agencies, as an intermediary, generate both demand for insurance by organising informal workers mostly without any social security cover, offering flexibility in premium collection, and working for their welfare and supply of insurance by helping formal insurance providers to overcome informational disadvantages and high transaction costs in providing services to them. Meanwhile, microinsurance helps to reduce interest rates charged on credit, particularly microcredit, by reducing the risk of loan default.

These various forms of informal financial practices are not confined to the marginalised sections of the informal economy. Informal saving and loans network schemes are established in large employing institutions as part of the incentivisation of employment relations (Kovács et al., 2017). ROSCAs also penetrate formal work settings, supplementary to other means of obtaining credit (Osabuohien and Ola-David, 2018). Social relations that informal banking systems are embedded in also play an important role in the process through which access to bank loans are acquired (Moser, 1978). Another form of financial informality that is more prevalent within the domain of the powerful is associated with illegal financial practices, as the relations that cement and consolidate power through organised crime are rooted in financial

exchange and political support (Banks et al., 2020). Bribes and other illegally earned money can be laundered through the hawala system, which is considered an alternative to formal transfers involving banks and financial institutions (Farooqi, 2018).[19] While implications of these illegal financial practices for financial inclusion are complex, depending on how they impact the use of formal financial services, they cause serious harm to society as a whole without exception.

This review confirms that informality in forms of economic and urban informality is a barrier to financial inclusion, while financial informality has more complex implications, with informal financial practices acting as substitutes for or supplements to formal practices, playing a developmental role, or involving illegal elements in the process. Each has different implications for financial inclusion and broader social inclusion. The role of informality as a barrier to financial inclusion is empirically examined in Chapter 5 and the complex role of financial informality is further elaborated and typologised in Chapter 6. While financial inclusion also has complex implications for informality, it is beyond the scope of the thesis, and further research is needed as detailed in Chapter 7.

2.3.2 Refined Conceptualisation of Informality and Financial Inclusion in the Context of India for Empirical Research Purpose

To critically engage with the role of informality as a barrier to financial inclusion and empirically examine whether and how the role has changed under the impact of Demonetisation and Covid-19 in the context of India, this subsection refines the

[19] Hawala is an informal fund transfer system that allows for the transfer of funds from one person to another without the actual movement of money.

conceptualisations of informality and financial inclusion to reflect country and project specificities. The scope of the concepts of three major forms of informality—economic, urban, and financial informality—and financial inclusion are specified in sequence, taking place (India) and era (development of mobile technologies and digital payments) features into account. Other social factors that intersect with these forms of informality in ways that have implications for financial inclusion and need to be considered in the empirical research are also reviewed.

Economic and urban informality have been well defined and studied in the context of India. Drawing on extensive fieldwork in India, Harriss-White (2002: 4) defines the informal economy as "the economy not covered by official data on registered enterprises", including economic activities that are not registered for the purpose of taxation and/or state regulation and those within the formal economy but not covered by state regulation or record-keeping. While the former are typically within the domain of the politically weak and their economic activities are largely legal, either below all tax thresholds or concerning untaxed products, the latter are within the domain of the powerful, largely in forms of illegal practices like corruption, tax evasion, and fraud. Within the wide scope of the informal economy, my research focuses on informal employment in both the formal and informal sectors, as it is the terms and conditions of labour contracts that structure the access to insurance benefits, bank accounts, and formal loans. Digital gig work is also a form of informal employment, but needs to be analysed separately, as the work involves the use of mobile money that serves to advance digital financial inclusion. While illegal economic activities can also have an imapct on financial inclusion, the impact is made through financial mechanisms, which form part of financial informality.

Urban informality is defined by Zhang (2017, 2018) from two perspectives based on field research in Mumbai slums, and this definition is widely used in Indian scholarship. From a legal perspective, slums (or informal settlements) are "unauthorised and illegal structures, where inhabitants do not have legal title to the land that they occupy"; from a quality of life perspective, slums are areas that are "short of basic amenities and characterised by the prevalence of insanitary, squalid, and overcrowded conditions" (Zhang, 2018: 876). These two dimensions of the definition indicate there exist semi-formal settlements where inhabitants do not have legal rights to property but enjoy better living conditions than slum dwellers. The scope of urban informality is therefore not confined to informal settlements, but includes semi-formal settlements, as proof of property ownership is critical for availing formal loans.

Few studies have attempted to define financial informality, though it has been studied as a facet of the informal economy and examined in the relations between informality and financial inclusion. This thesis defines financial informality as informal financial practices, including the use of cash, informal saving, and informal credit, interaction with informal financial institutions, and illegal financial activities. As mentioned in Chapter 1, financial informality is not necessarily the opposite of financial inclusion, as those who are financially included as active users of formal financial services can still be reliant on cash and informal financial institutions, and they are more likely to engage in financial crimes.

Why the use of cash is conceived as informal and what constitutes informal (and semi-formal) financial institutions need to be specified in the specific context of the project conducted in India. For the use of cash, in a narrow sense, only monetary transactions not declared for tax, social security, labour law, as well as other illegitimate purposes such as money laundering, bribery, and terrorism can be deemed as informal (Thomas, 1992; Portes, 1994; Rogoff, 2016).

In a broad sense, all the monetary transactions conducted outside the monitoring of the state or banks, including legitimate cash transactions within the formal and informal economies and reciprocal favours between friends, acquaintances, and family members, are perceived as informal. The thesis adopts the latter perspective, which indicates that all cash payments are informal, for two reasons. First, the research deals with contemporary issues of Demonetisation and Covid-19 that are officially narrated as catalysts to a cashless economy, and cash payment is indiscriminately described as informal in the narrative.[20] Second, it is not easy to distinguish between legal and illegal use of cash in practice, particularly for the project conducting interviews at the mass level, as most ordinary people have no idea whether their incomes received in cash and their purchases of goods and services made with cash are recorded and reported to the tax department. For these reasons, the use of cash, regardless of its purpose, is covered in the scope of financial informality. This is, however, not a passive acceptance of the official narrative of cash as something evil that needs to be eliminated, but an active engagement with the assumption that the country has been prepared to go cashless and a cashless economy is beneficial to all.

As to informal (and semi-formal) financial institutions that are found to have implications for financial inclusion, there is no controversy that money lenders, ROSCAs, family and friends, and other institutions beyond the purview of the state are informal finance and saving options. MFIs are generally categorised as semi-formal, because they involve informal elements in their operation, despite mandatory registration with the Reserve Bank of India (RBI). The formalised credit provisioning embeds informal coercive practices deep within its internal workings, even

[20] For instance, the term "informal cash payment" was used in Prime Minister Narendra Modi's interview with *India Today*. Available at: https://www.indiatoday.in/magazine/cover-story/story/20170109-narendra-modi-black-money-demonetisation-opposition-830098-2016-12-29. See the works of Sindzingre (2006) and Steenberg (2016) that support the view that the boundary between the formal and informal is influenced by policy and operationalisation objectives.

as they are represented as its opposite through the use of intermediaries such as village moneylenders to find borrowers and enforce repayment (Taylor, 2012). This ties MFIs to some illegal practices of informal lending, including abduction and extortion, that do not follow codes of conduct and operation for registered organisations (Arunachalam, 2011). The categorisation of NGOs that provide savings and credit schemes is more debatable, depending on the source of funds: those under the self-help group (SHG)-bank linkage program are part of the existing formal financial network (Bansal, 2003); other privately-funded ones are often conceived as semi-formal (Lensink et al., 2006). The foreign-funded NGO that has a significant presence in the place where I conducted field research is better categorised as a semi-formal institution. Though it is registered with the Indian government, the NGO only discloses publicly the total amount of savings, loans given out, and loans repaid through SHGs. As the amount and frequency of savings and the amount and repayment of loans are customised to each group, the processes of collecting savings and disbursing loans through SHGs can be perceived as informalised and hidden from the government. Interaction with these semi-formal financial institutions and use of their services are forms of financial informality.

Financial inclusion is also a complex concept that needs to be refined by specifying the position in each conceptual dimension identified in Table 2.1. It is officially defined by the Committee on Financial Inclusion in India as "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost" (Bhaskar, 2013: 2). The co-existence of demands for traditional and digital financial inclusion among people from different sections of society suggests that this definition no longer reflects contemporary Indian realities. Financial inclusion can instead be conceived as universal access to and use of a full range of basic and advanced financial services delivered through both traditional and digital channels by formal

financial institutions. It allows people from all sections of society to choose services that best fit their needs at affordable costs, particularly when they have to interact with formal financial institutions and use digital means to cope with emergencies like Demonetisation and Covid-19. Financial inclusion can also be conceived as a dynamic concept to capture nuances of change under the impact of these two events, i.e. the generation of access to and use of formal financial services for people who currently do not have access to or use them. There is no binary distinction between financial exclusion and inclusion, but a degree of financial exclusion and inclusion. As long as people gain access to more advanced formal financial services or use more formal financial services they currently have access to, they can be viewed as being more financially included. The use of online payment is conceived as the most advanced form of financial inclusion, allowing for an active engagement with the government narrative of cashless economy enabled by mobile money.

Informality and financial inclusion cannot be understood in isolation from social institutions that function, not just as components of civil society in forms of networks or social capital, but as structures of economic, urban, and financial informality that have implications for financial inclusion. In the economic realm, beyond the conflict between classes, capital manipulates non-class social institutions to better control labour. The terms and conditions of labour contracts are affected by gender (women are more concentrated in rural sites, in informal employment, on casual contracts, and at wages much lower than men), caste (which forms the basis for the evolvement of urban, occupation-based, trade associations and affects the tasks available to their members, while the lowest castes are more likely to be casual labour, in agriculture, and poor), age (children, sick or disabled and elderly people are paid at differential rates), and education level (illiteracy and poor levels of education are means to reproduce informal labour) (Erb and Harriss-White, 2002; Harriss-White, 2002; D'Costa, 2016; Mehrotra, 2021). The

social groups that are more likely to be engaged in low-paid or unpaid informal work are more likely to be financially excluded.

The oppression of labour also involves inadequate provision of urban housing, essential services, and infrastructure, and competition for them further undermines class solidarity (Harriss-White, 2002). There is close association between socio-economic status and residential choice, as studies confirm the existence of a high degree of spatial segregation in cities of India based on class, language, caste, and religion (Chaplin, 2011; Vithayathil and Singh, 2012), while disparity in living conditions further leads to disparity in job prospects, healthcare, and literacy (Desai and Dubey, 2012). As urban informality is a barrier to financial inclusion, the social groups concentrated in informal settlements featuring poor living conditions are more likely to be financially excluded.

The social structure of financial informality is more complex. Reasons for reliance on informal financial institutions and cash payments vary across social groups. Informal workers have their wages routed through informal institutions (Bordoloi et al., 2020). Physical access to formal financial institutions is so impeded by long distance and poor infrastructure that those living in rural areas prefer informal institutions that easily meet their financial needs in terms of both products and processes (Jones, 2008; Johnson, 2013).[21] Informal caste-based institutions are active in the economy, including caste-specific insurance and rotating credit schemes operated by and for caste members (Harriss-White, 2002) and caste-based business networks that allow caste members to receive credit from suppliers with whom other members of the community have established relations and stand guarantor for them (Munshi, 2019). Transparency offered

[21] For rural-urban imbalance in bank branch and ATM penetration and distribution of bank credit, see Varghese and Viswanathan (2018), Ravi (2019), and Chavan (2016).

by formal savings and digital payments is perceived by women more as a source of dispossession of control over spending-related decisions than empowerment (Guérin et al., 2017), as their accounts are in many cases operated by middlemen and their male relatives (Mathur, 2015) or are jointly held by their husbands (Ghosh et al., 2017). In this context, women prefer to keep cash on hand and use cash payment. Lack of financial and digital literacy is associated with characteristics of lower education and elder age, as people featuring these are less likely to adapt to financial and digital transformation (Mphidi, 2004).

These social institutions that contribute to informality are themselves interconnected, resulting in further marginalisation of certain groups of people. For instance, women are not only found to own and control fewer assets and income, but are significantly less educated than men (da Corta and Venkateshwarlu, 1999; Papola and Sharma, 1999). In rural settings, even young girls are bonded into labour to reduce costs and assist agrarian accumulation, while boys are educated to escape agriculture (Janakarajan, 1997; Mosse, 1997). While these women from poor backgrounds are compelled to work to reduce dependency, educated women in the propertied classes are not allowed to work, wasting the economic potential of their education (Clark, 1993; Harriss-White, 2002). Caste ideology further affects the types of work women can do, as low-caste women are more likely to be engaged in low-paid, casual, agricultural and other menial work, and in towns in sanitation work (Harriss-White, 2002, 2019). These various social institutions tend to complicate everyday conditions of marginalities in the financial system and intersect to shape individual access to and use of financial services.

While the refined conceptualisations of informality (economic, urban, and financial) and financial inclusion guide the empirical research on the role played by informality in financial exclusion and inclusion, pre-existing inequalities and their intersectionality (associated with

class, caste, gender, education, occupation, and age) that structure these various forms of informality also need to be taken into account in the research design in Chapter 4.

2.4 Conclusion

Informality and financial inclusion are two complex concepts that existing literature cannot easily reach a consensus on their meanings, let alone the relations between them. For the concept of informality, I adopt Polese's (2021) definition that broadly defines it as an activity that bypasses the state or other regulatory entities, and it can be adapted to various contexts, research objects, and ideologies. This definition constructs on critiques of "dual-sector" understanding of (in)formality in the economic realm (e.g. Bromley, 1978; Moser, 1978) and beyond the scope of the narrowly-defined economy (e.g. Thomassen, 2014, 2015; Knudsen and Frederiksen, 2015) and critical engagement with the role of the state in deciding on the boundary between the formal and informal (e.g. Sindzingre, 2006; Steenberg, 2016; Pratt, 2019). I develop the concept of financial inclusion on the basis of the World Bank definition that focuses on access, usage, and quality dimensions of a wide range of traditional and digital financial services delivered to individuals and businesses, and identify other conceptual dimensions not specified by the World Bank, like providers of financial services, the purpose of conceptualisation, and the goal of financial inclusion, to exemplify how conceptualisation of financial inclusion can be refined.

An extensive review of literature on implications of informality for social inclusion through its linkages with formality suggests that it is the heterogeneity of informal practices that complicates the role of informality. This also applies to the study of financial inclusion as an

important dimension of social inclusion. Literature on the relations between informality and financial inclusion finds that informality in forms of informal employment, informal housing, and informal financial practices has implications for financial inclusion. Conforming to the dominant narrative that informality is a barrier to financial inclusion, economic and urban informality are found to hinder access to and use of formal financial services. The role of financial informality is more complex, not necessarily as a barrier to financial inclusion. Heterogenous informal financial practices act as substitutes for or supplements to formal practices, play a developmental role, or involve illegal elements in the process, while financial inclusion itself is not always a means to social inclusion. Therefore there can be cases where financial informality promotes financial inclusion, and it can be achieved in ways detrimental to social welfare.

As the research project examining the relations between informality and financial inclusion is situated in India, conceptualisations of informality focusing on persistent informal employment and of financial inclusion on demand for most basic financial services lose their relevance. Era features of India's integration into IT services GVCs and government push towards a cashless economy are also considered in re-conceptualising informality and financial inclusion. Cash payment is conceived as an informal financial practice and online payment as the most advanced form of financial inclusion to enable a critical engagement with the official narrative of digitalisation. I review the narrative of financial inclusion (particularly digital financial inclusion) as beneficial to all and associated policies that aim to solve basic financial inclusion challenges with digital solutions in Chapter 3. The dimensions of informality and financial inclusion and intersecting social factors that structure the access to and use of financial services guide the background study and research design in Chapter 4. With data collected in the field, I empirically examine to what extent informality acts as and remains a barrier to financial

inclusion in the context of Demonetisation and Covid-19 in Chapter 5 and its more complex role with advancement of a typology of financial informality in Chapter 6.

CHAPTER 3

Top-Down Approach to Financial Inclusion, Demonetisation, and Covid-19: India's State-Led Narratives and Promotion Policies

Financial inclusion has received much attention from policy makers and academics for its linkages with other important socio-economic benefits (Ozili, 2020). It is a major strategy used to improve social inclusion (Bold et al., 2012) and human development (Sarma and Pais, 2011), to reduce poverty to a desired minimum (Chibba, 2009; Neaime and Gaysset, 2018), and ultimately, to achieve sustainable inclusive growth (King and Levine,1993; Beck et al., 2000; Demirguc-Kunt et al., 2017). Yet how financial inclusion and its significance for the country have been narrated in the specific context of India remains understudied. Understanding the narrative is important in that it guides the policy direction for financial inclusion from the top down and reflects perceptions and experiences of people from the bottom up.

To better understand the gap between top-down and bottom-up narratives of financial inclusion, I review how the state through a peculiar framing system imposes imaginaries on financial inclusion as beneficial for people from all sections of society and justifies policies promoting financial inclusion, including Demonetisation and responses to Covid-19. The bottom-up narratives, showing localised perceptions and experiences based on field research in the city of Kolkata, will be provided in Chapter 6. This chapter thus forms an integral part of the analysis of how dominant narratives of financial inclusion and of Demonetisation and Covid-19 can be challenged and how top-down and bottom-up understandings often differ. In this way, the

thesis develops a deeper insight into challenges to financial inclusion that are unrecognised or underestimated by the Indian government. The challenges identified in existing literature on promotion policies and Demonetisation and Covid-19 in this chapter will also be empirically analysed in Chapter 5 and 6.

Section 3.1 analyses how the government has conveyed the importance of financial inclusion for socio-economic development through an in-depth probe into relevant narratives in public documents and publications of speeches by politicians and economic technocrats. Section 3.2 reviews how the government has implemented policies to promote financial inclusion and why they failed to achieve intended developmental goals. This serves to explain why the government increasingly prioritised digitalisation even before Demonetisation and Covid-19. Section 3.3 examines how the government unintentionally changed to take more extreme measures—Demonetisation and the Covid-19 lockdown—to push towards a cashless economy and how it constructed narratives on digital transformation already in place to justify this self-inflicted macroeconomic shock and responses to the unintended external shock. Section 3.4 discusses digitalisation and other possible impact mechanisms of these two events on financial inclusion and further reviews counter-narratives of their socio-economic consequences that could reinforce or even generate new forms of informality- and other social-factor-related barriers to financial inclusion, supported by empirical evidence. This section thus lays the foundation for my empirical analysis in Chapter 5 of the impact of Demonetisation and Covid-19 on financial inclusion, before I proceed to analyse factors that constrained the magnitude of the impact.

3.1 India's State-Led Narratives of Financial Inclusion

There is a shifting focus of India's state-led financial inclusion narratives from socio-economic development enabled by financial deepening and liberalisation to one enabled by mobile technology and digitisation, particularly after the global financial crisis. The crisis that has hurt the very populations financial inclusion claims to serve challenged the idea that relevant promotion policies are beneficial and progressive. It is in this context that the Indian government constructed new and more compelling narratives to justify the promotion of financial inclusion. This section first reviews how India's developmental policies have historically been conveyed by official narratives in a way that connotes financial inclusion. Then it reviews how post-crisis narratives have been constructed on mobile technology and Indian realities of a vast informal economy and dominant Hindu values to convince people from different socio-economic backgrounds of the benefits of financial inclusion.

3.1.1 History of Post-Independence Developmental Policies Expressed with Reference to Financial Inclusion

The official narratives of financial inclusion in India reside in the long tradition of narratives expressed in trinities about socio-economic development, and are increasingly so in an explicit manner (Ertürk et al., 2022). Extending institutional credit to those who lack access to it, particularly the rural poor, has been a goal for the Government of India since the 1950s (Mahajan and Ramola, 1996). It was in the 1960s and 1970s that a link between financial inclusion and development was implicitly built. Former Prime Minister Indira Gandhi popularised the Hindi phrases—*Roti, Kapda, aur Makaan* (meaning *food, clothing, and shelter*)

and *Garibi Hatao* (meaning *remove poverty*)—as political slogans ahead of the 1967 and 1971 general elections, and spoke of nationalisation and expansion of banks into rural areas as a strategy "to further control the economy, to meet progressively and serve better the needs of the development of the economy and to promote the welfare of the people" (Desai, 1987: 123). The cycle of unemployment and poverty, portrayed in the film inspired by the slogan *Garibi Hatao* and named after *Roti, Kapda, aur Makaan*, reflected the harsh post-independence (or post-partition) realities of India that the government hoped to address with the support of a more inclusive financial sector. The use of the financial sector for developmental purposes continued into the 1980s with more policies making savings and credit available to rural citizens (Agrawal, 2008).

The 1990s and 2000s witnessed the government's pro-business economic reforms that attracted domestic and international private investors in ways that changed lending practices in India (Mader, 2018), rapid technological progress in computerising day-to-day banking operations, and the rise of the Hindu-revivalist Bharatiya Janata Party (BJP) that challenged the Gandhi family's stronghold over Indian politics (Ertürk et al., 2022). These did not lead to a change in the emphasis on the role of the financial sector in socio-economic development, but a shift in developmental focus from basic necessities to enablers of economic growth. The BJP government adopted its political competitor's trinitarian narrative and expressed its own economic policies as *Bijli, Sadak, Paani* (meaning *electricity, roads, water*) in reflection of new economic realities of India after the reforms. By the early 2000s, following the international trend led by the World Bank and the United Nations, the term "financial inclusion" was being used in the Indian context, and financial inclusion as a developmental policy was made explicit by the former governor of the Reserve Bank of India (RBI) (Reddy, 2006).

Technology-enabled innovations applied to the financial sector, such as mobile money, online accounts, electronic payments, and newer fintech apps, triggered a digital turn in the global financial inclusion agenda and were promoted under the banner of digital financial inclusion. When the BJP came back to power in 2014, the narrative of *Bijli, Sadak, Paani* was replaced by a new trinity of virtual things, expressed in three words—Jan Dhan, Aadhar, and Mobile. "Jan Dhan" refers to the bank accounts opened under the scheme of Pradhan Mantri Jan Dhan Yojana (PMJDY, meaning *Prime Minister's People's Wealth Scheme*) promoted with a slogan of *Mera Khatha, Bhagya Vidhatha* (meaning *my account, fate restorer*). "Aadhaar" (meaning *base* or *foundation*) refers to the unique 12-digit identification number assigned to each citizen that is based on demographic and biometric data and can be linked to bank accounts and mobile sim cards. "Mobile" refers to the mobile phones that citizens can use to access bank accounts and digital financial services. The Jan Dhan-Aadhaar-Mobile (JAM) trinity with the embedded goal of financial inclusion in a broader turn to digital technology was also offered as a solution to India's structural constraints on development, including the problems of black money, leakages of government subsidies, and inadequate employment and social protection, in addition to inadequate access to financial services (Ertürk et al., 2022).

It is in the government's economic interests to promote financial inclusion, particularly after the global financial crisis of 2007-2008. Though there are debates over when the period of high growth and low inflation was replaced by one of low growth and high inflation,[22] major schemes that aim to promote or have positive implications for traditional and/or digital

[22] It is widely acknowledged that the period of high growth and low inflation started from 2002/2003 (for instance, see Mishra, 2013; Nagaraj, 2013; Balakrishnan, 2014; Mohan and Kapur, 2015). Yet when it was replaced by one of low growth and high inflation is much contested. Scholars who view the growth during 2009-11 as a temporary outcome of "Mukherjee Stimulus" (the economic stimulus package used in response to the global financial crisis) argue that the steady decline in growth essentially started from 2008-09 (for instance, see Nagaraj, 2013; Balakrishnan, 2014). Scholars who view the controversial growth period (2009-11) as a quick recovery from the financial crisis argue that the growth slowdown started from 2011-12 (for instance, see Mohan and Kapur, 2015).

financial inclusion were launched when India experienced a marked economic decline. So were official narratives aiming to justify the promotion of financial inclusion. Overshooting of fiscal and monetary stimulus in response to the financial crisis was argued to have sowed the seeds of twin deficits (fiscal and current account) and inflation pressures (Nagaraj, 2013; Mohan and Kapur, 2014).[23] High inflation forced the RBI to tighten monetary policy in the post-2013 inflation targeting regime, but it was found that real lending rates actually lowered after the financial crisis (RBI, 2013). In this context, the RBI attributed sluggish economic growth to factors that changed investment return prospects. These factors included high inflation itself (Tokuoka, 2012), economic policy uncertainty related to the end of the Congress rule (Anand and Tulin, 2014), corruption-intensive institutional environment (Sen and Kar, 2014), and Non-Performing Assets (NPAs) caused by irrational credit expansion (Nagaraj, 2013). Financial inclusion schemes were in this context drafted with the aim to reverse economic slowdown, not only by increasing savings in the formal financial sector through traditional financial inclusion and in this way improving tax compliance and easing the problems of high fiscal deficit, inflation, and NPAs, but also by attracting foreign investment in the fintech sector through digital financial inclusion.

[23] The global financial crisis was argued to be a major cause for the economic decline. For instance, Sinha (2012) argued that though India had a sound banking system and had negligible exposure to sub-prime assets, it was affected by the second-order impact of the financial crisis, mainly through large capital outflows and decrease in exports and external funding. Mishra (2013), Balakrishnan (2014), Anand and Tulin (2014), and Mohan and Kapur (2015) viewed the observed post-2011 slowdown in industrial (manufacturing in particular) and investment growth (infrastructure investment and public and private capital formation) as a continuation of protracted slowdown in external demand and increasing global uncertainty after the financial crisis. Indian economy experienced a more significant slowdown than the rest of the world (Balakrishnan, 2014) and developing economies in particular (Mohan and Kapur, 2015). This indicated that Indian-specific factors were also at work.

3.1.2 Three Fields in India's Post-Crisis Financial Inclusion Narrative

While the developmental benefits of financial deepening and distributional consequences of neoliberal financial sector policies for the poor were increasingly questioned after the financial crisis, the Indian government expressed the importance of financial inclusion for people from all sections of society through a narrative beyond existing discourses. They no longer stressed the universal socio-economic significance of financial inclusion that could transcend country and regional specificities, or the simple technocratic logic of functionality and creation of efficiencies that could be quantitatively measured (Ertürk et al., 2022). Instead, the government constructed a narrative on the basis of mobile technology and digital money, a vast informal economy, and traditional Hindu values.

First, the post-crisis imaginary of financial inclusion as a driver of socio-economic development was carried forward by discourses that overshadowed the twin formula of liberalisation and deregulation by a set of technological innovations in finance promising social purpose. Financial innovations centring around platform capitalism, artificial intelligence, and digital technologies are viewed as an enabler for India to leapfrog in the linear continuum of technology-driven economic progress (D'Silva et al., 2019). The growth, as Raghuram Rajan (then Governor of the RBI) mentioned in a speech delivered in 2015, can bring the hitherto excluded to participate in the financial system dominated by incumbents.

> As India grows, financial sector participants will grow beyond the insiders who typically dominate economic activity in the early stages of growth in every country. (Rajan, 2015)[24]

[24] The speech "Sustainable Growth in the Financial Sector" by Raghuram Rajan (then Governor of the RBI) on 18 September 2015 at the fourth C. K. Prahalad Memorial Lecture, Mumbai is available at https://www.bis.org/review/r150923c.pdf (Accessed 27 November 2022).

The new participants include the excluded parts of the economy ("outsiders") and the private sector that is in a better position to reach them and would find it profitable to do so ("newcomers").

Different from the mode of innovation discussed in the pre-crisis financialisation literature that uses supercomputers and heavy-duty communications technology to facilitate financial trading and international transaction in investment banking (Zaloom, 2003; Millo and MacKenzie, 2009), the one playing out in India uses comparatively simple technologies (like mobile telephony and digital money) that apply to ordinary people in their everyday lives to create a more efficient and competitive financial system. It is therefore envisioned to create new markets and make products and services more accessible and affordable to a larger population by disrupting existing markets and discovering new categories of customers, or in other words, function as a "disruptive innovation", a term coined in the early 1990s by Harvard Business School professor Clayton Christensen. The theme of disruptive innovation assumed centre stage in the speech delivered by Rama Subramaniam Gandhi (then Deputy Governor of the RBI) in 2015.

> A key element of the inclusive growth is financial inclusion. Here is where we have been observing the power of disruptive innovations. This is partly by harnessing new technologies, primarily the information and communication technology, more specifically the mobile technology; and also by developing new business models like the Business Correspondent (BC) model and exploiting old technologies and procedures like lending in new ways like the micro finance. (Gandhi, 2015)[25]

The new technologies, expressed in the JAM trinity, were most extolled in the speeches published by the RBI and the Indian Ministry of Finance for serving the purpose of expanding

[25] The speech "Disruptive Innovation and Inclusive Growth" by Rama Subramaniam Gandhi (then Deputy Governor of the RBI) in 2015 at Annual FIBAC Conference is available at https://rbidocs.rbi.org.in/rdocs/Speeches/PDFs/FIB8E7A24AAA67C424BBCC05325DAEAA8F2.PDF (Accessed 27 November 2022).

the scope of financial inclusion and further existing developmental policies to benefit a larger population.

> Technologies that reduce asymmetric information in credit markets are technological innovations which can be leveraged for improved borrower identification. Bio-metric authentication helps to reduce leakages and ensure that Government transfers direct to bank accounts achieve the desired objective of financial inclusion, thus creating a better enabling environment and increasing penetrative outreach for optimal results. (Joshi, 2014)[26]

> The JAM number trinity – Jan Dhan Yojana, Aadhaar and Mobile numbers – might well be a game changer because it expands the set of welfare and anti-poverty policies that the state can implement in future. (Ministry of Finance, 2015: 24)

> The great expanse of mobile coverage, the number of people having the handsets, the mobile banking products and services are all at a critical point for high leveraging to usher in financial inclusion and inclusive growth. (Gandhi, 2015)

While various disruptive innovations generate access to financial products and services that were historically only accessible to a privileged few with sufficient money and skills, the inclusion of customers lacking financial literacy and bargaining power against financial service providers raises concerns about the possibility that these disruptive innovations can deprive the ordinary public of their hard-earned money, particularly after the financial crisis. In response to these concerns, customer empowerment through education stands out as another theme in the official narrative, exemplified by the speech delivered by Deepali Pant Joshi (then Executive Director of the RBI) in 2013.

> The "post crisis" world is governed by a new paradigm of customer empowerment. The financial crisis has highlighted the importance of financial consumer protection for the long-term stability of the global financial system. Rapid increase in the use of financial services brings into sharp salience the need for strengthened financial regulation and consumer education to protect and empower consumers.

> Consumers need to be enabled to navigate the financial markets to make choices beneficial to their needs. They should be able to understand complex financial products and should be equipped with the knowledge and skills to assess risks and make informed decisions about the suitability of financial products to their situation. (Joshi, 2013)[27]

[26] The speech "Financial Intermediation for All – Economic Growth with Equity" by Deepali Pant Joshi (then Executive Director of the RBI) in 2014 at Financial Inclusion Conclave of Dun & Bradstreet, Mumbai is available at https://www.rbi.org.in/scripts/FS_Speeches.aspx?Id=912&fn=2754 (Accessed 27 November 2022).

[27] The speech "Agenda for Inclusive Growth" by Deepali Pant Joshi (then Executive Director of the RBI) in 2013 at National Seminar on Consumer Protection is available at https://www.rbi.org.in/scripts/BS_SpeechesView.aspx?id=825 (Accessed 27 November 2022).

In this way, the state-led narrative of financial inclusion constructed on the basis of post-crisis financial innovations conveys a message of a new financialised solution to development challenges in India. The mode of innovation using simple digital and mobile technologies allows the country to leapfrog to an advanced digital economy and build a more inclusive financial system, which in turn better serves developmental purposes, while the negative impact of these technologies being misused can be neutralised by enhancing consumer literacy. Financial inclusion in this narrative is therefore both cause and effect, enabling growth as well as enabled by growth.

Second, to make the portrayal of financial inclusion as beneficial for all involved more appealing, RBI officials further articulate how it links with the vast informal economy and address the speech to those engaged in the informal sector. The narrative is constructed on the fact that informal workers, migrants, and farmers who have irregular income are financially excluded and have to rely on informal credit to meet urgent needs. In a speech delivered in 2011, Kamalesh Chandra Chakrabarty, then Deputy Governor of the RBI, remarked:

> Taking into account their seasonal inflow of income from agricultural operations, migration from one place to another, and seasonal and irregular work availability and income, the existing financial system needs to be designed to suit their requirements.
>
> Low-income Indian households in the informal or subsistence economy often have to borrow from friends, family or usurious moneylenders. They have little awareness and practically no access to insurance products that could protect their financial resources in unexpected circumstances such as illness, property damage or death of the primary breadwinner. (Chakrabarty, 2011)[28]

The theme recurred in the speech delivered by Joshi (then Executive Director of the RBI) with special emphasis on the high cost of informal financial services.

> Although, financial services are available to poor people, they are compelled to pay four times the price we pay for them because they are not linked to formal financial system and have to rely on unreliable informal sector providers. (Joshi, 2014)

[28] The speech "Financial Inclusion: A Road India Needs to Travel" by Kamalesh Chandra Chakrabarty (then Deputy Governor of the RBI) published on www.livemint.com on 21 September 2011 is available at https://rbidocs.rbi.org.in/rdocs/Speeches/PDFs/FICHI121011S.pdf (Accessed 27 November 2022).

More than reiterating informality in its various forms as a barrier to financial inclusion, the official narrative attaches importance to financial inclusion in the service of individual flourishing through day-to-day money management and entrepreneurship cultivation, and ultimately in the service of inclusive growth.

> Several countries across the globe now look at financial inclusion as the means to more comprehensive growth, wherein each citizen of the country is able to use earnings as a financial resource that can be put to work to improve future financial status and adding to the nation's progress.
>
> Our dream of inclusive growth will not be complete until we create millions of micro-entrepreneurs across the country. All budding entrepreneurs have to face these challenges and find solutions. (Chakrabarty, 2011)

The link between economic growth and reduced reliance on informal credit through financial inclusion is in later years more explicitly conveyed in technocratic tones:

> Financial exclusion is a barrier to attaining a high growth rate...A developed financial system broadens access to funds and banking facilities, conversely in an underdeveloped financial system, high cost informal sources as moneylenders proliferate. Lower the availability of funds and higher their cost, fewer are the economic activities that can be financed and hence lower the resulting economic growth. (Joshi, 2013)

So is the link between economic growth and the elevation of formal entrepreneurship through financial inclusion:

> Potential entrepreneurs small enterprises fail to grow and prosper due to capital constraints. (Joshi, 2013)
>
> If half of our country's population were to be financially included and permitted to move from the marginal level to the main stream as producers and consumers of goods and services, consider the tremendous entrepreneurial energies which would be unleashed leading to a multiple effect on the economic growth of the poor. (Joshi, 2014)

Beyond economic efficiency considerations, financial inclusion is further portrayed as morally imperative to appeal to those in informal employment, who suffer heavily from poverty, inequality, and injustice.

> Step into a bank, step out of poverty. (Joshi, 2013)
>
> Financial inclusion is critical to ensure equitable economic growth and a just society. (Joshi, 2014)

On the basis of this official narrative of financial challenges facing people engaged in the informal sector, India's financial inclusion project is expressed as contributing to reducing their reliance on high-cost informal financial services and improving the efficiency with which they

marshal their money.[29] In this way, poverty is made more manageable and inclusive growth can ultimately be achieved.

The difficulties of translating the neoliberal ideology of financial inclusion into Indian terms to reach a wider audience further necessitate a narrative articulated into the third semantic field that is cultural in nature. Prime Minister Narendra Modi's rhetoric around financial inclusion policies is replete with Hindu references, through which the message of the policies as disruptive in creating radically new modes of sociality is conveyed particularly to the lower castes and women, who suffer most from religious abuse, in India. The analogical language used by Modi in his speech launching the PMJDY, shortly after he assumed office in 2014, connotes a parallel between financial exclusion and social exclusion of Dalits, or better known as untouchables, who belong to the lowest stratum of the castes in India and are excluded from the four-fold varna system of Hinduism:

> Being a part of the economic system is a major step towards fighting poverty. If people are kept out of it, then this is called 'financial untouchability'…Therefore, as Mahatma Gandhi fought against social untouchability, we will also need to free ourselves of financial untouchability to become free of poverty. (Modi, 2014; in Ertürk et al., 2022)[30]

As a defining feature of Hinduism, caste encompasses "a complex ordering of social groups on the basis of ritual purity" (Narula, 1999: 24) that structures the centuries-old oppression and segregation of lower caste members of society. There is a long list of instrumental measures that Indian policymakers have attempted to set right such histories since independence, including the introduction of a reservation system to officially name untouchables with a neutral term, Scheduled Castes (SC), and increase their representation in education,

[29] This is in resonance with the idea of Collins et al. (2009), authors of *Portfolios of the Poor* (endorsed by reviewers as the "new bible" for combating global poverty), who argued that the mission of financial inclusion is to aid poor people at improving their ability to manage whatever money they have.
[30] The speech was delivered in Hindi, available at https://www.youtube.com/watch?v=7wUmxR10GO8/.

employment, and politics. Caste-based social disparities, nevertheless, persist and are sought to be corrected by financial inclusion policies.

The same goes for gender-based social disparities. Hindu society is also marked by its legal sanction for an extreme expression of social stratification in which women have been subjected to humiliating conditions of existence (Chakravarti, 1993). Their legal rights to inherit property have been restricted since ancient times. *Manusmṛiti* (the Laws of Manu), a foundational work on Hindu law and jurisprudence, wrote:

> Her father protects (her) in childhood, her husband protects (her) in youth, and her sons protect (her) in old age; a woman is never fit for independence. (Bühler, 1886: 139)

The legal text implies that a woman does not need to have money, as her father will support her before marriage, her husband will support her after marriage, and her sons will support her when she grows old. Such Hindu religious value still has an appreciable influence on modern Indian society. Women have little control over their husbands' income or even their own independent income, and they tend to manage carefully whatever is given to them to run the house by their fathers, husbands, and even brothers (Sharma, 2016). Despite the Dowry Prohibition Act enacted in 1961 that bans the giving and receiving of a dowry in any form of property, goods, and money and allows a woman to sue if her husband's family harass her for the dowry, the problem remains and financial independence is still far from a reality for the majority of women (Halder and Jaishankar, 2008). Even the poorest are willing to put aside something towards savings because they know the value of having some sort of control over their money (Sharma, 2016). Catering to this demand, Modi addressed his speech to women who are tired of juggling various hidden financial circuits:

> Even today in poor households, we see that many mothers and daughters save money with difficulty. However, they are still worried about keeping their money safely in the house. Particularly, if the men in the family have problems related to addiction, they are concerned about keeping money in the house. Now, with a bank account, imagine the blessings extended to the bank officials from these women. Even for officials who might have worked for years in the banking sector, this will be the first time that they will be the recipients of their blessings. (Modi, 2014; in Ertürk et al., 2022)

As indicated above, banks provide a safe place for women to keep money without being detected by their husbands and preserve some financial autonomy over their personal spending money and spending-related decisions. Financial inclusion is thus narrated as a means to reduce gender inequalities, at least in the control of money.

As an imported developmental policy, financial inclusion is interpreted in the context of India and offered as a solution to development problems by the state. The country-specific narrative associates financial inclusion with mobile technology that is increasingly accessible to the poor, with formalisation of the informal who suffer the costs of heavy reliance on informal financial institutions, and with construction of new social norms out of predominant ones that discriminate on the grounds of caste and gender. In this way, the state conveys a clear message that financial inclusion is beneficial for people from all sections of society, particularly those who are historically placed at a disadvantage in terms of the access to and use of formal financial services, like the poor, informal workers, farmers, the lower castes, and women.

Yet despite this compelling narrative and accompanying targeted promotion policies, India remained at a relatively low level of financial inclusion on a world scale, and inequalities in traditional and digital financial inclusion persisted before the announcement of Demonetisation and the outbreak of Covid-19 (see Chapter 4). What were policies implemented to promote financial inclusion before the government resorted to Demonetisation? Why did they fail to achieve intended developmental goals? Answering these questions requires an in-depth probe into individual financial inclusion policies and their socio-economic consequences.

3.2 India's Measures of Financial Inclusion: Pre-Demonetisation

India has a long history of informal finance and savings, including short-term credit from informal agents embedded in local society and culture, like moneylenders, landowners, merchants, friends, and family, and savings through investments in land, gold, livestock, and other in-kind options (Jones, 2008). The economy has also been long dominated by cash and in-kind transactions. These informal mechanisms are criticised as insufficient, unreliable, and expensive, and they place socio-economic groups in greater need of external financial support to sustain livelihoods, smooth consumption, and cope with unexpected emergencies at a disadvantage (Ravi, 2019).

As the financial ecosystem evolves, the spectrum of financial institutions develops, going from informal, personalised, and contracts-based models to more formal, regulated sources of financial services. Formal financial institutions that play a significant role in everyday life, like banks, savings and credit cooperative banks, and post offices, came into existence and began offering financial services before the independence of India in 1947. The government further launched a series of efforts to promote access to and use of formal accounts and replace informal finance with more formal finance, especially among the marginalised sections of society, before taking more extreme measures like Demonetisation. To examine how these efforts and associated emerging financial institutions performed, I first list important events that built the pre-Demonetisation ecosystem for financial inclusion in India. Then I focus on most widely-discussed schemes and institutions that were launched to financially include the excluded and analyse what constrained them from achieving their intended goals.

3.2.1 Historical Events that Built the Pre-Demonetisation Financial Inclusion Ecosystem in India

Drawing on historical review of the progress of financial inclusion made in India by Isern (2020), I summarise in Table 3.1 state-driven attempts to replace informal financial services initially with cooperative and nationalised bank credit of many sizes, scopes, and capacities, and later with the provision by more recent players like self-help groups (SHGs), microfinance institutions (MFIs), banking correspondents (BCs), payment providers, and fintech companies. Several critical events shaped the direction of government policies and built the pre-Demonetisation financial inclusion ecosystem.

Given the large rural population and the pressure to fund input-intensive agricultural practices of the Green Revolution, the government prioritised rural areas with policies targeting to increase bank branches in villages and provide more agricultural loans at lower interest rates. Regional Rural Banks (RRBs) conceived as institutions that combine the advantages of cooperative banks and commercial banks—both the familiarity with rural problems and the ability to operate business and mobilise deposits—were launched to better serve rural banking demands (Reddy, 2006). This and other initiatives like nationalisation of banks, priority sector lending requirements for banks, the lead bank scheme, issuance of Kisan Credit Cards (KCCs), and Service Area Approach (SAA) encouraged expansion of banking services in rural areas, resulting in an exponential growth in the number of branches and the amount of outstanding credit across the country since the late 1960s (Pal and Sapre, 2010; Chakrabarty, 2011).[31]

[31] The Service Area Approach (SAA) was introduced by the RBI in April 1989 to allocate specific villages to rural and semi-urban branches of banks to take care of their credit needs and overall development.

Table 3.1 Historical Events Relevant to Financial Inclusion in India: 1951-2016

1951	Emphasis on the role cooperative banks played in agricultural credit
the 1960s	Nationalisation of commercial banks, and expansion of branches and agricultural credit in rural areas
	Introduction of lead bank scheme that assigns lead roles to individual public-sector banks for the districts allotted to them
the 1970s	Launch of RRBs to serve rural areas with basic banking and financial services
	Priority sector lending requirements for banks
the 1980s	Establishment of NABARD to supervise the network of RRBs and promote SHG model and broader microfinance efforts across India
	Establishment of IRDP to promote rural economic development
	Introduction of SAA that designates commercial banks and RRBs to serve villages for the planned development
the 1990s	First nationwide agricultural debt relief programme
	Mandatory requirement for opening branches in unbanked villages
	Launch of KCC program to provide credit for agricultural inputs for qualifying farmers
	Establishment of SIDBI to promote lending and development of MSMEs and support MFIs
	Establishment of Sa-Dhan as the first national association of community development finance institutions for all types of institutions promoting financial inclusion
the 2000s	Establishment of MFIN as the association for the subset of MFIs operating as NBFCs
	Emergence of rating agencies specialised in microfinance operations
	Introduction of no-frills accounts
	Relaxation on KYC norms
	Launch of GCC program to cater to non-farm entrepreneurial credit needs of individuals
	Permission of using BCs as intermediaries in providing financial and banking services
2010	Outbreak of the microfinance crisis
	Implementation of FIP that requires commercial banks to provide banking services in unbanked villages
2010-2016	Development of an all-India common code of conduct for MFIs and regulation for NBFC-MFIs and credit reporting
	Emergence of new categories of players: Payments Banks, SFBs, and fintech companies
	Launch of MUDRA Banks that provides loans at low rates to banks, MFIs, NBFCs, SFBs which then provide credit to MSMEs
	Launch of the JAM campaign that links Jan Dhan accounts, Aadhaar cards, and mobile numbers
	Government-to-person payments through DBTs under the broader Digital India initiative
	Launch of FLCs to educate people on e-transactions, formal sector borrowings and insurance purchases

Note: RRB=Regional Rural Bank; NABARD=National Bank for Agriculture and Rural Development; SHG=Self-Help Group; IRDP=Integrated Rural Development Programme; SAA=Service Area Approach; KCC=Kisan Credit Card; SIDBI=Small Industries Development Bank of India; MSME=Micro, Small, and Medium-Sized Enterprise; MFI=Microfinance Institution; MFIN=Microfinance Institutions Network; NBFC=Non-Bank Finance Companies; KYC=Know Your Customer; GCC=General Credit Card; BC=Banking Correspondent; FIP=Financial Inclusion Plan; SFB=Small Finance Bank; MUDRA=Micro Units Development and Refinance Agency; DBT=Direct Benefit Transfer; FLC=Financial Literacy Centre.
Source: Adapted from Isern (2020).

Such expansion, however, was not without problems. The ensuing large loan overdue and default, indicating structural weaknesses of formal credit, triggered policy debates between deregulation (by abolishing formal credit) and reform (by lowering transaction and administration costs and experimenting with new forms of credit) (Johnson, 1999). After several rounds of financial sector reforms against the broader background of economic liberalisation in the 1990s, the government's priority more or less shifted to promoting access to microcredit and group credit for small borrowers (mainly women, low-income people, and small-scale businesses). Banks and other formal financial institutions were allowed to classify their loans to SHGs and MFIs against the priority sector lending target of their total loan portfolio. The reforms also involved scrapping interest rate controls for credit provided by these semi-formal and informal financial institutions that were not regulated or only loosely regulated by the RBI to facilitate the transformation of microfinance into a full blown programme for the whole country (Faisal and Rehman, 2009).

This does not mean that the bank-led model for financial inclusion has lost its momentum. Instead, delegating small loan services to other financial institutions allows public sector banks to remain competitive in the financial services market and concentrate on generating access to basic financial services, as the reforms inject more competition into the financial services market with new private sector and foreign banks and require greater focus on financial performance, including portfolio quality (Isern, 2020). To move from a cost-centric model to a revenue-generation model and bring in effective and meaningful financial inclusion, as Chakrabarty (2011) and Joshi (2013) argued, mainstream banking institutions should provide customers with a minimum of four basic products, including a savings-cum-overdraft account, a pure savings account, a remittance product, and an entrepreneurial credit product. The RBI initiated a combination of strategies to facilitate the delivery of these products, ranging from

provision of no-frills accounts and General Credit Cards (GCCs) for small deposits and credit, relaxation of Know Your Customer (KYC) requirements for small accounts, permission of using the information and communications technology (ICT)-based BC model to provide banking services, and simplification of branch authorisation. All public and private sector banks were required to submit a board-approved, three-year Financial Inclusion Plan (FIP), which broadly includes self-set targets in respect of branches opened, BCs employed, unbanked villages covered, no-frills accounts opened, KCCs and GCCs issued, and other specific products designed to cater to the financially excluded segments.

SHGs and MFIs as supplementary to banks, meanwhile, provide saving services catering to local needs and loan services to those who are excluded from formal finance. Most SHGs are small women-only groups (usually twenty plus in number) who pool their savings and make loans within the group, while many of the early MFIs that started with SHG approach to group lending have evolved to include smaller groups or piloted individual lending and other financial services (Isern, 2020). As operating as non-governmental organisations (NGOs) or non-bank finance companies (NBFCs) was not allowed to mobilise deposits, MFIs increasingly transformed from not-for-profit entities into for-profit ones to attract bank loans and equity investments to grow their operations, and experienced a rapid growth in the number of clients and the average size of loans (Srinivasan, 2010, 2011). Such relentless expansion incurred problems relating to the overlap of credit clients among multiple financial institution programs, over-lending and market saturation, and public concerns about exploitative MFIs profiting from low-income and marginalised groups (Isern, 2020). Reports of distressed borrowers and sentiments against profit-making MFIs led to a political backlash, and the microfinance default crisis ensued, initially in Andhra Pradesh and later throughout the country.

Apart from more focus on client protection and greater regulation for NBFC-MFIs,[32] the post-crisis period starting in late 2010 catalysed significant innovation in the financial sector, including emergence of new types of financial institutions, a national campaign for bank accounts underpinned by unique biometric identification and growth in mobile phone access, and digitisation of government payments. In this process, the banking system moved from providing all services to a situation where some banks operate in niche areas and mainly provide services in their chosen areas (Gandhi, 2015). For instance, the RBI granted licenses to Small Finance Banks (SFBs) to undertake basic banking activities of accepting deposits and lending to unserved and underserved segments of population and economy. Existing strong NBFC-MFIs can opt for conversion into SFBs and even gain a full bank license. The provision of a graduation path, along with regulation on interest rates, interest margins, and maximum loan amounts for NBFC-MFIs, protects small borrowers from exploitation, while access to low-cost deposits allows the institutions—featuring doorstep service, flexible time, cash-flow-based credit assessment, and minimum documentation—to accommodate the financially excluded segments (Isern, 2020).

Payments Bank is another new category of players added to the Indian financial sector. They are confined to providing payment and remittance services, accepting deposits with a specified maximum account balance, and issuing automated teller machine (ATM) or debit cards linked to the accounts. Among those granted payments bank licenses, the India Post Payments Bank run by the oldest institution India Post has deep experience in postal services and can utilise widely-distributed post offices as access points and employ postmen to provide doorstep banking services.[33] New fintech companies emerged, often in partnership with other licensed

[32] NBFC-MFI is a category of NBFC specialised for non-deposit-taking MFIs.
[33] The India Post has a vast postal network of nearly 155,000 post offices and 300,000 postal employees in every district, town, and village of the country. See at https://ippbonline.com/web/ippb/about-us1.

financial institutions. As one of them, Paytm managed to expand its operations and leverage the lower-cost digital payment infrastructure to launch the Paytm Payments Bank. These and other payments banks are envisioned by the RBI as fully-networked and technology-driven institutions that can revolutionise the payment arena to meet the needs of migrant workers, low-income households, small businesses, and other unorganised sector entities (Gandhi, 2015).

The government has also leveraged an expanding network of service points and digital payment platforms to facilitate the digital transformation of financial services (Isern, 2020). ATM facilities enable the exchange of cash in and out of the system in a cost-effective way. BC agent banking networks serve to increase people's comfort with and use of digital financial services as an alternative to traditional branch-based ones. Payment platforms and initiatives backed by the government and managed by private fintech companies provide digital financial products at affordable prices (or even free) to increase the likelihood that their target customers will actually use them.

Digital technology, meanwhile, is adopted to further existing financial inclusion and developmental policies, best exemplified in the cases of the JAM campaign and Direct Benefit Transfer (DBT). The JAM trinity links zero-balance accounts, identity cards, and mobile numbers in a way that relaxes KYC requirements for opening bank accounts and verifying subsidy beneficiaries. The RBI accepted Aadhaar cards as an officially valid proof of both identity and address, and more recently, allowed banks to provide e-KYC services based on Aadhaar and mobile phones (Joshi, 2014). Social benefits can be transferred directly to bank accounts of beneficiaries, and the accounts using biometrics can be operated by even illiterate customers (Chakrabarty, 2011). Improving financial literacy is still a necessary step to protect consumers from exploitative and exclusionary practices. The RBI further advised banks to set

up Financial Literacy Centres (FLCs) in all the districts of the country and organise outdoor financial literacy camps (Joshi, 2014).

3.2.2 Limitations of Pre-Demonetisation Financial Inclusion Policies

While various government policy efforts have contributed to the formation of a dynamic and sustainable ecosystem for financial inclusion that encourages institutional innovation and meanwhile provides some protection to consumers against exploitation and exclusion, problems exposed during the implementation of these policies undermined their intended effects on financial inclusion and in some cases even reinforced pre-existing inequalities. Among others, programmes that aim to promote access to bank credit and microcredit, access to and use of bank accounts, and financial digitalisation are most debated and best exemplify the limitations of existing policies. An analysis of criticism against their performance allows an insight into the changing policy priorities to digitalisation and provides some justification for more extreme policies of Demonetisation and the Covid-19 lockdown with the aim to push towards a cashless economy.

In terms of bank credit, while state-led expansion in rural areas to some extent reduced rural poverty (Burgess and Pande, 2005), commercial banks, RRBs, and cooperative banks faced challenges in providing the credit facilities in a sustainable and equitable manner. First, operations of brick-and-mortar banks involved high costs. For instance, there were concerns about operational and financial viability of rural bank branches and RRBs, as many suffered from narrow capital base, restrictive geographical jurisdiction, and lack of diversification in funding sources (Gandhi, 2015). Cooperative banks, reaching out to a large unbanked segment

through a three-tier structure, also had the problems of low profit margins and under-capitalisation (Gaurav and Krishnan, 2017).

Second, these institutions were operated in a non-transparent manner and their resources were often diverted to unintended sectors. For instance, while public sector banks dominated the formal financial system, their ability to led was limited, because there were large NPAs on their books arising from largely unchecked lending to a relatively few big corporate borrowers (Chandrasekhar and Ghosh, 2018).[34] RRBs sponsored by these banks had more problems like weak and ineffective internal control and supervision (Kohli, 1999; Misra, 2006). Cooperative banks were also found to suffer from large NPAs, state patronage, and political interference (Gaurav and Krishnan, 2017).

Third, even if government programmes managed to direct subsidised credit to the agricultural sector through these formal financial intermediaries, the credit was in many cases distributed in a way that widened inequalities between the better-off and worse-off segments of the rural population. Empirical evidence found that subsistence farmers who were reliant on informal money lenders and merchants did not benefit from the credit intended for them, as it was indeed captured by large landholders who already had access to formal credit or even acted as providers of informal financial services in villages (Sarap, 1991; Tsai, 2004; Srinivasan, 2008). This could be explained by the fact that banks charged prohibitively high transaction costs that discriminated against low-income borrowers, provided the type of credit that did not meet their needs, or had to accommodate rural elites who could wield formal and informal influence over elections.

[34] As Majumdar (2016) found, big corporate borrowers could easily get large loans by colluding with bank officials or politicians who had the authority to appoint bank officials to senior positions.

The credit gap was to some extent filled by microfinance, which further expanded to the urban market for its better cost and financial sustainability (Armendáriz and Szafarz, 2011). Microfinance promotion through SHG-bank linkage programmes, NGO-led SHG programmes, and individual and group loan schemes of NBFCs and MFIs in general, while generating social and economic benefits for the poor (CGAP, 2007; Bhanot and Bapat, 2016; Labh, 2005), still raised concerns about institutional sustainability, non-transparency, and unintended effects on inequalities. Many bank- and NGO-promoted SHGs were short-lived, unprofitable, and subject to substantial default risk (Reddy and Prakash, 2003; Sinha, 2003; Tsai, 2004) associated with increasing political patronage (CGAP, 2007). Similar challenges were also faced by MFIs (Schreiner, 2000; Woller, 2000), best exemplified by the collapse of Infrastructure Leasing & Financial Services (IL&FS) in 2018, one of the most respected and largest NBFCs in India. Its internal problems of asset-liability mismatch, inappropriate valuation of assets, large NPAs, and circular rotation of funds between group entities were not detected by external auditors and accumulated to trigger a liquidity crisis in the financial services market (Upadhyay, 2019).

Microfinance that aimed to financially include and empower women also failed to achieve this intended goal in implementation. Loans that were intended for generating income and employment in the long term, though disbursed to a woman in name, were actually controlled by the woman's husband or father (Garikipati, 2008; Isern, 2020). So were productive assets and microfinance-backed enterprises. The intended borrowers in this context ended up with debts and repayment liabilities not in their own welfare interests (Sunil, 2005). For loans that were intended for meeting subsistence and immediate welfare needs of the households, only in the duration of the loans could women participate in credit- and expenditure-related decisions. Once the household economic position stabilised, they had to return to their traditional domain of decision making in child-related matters (Nilakantan et al., 2013). Neither contributed to

women's financial inclusion and empowerment, if not reinforced gender and income inequalities within the households.

Apart from loan disbursement, a series of programmes and financial institutions were launched to lower banking cost and expand bank outreach. While the Swabhiman Yojana (meaning *self-respect project*) launched by the Congress-led government to bring banking services to rural areas was constrained by technological, socio-economic, and political issues, the PMJDY launched by the BJP-led government after the failure of previous government schemes, including Swabhiman, was argued to have achieved greater success (Ertürk et al., 2022). Aiming to provide banking services for all, it focused on generating universal access to banking facilities, which included an interest-bearing basic account with no mandatory balance requirement, a RuPay debit card (the name deriving from *Rupee*), zero-premium basic life insurance, a small overdraft facility, pension schemes, and digital payment facilities.

High cost of banking services was assumed a main force that constrained people from having a formal account and integrating into the modern financial system (Goedecke et al., 2018). The PMJDY as a supply-side approach reduced the cost imposed on account holders, increased bank account ownership, and expanded formal financial services to the poorest sections of Indian society (Singh and Naik, 2018; Isern, 2020). But empirical evidence of pervasive duplicate and dormant accounts found that the achievements were exaggerated (Singh et al., 2015; Chada, 2016; Sinha and Azad, 2018), and there was still a long road from access to usage of these accounts (Goedecke et al., 2018).

Digital technology-based BCs were employed to increase the usage of the accounts at an affordable cost (Joshi, 2016), but banking penetration through this means had its limitations.

BCs were retail agents engaged by public sector banks to provide "cash in—cash out" transactions at a location much closer than a bank branch or ATM to the target population in the form of NGOs, non-NBFC-MFIs, other civil society organisations, or even for-profit companies (Joshi, 2013; Chakrabarty, 2011). They could use micro ATMs and kiosk applications on mobile phones to reach and deliver basic banking services to geographically diverse populations who otherwise had little access to mainstream banking institutions (Goel and Bandara, 2017). The BC networks could also be employed to facilitate the transfer of social benefits to beneficiaries and delivery of government benefits to their doorstep, and further increase people's comfort with and use of digital payments (Chakrabarty, 2011).

However, there were cases where BCs provided sub-standard customer services by refusing to provide cash, prioritising their core business, defrauding clients, and being closed during key hours (Isern, 2020). The agents themselves faced problems of inadequate support from banks, low profit margins owing to an inadequate commission structure, and technology-related issues (Ujjawal et al, 2012; Uzma and Pratihari, 2019). Furthermore, the interchange fees for micro ATM transactions were borne by card issuing banks. In the case of the PMJDY accounts, while the accounts were mainly opened in public sector banks, micro ATMs were predominantly deployed by private banks across rural areas (Ray and Bhakta, 2018). The large amount of interchange fees incurred turned out to be a burden to already over-stretched public banks and further undermined the viability of the BC model.

It was in this context that the mobile-banking model was promoted, as it could also overcome physical barriers to accessing formal financial services but outperformed branch-banking and BC models in terms of profitability and cost-effectiveness (D'Souza, 2018). Basic banking services like sending money and checking balances were available on feature phones and did

not require access to the internet. As India has achieved near universal telecom coverage and even low-income populations could afford cheap feature phones, such banking services were accessible to most people in the country (Nandhi, 2012).

More advanced internet-based services like bill payment and insurance policy management, however, required people to first download mobile-banking apps to their smartphones (Arora, 2015). The access to smartphones and the internet was thus a prerequisite for using these services. Given the gender divide in the ownership of mobile handsets and access to internet facilities (Draboo, 2020) and the income and education divide in digital adoption, financial literacy, and ability to afford smartphones and the internet (D'Souza, 2018), policies promoting financial digitalisation in this way might lock the marginalised groups into a new form of digital divide.

Beyond the banking sector, the government proactively expanded the scope of institutions engaged in financial inclusion through digitalisation. For instance, the DBT was rolled out with cash- and subsidy-based welfare schemes like Pradhan Mantri LPG Subsidy PAHAL Yojana (liquefied petroleum gas subsidy) and Mahatma Gandhi National Rural Employment Guarantee Scheme (rural employment generation). By crediting payments such as subsidies, wages under public works, scholarships, and pensions directly to the bank accounts of beneficiaries, it could simplify the delivery and operation of welfare schemes, curb rent seeking and leakage of government funds, and more importantly, reduce people's reliance on cash (Saini et al., 2017; Draboo, 2020).

A diverse range of private non-bank fintech providers were also brought together with banks under a common infrastructure by being regulated as financial entities like payments banks and

SFBs or having their payment services linked to formally regulated banks through the Unified Payments Interface (UPI) (Isern, 2020). This could facilitate financial inclusion among low-income populations by encouraging competition among payment service providers to reduce charges for low-value transactions, allowing credit providers to use alternative data that covered more common types of transactions to assess credit-worthiness of potential borrowers, and digitally transforming some informal work through internet-enabled gig-work platforms (D'Souza, 2018; Isern, 2020; Carriere-Swallow et al., 2021).

While the JAM trinity and the broader Digital India project were announced as an exemplary success by the World Bank (Demirgüç-Kunt et al., 2018), the effectiveness of the programmes was criticised for being more pronounced in the narrative and rhetorical domains than in the real economy (Isern, 2020). The poor, though having bank accounts with digital frills, did not have reliable income to keep positive balances (Ravi, 2019). Policies promoting digital financial inclusion, like others promoting traditional financial inclusion, might also reinforce gender, education, income, and rural-urban inequalities. Yet lower costs compared to setting up physical branches and hiring agents and greater transparency with involvement of digital records made financial digitalisation a policy priority even before the announcement of Demonetisation and the outbreak of Covid-19. It was in this context that when the government's rhetoric of Demonetisation for purposes other than financial inclusion was challenged by the public, it resorted to a narrative of extreme digitalisation—a cashless economy—and made the unexpected event Covid-19 part of the story.

3.3 Changing Narratives and Measures: Demonetisation and Responses to Covid-19

A series of schemes have been implemented to promote financial inclusion and digitalisation in India, and Demonetisation was the most extreme one of them (Adil and Hatekar, 2020). Concerted efforts of the government and emerging fintech companies ensued to create a more dynamic payment environment. This empowered people with digital tools and skills to cope with Covid-19, while the pandemic itself further sped up digital transformation. Demonetisation and Covid-19 were therefore two catalytic events during which the Indian state advanced financial inclusion and accelerated the process already in place with the aim to reach the ultimate goal of full digitalisation. It was on this basis that the state constructed narratives to justify Demonetisation and responses to Covid-19 and took one step further to extol the virtues of them in promoting formalisation and financial inclusion.

Unlike an unintended external shock like Covid-19, Demonetisation was a self-inflicted macroeconomic shock that necessitated a strong justification narrative. On the night of 8 November 2016, Prime Minister Narendra Modi suddenly announced in an unscheduled live television address that the two largest denomination notes—500 and 1,000 Indian Rupee banknotes—would cease to be legal tender, and they would be replaced by new 500 and 2,000 Indian Rupee banknotes. Effective at midnight that day, holders of the demonetised banknotes had to exchange them for value at bank branches and post offices before 25 November 2016 or at RBI offices before 30 December 2016. They could also deposit the demonetised banknotes at any branches of commercial banks, RRBs, cooperative banks (only urban and state cooperative banks), and post offices during the period between 10 November 2016 and

30 December 2016, but could no longer use them for purpose of transacting business or as a store of value for future usage.

At the time of the announcement, the demonetised banknotes accounted for 86 per cent of currency in circulation. The secretive nature of the policy and limited capacity of currency printing presses to replenish the demonetised banknotes resulted in a sharp decline in the supply of cash that could be used in daily transactions (Chodorow-Reich et al., 2020). The poor planning was also evident in the slow stocking of ATMs with replacement banknotes, multiple revisions of the conditions of making deposits, withdrawals, and exchanges, and initial excessive supply of 2,000-Rupee denomination banknotes that were not that useful for transaction purposes (Lahiri, 2020). Cash supply only slowly recovered over several months, as the share of new 500 and 2,000 banknotes out of total pre-announcement currency-in-circulation (in value terms) increased from less than 10 per cent right after 8 November 2016 to only 40 per cent in February 2017 and 60 per cent in June 2017 (Chodorow-Reich et al., 2020). This caused huge disruption to daily life and economic activity in a cash-dependent economy like India.

To justify Demonetisation, the government made a set of claims with regard to the objectives and outcomes of the policy. The initial claim was that Demonetisation could deal with the problem of terrorism financed by counterfeit notes and the challenge posed by corruption and black money (Ghosh et al., 2017). They further envisioned that the unearthed black money could expand the fiscal space of the government and money returned to the banking system would lower interest rates and reduce inflation in the economy (Kohli and Ramakumar, 2018). The claim based on the assumption that black money was mainly hoarded in cash was challenged by the finding that cash only accounted for a tiny portion of black wealth (Kumar,

2017). Though it facilitated the circulation of black incomes, cash did not generate any return and was subject to high risk of depreciation. So was the claim based on the assumption that Demonetisation would expand fiscal space through tax base broadening. After decoupling its effect from that of Goods and Services Tax (GST), Lahiri (2020) found that Demonetisation did not lead to a significant increase in the number of tax filers or the collection of tax revenues.

When the amount of demonetised banknotes deposited into the banking system grew well beyond the government's expectation, which indicated that holders of black money managed to launder it through illegal means, the rhetoric of Demonetisation shifted from curbing black money to moving towards a cashless economy in a post-hoc manner (Ghosh et al., 2017; Kohli and Ramakumar, 2018). The latter was located in the wider context of an anti-cash, pro-digital finance agenda waged by interest groups like the Better Than Cash Alliance (BTCA) in the name of financial inclusion (Butani, 2016; Daya and Mader, 2018).

State propaganda waxed eloquent about how Demonetisation as a driver of demand for digital money could help to address the challenges to financial inclusion, particularly those associated with various forms of informality, that previous promotion policies failed to address. It sought to divert people's attention from basic problems like shortfalls in access, literacy, and infrastructure to supposed advantages of digital money in formalising the economy and enhancing financial inclusion. For instance, in his monthly radio talk to the nation on 27 November 2016, Modi pushed for a cashless society:

> Scrapping these notes has opened other avenues to make payments. Download apps of banks and e-payment options. Shopkeepers can keep card swiping facilities and everyone can ensure they pay safe using their credit and debit cards. If not a 100% cashless society, I request you to make India "less-cash society"...to eradicate corruption from our country, to abolish the scourge of black money and to help people in overcoming their difficulties and problems. (Modi, 2016; in *The Indian Express*)

The narrative was centred on a hypothetical future in which mobile money would create new business opportunities for the informal sector and lift those engaged in the sector from financial backwardness rooted in cash-based commerce, best exemplified by what Modi said in an interview on 29 December 2016.

> Digital transactions deliver multiple benefits. They facilitate proper accounting and sizing of the formal economy. They provide greater ease and security in handling of money, especially for small businesses and ordinary people. They ensure the building of financial records, which enables access to the formal financial system, including loans...Therefore, I see digital payments as a method of cleaning up our economy in the long run. (Modi, 2016; in *India Today*)

A major part of his address was to young people of the country, who exhibited greater willingness to adopt new technology than the elderly. Modi called them "soldiers of change" and urged them to proactively participate in the process of digital transformation.

> I need the help of young people in India, and they too should see that they have an invaluable opportunity to serve the motherland. There are many people in your families or neighbourhoods who may not know how to use technologies such as e-wallets and payments through mobiles. I urge you to spend some time, an hour or more, every single day, to teach this technology to at least 10 families who may not know it. (Modi, 2016; in *The Hindu*)

The speech was also addressed to the poor, whose interests were at the centre of the debate between proponents and opponents of Demonetisation in the political battle (Subramanian and Tantri, 2016), initially with a narrative on 14 November 2016 that accentuated the suffering of the rich, who had more old banknotes to deal with, usually from illegal sources.

> After demonetisation, the poor are enjoying a sound sleep while rich are running from pillar to post to buy sleeping pills. (Modi, 2016; in *The Indian Express*)

Later the focus shifted to the benefits that Demonetisation and ensuing formalisation could bring to the poor. For instance, on the second anniversary of Demonetisation, Arun Jaitley (then Union Finance Minister) said:

> [Demonetisation resulted in] more formalisation [of economy], more revenue, more resources for the poor, better infrastructure, and a better quality of life for our citizens. (Jaitley, 2018; in *The Outlook India*)

That Demonetisation could formalise the informal economy and prompt the government to earmark more resources for the poor was made more explicit in the article written by

Krishnamurthy Subramanian (then Chief Economic Advisor to the Government of India) on fourth anniversary of the policy.

> Formalisation involves multiple facets. First, bringing hidden money into the formal economy. Second, converting informal sector jobs into formal sector jobs. Finally, getting informal sector firms into the formal economy...On the one hand, formalisation of firms and workers enhances their profits and wages respectively while increasing their resilience. On the other hand, bringing hidden money into the formal economy helps reduce income inequality, thereby putting more income in the hands of the poor, who have a higher marginal propensity to consume. (Subramanian, 2020; in *The Economic Times*)

Digital money did not lose its relevance in post-Demonetisation official narratives and was placed at the centre when reference was made to Covid-19, though little justification was indeed needed for policies restricting movement and promoting digitalisation, as the rest of the world were more or less doing the same.

After a 14-hour voluntary public curfew on 22 March 2020, the Government of India suddenly ordered a nationwide lockdown on the evening of 24 March 2020. The lockdown was initially intended for 21 days but was extended three times to the end of May to limit movement of the entire population of India as a preventive measure against Covid-19. The restrictions were incrementally eased in a phased manner, while the ongoing lockdown was further extended till 30 June for containment zones. A second wave starting in urban centres in March 2021 was more devastating than the first, resulting in localised state-wide lockdowns after it spread to all states. Phased unlocking was announced starting June 2021 in some states, but concerns about a third wave persisted.

While the economy was moderating prior to the Covid-19 shock, which was argued to be related to Demonetisation (Ahluwalia, 2020), the pandemic implied greater challenges. The first wave resulted in an unprecedented negative economic growth, followed by another sharp fall in activity, though smaller and shorter, in the second wave (IMF, 2021). The sharp contraction in economic activity, along with lower revenue and higher pandemic-related

financial support expenditure, led to a widening fiscal deficit, though recent high frequency indicators suggested an ongoing economic recovery (ibid.). Despite the prolonged economic disruption, Demonetisation, backed by a pre-established national technology infrastructure and a continuing policy movement towards a cashless economy, accelerated the adoption of digital payments and led to an exponential growth in digital transactions over the past four years (Frakman, 2020; Khosla, 2020). It gave people more confidence in using digital methods for financial transactions, particularly when handling cash became seen as a health risk in the current Covid-19 scenario (Adil and Hatekar, 2020).

In this context, Prime Minister Narendra Modi praised previous efforts made towards digital transformation and the role played by digital technology in the pandemic at the fifth edition of VivaTech.

> When I speak about innovation before the pandemic, I refer to the pre-existing advances which helped us during the pandemic. Digital technology helped us cope, connect, comfort and console. (Modi, 2021; in *Business Standard*)

In his monthly radio broadcast, Modi shifted the focus to the increase in digital transactions during the pandemic. He emphasised that small online payments were helping build a big digital economy, encouraged the emergence of new fintech start-ups, and urged people who have any experience related to digital payments and the start-up ecosystem to share it with others (*Business Standard*, 2022). When the UPI recorded six billion transactions in July 2022, the highest ever since 2016, Modi in response to a tweet by Union Finance Minister Nirmala Sitharaman, remarked:

> This is an outstanding accomplishment. It indicates the collective resolve of the people of India to embrace new technologies and make the economy cleaner. Digital payments were particularly helpful during the COVID-19 pandemic. (Modi, 2022; in *First Post*)

The narrative implicitly conveyed a message that Covid-19 drove digital adoption and habit change, accelerated the demand shift towards contactless payments, and increased the volume of digital transactions.

Indian government officials have therefore in direct and indirect reference to digital money constructed a rhetorical linkage between what appeals to ordinary people (formalisation and financial inclusion) and what they have done big since they were in power (Demonetisation and responses to Covid-19). In this way, the state extolled these two events as key drivers of digital transformation and the universal use of digital money as panacea that could automatically lead to formalisation of the economy and financial inclusion of the poor. It allowed the government to circumvent the challenges of generating access to brick-and-mortar financial institutions and their financial services. Yet digitalisation is not the only mechanism through which Demonetisation and Covid-19 could exert an impact on financial inclusion, and challenges of redressing the digital divide are missing in the official narrative. This necessitates a review of existing literature on these two events about their mechanisms of impact on financial inclusion and their impact on people from different sections of society.

3.4 Impact Mechanisms of Demonetisation and Covid-19 on Financial Inclusion

Demonetisation and Covid-19 could exert an immediate, a less immediate, and an indirect longer-term impact on financial inclusion through mechanisms other than digitalisation, which had different implications for different social groups. This section aims to provide a

comprehensive review of possible impact mechanisms of Demonetisation and Covid-19 respectively and debates over their socio-economic consequences.

Demonetisation had a direct and immediate impact on financial inclusion by forcing people to interact with formal financial institutions to exchange or deposit their demonetised banknotes and incentivising them to use non-cash means of payment to cope with the sharp decline in the supply of cash. These increased account registration, use of the accounts, and use of more advanced financial services, supported by data from Financial Inclusion Insights (FII) surveys (Schueth and Moler, 2017). Demonetisation also helped increase usage of PMJDY accounts, as the total amount and the average balance of deposits surged and the issue of account dormancy abated after its announcement (Isern, 2020).

Less immediate impact of Demonetisation on financial inclusion was made through financial institutions as intermediaries. Banks were not able to open new accounts, disburse loans, or engage in other business activities, as their staff were pre-occupied with managing the demand for replacement banknotes from existing clients (Ghosh et al., 2017). The operation of district cooperative banks remained stalled even one year after Demonetisation, as they were stuck with demonetised banknotes that they had initially been allowed to accept, but were later alleged illegal by the RBI (Iyer and Biswas, 2017). NBFCs were also found to have disbursed less loans than before, as more people suffered from cash shortages and defaulted on their debts (Ananth and Fernandes, 2017). Numerous anecdotes echoing these findings pointed to a sharp increase in the rate of interest charged by money lenders in the rural market, as liquidity generally provided by banks, MFIs, and SHGs dried up (Singh and Naik, 2018). All these institutional changes caused by or related to Demonetisation had implications for people's access to and use of financial services.

The indirect impact of Demonetisation on financial inclusion through its effects on macroeconomic factors has been less researched and needs to be analysed in a longer term, as people usually have a delayed response to them. Output and employment, interest rate, and digitalisation are among the factors that are most likely to have implications for financial inclusion.

Output and employment change could affect people's income and their demands for financial services like formal savings (investments), loans, and digital payments. Scholars like Dasgupta (2016), Rajakumar and Shetty (2016), and Rakshit (2018) using different equilibrium models found that Demonetisation as a monetary policy that reduced money supply would lead to a decline in output. Waknis (2017) using a segmented market model further found that the informal sector that was more dependent on cash experienced a more significant decline in employment, wage, and output than the formal one. The exact magnitude of the economic slowdown was debated by economists (Daya and Mader, 2018), as informal sector output was estimated by extrapolation using indicators relevant to the economic activity (Murthy, 2019).[35] There were also debates over whether the impact of Demonetisation on output was transitory or long-lasting (for instance, see Chodorow-Reich et al., 2020; Chowdhury and Shukla, 2019). That the policy had a lasting negative impact on employment was less debated. The Centre for Monitoring the Indian Economy (CMIE) found a sharp increase in the number of discouraged workers, mainly among the young and the less-educated, who recognised shrinking employment prospects and stopped looking for work even after cash supply returned to normal (Vyas, 2018; Abraham and Shrivastava, 2021). Empirical findings that Demonetisation

[35] Due to the presence of a large informal sector and its complexity in India, it is impossible to conduct surveys every year. The systematic surveys of the non-agricultural unorganised sector are usually conducted once in five years. For the rest years, the benchmark-indicator procedure is used to estimate the Gross Value Added (GVA) of the informal economy.

reduced wage and business income supported this view (for instance, see Krishnan and Siegel, 2017; Kalhan, 2018; Kurosaki, 2019).

Change in deposit and lending interest rates could affect people's use of and choice between different financial institutions for saving (investment) and loan services. The weighted average bank term deposit rate and lending rate decreased after the Demonetisation announcement, though Lahiri (2020) argued that the decrease was not related to the policy, as deposit and lending rates did not show any sharp movement off their long-run trends, nor did bank credit pick up in any significant way. In the year after Demonetisation, the RBI reduced the repo rate, which as a reference rate is usually associated with a decline in deposit and lending rates (*The Economic Times*, 2017). The repo rate is periodically modified to achieve the pre-determined inflation target. As banks were flush with deposits due to Demonetisation and associated cash crunch had a disinflationary effect on the economy, that the RBI reduced the repo rate could be viewed as related to the policy. So was the decline in deposit and lending rates.

The payment environment could be a determinant of people's adoption of, demand for, and use of digital payments. Demonetisation incentivised people to deposit cash into banks that could be freely accessed in the form of cheques, ATM cards, and mobile money, and put restrictions on cash usage (Chodorow-Reich et al., 2020). Anecdotal evidence found that people not only learnt basics about digital payments but also purchased mobile phones that could be used as a wallet after Demonetisation (Poonam, 2018). It also improved the provision of digital financial services. Global tech giants (such as Google and WhatsApp) and India's biggest mobile wallets (such as Paytm and MobiKwik) more actively provided and promoted digital payment services, and their advertising and marketing strategies highlighted discounts and cashbacks to attract new customers (D'Souza, 2018). Online vendors (such as Amazon and Snapdeal) also

increasingly encroached on the market of traditional retailers through promotions and discounted sales after Demonetisation (ASSOCHAM, 2016).

More people became involved in e-commerce, and bills were passed to secure online transactions (Adil and Hatekar, 2020). More local merchants adopted alternative payment methods to avail of the benefits of increasing customer demands and sales (Ligon et al., 2019; Patnam and Yao, 2020). That Demonetisation facilitated the creation of a more dynamic payment environment was also reflected in increased usage of payment cards and digital wallets, not just during the liquidity crunch, but after it eased (D'Souza, 2018; Agarwal et al., 2019; Isern, 2020). Though Lahiri (2020) argued that the policy only induced the public to start using digital payments for smaller-value transactions without increasing the total amount of digital transactions, it was still undeniably a catalyst for digitalisation.

Demonetisation through these mechanisms had either positive or negative implications for financial inclusion, and the implications tended to be different for people from different sections of society. As mentioned earlier, those who were young, less-educated, and engaged in the informal sector were more likely to have difficulties in finding jobs and getting regularly paid due to economic disruption caused by Demonetisation. Lack of money constrained their demand for formal financial services. Locality was another factor that shaped the experience of Demonetisation. Using different proxies of the Demonetisation shock, Chodorow-Reich et al. (2020) and Crouzet et al. (2019) found that areas more exposed to the shock witnessed a larger increase in digital payments. Aggarwal et al. (2019) further found that Demonetisation led to greater digitalisation in districts that accommodated fewer informal workers and rural households, because they already had digital infrastructure in place and could quickly respond to the currency shock. This indicated a rural-urban divide in the impact of Demonetisation on

financial inclusion. Anecdotal evidence also found that state governments led by the BJP had greater access to replacement banknotes than those led by the opposition (Ghosh et al., 2017), suggesting that politics might also contribute to regional differences in Demonetisation-driven financial inclusion.

From another perspective, Karmakar and Narayanan (2019) using an alternative identification scheme found that those who had no bank account experienced more disruption than account holders, and different experiences of Demonetisation might have different implications for financial inclusion. This was partially confirmed in FII surveys that financial inclusion increased fastest among women and rural residents, as Demonetisation spurred them to open new accounts to exchange demonetised banknotes and actively use the accounts after completing the exchange, while the income gap in financial inclusion further widened (Schueth and Moler, 2017). Qualitative findings, however, suggested that farmers, particularly female and lower-caste ones, took more efforts to exchange banknotes and relied more on informal credit to offset the reduction in activity (Guérin et al., 2017; Kumar, 2017). There were also caste and gender differences in purchase of gold as a means of informal saving in response to Demonetisation (Guérin et al., 2017).

As pre-existing and new forms of inequalities intersected to shape individual experiences of Demonetisation and financial inclusion, research on social-factor-related barriers to financial inclusion needs to take this intersectionality into account. I specify how I design my sampling strategy to create a sample representing individuals from different sections of society in Chapter 4 and analyse the data collected with attention paid to intersectionality in Chapter 5 and 6.

In a similar fashion, Covid-19 could have different impacts on financial inclusion through different mechanisms. Its immediate impact was associated with the need to stay at home and avoid close contact with others. It incentivised people to replace traditional services with online ones and replace cash payments with non-cash ones, and altered their way to access financial services. Concurrently, the Indian government ramped up its digital financial inclusion efforts as part of the Covid-19 economic response (Frakman, 2020). Both served to increase the use of and consumer preference for digital transactions (Agur et al., 2020), consistent with the trend of growing e-commerce during the pandemic (CRI, 2020). The government also extended cash assistance directly to the most vulnerable sections of society, making India's PMJDY program the largest Covid-related cash transfer scheme worldwide, though its actual coverage as percentage of the population remained low (Gentilini et al., 2020).

Covid-19 had a less immediate impact on financial inclusion by disrupting the functioning of financial institutions. Aiming to protect employees from coronavirus and slow the spread, the government and the Indian Banks' Association advised banks to curtail business hours, and in areas that were placed under lockdown, open only selective branches to carry out basic essential transactions, while providing more advanced banking services through online and mobile channels (*Live Mint*, 2020; Ray, 2020). Empirical evidence found that even visiting bank branches that were open during the lockdown did not guarantee basic services, as they only permitted a few dozen customers to enter each day (Khera, 2020; Guérin et al., 2021). Disbursement of fresh loans and collection of outstanding ones were also paused, in part due to the extended RBI loan payback moratorium (Frakman, 2020). This led to a sharp decrease in lending activity and endangered regular income flows of MFIs and even digital credit start-ups (Guérin et al., 2021). Traditional insurers who relied mainly on agents for sales also witnessed a decline in policies sold during the crisis, while online ones increased their sales

(Sharma, 2020). There were cases where insurance providers partnered with mobile payment platforms to offer Covid-19 customised policies (Dubey, 2020).

In light of the ongoing pandemic, how the post-Covid-19 financial inclusion landscape will take shape remains uncertain. Yet similar to Demonetisation, the pandemic could have an indirect impact on financial inclusion in the longer term either through its effect on output and employment or digitalisation. The pandemic and ensuing containment measures led to a severe contraction in economic activity, as many people were not able to go to work and businesses could not operate. While economies worldwide were hit hard, India suffered one of the largest economic and employment contractions (Dhingra and Ghatak, 2021), as global demand for its labour intensive exports collapsed (Mehrotra et al., 2020). During the first stringent national lockdown between April and May 2020, individual income dropped by approximately 40 per cent and households in the bottom decile lost three months' worth of income (APU, 2021; Beyer et al., 2021). There were salary cuts across segments (Mehrotra et al., 2020; CSE, 2021) In absence of any form of social security, the informal sector was among the hardest hit, and unemployment was at its highest ever (Dev et al., 2020; Mehrotra et al., 2020; Sahoo and Ashwani, 2020; Singh, 2021). One of the most severely impacted sections of the population was informal migrant workers who undertook a massive reverse migration to rural areas to secure basic subsistence (Adhikari et al., 2020).

The recovery after the first wave was too muted to get them back into employment. Rural migrants who went back to their villages after the outbreak of the first wave were reluctant to return to work in urban areas even before the second wave hit (Imbert, 2021). Agriculture could not absorb this excess labour supply, as reflected in massive underlying disguised unemployment, while small and micro enterprises, as the largest source of employment outside

agriculture, were unable to bounce back (Kugler and Sinha, 2020). The second wave, which started in March and appeared to be flattening out in June 2021, heightened the risk of long-term unemployment associated with increasing economic inactivity (Dhingra and Ghatak, 2021). A significant fraction of salaried workers moved to informal wage arrangements or leaving the workforce after losing their jobs during the Covid-induced economic recession (Kesar et al., 2021; Abraham and Basole, 2022; Abraham et al., 2022). Suspension of labour laws during the pandemic was further endorsement of informalisation of employment (Singh, 2021). It was very difficult for people without a regular source of income to actively maintain their bank accounts, and the average debt increased, mainly from informal sources such as moneylenders, friends, and families (Totapally et al., 2020; Kesar et al., 2021). Kumar and Singh (2021), nonetheless, found that when lockdown restrictions were lifted, people who returned to work increased their digital transactions.

This suggested that despite its negative economic implications, given the digital infrastructure built after Demonetisation, the Covid-19 outbreak was likely to be another catalyst propelling an even faster adoption of activities relying on digital financial services (Arner et al., 2020). In addition to core financial services offerings, digital fintech platforms leveraged their delivery mechanisms to meet new consumer needs in the Covid era. For instance, PhonePe, an Indian payments company backed by Walmart, enabled virtual stores on its mobile app to allow local businesses to sell groceries and essential items online (*The Economic Times*, 2020). Niki, an artificial intelligence company, developed a multi-lingual and chat-based user interface that enabled people living in tier II and tier III cities to order groceries and other items by speaking to the app in their native languages (Shetti, 2020).

These led to a shift in consumer behaviour from buying in person from a local kirana shop using cash payment to ordering from the same shop using a low-data app on their mobile phones, and a surge in online payments ensued (Frakman, 2020). The behavioural change tends to be permanent even after the crisis resolves, as consumers have built habits and experienced the convenience of online services (Arner et al., 2020). Frakman (2020) further projected that the post-Covid-19 period would feature a renewed emphasis on savings and investments to create a household capital cushion for uncertain times and a growing interest in health and life insurance to manage future unforeseen shocks.

While Demonetisation in some contexts reinforced pre-existing or generated new forms of inequalities, lockdown measures to reduce the spread of Covid-19 and efforts to ramp up the use of digital financial services during the period encountered similar adjustment problems. The pandemic brought severe economic hardships, especially to young people who were over-represented in informal work and were more likely to lose employment or source of income (Dhingra and Kondirolli, 2021). It was more so for those from backward caste groups, but they were also more likely to recover employment for being employed in sectors that continued to be operational during the lockdown (Kesar et al., 2021; Abraham et al., 2022). Kumar and Srivastava (2021) further found that while the unemployment rate for women was always higher than the rate for men, the pandemic widened this gender gap, and large-scale unemployment for female workers not only occurred in the informal sector but also in the formal sector. Religion and gender intersected to exacerbate this disproportionate impact (Kesar et al., 2021; Abraham et al., 2022). Returning male migrants crowded women out from government job security schemes and increased their domestic work burden (Mehrotra, 2021). Education did not shield women from job loss, as highly educated female workers withdrew from the workforce in face of uncertain conditions such as the lockdown and did not move to

relatively more informal and precarious forms of work (Abraham et al., 2022). The breakdown of the microfinance industry during the pandemic also widened pre-existing inequalities, as it not only denied precarious borrowers—mainly the lower castes and the working poor—access to microcredit, but reconfigured underlying informal financial infrastructures in ways that reinforced social hierarchies and dynamics of destitution (Guérin et al., 2021).

The growing importance of the internet and rapid digital transformation on account of the Covid-19 pandemic made the digital divide between the digital haves and the have-nots an increasingly important form of inequality (Chandola, 2022). The digital divide could be gendered, as women found themselves excluded from the growing digital economy post Covid-19, especially when they aspired for access to digital devices and data packs, knowledge of online financial transactions, and opportunities for online schooling, skill training, entrepreneurship, and work (Nikore, 2021). In addition to the gender divide, data from the Global Findex suggested that there also existed age, education, income, employment, and rural-urban divides in access to and usage of digital financial services. Between 2017 (after the announcement of Demonetisation) and 2021 (after the outbreak of Covid-19) when two most recent series of Global Findex data were released, the digital divide further widened, even though both traditional and digital financial inclusion improved in the interval. Among people who have made a digital merchant payment, 64 per cent reported that they did so for the first time after Covid-19, either in-store or by paying online for an internet purchase. This indicated that Covid-19 might be a critical contributor to the widening digital gap.

While different forms of inequalities intersected to shape individual experiences of Covid-19 and financial inclusion as in the case of Demonetisation, lockdown measures severely constrained my ability to access interviewees from the lower and lower-middle classes and

conduct in-depth interviews with them. I instead focus on the upper-middle class and intra-household dynamics to explore challenges to financial inclusion exposed during the lockdown (see Chapter 4).

The review of various impact mechanisms of Demonetisation and Covid-19 on financial inclusion finds that official narratives that focus on the role of these two events as key drivers of digital transformation and the use of digital money as a panacea for informality and financial exclusion can be challenged by empirical evidence. While existing literature concentrates predominantly on certain impact mechanisms of these two events on certain forms of financial inclusion among certain groups of people, this thesis looks into all the impact mechanisms discussed in this section to generate a comprehensive insight into how Demonetisation and Covid-19 promoted or hindered financial inclusion and what constrained broader financial inclusion with empirical findings in Chapter 5 and 6.

3.5 Conclusion

Financial inclusion has over the years assumed a central role in developmental policies in India by connecting socio-economic development with formal financial services. After the global financial crisis, the Indian government has increasingly opted for a more aggressive promotion of financial inclusion and justified it with a powerful narrative that signifies social, economic, and cultural phenomena in India's history and present. The state-led financial inclusion narrative is constructed on the basis of mobile technology and digital money, a vast informal economy, and traditional Hindu values. The narrative caters to the poor in the context of increasingly affordable mobile phones and data packs, appeals to informal workers and farmers

by stressing individual flourishing and entrepreneurship, and creates emotional resonance for the lower castes and women. They combine to convey a common message that while informality in its various forms has historically placed some socio-economic groups at a disadvantage, they can benefit from financial inclusion as much as or even more than the privileged and the well-off do.

Yet the official narrative is challenged by the fact that promotion policies do not always achieve financial inclusion in a way that is sustainable and beneficial to everyone in India. These policy efforts have on the one hand contributed to the formation of a more dynamic financial inclusion ecosystem. Beyond traditional formal financial institutions like banks, post offices, and cooperative banks, more recent players like SHGs, MFIs, BCs, payment providers, and fintech companies were incorporated in the ecosystem to financially include the marginalised section of society. On the other hand, many brick-and-mortar institutions were not financially viable, lacked transparency in operation, and failed to distribute financial resources (credit in particular) to the target population in implementing financial inclusion policies. It was in this context that the government increasingly prioritised digitalisation that linked mobile-banking networks with non-bank financial service providers and institutions engaged in the broader Digital India campaign, even though digitalisation could generate a new form of digital divide.

Though Demonetisation and responses to Covid-19 were not initially intended for promoting financial inclusion, the government utilised these two events to push towards a cashless economy and justified them as catalysts for digitalisation that could achieve what previous promotion policies failed to achieve, i.e. tackling existing challenges to financial inclusion and benefiting the vast informal economy or even formalising it. In this way, the government sought to divert people's attention from basic access, literacy, and infrastructure constraints to

digital transformation that enabled them to circumvent these constraints. Yet the government failed to recognise that Demonetisation and Covid-19 could exert impact on financial inclusion through mechanisms other than digitalisation and new forms of inequalities could emerge in the process.

Existing literature on Demonetisation and Covid-19 supported this view. For the former, a broad review of the impact of these two events suggested a number of direct, less direct, and indirect mechanisms by which they could exert an impact on financial inclusion, and the impact was not always positive. For the latter, quantitative and qualitative empirical evidence from diverse sources suggested that the government not only failed to take the digital divide into account, but ignored the fact that the two events in some cases put the marginalised at a greater disadvantage and perpetuated social inequalities as barriers to financial inclusion. Yet few scholars have attempted to generate a thorough understanding of the impact of Demonetisation and Covid-19 on financial inclusion by taking all these mechanisms and all the people involved into account. This is attempted in Chapter 5 as a step before the in-depth analysis of factors that constrained broader financial inclusion, but in the case of Covid-19, I only managed to interview the upper-middle class due to social distancing and movement restrictions.

Existing literature on financial inclusion policies and Demonetisation and Covid-19 further suggests that the top-down narratives that financial inclusion is beneficial for people from all sections of society and that Demonetisation and Covid-19 can address existing challenges to financial inclusion can differ significantly from the bottom-up ones. To better understand the gap between them, I analyse narratives of people who lived in Kolkata and experienced Demonetisation and Covid-19 to show localised perceptions of financial inclusion in Chapter 6. The narratives are not only articulated in different ways to top-down ones but raise different

issues about the controversial role of informality and unrecognised or underestimated challenges to financial inclusion exposed and exacerbated by these two events.

CHAPTER 4

Background and Methodology

One of the most important policy implications of the thesis is to explore whether and how broad-based financial inclusion could be achieved through digitalisation catalysed by Demonetisation and Covid-19 without further measures being taken to address informality and other challenges to it. While it has been identified in Chapter 2 that informality in forms of economic, urban, and financial informality has implications for traditional and digital financial inclusion and in Chapter 3 that the government has made numerous policy attempts to achieve universal financial inclusion, the first half of the chapter situates the research in a wider background of prevalent informality and financial exclusion in India in Section 4.1 and generates more contextualised insights into the policy of Demonetisation and the outbreak of Covid-19 in Section 4.2. The second half of the chapter shifts the focus from the entire country in general to the specific city of Kolkata and explains why I conducted field research in a ward of the city in Section 4.3 and how I conducted this research with the aim to answer the research questions about the role of informality as a barrier to financial inclusion and other remaining challenges in Section 4.4.

4.1 Prevalent Informality and Financial Exclusion in India

Informality is a complex concept that takes many forms, and among these various forms, informal employment, informal housing, and informal financial practices are identified as most relevant to financial inclusion in Chapter 2.

Table 4.1 Informality in India and Different Income Groups: 2017/2018 (%)

	Informal Employment	Informal Housing	Informal Financial Practices							
			Informal Saving	Informal Borrowing		Cash Transaction				
	Informal employment (% of total employment)	Population living in slums (% of urban population)	Saved using a savings club or a person outside the family (% saving any money, age 15+)	Borrowed from family or friends (% borrowing any money, age 15+)	Borrowed from a savings club (% borrowing any money, age 15+)	Sent or received domestic remittances: in person and in cash only (% senders and recipients, age 15+)	Paid utility bills: using cash only (% paying utility bills, age 15+)	Received wages: in cash only (% wage recipients, age 15+)	Received payments for agricultural products: in cash only (% payment recipients, age 15+)	Received government payments: in cash only (% payment recipients, age 15+)
Low Income	92	67	48	67	20	23	66	62	82	43
Lower Middle Income	82	36	33	70	14	34	73	60	76	27
Upper Middle Income	47	23	13	59	5	20	57	28	69	15
High Income	15			20			13	6		3
World	61	29		55			52	31		15
India	88	35	24	79	10	43	67	59	60	20

Note: Country classifications follow the criteria of the World Bank; Informal employment (% of total employment) for four income groups is calculated as the average of the percentage of informal employment in economies at each income level.

Source: International Labour Office (2018); The UN-Habitat database (2018); The Global Findex database (2017).

I use the percentage of informal employment, the percentage of slum dwellers, and the percentage of users of informal saving, informal borrowing, and cash transactions as key indicators of the degree of informality. Table 4.1 summarises these indicators for India, along with a set of reference group economies at different income levels and the world average. It finds that India has in general a higher level of informality than many economies in the world, and its informality in some forms is greater than that of other economies at the same lower-middle income level.

More than 88 per cent of Indian employed population earn their livelihoods in the informal economy. Four distinctive features of the informal economy are summarised by Harriss-White and Gooptu (2001). The first is the large contribution the massive labour-absorptive informal sector has made to the output. The second is the unskilled nature of much work, reinforced by the use of casual and flexible employment arrangements with little reference to the state social security system and its framework of labour law. The third is the absolute poverty of workers deprived of decent working conditions. A further feature is the organisation of work through social institutions such as caste, gender, and space.

The findings of rural-urban and gender divides in the share of informal employment in total employment in India support the last point. As per data from the ILO (2018), the share of informal employment in total employment in urban areas is 75.9 per cent in contrast to 93.0 per cent in rural areas. The share of informal employment in total employment for men is 87.7 per cent in contrast to 90.0 per cent for women. While relevant data are not available at the country level, age and education divides at the global and regional level add other dimensions to the social institutions that may structure informal work in India. As per data from the ILO (2018), the level of informality is higher among younger and older people, and it decreases

when the level of education increases. While the employment of older people is more likely to be informal than that of younger people whatever the socio-economic development of a country or a region, the share of young people in informal employment is higher in emerging and developing countries. Those who have completed secondary and tertiary education are less likely to be in informal employment than those who are uneducated and undereducated. The phenomenon that is observable at both the global and regional level and in developing and developed countries alike may also apply to India.

Another important feature of the informal economy—dependence on cash and difficulty in obtaining formal credit (Schneider, 2015)—is missing in this discussion. Cash is an important enabler of the informal economy. It facilitates transactions that sidestep government regulation and supervision, and wage payment in cash reduces labour-related taxes and social security contributions. Harriss-White (2017) estimated that in India, 80 to 90 per cent of the workforce in the informal economy is paid in cash. While cash makes it easier to hide informal activities from authorities, the informal activities conducted in India are largely legal income-generating ones that are beyond the reach of the authorities. For instance, many smallholding farmers and food vendors only transact in cash and do not have to declare their income because it is exempt from tax or below the minimum taxable amount. Their purchase of agricultural inputs and basic ingredients and sale of crops and foods are largely informal and cash-based. Lack of formal employment, regular pay, and credit history makes it difficult for people like them to get loans from formal financial institutions. It is this feature of informal employment that renders it a barrier to the use of non-cash payments and access to formal credit.

With regard to informal housing, over one third of the urban Indian population lives in slums as per data from the UN-Habitat. While there are different estimates of the slum population

and urban population based on different definitions of slums and urban areas and different sampling methods (Kundu, 2003; Varma, 2014; Chimankar, 2016), it is widely acknowledged that the number of slum dwellers has increased and the increase is closely associated with the process of industrialisation and urbanisation in India. Many illiterate and unskilled migrants without an affordable place to live are compelled to crowd in city slums, which are usually located along drains, railway lines, river banks, on hilly terrains, or in parks and open spaces, and remain there as low-wage informal workers (Mukherji, 2001; Banerjee, 2016; Chimankar, 2016). While the majority of the slum houses are in pucca or semi-pucca structure because of ongoing slum improvement programmes, they remain characterised by insufficient living area, lack of access to clean water, inadequate sanitation, poor drainage system, and more importantly, lack of ownership of the land (Chimankar, 2016).[36] Not only rural-urban migrants but also the urban poor who cannot afford to purchase land occupy vacant or government land, like park and railway land. This disputed nature of ownership renders informal housing a barrier for slum dwellers to access formal credit in India (Kundu, 2003).

Informal financial practices like informal saving, informal borrowing, and cash transactions are more prevalent in India than data from Table 4.1 suggests. The formality of saving and debt depends on whether or not saving and debt transactions are recorded and saving and debt service providers are registered as legal financial entities. Large-scale surveys like the one conducted by the World Bank tend to underestimate the magnitude and diversity of informal saving and debt, as the list of their sources is not intended to be exhaustive. In addition to deposit with Rotating Saving and Credit Associations (ROSCAs) and individuals, informal saving also includes deposit with Self-Help Groups (SHGs), cash in hand, promissory note,

[36] Pucca houses refer to dwellings that are designed to be solid and permanent, usually built of substantial material such as stone, brick, cement, concrete, timber, iron rods, and steel. Semi-pucca houses refer to dwellings that have fixed walls made up of pucca material but the roof is made up of the material other than those used for pucca houses. The roofs are generally made of hay, while their exterior walls are built with concrete.

gold, and ornaments, mortgage of real estate and land, and private lending.[37] The nature of savings and the propensity and opportunities to save are shaped by cultural norms and social institutions, like class, caste, gender, and kin (Goedecke et al., 2018; Guérin et al., 2020). Some forms of informal saving serve not just economic purposes, but also socio-cultural and political ones. For instance, gold has long been a status symbol and a major component of marriages and dowries, and private lending cements pre-existing hierarchical social relations (Goedecke et al., 2018). Other savings that function as ceremonial gifts keep local populations switching between debtor and creditor positions across generations, and by this way integrate them into a wide range of relationships (Guérin et al., 2020). The dominance of informal saving, particularly in rural India, reduces the use of bank saving.

Sources of informal debt are also not limited to ROSCAs, family, and friends, but include indigenous bankers, landlords, agricultural and professional money lenders, traders and crop dealers, pawnbrokers, and shopkeepers. While urban informal debt is estimated at 57 per cent (including black money) of total urban credit (Schrader, 1996), micro-level studies in rural India estimate levels of 70 to 90 per cent (Guérin et al., 2013). Informal moneylenders on average charge much higher interest rates than formal interest rates, in some extreme cases, at astonishing 200 per cent per year (Batini et al., 2010). The access to and use of informal debt and the associated terms of the contract are also shaped by social institutions of class, caste, gender, and kin (Harriss-White and Colatei, 2004; Guérin and Roesch, 2013). Similar to informal saving in the form of private lending, informal debt has a social meaning that sets debtors and creditors into local systems of pre-existing hierarchies (Guérin et al., 2013), particularly in the rural economy where financial and commodity markets are directly linked in various ways (Harriss, 1983; Jones, 1994). Some informal debt that offers favourable terms

[37] ROSCA is an umbrella term for an informal savings club.

is used as a form of labour bondage between landowners and their labourers or tenants (Guérin and Roesch, 2013). The social values that pervade debt relations tend to perpetuate informal debt and discourage borrowers from actively accessing formal one in India.

Cash remains the dominant means of payment in India. Given the anonymity of cash transactions and the difficulty of establishing their exact volume, different measurements generate a wide range of estimates for the overall level of cash payments. For instance, according to a 2019 report by the Reserve Bank of India (RBI), cash accounts for nearly 50 per cent of all transactions and 70 per cent for transactions below 500 Indian Rupee (Chadha, 2022). The former is estimated to be as high as 89 per cent in the 2020 McKinsey Global Payments Report. A report by the Credit Suisse Group cited by the RBI (2020) finds that 72 per cent of India's consumer transactions take place in cash, while the 2018 Worldpay Global Payments Report also estimates 72 per cent cash payments for point of sale purchases. All the estimates confirm the dominance of cash in the Indian payments market.[38] Other informal financial practices, particularly illegal ones like banking fraud, credit and debit card fraud, and cybercrime, have seen a sharp rise in number in recent years as per data from the RBI and the National Crime Records Bureau. The associated security concern is also a reason why people avoid depositing in banks and using digital payments.

Similar to informality, financial inclusion is also a complex concept that has several dimensions, including access to and usage of a wide range of basic and advanced financial services delivered through both traditional and digital channels by formal financial institutions that fit people's needs at an affordable price (see Chapter 2).

[38] The Indian economy's dependence on cash is also reflected in its much higher cash-Gross Domestic Product (GDP) ratio compared to other major economies, like the United States, China, and Japan (Adil and Hatekar, 2020). See also Chodorow-Reich et al. (2020) for the role played by cash in facilitating transactions and economic activities in India.

Table 4.2 Financial Inclusion Landscape in India and Different Income Groups: 2017 (%)

	Access to Traditional and Digital Financial Services				Usage of Traditional Financial Services						
	Financial institution account (% age 15+)	Debit card ownership (% age 15+)	Credit card ownership (% age 15+)	Mobile money account (% age 15+)	Saved at a financial institution in the past year (% age 15+)	Borrowed from a financial institution in the past year (% age 15+)	Deposit in the past year (% with a financial institution account, age 15+)	Withdrawal in the past year (% with a financial institution account, age 15+)	Sent or received domestic remittances in the past year: through a financial institution (% senders and recipients, age 15+)	Received wages in the past year: into a financial institution account (% wage recipients, age 15+)	Paid utility bills in the past year: using a financial institution account (% paying utility bills, age 15+)
Low income	24	9	2	18	11	7	61	55	28	23	9
Lower middle income	56	27	3	5	16	8	49	51	40	32	15
Upper middle income	73	59	19	3	27	10	72	77	57	64	34
High income	94	83	55		55	19	91	92		87	78
World	67	48	18	4	27	11	69	72	57	61	38
India	80	33	3	2	20	7	42	43	39	31	15

(*continued*)

Table 4.2 (*Continued*)

	Usage of Digital Financial Services					
	Sent or received domestic remittances in the past year: through a mobile phone (% senders and recipients, age 15+)	Received wages in the past year: through a mobile phone (% wage recipients, age 15+)	Paid utility bills in the past year: using a mobile phone (% paying utility bills, age 15+)	Used a debit or credit card to make a purchase in the past year (% age 15+)	Used the internet to pay bills or to buy something online in the past year (% age 15+)	Made or received digital payments in the past year (% age 15+)
Low income	51	13	19		5	26
Lower middle income	17	4	5	10	7	29
Upper middle income	40	21	19	38	38	62
High income		5	19	80	68	91
World	40	11	15	33	29	52
India	5	2	3	12	4	29

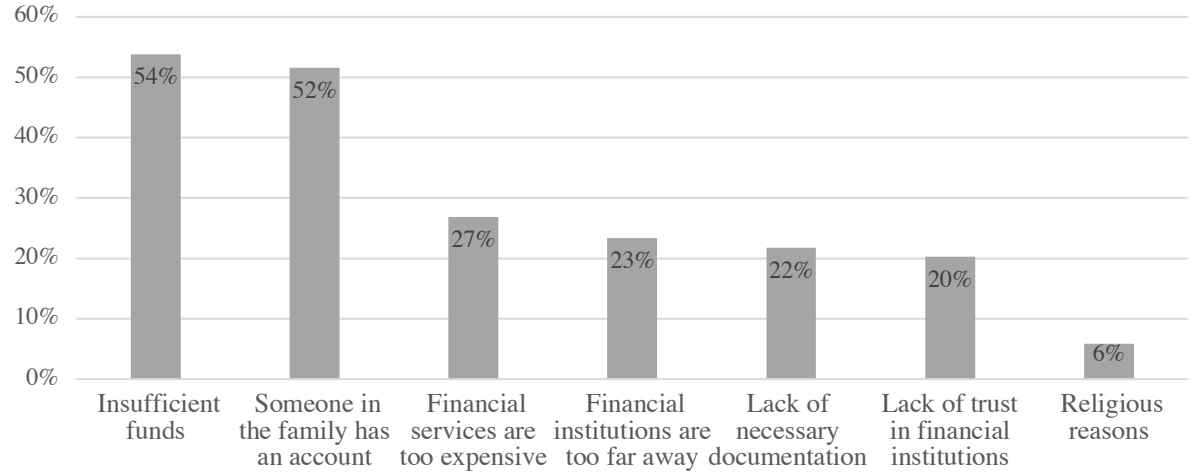
Note: Country classifications follow the criteria of the World Bank.

Source: The Global Findex database (2017).

Table 4.2 summarises the indicators of access to traditional and digital financial services and usage of these financial services that are available in the Global Findex database. While India has generated better access to bank and other traditional formal financial institution accounts than many economies in the world, the usage of these accounts in various scenarios is well below the world average and even below that of other economies at the same lower-middle income level, as data have shown. The divergence is more significant in the access to and usage of digital accounts despite the Indian government's digital push. Khera et al. (2021), using a comprehensive index that incorporates both traditional and digital financial inclusion indicators, further found that India ranks around the bottom 1/3 of the developing countries in the sample. It confirms overall limited financial inclusion in India.

Though 80 per cent of Indians own a financial institution account, considering the large population, still over 190 million do not have access to any account (Demirguc-Kunt et al., 2018). Among reasons for not having an account, as Figure 4.1 shows, lack of money, no need to open a new account when someone else in the family has one, the cost of financial services, the distance to financial institutions, lack of necessary documentation, lack of trust in financial institutions, and religious value of money and wealth are among the most cited in the case of India. Some are closely related to certain forms of informality. For instance, lack of necessary documentation is related to informal employment and informal housing; lack of trust in financial inclusion institutions is related to illegal financial practices; and lack of money is related to informal employment. Data from the Global Findex (2017) further suggest that gender, age, employment, education, income, and rural-urban divides not only exist in the account ownership, but in the traditional and digital usage of the account in various scenarios in India.

Figure 4.1 Reasons for not Having an Account (%)



Note: % without a financial institution account, age 15+

Source: The Global Findex database (2017).

In general, India features more prevalent informality and financial exclusion than many other economies in the world. The finding of close linkages between different forms of informality and different dimensions of financial inclusion confirms that informality is an important factor that has implications for financial inclusion in India, while other social factors have also played their part in the process. This establishes the context underlying the research of the role of informality as a barrier to financial inclusion.

4.2 The Bharatiya Janata Party (BJP) Government, Demonetisation, and Covid-19

The policy of Demonetisation and measures in response to the Covid-19 outbreak were implemented during the reign of the BJP for two consecutive terms. This section provides the background of the ruling party and further the context of the implementation of Demonetisation

and the outbreak of Covid-19 to enrich the understanding of political and historical importance of these two events for India in promoting financial inclusion and digitalisation.

The BJP, along with the Indian National Congress (INC), is one of the two major political parties in India, and has close ideological and organisational links to the much older Rashtriya Swayamsevak Sangh (RSS), a right-wing, Hindu nationalist, paramilitary organisation (Wyatt, 2001; McLeod, 2002; Goldstein, 2015). The landslide victory of the party in the 2014 general election under its prime minister, Narendra Modi, marked a new phase of single-party majority, the first time over the last three decades, with a shifting political centre of gravity from the long dominant INC to the BJP (Sridharan, 2014).

There are competing explanations for such a shift. From the Congress side, the collapse in its support base was related to its conflicting ideology (an economic left or centre-left party with policies favouring liberalisation), confusing dual leadership (between the Gandhis and Manmohan Singh), corruption, and ineffective running of welfare schemes and economic policies (Ghatak et al., 2014; Sridharan, 2014). The BJP, in contrast, backed by the success story of Gujarat and the can-do image of its leader Narendra Modi, managed to position itself as pro-development, anti-corruption, and friendly to the modern financial sector and new technology, though the party still fell back on the old RSS network and revisited Hindutva politics in the 2014 campaign (Jaffrelot, 2015). On this basis, the BJP manufactured a support base of the urban middle class, upper castes, economically prosperous groups, and increasingly young and aspirational electorates, but its majority was fragile and concentrated in limited Hindi-speaking areas (Sridharan, 2014). To expand its support base and consolidate itself nationally and to live up to its promise of economic development and good governance, the

party carried out targeted economic policies to change its pro-business image to pro-poor, and it was in this context that Demonetisation was implemented.

Demonetisation is neither an exercise unique to India nor something innovative in Indian history. There have been various episodes of demonetisation in the rest of the world, such as the ones in Brazil and Argentina (the 1980s), Ecuador (the 1990s), and Zimbabwe (2015) in response to hyperinflation; in UK, Australia, and Singapore in response to high-denomination banknotes; and in Myanmar (1987), Zaire (1993), West/East German (1989), and North Korea (2010) in response to economic and/or political crisis (Ghosh et al., 2017). The extreme nature of the Indian one is historically unprecedented anywhere in the world in peacetime without any threat of hyperinflation or crisis. There have also been two episodes of demonetisation in India with the aim to curb black money prior to the one in 2016. While the 1946 and 1978 demonetisations left people shorter time to deal with demonetised banknotes,[39] only the very rich were impacted, as the demonetised banknotes only accounted for less than one per cent of cash in circulation in both cases and it was then almost impossible for common people to possess such high-value banknotes (Rajakumar and Shetty, 2016; Ghosh et al., 2017).[40] The 2016 demonetisation that demobilised 86 per cent of cash in circulation, in contrast, impacted not only the very rich but the vast majority of the poor, given the increased per capita income and increased price of commodities consumed by them (Ghosh et al., 2017; Kumar, 2017).

The announcement of Demonetisation in 2016 was followed by prolonged cash shortages in the following weeks, which created significant disruption throughout the heavily cash-

[39] The 1946 and 1978 demonetisations gave only 10 days and seven days respectively for the adjustment in contrast to 51 days in the 2016 demonetisation.

[40] Though the 1946 demonetisation also demonetised 500 and 1,000 Indian Rupee banknotes and 1978 demonetisation demonetised 1,000 Indian Rupee banknotes, the value of 500 and 1,000 Indian Rupee banknotes in 2016 was in no way equivalent to that of banknotes demonetised in 1946 and 1978 given the high rate of inflation over time.

dependent economy. Lack of proper planning in printing and distribution of replacement banknotes exacerbated the problem. Even by the end of the limited window period provided by the government to exchange or deposit demonetised banknotes, less than half the value of demonetised banknotes had been replaced. The absolute shortage of cash supply forced people to wait in long queues outside banks and post offices to get small amounts of replacement banknotes and in some cases use non-cash means of payment for daily transactions.[41] It was in this context that the government shifted rhetoric on Demonetisation from curbing black money to enabling a growth in bank credit, formalising the economy by forcing all the cash into bank accounts, and eventually to moving towards a cashless economy.[42]

To justify this rhetorical shift, the government pushed harder for financial inclusion and digitialisation. Greater digital adoption encouraged a number of private players to provide digital payment alternatives.[43] The volume and value of transactions on the Unified Payments Interface (UPI), a platform created by India's largest banks in 2016, witnessed an exponential increase during the period of cash shortages, and increased steadily even after all the curbs on

[41] Cash exchanges over the counter were restricted to 4,000 Indian Rupee (later increased to 4,500 and then reduced to 2,000) and were banned on 24 November 2016. Cash withdrawals from bank accounts were restricted to 10,000 Indian Rupee per day (later removed) and 20,000 Indian Rupee per week (later increased to 24,000) by 30 January 2017, after which cash withdrawal limits were removed from current accounts. In the initial weeks after the announcement of Demonetisation, many bank branches and ATMs were out of cash. People waited in queues but could not get replacement banknotes.

[42] The changing Demonetisation narrative was evident in the analysis of the Prime Minister's seven speeches (after translation) between 8 November and 27 November 2016 (Chakravarty, 2016). As a proxy of relative importance, the ratio of "black money", "fake currency", and "cashless/digital pay" mentioned as a reason for Demonetisation in each speech changed over time, indicating a shifting goalpost from black money elimination to going cashless. It was also argued that the government's rhetoric shifted because the claimed aim of Demonetisation to curb black money lost legitimacy (Ghosh et al., 2017). According to the RBI's 2017-18 Annual Report, 99.3 per cent of demonetised banknotes returned to the banking system, indicating that either there was less black money held in the form of cash than expected, or that holders of black money managed to launder their black money. Meanwhile newly-issued high-value 2,000 Indian Rupee banknotes would encourage more illegal transactions rather than curbing them. See Rogoff (2017) for details of how large-denomination banknotes aided crime and tax evasion.

[43] From global tech giants such as Google and WhatsApp to India's biggest mobile wallets such as Paytm and MobiKwik, all adopted the digital payments system during and after Demonetisation.

cash withdrawals were lifted.[44] Demonetisation was therefore in the top-down narrative an catalytic event for digitalisation that served to reduce informality mainly in the form of the use of cash and advance financial inclusion by incentivising people to use and use more formal financial services, particularly digital payments.

The Covid-19 pandemic also has implications for informality and financial inclusion unparalleled in recent history of pandemics in India. Different from the 2003 SARS epidemic, which led to the rise of e-commerce and advance of mobile payments in China heralded by Alibaba and JD.com (Li and McElveen, 2020) but had little impact on India, Covid-19 massively affected and is still affecting India in a way that catalyses digital transformation. It was even argued that what Demonetisation failed to achieve in India—a cashless economy—could be accomplished by the Covid-19 outbreak (Beniwal and Ghosh, 2020). Cash support for those most economically affected by the pandemic was disbursed through Direct Benefit Transfer (DBT), which required people to open and use their bank accounts. The fear of contracting the virus made people wary of close personal interactions using cash payments and increasingly resort to non-cash payments. Movement restrictions also incentivised them to use more online services, which during the lockdown no longer accepted cash on delivery (COD) but online payment, to get goods and services needed.[45] The fast growth in the volume and value of UPI transactions since April 2020 supported this view.[46] Covid-19 was therefore also commonly viewed and officially narrated as a critical event that reduced people's reliance on cash and informal financial institutions and increased their use of digital payments and formal financial services.

[44] The data related to UPI transactions are available in the National Payments Corporation of India (NPCI) website (https://www.npci.org.in/what-we-do/upi/product-statistics).
[45] Online shopping platforms like Amazon and online food delivery platforms like Swiggy only accepted online payment during the lockdown.
[46] The data related to UPI transactions are available in the National Payments Corporation of India (NPCI) website (https://www.npci.org.in/what-we-do/upi/product-statistics).

The impact of Demonetisation and Covid-19 on financial inclusion was also unprecedented compared to existing financial inclusion schemes. These two events affected everyone in the country, the former through an extreme shortage of cash and the latter through an extreme shortage of goods and services. As briefly mentioned in Chapter 3, while there were schemes aiming to increase the supply of traditional formal financial services, for instance, the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014 that provided people easy access to zero-balance bank accounts, usage of these accounts remained a concern, reflected in the large proportion of inoperative accounts and low average balance of these accounts (Sinha and Azad, 2018). Demonetisation and Covid-19 pushed people into opening bank accounts, activating their inoperative accounts, and increasing the usage of them. It was the same for schemes aiming to increase the supply of digital formal financial services, for instance, Digital India launched in 2015. Under the umbrella of this programme, increasingly far-reaching measures were taken to create the ground for greater digitalisation of financial transactions, including JAM (short for Jan Dhan-Aadhaar-Mobile) trinity and UPI, and Demonetisation was viewed one of them (Adil and Hatekar, 2020). A more dynamic payment environment empowered people with digital tools and skills to cope with Covid-19, and the pandemic itself accelerated digital transformation and might further change people's way of payment even after the removal of movement restrictions.

In this context of prevalent informality that constrained financial inclusion in India and the top-down narrative that Demonetisation and Covid-19 could advance financial inclusion on an unprecedented scale, the thesis explores the extent to which Demonetisation and responses to Covid-19 reduced the role of informality as a barrier to financial inclusion and what challenges remain despite these two events.

4.3 Urban Setting: Kolkata, West Bengal

While the background study for the thesis is predominantly conducted at the national level, the research questions are analysed through the lens of the city of Kolkata. This section introduces the basics of the city, including its demographics, politics, and economy, and demonstrates its suitability for conducting intended research, before proceeding to the specific local context and methods used to collect data there.

Kolkata is the capital of the state of West Bengal. According to the 2011 Indian census, the city has a population of approximately 4.5 million residents within the city limits, making it the seventh most populous city in India. Its importance as the primary business, commercial, and financial hub and the main port of communication of Eastern India began with the East India Company. Under the company rule and later under the British Raj, Kolkata (then known as Calcutta) served as the capital of British-held territories in India until 1911, before mass protests and growing nationalism related to the partition of Bengal in 1905 along religious lines pushed the British to move the capital to New Delhi (Hall, 2002; Chatterji, 2007). Following independence in 1947, the partition of India led to further clashes and a demographic shift with many Muslims leaving for East Pakistan (now Bangladesh) and Hindus fleeing into Kolkata, and the city suffered many decades of political violence and economic stagnation (Gandhi, 1992; Gooptu, 2007; Banerjee, 2011). The situation worsened during the 1960s and 1970s when violent Marxist-Maoist movements and strikes damaged much of the city's infrastructure, which was further strained by a massive influx of refugees after the Bangladesh Liberation War of 1971 (Bennett, 1996; Gooptu, 2007; Banerjee, 2011).

In the period between 1977 and 2011, the Left Front dominated by the Communist Party of India (Marxist) (CPI-M) governed West Bengal.[47] It was backed by a stable, homogeneous support base of poor and marginal sections of society, especially small-middle peasants and landless labourers (Chaudhuri, 1987; Das and Mahmood, 2015). It was only after the 1990s when India began to institute pro-market reforms and the state government enacted changes in economic policy that the economic recovery gathered momentum in Kolkata. The fast growth of the information technology (IT) services sector since 2000 has further revitalised the economy, making Kolkata a major hub for the IT industry in India. Yet the government's aggressive transition from agriculture to industry and associated violent land acquisition undermined its electoral support. With the Nandigram-Singur events at the forefront, the Trinamool Congress (TMC) not only successfully mobilised peasants who were opposed to land acquisition, but a broader political support base of the urban poor, particularly those in the informal sector, with policies protecting and benefiting them (Ghatak, 2016). The party defeated the Left Front in 2011 and has remained in power till now.

Existing micro-level studies on informality and financial inclusion are predominantly rural-centric, focusing on informal financial institutions and financial services that cannot easily find their urban equivalents and on various ways through which associated financial arrangements reflect broader inequalities, like in the cases of Harriss-White and Colatei (2004), Goedecke et al. (2018), and Guérin et al. (2020). The dynamics of the urban financial landscape as to what financial institutions and financial services are available in urban areas and how people from different sections of society interact with these institution and use services in their social setting

[47] The Left Front government was the world's longest-serving democratically elected communist government that consecutively won seven democratic elections, during which Kolkata was a key base for Indian communism (Singh, 1987; Dutta, 2003).

remain understudied. In this context, drawing on the history of Kolkata, I explain why it is an ideal place to research urban informality and financial inclusion.

Kolkata contained a large informal sector of industrial and service activities in colonial times (Kundu, 2003; Mukhopadhyay, 2022). As buildings multiplied at a much lower rate than the population, urban slums boomed to house the migrant rural poor who flocked to Kolkata to serve the British settlers and their families and work in the new industries at a cheap price (Dutta, 2003; Dutt, et al., 2019). The former gave rise to the first slums of Kolkata, while the latter resulted from the process of industrialisation and urbanisation with the large inflow of British capital (Kundu, 2003). After independence, the refugee movement initiated a new wave of slum establishments along train stations, roadsides, canals, and other vacant lands, particularly in the southern regions (Sanyal, 2009). The slums further attracted migrants from all over Eastern and Northern India in search of employment, and slum dwellers worked in a wide range of occupations, not only in the informal sector such as servicing the urban middle-classes and working in small businesses, but in the formal sector by working for the government (Kundu, 2003). The trends of informal employment, however, persist and are even reinforced in the postcolonial India, and Kolkata has also witnessed a spurt in informal activities (Mukhopadhyay, 2022).

Kolkata has a large and heterogeneous informal sector that employs more than half of the labour force (Shaw, 2016) and has 2,011 registered slums and 3,500 unregistered squatter-occupied slums that house about one third of the population (Kundu, 2003; Schenk, 2010). While ownership varies according to the history of slum development, housing finance is largely unavailable for slum dwellers even if they have legal ownership of the small plots of land bought from a single landowner, as banks are not interested in providing credit for them

(Kundu, 2003). These in general indicate a high level of informality in Kolkata, which is likely to persist, as the state government's politics of patronage and populism have benefited a large section of the informal sector (Ghatak, 2016).

Though a large part of the population are excluded from formal credit and have to resort to other sources of finance, Kolkata, as the only metropolitan city in West Bengal, has a relatively high level of traditional and digital financial inclusion. While West Bengal ranks ninth out of 28 states of India in terms of the index of financial inclusion that incorporates a comprehensive set of access and usage indicators (Gupta et al., 2014),[48] Kolkata has outperformed other districts in the state in all major indicators available at the district level (Chattopadhyay, 2011; Sen and Laha, 2021).[49] Large population, good infrastructure, and recent development in the IT industry have further made Kolkata the first place where the government and the private sector launched digital transformation programmes before extending them to other areas of the state.[50] Conducting research in this city thus allows better insights into the broad urban financial landscape composed of financial institutions and financial services ranging from the informal to the digital.

[48] Indicators used to measure financial inclusion include bank accounts per adult, geographic branch penetration, demographic branch penetration, geographic ATM penetration, demographic ATM penetration, demographic loan penetration, loan-income ratio, demographic deposit penetration, deposit-income ratio, and cash-deposit ratio.
[49] Indicators available at the district level include bank accounts per branch, bank accounts per adult, adult population per branch, per capita deposits, per capita credits, credit-deposit ratio, deposit amount to District Domestic Product (DDP), and credit amount to State Domestic Product (SDP).
[50] For instance, Swiggy, an online food delivery platform, first launched its services in Kolkata in 2015, and expanded its reach to smaller cities like Durgapur and Siliguri. By the time I conducted interviews, it had not covered every city in West Bengal, let alone towns and villages. It was almost the same for other digital transformation programmes, particularly those pioneered by the private sector.

4.4 Research Design and Methods

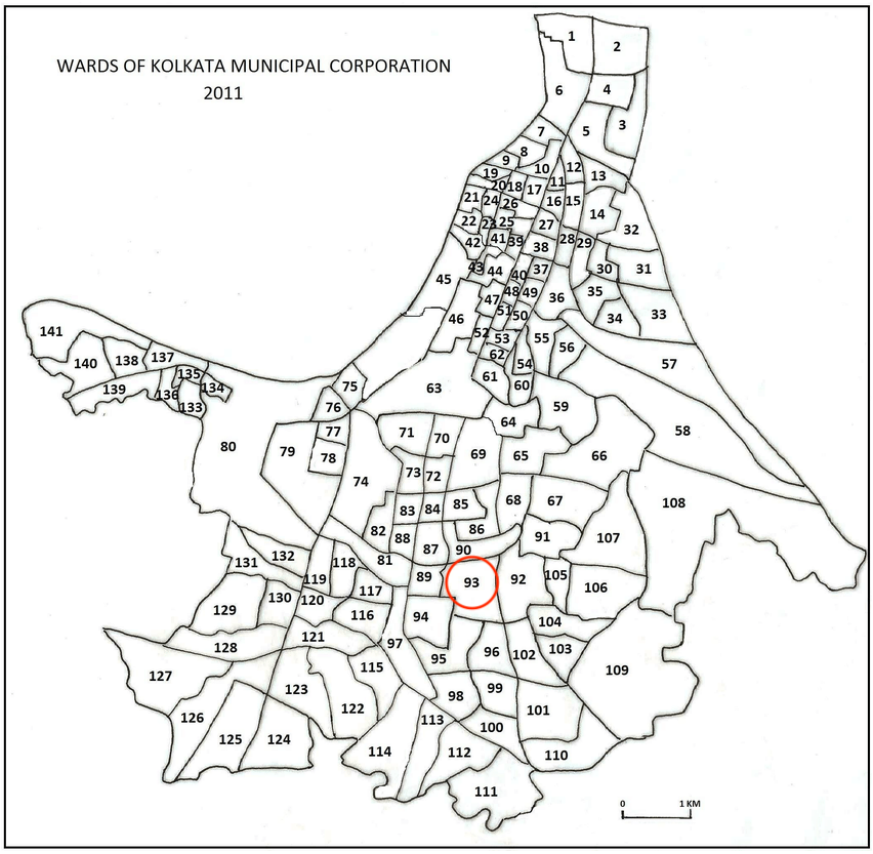
It is almost impossible to account for the urban financial landscape in Kolkata and on this basis analyse change in the role of informality as a barrier to financial inclusion under the impact of Demonetisation and Covid-19 and further spatial variations of the change from a macro perspective—both for limited time and energy as an individual researcher and for the wide range of processes and institutions known to be involved. The finding of considerable variations across villages within the same region (Fouillet et al. 2013) indicates that the influence of local power relations entrenched in social institutions such as gender, caste, and class on access to and use of financial institutions and financial services can also vary across urban localities. Another finding of the close relevance between geographic proximity and individual trust in different types of financial institutions (Filipiak, 2016) further confirms the importance of conducting research in a specified area for an in-depth insight into how individuals interact with local financial institutions.

I therefore selected a field site that allowed me to collect information-rich data in a manageable way to answer the research questions. The following sections explain how I decided on the site for field research on the questions relating to Demonetisation, how I used mixed methods and purposeful sampling to collect data in the site and further analysed and interpreted the data, and how I used digital methods to collect data in the context of Covid-19 and research the questions relating to the event.

4.4.1 Researching Demonetisation: Selecting a Field Site

In the multi-layered administrative setup in India, I selected a ward in the city of Kolkata as my field site. A ward is the smallest electoral unit in India. It is neither so small as the enumeration block that is divided randomly for equal distribution of workload allotted to an enumerator for the purpose of carrying out the census, nor so large that I could not collect intimate details of the local community, financial institutions, and their interactions through participant observation.

Figure 4.2 Kolkata Municipal Corporation Ward Level Map showing Ward 93: 2011



Source: 2011 Census of India.

My research was primarily based in Ward 93, which is located in the southern part of Kolkata (see Figure 4.2). Different from North Kolkata, the oldest part of the city characterised by 19th-

century architecture and narrow alleyways, South Kolkata that developed after independence features upscale neighbourhoods and modern commercial buildings.

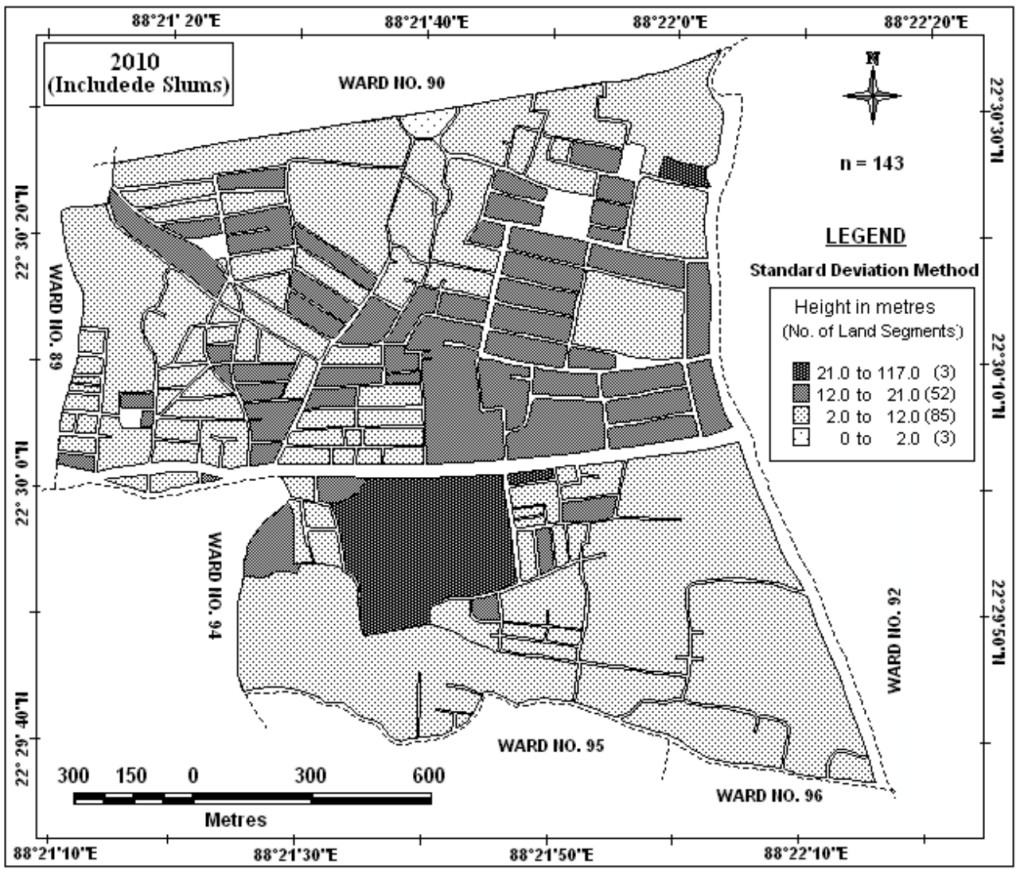
The history of industrial and urban development in Kolkata left a significant mark on the ward. It is bordered on the north by the Budge Budge branch of Eastern Railway, near which reside many slum dwellers, and on the south by the largest shopping mall of eastern India—South City Mall and an adjoining residential complex with 35-story high rises. Eastern Railway was formed by integration of the East Indian Railway that served to connect Calcutta, Delhi, and areas rich in minerals, agriculture, and industry under the East India Company rule.[51] Refugees who fled from Bangladesh mainly settled along this railway track, while migrants from nearby villages and neighboring states seeking employment in the city occupied vacant land. Development in the area along with an influx of migrants attracted property developers to build more middle-class residential apartments, and later the shopping mall and housing complex to replace the erstwhile Usha Industries factories and staff quarters. As per Haque's estimate (2013), the built up area in Ward 93 increased sharply from only 3.4 per cent share out of the total area in 1957 to 79.2 per cent in 2010.

The co-existence of high rises as well as low-storied and slum houses in the ward, illustrated by buildings with great variation in height (see Figure 4.3), indicates the co-existence of a wide range of social classes with observable differences, as housing is an important indicator of social class (Mack, 1951). What is associated with it is the co-existence of commercial and financial infrastructure of varying degrees of informality in operation, catering to demand of people from different classes. For instance, while there emerged several supermarket chains

[51] Available in the Eastern Railway website (https://er.indianrailways.gov.in/view_section.jsp?fontColor=black&backgroundColor=LIGHTSTEELBLUE&lang=0&id=0,1).

located close to main residential areas and a hypermarket in the shopping mall, traditional markets, stalls, and street vendors persist and are evenly distributed in the ward. Shops and restaurants with a more formalised operation are mainly located in and close to the shopping mall and along main roads to the mall, while less formalised ones are distributed across the ward. Similarly, there co-exist formal financial institutions like banks, post offices, insurance companies, shops providing mobile wallet and payment services, bond traders; semi-formal financial institutions like non-banking financial companies (NBFCs), small finance banks (SFBs), non-governmental organisations (NGOs); and informal financial institutions like jewellery shops providing gold saving services and other shops providing credit sale services. I detail their operation and distribution in the ward in Chapter 5.

Figure 4.3 Spatial Concentration and Vertical Expansion in Ward 93: 2010



Source: Haque (2013): 154.

Residents in the ward demonstrate a great variety not only in class, but in several other social dimensions that may have implications for access to and use of these financial institutions. According to the 2011 Census of India, Ward 93 has a total population of 44,364, almost equally distributed by gender. While census data about religion, caste, age, education, and occupation are not available at the ward level, my pilot study finds that Hindus dominate the ward, while there co-exist people of different faiths, castes, age groups, and education levels and engaged in formal and informal work and activities. It is further found that the ward has been ruled by elected councillors from the state's ruling party TMC since the year of 2005 and is supposed to involve less state-local conflict that tends to distort power relations entrenched in these social institutions, though centre-state conflict cannot be avoided.[52]

Given the great presence of economic, urban, and financial informality and social factors that have been identified as critical to the research, the ward is ideal for the in-depth study of the role played by different forms of informality and social factors in the process of financial exclusion and inclusion. With the help of Prof. Shantanu Chakrabarti of the University of Calcutta that I was affiliated with as a visiting scholar, I managed to rent an upper-middle-class flat close to a slum cluster in the ward. I lived there and interacted intensively with people in their cultural environment over an extended period of time from October 2019 to June 2020. Living in the same area turned out to be extremely helpful in persuading people to accept my interviews and observing their financial activities (and even experiencing some of them myself).

There is always a trade-off between investment of time and energy in learning the local language and other pressing demands like obtaining high-quality data, particularly when the

[52] For instance, my interview with the local NGO that aims to improve the quality of life of the girl children and women in the slums along the railway track found that slum dwellers were in some cases forced to leave, subject to the tension between the centre and the state, as the railway land was regulated by the BJP-led central government, while the slum dwellers living there were political clients of the TMC-led state government.

fieldwork requires close involvement with the local community (Devereux, 1993). While some command of Bengali allowed me a general understanding of what people said, much more time was needed to learn the language to the extent that I could conduct the interviews on my own. I therefore employed a young male interpreter who worked on a casual contract for the University of Calcutta. He provided both protection and a "counterweight" to my being a woman. The main drawback of working with an interpreter is that information is received second hand, rather than directly from respondents, and is thus vulnerable to the problems of mis-translation and lack of details (Devereux and Hoddinott, 1993). My understanding of the local language helped to reduce these problems so that I could enjoy some direct contact with respondents, while retaining flexibility to write and think during the interviews.

4.4.2 Researching Demonetisation: Mixed Methods

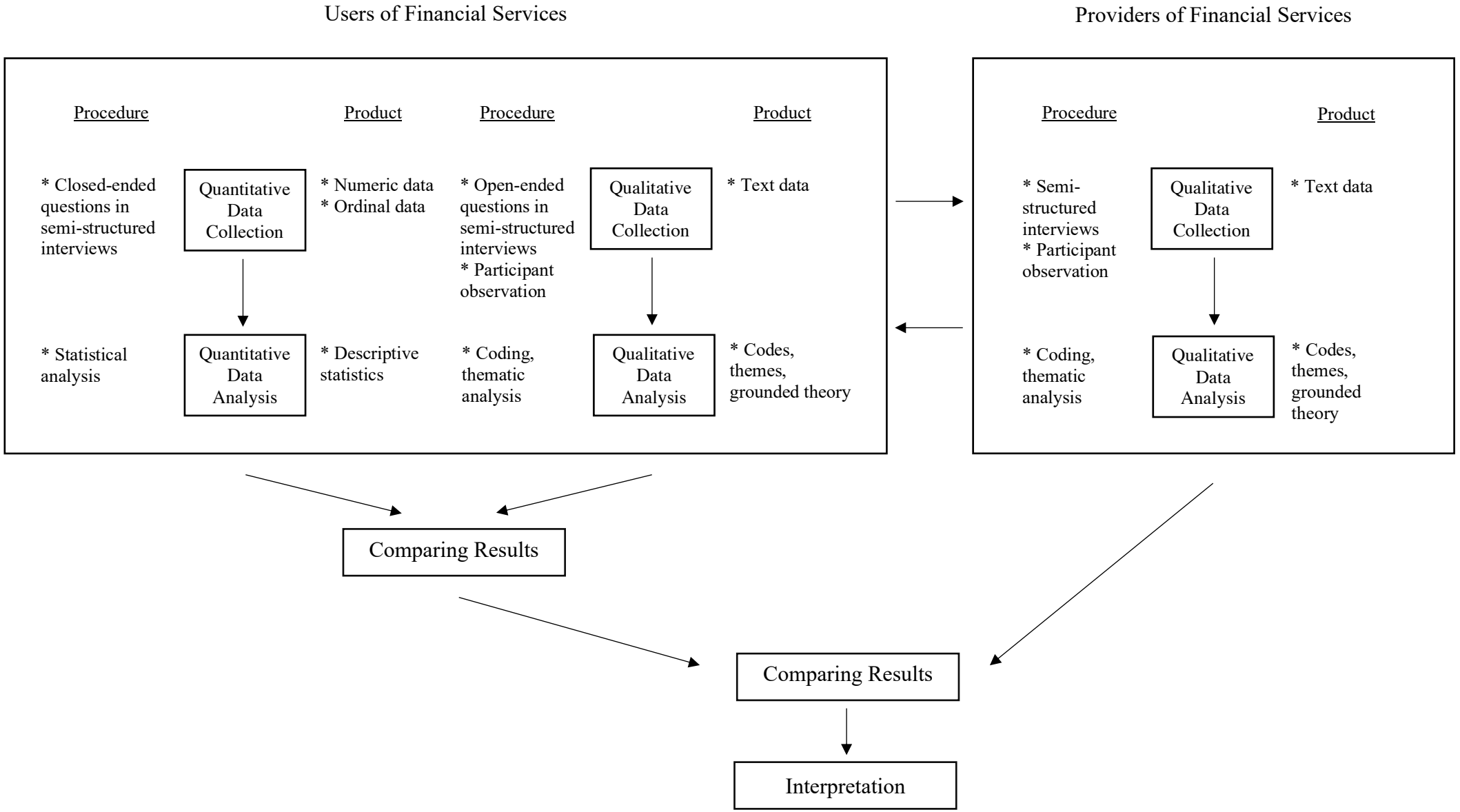
To examine the change in financial inclusion and its relations with informality and other social factors under the impact of Demonetisation and Covid-19, one has to first decide on the means to measure financial inclusion, which has implications for the methods used to collect, analyse, and interpret data. Prior studies have mostly used access indicators that reflect the depth of the outreach of financial services and usage indicators that reflect the regularity and duration of the use of financial services to measure financial inclusion (for instance, Honohan, 2008; Chakravarty and Pal, 2010; Sarma, 2012; Amidzic et al., 2014; Cámara and Tuesta, 2014). Aggregate quantitative data collected from secondary sources were usually used for such statistical analysis. A few studies have focused on the quality of financial inclusion relating to the range of financial service options that are useful and affordable to people and their awareness and understanding of these options (for instance, Donovan, 2019; Kiiti and Mutinda, 2019; Taylor and Horst, 2019). Such qualitative data were mainly collected through in-depth

interviews and participant observation and were analysed and interpreted through a qualitative approach.

Quantitative methods focusing on access and usage data are often weak in validity and ignore the importance of the process of financial inclusion and its welfare effects on people from different sections of society. Qualitative methods focusing on quality data, in contrast, tend to be poor-centric and in many cases ignore the demand for more advanced financial services, particularly among the better-off sections of society. The methods are also criticised as weak in reliability and lack quantitative support for findings on the change in financial inclusion (Britten and Fisher, 1993). Given these limitations, I chose to use a comprehensive multidimensional measurement that covers access, usage, and quality aspects of financial inclusion and use mixed methods to collect, analyse, and interpret relevant data. The motivation to explore issues about financial inclusion from perspectives of both users of financial services and institutions that provide these services was instrumental in shaping the research design of this study (see Figure 4.4). I name it modified concurrent triangulation design because it is the same as the classic concurrent triangulation design in Creswell et al. (2017) in that both aim to obtain different but complementary data on the same topic from different sources during the same timeframe, but different in that it adds data triangulation into the classic model. This not only facilitated data validation through cross verification from more than one source, but provided complementary data that a single source failed to provide in my research.[53]

[53] For instance, some financial institutions had no physical presence in the area under study but their financial services were popularly used by people living there. Data relating to the use of these financial institutions could be collected by interviewing users of their financial services. There were also cases where some financial institutions had a branch in the locality, but people who used their financial services refused to be interviewed. Data relating to the use of these financial services could be collected by interviewing their providers.

Figure 4.4 Modified Concurrent Triangulation Design



From users of financial services, I collected quantitative and qualitative data, the former through closed-ended questions in semi-structured interviews and the latter through open-ended questions in the same interviews. I conducted interviews with adult members of sampled households on change in their use of different formal financial services and the frequency of use, change in their ways of saving, payment, and borrowing, and reasons for the change or the lack thereof under the impact of Demonetisation. Milestones were created to identify different stages of financial inclusion. Change in the stage is used as a proxy for measuring change in financial inclusion in Chapter 5. Some qualitative text data were thus collected to determine what stage the respondent was at, and they could be transformed into ordinal quantitative data for statistical analysis. Day-to-day participant observation also allowed me to study a wide range of financial behaviours and intra-household dynamics that had implications for the use of financial services and perception of financial inclusion in a natural setting.

From providers of financial services, I identified local financial institutions and collected qualitative data through semi-structured interviews with their agents on features of the institutions and their services and change under the impact of Demonetisation. Unstructured day-to-day observation was also employed to collect data relating to interactions between local residents and these financial institutions. While greater emphasis was placed on qualitative methods, I aimed to explain and expand quantitative results with qualitative data and support qualitative results with quantitative data. In this way, I integrated two data types collected from two sources during the analysis and brought separate results together in the interpretation to corroborate validity and reliability of my findings.

4.4.3 Researching Demonetisation: Purposeful Sampling

To select interviewees, I used purposeful sampling, which is widely used for time- and cost-effective "identification and selection of information-rich cases related to the phenomenon of interest" (Palinkas et al., 2015: 533). Ideally, I could have acquired a voter list of the ward from the local councillor, and with his assistance, identify class, caste, religion, age, and gender of each voter. I could then select a sample composed of people of different social identities with maximum diversity in sufficient number.[54] Yet administrative barriers in practice constrained me from doing so.[55] It was in this context that I had to decide on the social factors that were most important for the analysis of informality and financial inclusion and take a stratified purposeful sample on this basis.

Both households and individuals within the households were my units of analysis and observation.[56] I chose to interview each adult member of the sampled households to ensure that intra-household dynamics could be researched, while people of different age and gender groups were covered in the sample, as a typical household is composed of two or more generations of men and women. Among other factors, religion involves the complexity of the use of Islamic banking that is different from conventional banking and the complexity of identification as

[54] However, this sampling method does not guarantee a less-biased sample, as the local councillor is a gatekeeper who stands between the data collector and a potential respondent. The sample selected and the data collected are subject to my relationship with him and information provided by him.

[55] I initially visited the councillor's office, and the staff required me to get permission from the local police station. After several visits to the local police station with all the mandatory documents submitted, the local policemen again asked me to visit the district police station and get their permission. Until then I realised that they might have deliberately put obstacles in the way of my research and it was almost impossible for me as a foreigner to get access to the profiles of voters in the ward.

[56] Few scholars make a distinction between households and individuals within the households in their conceptualisation of financial inclusion, but recent field studies suggest that intra-household dynamics regarding individual and household financial decisions cannot be ignored in the analysis of financial inclusion. For instance, Schaner (2015) found that well-matched couples preferred to use joint accounts, and Cull and Scott (2010) found that the identity of the respondent in a household affected reported rates of use of financial services.

individuals can belong to more than one religious tradition and members within one household can belong to different religious traditions. An in-depth investigation into these necessitates a comparative study of Hindu- and Muslim-dominant wards, but extra time is required to gain a close and intimate familiarity with a new community. While caste has a role to play in the power structure of India, the politics of West Bengal featuring ideological subsumption of caste by the larger question of class under prolonged Left Front hegemony persist after its defeat (Kohli, 1990; Chandra et al., 2015). This indicates that class plays a more important role than caste in the state, not only in politics but in many aspects of society. Class is also likely to be more closely linked with various forms of informality and traditional and digital financial inclusion through income and wealth differentiation. Its intersections with occupation and housing condition further ensured that informal workers and slum dwellers were covered in the sample.

I initially intended to interview 50 households, more or less equally distributed across four classes (lower, lower-middle, upper-middle, and upper classes), on their experiences and perceptions of Demonetisation. To obtain the stratified sample, I divided households in the selected ward into homogeneous groups that possess similar social class attributes, here housing in similar conditions, and identify their class categories with the help of my interpreter, local contacts, and professors of the University of Calcutta living in the ward. This was supported by the work of Mack (1951) that identifies the housing condition as a major determinant of class and the finding of Olsen (1993) that the locals provide a more accurate perception of class than exact data on various aspects of households' social and economic structure. Dividing households into different class groups on this basis turned out to be more time- and cost-efficient, as it did not require first interviewing household members or gaining entry to their houses.

In field research practices, however, I experienced difficulties in recruiting interviewees, collecting information, revisiting interviewees and encountered the unexpected event of Covid-19 that forced me to change my research plan and reinterpret the overall material I have gathered. Two communities turned out to be unapproachable in the ward. One was formed by slum dwellers living along the railway track who were political clients of the TMC. As my original questionnaire involved questions relating to the party they voted for in the 2019 general election and whether their vote choice was influenced by the policy of Demonetisation, the community leader directly declined my interview in the area. The other group that I did not manage to interview was the upper class living in the South City residential complex. The gated community containing strictly controlled entrances could not be easily accessed, as my social networks did not cover people living there and I did not even have chance to knock on their doors and request them to accept the interview.

Beyond this, I found that in an urban setting in general, people were more sceptical of strangers, particularly middle-class ones living in apartment blocks of varying sizes and states of disrepair. While villagers were so familiar with their neighbours that researchers who got one acquaintance could have access to almost everyone living in the village, many urban middle-class families did not even know each other living in the same building. Slums were different in that dwellers living in the same cluster shared public taps, knew well about each other, and always kept the door open. I therefore started my interview with this class group and obtained a more or less random sample in slum clusters other than the one along the railway track. For the middle classes, I instead recruited interviewees through a combination of convenience sampling and snowball sampling. I first interviewed those who were most easily accessible (such as my neighbours, people I met in the street who were curious about my field research, people sitting outside their doors) and with their help further interviewing those who they knew

that generally belonged to the same class who in turn knew people also belonging to that class. When the snowball sampling reached its limit, I looked for new people to interview and started new rounds of such snowballing.

Involvement of sensitive information in the questionnaire added to the difficulty in assessing interviewees and collecting data. Not only questions relating to vote choice and evaluation of government policy, which in the end were not presented in the thesis as I rescoped my research after the outbreak of Covid-19, but those relating to their income, coping strategies for demonetised banknotes, and use of financial services rendered people reluctant to be interviewed.[57] There were further rumours that I was assigned to the place by the BJP or the TMC, though I was introduced to the locals as a DPhil student from the University of Oxford.

Even if people were willing to be interviewed, I had to pay multiple visits and keep scheduling and rescheduling time at their convenience, as everyone was busy and could only be interviewed in a very short span of time. The time they had to spent on the in-depth interview scared some away and people sometimes changed their mind in the interval between two visits. As the interview was conducted on a household basis, there were cases where one member passively declined the interview while the rest of the family had been interviewed and I had to give up the household as a sample. In this context, I actually collected more data than presented in the thesis. The uncertainty further made it almost impossible for me to conduct second-round interviews or reinterview the same group of people after lockdown restrictions were lifted.

[57] I therefore quickly gave up on the idea of audio recording as the interview involved sensitive information. I instead took notes during the interview, initially on paper and later on my laptop.

By the time the government announced the nationwide lockdown, I had not completed my scheduled face-to-face interviews with five more lower-middle- and upper-middle-class households. The distribution of the sample of 45 households (115 adult members) was therefore slightly skewed towards the lower class (19 from the lower class, 14 from the lower-middle class, and 12 from the upper-middle class). It was nonetheless a sample of large enough size for mixed-method research that stroke a balance between manageability and some degree of representation of each social class. While the sampling methods I employed were biased towards people who chose to take part in the research, more so in the case of the middle classes, I reduced the bias by triangulating questionnaire data with observed behaviours and found that the sampled households were not outliers in each particular class group. Another limitation, as mentioned earlier, was that the sample was not representative of the entire population in the ward, as occupiers of the railway land and the upper class were exclude in the sample. Further research is required to solve this limitation, which I detail in Chapter 7.

There were strict movement restrictions in response to the Covid-19 pandemic, as police vans patrolled the streets in the ward to ensure that people did not violate the lockdown rules. This, along with the fear of contracting the virus, prohibited me from completing the rest five scheduled face-to-face interviews, let alone travelling to the village that I intended to conduct a comparative study on the impact of Demonetisation on financial inclusion. It was in this context that I revised my research plan to focus only on the urban area but extend the scope of the study to cover the impact of Covid-19 on financial inclusion. The overall material gathered—not the type of material that was originally sought—was reinterpreted to reflect the dynamics between informality and financial inclusion in the urban setting under the impact of Demonetisation and Covid-19.

4.4.4 Researching Covid-19: Digital Methods

The Covid-19 pandemic impacted the research project by shaping the object of study and the methods employed to collect data. As an event that tended to transform the time and space of social life, its impact was included in the study as an extension of the field research conducted before the lockdown. Strict restrictions on face-to-face interviews forced me to change to use digital methods to capture this transformation and further its impact on financial inclusion to investigate barriers that persisted despite previous promotion policies, including Demonetisation.

While phone and online interviews served as a replacement for face-to-face interviews when there was a requirement to keep social distance and made it easier to arrange time for interviewing and reinterviewing the same group of people, I experienced difficulties in accessing households that I was in contact before the lockdown. On the one hand, for most of the sampled households, I did not have their contact numbers, as my previous interviews were enabled by repeated home visits and interview appointments were often made in person. On the other hand, digital methods research is itself biased against people who have no telephone and internet access (Lutz, C., 2022), as hierarchies are built into the use of technology and the type of technology used. As I found in the field, few lower- and lower-middle-class interviewees had access to the internet and could speak English. The language factor was especially important in my case because my Bengali was not good enough for me to conduct independent interviews, while tripartite interviews with the assistance of my interpreter were severely constrained by the poor internet connection. Therefore even if these lower- and lower-middle-class interviewees had internet access and were willing to give me their contact

numbers, I could not interview them remotely during the lockdown. In the end, I only managed to reinterview two upper-middle-class households on issues relating to the pandemic.

The difficulty in recruiting new interviewees in the ward forced me to extend my interview to other parts of Kolkata for a richer source of information. The digital and language divides determined that only upper-middle-class families were available for remote interviews and spoke English. My local contacts established before turned out to be extremely helpful in introducing target interviewees to me, who in turn introduced new people belonging to the same class. Through this process of snowballing, I interviewed 18 more upper-middle-class households (20 in total if the two households reinterviewed were included) living in northern and southern parts of Kolkata and in and outside the containment zones. They were distributed across different wards in Kolkata. Ward-specific factors were not that important in the research on Covid-19 because it mainly had an impact on financial inclusion among the upper-middle class through the use of banking services and digital payments. Kolkata had a high coverage of bank branches, and digital-payment-facilitated online services were accessible almost everywhere in the city except the outskirts of the city and the containment zones during the lockdown. The use of these financial services could therefore be deeply studied with the sampled households, while the drawback was that intimate details of the functioning of other financial institutions of varying degrees of informality were ignored.

The sample, exclusive of the lower and lower-middle classes, had its limitations in that similar class comparison as in the analysis of Demonetisation could not be made, even though people from different classes tended to have completely different experiences of financial exclusion and inclusion during the lockdown and use completely different financial services. Informality in forms of informal employment and informal housing prevalent among the lower and lower-

middle classes also could not be covered in the research. Further research is required to solve this limitation, which I detail in Chapter 7. Still the analysis focusing on the sample of the upper-middle class contributed to a better understanding of the impact of Covid-19 on financial informality and financial inclusion. As people from the upper-middle class already had everything required for making digital payments (i.e. enough money in a bank account, a smart phone, and access to the internet), the analysis could create insight into the mechanisms through which a strong demand push like Covid-19 has changed people's perception of cash and way of payment and what constraints to a cashless society remain when society develops to an extent that everyone can readily opt for digital payments.

While the sample size was more or less large enough for qualitative research, difficulties encountered in gathering information during the lockdown using digital methods reduced data richness that could otherwise be maintained with more in-depth interviews and participant observation. Though upper-middle-class households had in general better internet access, the connection was still so unstable that in some cases we had to reconnect several times to complete an interview. In this context, I had to shorten my interviews by interviewing only one member of each sampled household. While key information like the use of financial and online services could be duly collected as almost all household members stayed at home during the lockdown and knew well how each other coped with Covid-19, a more nuanced understanding of intra-household dynamics and social-identity-related perceptions of digital financial inclusion could not be generated using this approach. Furthermore, even though I still lived in Ward 93, experienced the entire nationwide lockdown, and observed market exchange and payment methods involved in the process among people from different classes, observation from afar and low frequency of observation inhibited a phenomenological understanding of

people from within. These limitations have to be recognised when digital methods are employed in empirical research.

In summary, my research questions about challenges to financial inclusion, particularly informality in economic, urban, and financial forms, are developed against a background of pervasive informality and financial exclusion in India and of Demonetisation and Covid-19 as a cure for these socio-economic problems. The empirical data collected through mixed methods relating to Demonetisation and qualitative, digital methods relating to Covid-19 are analysed and interpreted in a complementary way in Chapter 5 and 6 to discover the answers to the research questions.

CHAPTER 5

Informality as a Barrier to Financial Inclusion: Patterns of Change in the Context of Demonetisation and Covid-19

Informality in its various forms, intersecting with pre-existing inequalities, has conventionally been perceived as a barrier to financial inclusion (see Chapter 2). Demonetisation and Covid-19, the two events that spanned over three years but through different means pushed up people's demands for formal financial services to the extreme, were supposed to overcome barriers that could not be solved by previous government promotion policies (see Chapter 3). This chapter aims to uncover whether and how informality in different forms remained or reduced its role as a barrier to financial inclusion in the context of these two events, through a statistical analysis of data collected in my field research on Demonetisation between November 2019 and March 2020 and on Covid-19 between May 2020 and July 2020.

The policy of Demonetisation was announced on the night of 8 November 2016, after which 500 and 1,000 Indian Rupee banknotes would no longer be legal tender and people had to exchange them to new 500 and 2,000 Indian Rupee banknotes before 30 December 2016.[58] Those who only had small-denomination banknotes (two, five, 10, 20, 50, 100, and 200 Indian Rupee banknotes) and coins (one, two, five, 10 and 20 Indian Rupee coins) were not impacted by the policy. Yet as the demonetised banknotes accounted for 86 per cent currency in

[58] Those who missed the deadline because they were travelling abroad could deposit old banknotes with specified offices of the Reserve Bank of India (RBI) till 31 March 2017.

circulation and were widely used in the informal economy, even the poor had to figure out ways to deal with them and cope with absolute shortage of replacement banknotes caused by poor government planning (Ghosh et al., 2017; Kumar, 2017).

As all the curbs on cash withdrawals from current accounts were lifted on 30 January 2017, which could be viewed as the end of the extreme shortage of cash caused by Demonetisation,[59] I define the short term as the period between 9 November 2016 and 30 January 2017 during which time Demonetisation had a direct and immediate impact on financial inclusion by forcing people to deal with old banknotes and cash shortages. I define the longer term as the period between 9 November 2016 and 2019/2020 (when I conducted interviews) to incorporate the indirect and delayed impact of Demonetisation into analysis, which otherwise cannot be captured by focusing on the coping strategies used.

Early in 2020, Covid-19 spread fast in India and the whole nation was brought into lockdown on 24 March. The nationwide lockdown was initially intended for 21 days but extended three times to the end of May to limit movement of the entire population of India as a preventative measure against the pandemic. As the restrictions were incrementally eased in a phased manner thereafter, the end of the lockdown could be viewed as a temporary end of the extreme shortage of goods and services caused by Covid-19.[60] I therefore define the short term as the period between 24 March 2020 and 31 May 2020 and focus on the direct and immediate impact of the pandemic on digital financial inclusion that forced people to cope with restrictions of

[59] Though currency in circulation only returned to pre-Demonetisation level (17,977.00 billion Indian Rupee on 4 November 2016) on 9 March 2018 (18,135.92 billion Indian Rupee) as per data from the RBI, as long as the curbs on cash withdrawals were lifted, people in India would have no problem withdrawing and using cash.
[60] Though a second wave of Covid-19 in 2021 resulted in another partial or complete lockdown again in several states, it was beyond the scope of this thesis.

movement and shortage of essentials by using more digital payments, as an extension of the analysis of Demonetisation.

In this context, I examine whether and how informality in its various forms got in the way of the promotion of financial inclusion. As informality is a complex concept that covers several socio-economic dimensions like informal housing, informal employment, and informal financial practices that do not always overlap (see Chapter 2), I collected data through purposeful sampling based on social class to create a sample more evenly distributed by social factors associated with varying forms and degrees of informality and varying access to and use of formal financial services (see Chapter 4).

Section 5.1 empirically examines the linkages between social class and informality and between social class and financial inclusion in intersection with other social identities to justify this class-based pattern analysis. Section 5.2, based on the short- and longer-term impact of Demonetisation on financial inclusion from perspectives of financial services users of different classes and financial services providers of varying informality, examines barriers to broader financial inclusion and the role played by informality in the process. Section 5.3, by extension, examines the extent to which informality remained a barrier to digital financial inclusion among upper-middle-class families that were better prepared for digital transformation, despite the short-term catalytic effect of Covid-19 on digital payments.

5.1 Social Class as a Significant Factor for Informality and Financial Inclusion

Before I probe into informality and other social factors as barriers to financial inclusion in the context of Demonetisation and Covid-19 in Section 5.2 and 5.3 respectively, I explain why social class is a significant factor for both informality and financial inclusion. This serves to justify data collection and stratification on this basis and explains the necessity of a more focused analysis of this factor. Building on my classification of social class, I illustrate how the factor is linked with informality in forms of informal housing, income, and employment, and how it intersects with other social identities in shaping the access to traditional and digital formal financial services, using empirical data collected between November 2019 and March 2020.

My classification of social class is based on the housing condition and local perception of class. The former is argued to be a more reliable indicator of social class (Mack, 1951), while the latter provides a more accurate perception of social class—if it can be viewed a locally decided ranking—supported by fieldwork practice experiences (Olsen, 1993). This classification is more suitable for field research in practice (see Chapter 4) and for my analysis of class differences in financial inclusion (see Appendix A) than other classifications summarised by Aslany (2019), based on household income, lifestyle, education, and main source of income.

Subject to unmeasurable factors like cultural norms and customs, social class in local perceptions is naturally associated with housing conditions in the area under study, and whether the housing condition is good enough to establish one's middle-classness is further associated

with the degree of informality involved in housing and land occupation. Those living in slums (or informal settlements) are commonly perceived as belonging to the lower class. Those living in flats in poorer condition built on occupied land (or semi-formal settlements) are perceived as belonging to the lower-middle class,[61] while those living in flats and houses in better condition (or formal settlements), usually served by caretakers and/or security guards, belong to the upper-middle class. Social class is therefore coincidently linked with informality in the form of informal housing in this local context.

Table 5.1 Class-wise Comparison of Main Source of Household Income and Individual Occupation: 2019/2020

	Main Source of Income (number of households)			Occupation (number of household members)					
	Informal	Both	Formal	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others
Lower Class	15	3	1	4	26	1	17	1	2
Lower-Middle Class	10	0	4	4	11	2	16	1	5
Upper-Middle Class	3	1	8	10	1	0	7	5	2

Source: Author's fieldwork 2019, 2020.

Note: N=45 households (for a total of 115 adult members); Formal sources of income include income from formal work (including high-value service work), pension, and investment in stock market, mutual fund, and other high-return schemes; Informal sources of income include income from informal work (including digital gig work and low-value service work), investment in small businesses, and rent without a written contract; The formal labour includes regular salaried workers in the formal sector, big business operators, and gig workers in high-value services; The informal labour includes casual workers in both formal and informal sectors, small business operators, and gig workers in low-value services; Digital gig workers include online food delivery persons, online sellers, and online ride-hailing drivers; Housewives are women who did not mention any paid work in the interview; Others include the retired and the unemployed.

Class-wise comparison of the main source of income at the household level and occupation at the individual level also indicates linkages between social class and informality in forms of informal income and employment. As shown in Table 5.1, lower-class households were more associated with informal sources of income and upper-middle-class households were more

[61] In this case, they only have a vested right to the flats. After living in the property or land for more than 20 years without being challenged by any third party, people have a vested right to use it even though they do not actually possess it or have legal documents of ownership.

associated with formal sources of income, while lower-middle-class ones were somewhere in between. Informal income was not confined to income from informal work and was therefore not an equivalent to informal employment. The formal and informal dichotomy was further complicated by the fact that digital gig workers were different from formal workers in their lack of regular incomes and welfare benefits and were also different from traditional informal workers in their use of online financial services at work. In addition, those who identified themselves as housewives in the interview kept changing the category of occupation between housewives and informal workers, as many of them, particularly those from the lower class, did some informal work (mainly domestic services) to support their families when there was a demand for it, and chose to quit their jobs after giving birth. Even if digital gig workers and housewives were viewed as variants of informal workers, lower-class household members were more likely to be in informal employment and upper-middle-class household members were more likely to be in formal employment, while lower-middle-class ones were somewhere in between (see also Table 5.1).

Social class is not only a significant factor for informality, but intersects with other social identities in shaping the access to banks, mobile phones, and the internet that have implications for financial inclusion. Bank account ownership can be viewed as an indicator of access to traditional formal financial services, and mobile phone ownership and internet usage can be viewed as indicators of access to digital financial services.

Table 5.2 Intersections of Class and Other Social Identities in Access to Bank, Mobile Phone, and the Internet: 2019/2020

Number of Household Members Who Have a Bank Account (Total Number of Household Members)

	Caste		Age		Gender		Education		Occupation							
	SC/ST/ OBC	General Caste	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total	Percentage
Lower Class	12 (12)	31 (39)	15 (21)	28 (30)	20 (23)	23 (28)	28 (31)	15 (20)	4 (4)	24 (26)	1 (1)	13 (17)	0 (1)	1 (2)	43 (51)	84%
Lower-Middle Class	2 (2)	32 (37)	8 (11)	26 (28)	19 (20)	15 (19)	13 (16)	21 (23)	3 (4)	11 (11)	2 (2)	12 (16)	1 (1)	5 (5)	34 (39)	87%
Upper-Middle Class	4 (4)	20 (21)	7 (7)	17 (18)	15 (15)	9 (10)	1 (1)	23 (24)	10 (10)	1 (1)	0 (0)	6 (7)	5 (5)	2 (2)	24 (25)	96%
Total	18 (18)	83 (97)	30 (39)	71 (76)	54 (58)	47 (57)	42 (48)	59 (67)	17 (18)	36 (38)	3 (3)	31 (39)	6 (7)	8 (9)	101 (115)	88%

Number of Household Members Who Have a Mobile Phone (Total Number of Household Members)

	Caste		Age		Gender		Education		Occupation							
	SC/ST/ OBC	General Caste	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total	Percentage
Lower Class	8 (12)	32 (39)	20 (21)	20 (30)	20 (23)	20 (28)	22 (31)	18 (20)	4 (4)	22 (26)	1 (1)	11 (17)	1 (1)	1 (2)	40 (51)	78%
Lower-Middle Class	2 (2)	30 (37)	10 (11)	22 (28)	19 (20)	13 (19)	11 (16)	21 (23)	3 (4)	11 (11)	2 (2)	10 (16)	1 (1)	5 (5)	32 (39)	82%
Upper-Middle Class	4 (4)	21 (21)	7 (7)	18 (18)	15 (15)	10 (10)	1 (1)	24 (24)	10 (10)	1 (1)	0 (0)	7 (7)	5 (5)	2 (2)	25 (25)	100%
Total	14 (18)	83 (97)	37 (39)	60 (76)	54 (58)	43 (57)	34 (48)	63 (67)	17 (18)	34 (38)	3 (3)	27 (39)	7 (7)	8 (9)	97 (115)	84%

Number of Household Members Who Used the Internet (Total Number of Household Members)

	Caste		Age		Gender		Education		Occupation							
	SC/ST/ OBC	General Caste	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total	Percentage
Lower Class	5 (12)	22 (39)	18 (21)	9 (30)	15 (23)	12 (28)	10 (31)	17 (20)	4 (4)	15 (26)	1 (1)	5 (17)	1 (1)	1 (2)	27 (51)	53%
Lower-Middle Class	1 (2)	16 (37)	7 (11)	10 (28)	11 (20)	6 (19)	3 (16)	14 (23)	3 (4)	6 (11)	2 (2)	4 (16)	1 (1)	1 (5)	17 (39)	44%
Upper-Middle Class	4 (4)	19 (21)	7 (7)	16 (18)	14 (15)	9 (10)	0 (1)	23 (24)	10 (10)	1 (1)	0 (0)	6 (7)	5 (5)	1 (2)	23 (25)	92%
Total	10 (18)	57 (97)	32 (39)	35 (76)	40 (58)	27 (57)	13 (48)	54 (67)	17 (18)	22 (38)	3 (3)	15 (39)	7 (7)	3 (9)	67 (115)	58%

Source: Author's fieldwork 2019, 2020.

Note: N=115 adult members (in total 45 households); SC= Scheduled Castes, ST=Scheduled Tribes, OBC=Other Backward Classes; In Occupation, others include the retired and the unemployed.

As shown in Table 5.2, there were significant class differences in the access to banks, mobile phones, and the internet, particularly between the upper-middle class and other two classes (the lower and lower-middle classes).[62] Given the small sample size, caste was found to be an insignificant factor in the area under study and was thus excluded from further statistical analysis, while age, gender, education, and occupation divides in digital financial inclusion were prominent in this preliminary analysis. The finding of greater digital divides among the lower and lower-middle classes indicated that young men who were better educated and engaged in formal or digital gig work had better access to mobile phones and the internet and were more likely to be digitally financially included, even though they did not belong to the upper-middle class.

As social class is in many ways linked with informality and financial inclusion, purposeful sampling on this basis can maximise the diversity of people engaged in different forms of informality with different access to and use of formal financial services. Social class may also structure the relations between informality and financial inclusion through its intersections with other social identities and may itself constitute a barrier to financial inclusion. I therefore focus on class differences in the analysis of the impact of Demonetisation on informality and financial inclusion in Section 5.2, and as an extension, focus on the upper-middle class in the analysis of the impact of Covid-19 in Section 5.3.

[62] The differences were more significant in the ownership of smart phones and use of wireless broadband. Smart phones connect to the internet faster and support more advanced apps than basic phones. While 21 out of 25 upper-middle-class interviewees owned a smart phone, 26 out of 51 lower-class and 18 out of 39 lower-middle-class interviewees owned one. Wireless broadband has faster and more reliable internet connection, but is more expensive than mobile data. While 17 out of 25 upper-middle-class interviewees used wireless broadband, none from the lower and lower-middle class used it.

5.2 Demonetisation, Informality, and Financial Inclusion among Different Social Classes

Demonetisation could have a direct and immediate impact on financial inclusion by forcing people to deal with old banknotes and cope with cash shortages in the short term and an indirect and delayed impact through macroeconomic factors, like output and employment, interest rate, and digitalisation, in the longer term (see Chapter 3). The magnitude of the impact might be contingent on the degree of informality involved in individual employment, housing, and financial practices and involved in the functioning of financial institutions in the process. In this context, I start with a preliminary descriptive analysis of households and household members interviewed in Subsection 5.2.1. Then I focus on changes in financial inclusion experienced by interviewees from different classes in the short and longer term in Subsection 5.2.2 and 5.2.3 respectively, and further changes in financial institutions and their services in Subsection 5.2.4, to examine the changing role of informality as a barrier to financial inclusion.

Table 5.3 Category of Financial Inclusion Status

Financial Inclusion Status	Characteristic
Nonusers	Those who do not have any account of formal financial institutions registered in their names and have never used any formal financial services
Unregistered Users	Those who do not have any account of formal financial institutions registered in their names but have used formal financial services via some else's account
Registered Inactive Users	Those who have an account of formal financial institutions registered in their names but have not used any formal financial services in the last 90 days
Basic Active Users	Those who have used their registered accounts of formal financial institutions in the last 90 days, but only used their accounts for basic formal financial services, such as saving and loan
Advanced Active Users	Those who have used their registered accounts of formal financial institutions in the last 90 days, and have ever used their accounts for advanced (but not online) formal financial services that reduce cash transactions, such as cheque and card payments
Internet Active Users	Those who have used their registered accounts of formal financial institutions in the last 90 days, and have ever used their accounts for online formal financial services that reduce cash transactions, such as online payments

Source: Author's definition.

I create milestones, termed financial inclusion status, to determine different stages of financial inclusion and employ them to measure changes in financial inclusion experienced by individuals. The financial inclusion status is determined by one's use of formal financial services and the frequency of use. On this basis, I categorise people into six groups: nonusers, unregistered users, registered inactive users, basic active users, advanced active users, and internet active users (see Table 5.3). This allows me to trace changes in the access to and use of different formal financial services among people engaged in different forms of informality at different degrees. For financial institutions, I categorise them into three groups—formal, semi-formal, and informal financial institutions—based on the formality of the institutions and their financial services. This allows me to trace changes in people's access to and use of financial services provided by financial institutions of different degrees of informality.

The former provides a user perspective of personal factors, and the latter provides a provider perspective of institutional factors that have implications for informality and financial inclusion. The analysis from both perspectives creates a comprehensive insight into informality as a barrier to financial inclusion and other barriers that remained to be tackled by the government in the context of Demonetisation.

5.2.1 Descriptive Statistics of Households and Household Members Interviewed

Focusing on class-wise comparison, I conducted face-to-face interviews in a selected ward in Kolkata, a typical neighbourhood where multi-storied communities co-existed with old settlements and slums (see Chapter 4 for detailed reasons for selecting this ward as the

fieldwork site). In the ward under study, I interviewed 45 households and 115 adult household members.

Table 5.4 Preliminary Descriptive Statistics of Households Interviewed: 2016 and 2019/2020

	2016	2019/2020
Class		
Lower Class	19	19
Lower-Middle Class	14	14
Upper-Middle Class	12	12
Caste		
SC/ST/OBC	7	7
General Caste	38	38
Household Head		
Male	37	34
Female	8	11
Aadhaar Card		
At least one member had an Aadhaar card	45	45
None had an Aadhaar card	0	0
Bank Account		
At least one member had a bank account	43	44
None had a bank account	2	1
Mobile Phone (Basic/Smart Phone)		
At least one member had a mobile phone	-	44
None had a mobile phone	-	1
Internet (Mobile Data/Wireless Broadband)		
At least one member had access to internet	-	37
None had access to internet	-	8
Total Number of Households	45	45

Source: Author's fieldwork 2019, 2020.
Note: N=45 households (for a total of 115 adult members); SC= Scheduled Castes, ST=Scheduled Tribes, OBC=Other Backward Classes.

Table 5.5 Preliminary Descriptive Statistics of Household Members Interviewed: 2016 and 2019/2020

	2016	2019/2020
Class		
Lower Class	51	51
Lower-Middle Class	39	39
Upper-Middle Class	25	25
Caste		
SC/ST/OBC	18	18
General Caste	97	97
Age		
18-27 (15-24 in 2016)	18	18
28-37 (25-34 in 2016)	24	24
38-47 (35-44 in 2016)	25	25
48-57 (45-54 in 2016)	21	21
58+ (55+ in 2016)	27	27
Gender		
Male	58	58
Female	57	57
Education		
Illiterate	19	19
Primary	34	29
Secondary	37	41
Tertiary	25	26
Occupation		
Formal Labour	19	18
Informal Labour	39	38
Digital Gig Worker	1	3
Housewife	40	40
Student	10	7
Others	6	9
Aadhaar Card		
Registered Aadhaar	115	115
No Registered Aadhaar	0	0
Bank Account		
Registered Account	86	101
No Registered Account	29	14
Mobile Phone		
Basic Phone/Smart Phone	-	97
No Basic Phone/Smart Phone	-	18
Internet		
Mobile Data/Broadband	-	67
No Mobile Data/Broadband	-	48
Total Number of Adult Household Members	115	115

Source: Author's fieldwork 2019, 2020.
Note: N=115 adult members (in total 45 households); SC= Scheduled Castes, ST=Scheduled Tribes, OBC=Other Backward Classes; In Occupation, others include the retired and the unemployed.

At the household level (see Table 5.4), I interviewed 19 lower-class, 14 lower-middle-class, and 12 upper-middle-class households. Most households interviewed belonged to the general castes and were male-headed, and three of them experienced change of household head after the death of male household heads between 2016 and 2019/2020. All the households interviewed had at least one member who had an Aadhaar card.[63] Most had access to banks, mobile phones, and the internet.

At the individual level (see Table 5.5), I interviewed 51 lower-class, 39 lower-middle-class, and 25 upper-middle-class adult household members. They were evenly distributed by age, gender, and education level, while most of them belonged to the general castes. All adult members in the households interviewed had an Aadhaar card.[64] Most of them had at least one bank account registered in their names and owned a mobile phone. Over half had access to the internet.[65]

On this basis, I examine patterns of change in the role of informality and other factors as barriers to financial inclusion through an analysis of changes in financial inclusion in the short and longer term experienced by the household members from different sections of society in Subsection 5.2.2 and 5.2.3 respectively.

[63] The Aadhaar card is an identity card of India with the cardholder's biometric and demographic information.
[64] One explanation for the universal Aadhar registration was that local politicians came to the slums from door to door to help slum residents register their Aadhar cards, who were most likely to have problems with Aadhar card registration for lack of knowledge and proof of residence.
[65] One explanation for the high ratios of mobile phone and internet users was that mobile phones and mobile data were made increasingly affordable for people from the lower strata of society after liberalisation (see Chapter 2).

5.2.2 Demonetisation and Change in Financial Inclusion in the Short Term

All the household members interviewed managed to cope with the short-term impact of Demonetisation.[66] Among their coping strategies, dealing with old banknotes by interacting with formal financial institutions and attenuating the negative impact of cash shortages by using non-cash payments might change one's financial inclusion status, and thus had implications for financial inclusion. In this context, I first demonstrate the short-term impact of Demonetisation on the financial inclusion status of people from different sections of society. Then I analyse from perspectives of coping strategies for old banknotes and cash shortages respectively to examine barriers to broader financial inclusion and the role played by informality in the process.

Demonetisation could lead to an upgrade in the financial inclusion status by incentivising those who had never used any formal financial services to use someone else's accounts and incentivising those who did not actively use their accounts to use them to deal with old banknotes. The former stimulated nonusers to experience formal financial services, and the latter changed the habits of inactive users to more regular use of formal financial services. Both had positive implications for traditional financial inclusion. It could also have a positive impact on the financial inclusion status by incentivising those who had never used any non-cash payment services to apply for and use their own or use someone else's cards, cheques, and online accounts to make payments.[67] This stimulated nonusers of digital payments to experience, adopt, and build trust in them, and thus promoted digital financial inclusion.

[66] Some interviewees mentioned that they lost some old banknotes that they left somewhere and found after the specified date before which old banknotes could be exchanged or deposited. It did not mean that they failed to cope with Demonetisation.

[67] Online payment accounts include online bank accounts and payment platform accounts. The former are run by banks and the latter are run by private companies.

Table 5.6 Short-Term Impact of Demonetisation on Financial Inclusion Status: 2016

Number of Household Members whose Financial Inclusion Status was Upgraded (Total Number of Household Members)													
	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	5 (24)	2 (27)	2 (23)	5 (28)	6 (33)	1 (18)	0 (4)	3 (28)	0 (0)	3 (15)	1 (4)	0 (0)	7 (51)
Lower-Middle Class	0 (13)	2 (26)	1 (20)	1 (19)	1 (16)	1 (23)	0 (4)	2 (10)	0 (1)	0 (18)	0 (1)	0 (5)	2 (39)
Upper-Middle Class	0 (7)	1 (18)	0 (15)	1 (10)	0 (4)	1 (21)	1 (11)	0 (1)	0 (0)	0 (7)	0 (5)	0 (1)	1 (25)
Total	5 (44)	5 (71)	3 (58)	7 (57)	7 (53)	3 (62)	1 (19)	5 (39)	0 (1)	3 (40)	1 (10)	0 (6)	10 (115)

Source: Author's fieldwork 2019, 2020.

Note: N=115 adult members (in total 45 households); In Occupation, others include the retired and the unemployed.

Yet empirical evidence suggested a limited positive impact of Demonetisation on financial inclusion. As shown in Table 5.6, out of total 115 interviewees, only 10 experienced an upgrade in the financial inclusion status.[68] Among them, seven lower-class and two lower-middle-class household members upgraded by interacting with formal financial institutions to deal with their old banknotes. They were mainly less-educated young women who were housewives or engaged in informal work.[69] Only one upper-middle-class woman engaged in formal work upgraded by using non-cash payments to cope with cash shortages. These findings raise new questions: Why did Demonetisation have such a small impact on financial inclusion in the short term? What were barriers to financial inclusion despite this strong demand push? What role did informality play in the process?

I answer these questions first from the perspective of coping strategies for old banknotes, before proceeding to the coping strategies for cash shortages. On the one hand, while multiple sources of old banknotes determined that it was common that people from different sections of society had old banknotes to deal with during Demonetisation,[70] there were still people who only had small-denomination banknotes and coins and were thus not impacted by the policy. On the other hand, besides dealing with old banknotes through formal means, including over-

[68] Two nonusers (before Demonetisation) used someone else's accounts to exchange or deposit old banknotes and upgraded to unregistered users (during Demonetisation). Seven registered inactive users (before Demonetisation) used their own accounts to exchange or deposit old banknotes and upgraded to basic active users (during Demonetisation). One advanced active user (before Demonetisation) used online payments and upgraded to an internet active user (during Demonetisation).

[69] The less-educated refers to those who are illiterate or have only received primary education.

[70] Based on my interviews with household members in the locality, there were four main sources of old banknotes, indicating the importance of 500 and 1,000 Indian Rupee banknotes in people's everyday life. The first was cash for everyday purchases, including cash withdrawn from banks and post offices before Demonetisation. Even formal workers and retired pensioners whose salaries or pensions were paid directly into their bank accounts withdrew money monthly for everyday purchases. The second was cash hoarding, including cash hoarding in case of emergency (for instance, home-visiting doctors only accepted cash payments) and cash hoarding for certain events (for instance, band players in weddings only accepted cash payments). The third was income received in old banknotes during Demonetisation, including wage or salary income for informal workers and business income for formal and informal business operators. Most of them only received income in old banknotes the first month after the Demonetisation announcement. The fourth was old banknotes received from and exchanged for other household members, relatives, friends, and organisations interviewees worked for.

the-counter exchange of old banknotes and deposit (and withdrawal) of them in commercial banks, cooperative banks, and post offices (into one's own or someone else's account),[71] people could also resort to informal means without interacting with formal financial institutions. The informal means included getting old banknotes exchanged by someone else, such as other household members, relatives, colleagues, and employers,[72] and using them in local markets (grocery, fish, and clothing stalls and shops), pharmacies, and prepaid mobile recharge shops.

It was best illustrated in Table 5.7, nonusers, unregistered users, and registered inactive users, who most needed to be more traditionally financially included by interacting with formal financial institutions during Demonetisation, were mainly less-educated young women from the lower and lower-middle classes who were housewives or engaged in informal work. Most of them had either no old banknotes to deal with or dealt with them through informal means, and therefore did not experience any change in their financial inclusion status.

[71] Two upper-middle-class interviewees engaged in formal work mentioned that bank clerks came to their office or home to exchange or deposit old banknotes in their names. As it was conducted in a formal way (with the bank record), it could be viewed as a formal means of dealing with old banknotes.

[72] One lower-class interviewee who got a loan from Ujjivan Small Finance Bank (abbreviated "Ujjivan" in the following) mentioned that Ujjivan accepted old banknotes for loan repayments during Demonetisation without extra charge. As Ujjivan is a semi-formal financial institution, it could be viewed as an informal means of dealing with old banknotes. Another lower-class interviewee engaged in formal work mentioned that bank clerks who worked closely with his company came to exchange old banknotes for the company and company employees. As he did not fill in any form with his bank account information, this could be also viewed as an informal means of dealing with old banknotes.

Table 5.7 Means of Dealing with Old Banknotes by Household Members who Most Needed to be More Financially Included: 2016

Number of Nonusers, Unregistered Users, and Registered Inactive Users (Total Number of Household Members)													
	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	16 (24)	10 (27)	10 (23)	16 (28)	18 (33)	8 (18)	0 (4)	13 (28)	0 (0)	9 (15)	4 (4)	0 (0)	26 (51)
Lower-Middle Class	7 (13)	10 (26)	5 (20)	12 (19)	9 (16)	8 (23)	1 (4)	3 (10)	0 (1)	11 (18)	0 (1)	2 (5)	17 (39)
Upper-Middle Class	5 (7)	3 (18)	4 (15)	4 (10)	3 (4)	5 (21)	0 (11)	0 (1)	0 (0)	4 (7)	4 (5)	0 (1)	8 (25)
Total	28 (44)	23 (71)	19 (58)	32 (57)	30 (53)	21 (62)	1 (19)	16 (39)	0 (1)	24 (40)	8 (10)	2 (6)	51 (115)

Their Means of Dealing with Old Banknotes								
	Only through Formal Means	Not only through Formal Means	By Someone else	By Local Shops	Formal Means	Informal Means	No Old Banknotes	Total
	(1)	(2)	(3)	(4)	(1)+(2)	(3)+(4)	(5)	(1)+(2)+(3)+(4)+(5)
Lower Class	7	2	2	1	9	3	14	26
Lower-Middle Class	1	1	3	0	2	3	12	17
Upper-Middle Class	0	0	4	0	0	4	4	8
Total	8	3	9	1	11	10	30	51

Source: Author's fieldwork 2019, 2020.
Note: N=115 adult members (in total 45 households); In Occupation, others include the retired and the unemployed; All those who not only dealt with old banknotes through formal means used some of them in local shops.

Table 5.8 The Amount of Old Banknotes and Formality in the Means of Dealing with Them: 2016

Average Amount of Old Banknotes (Indian Rupee)

	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	9,250	6,036	10,536	4,750	6,594	9,042	6,250*	8,500	-	5,333	10,500*	-	7,643
Lower-Middle Class	26,400	8,158	14,933	7,000	4,550	18,423	25,250*	6,900	95,500*	6,625	-	6,333*	11,958
Upper-Middle Class	4,333*	77,813	95,636	25,938	3,167*	78,125	115,750	10,000*	-	16,500	2,250*	5,000*	66,289
Total	12,545	30,510	35,588	10,567	5,534	38,537	80,867	7,963	95,500*	8,816	6,375*	6,000*	24,864

Average Formality in the Means of Dealing with Old Banknotes

	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	70%	28%	57%	41%	44%	55%	46%*	45%	-	45%	100%*	-	49%
Lower-Middle Class	72%	65%	76%	50%	60%	71%	50%*	81%	100%*	48%	-	67%*	66%
Upper-Middle Class	33%*	66%	61%	61%	0%*	72%	87%	100%*	-	37%	0%*	0%*	61%
Total	65%	55%	65%	49%	45%	67%	72%	60%	100%*	44%	50%*	50%*	58%

Source: Author's fieldwork 2019, 2020.

Note: N=71 adult members (in total 45 households) who had old banknotes to deal with; In Occupation, others include the retired and the unemployed; The formality in means of dealing with old banknotes is calculated as the percentage of old banknotes that were dealt with through formal means; * means sample size smaller than five.

It led to a further question as to why people used informal means to deal with their old banknotes, and I found a correlation between the amount of old banknotes and the formality in the means of dealing with them. As shown in Table 5.8, people who had less old banknotes were in general more reliant on informal means to deal with them. The average amount of old banknotes that one had to deal with was much smaller for people from the lower and lower-middle classes than for those from the upper-middle class, for women than for men, for the less educated than for the better educated, and for those who had no or informal work than for those who had formal work.

This correlation was to some extent induced by dysfunctional formal financial institutions involved in the process and their easily accessible informal alternatives. Though Demonetisation incentivised people to open an account in formal financial institutions to deal with old banknotes, their normal services were so disrupted that none of the unregistered users interviewed managed to open an account in their own names to exchange or deposit old banknotes during Demonetisation. Those who did deal with old banknotes through formal means, as per my interviews, averagely spent more than three hours waiting in the queue outside formal financial institutions in total. In contrast, informal institutions like other members in the households could help to deal with small-amount old banknotes through their own accounts, and local shops accepted small-amount payments in old banknotes in the first month of Demonetisation without extra charge.[73] Those who only had a small amount of old banknotes could therefore easily deal with them by asking someone else to do so or using them in local shops without bothering to open an account and/or wait in the queue.

[73] There were also cases where local shops charged 10-50% more for payments in old banknotes, usually for larger-amount payments.

As income received in old banknotes (related to individual income) and cash for everyday and emergency use (related to household income) were two major sources of old banknotes, the disparity in formal and informal means of dealing with them was to some extent associated with income inequalities. The pre-existing income inequalities of class, gender, education, and occupation intersected in shaping people's coping strategies for old banknotes and constraining those who most needed to be more traditionally financially included through Demonetisation from benefiting from it.

Informality in the form of the use of informal means to deal with old banknotes in intersection with informal employment, lower class, and other social factors associated with lower income and poorer access to formal accounts turned out to be a barrier to financial inclusion in this context. Informal means of dealing with old banknotes, while hindering the promotion of financial inclusion, served as an alternative to formal means, and informal financial institutions supplemented dysfunctional formal institutions. This raised further questions about the role of informality and the desirability of formalisation and financial inclusion in everyday life and in the context of Demonetisation, which I detail in Chapter 6.

Table 5.9 Distribution of the Financial Inclusion Status of Household Members who Used Non-Cash Payments during Demonetisation: 2016

Number of Household Members who Used Non-Cash Payments during Demonetisation (Total Number of Household Members)													
	Age		Gender		Education		Occupation						Total
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	
Lower Class	1 (24)	1 (27)	2 (23)	0 (28)	1 (33)	1 (18)	2 (4)	0 (28)	0 (0)	0 (15)	0 (4)	0 (0)	2 (51)
Lower-Middle Class	3 (13)	3 (26)	5 (20)	1 (19)	0 (16)	6 (23)	1 (4)	2 (10)	1 (1)	1 (18)	1 (1)	0 (5)	6 (39)
Upper-Middle Class	1 (7)	10 (18)	6 (15)	5 (10)	0 (4)	11 (21)	8 (11)	1 (1)	0 (0)	2 (7)	0 (5)	0 (1)	11 (25)
Total	5 (44)	14 (71)	13 (58)	6 (57)	1 (53)	18 (62)	11 (19)	3 (39)	1 (1)	3 (40)	1 (10)	0 (6)	19 (115)

Distribution of Their Financial Inclusion Status							
	Nonuser	Unregistered User	Registered Inactive User	Basic Active User	Advanced Active User	Internet Active User	Total
Lower Class	0	0	0	0	2	0	2
Lower-Middle Class	0	0	0	0	3	3	6
Upper-Middle Class	0	1	0	0	5	5	11
Total	0	1	0	0	10	8	19

Source: Author's fieldwork 2019, 2020.

Note: N=115 adult members (in total 45 households); In Occupation, others include the retired and the unemployed.

From the perspective of coping strategies for cash shortages, those who used non-cash payments during Demonetisation were already advanced and internet active users (see Table 5.9). They were mainly upper-middle-class household members who were better-educated and engaged in formal work. Similar to the problems identified in the popular use of informal means to deal with old banknotes, people who most needed to be more digitally financially included by using non-cash payments during Demonetisation were reliant on cash and informal financial institutions of indebtedness, help, and support networks. Even for those who had a registered bank account, many only owned and used passbooks, while normal services, like issuing cheque books and debit and credit cards, were postponed during Demonetisation. People instead coped with cash shortages by making use of their networks. For instance, they were helped by other household members and relatives who purchased food and goods for them and gave or lent them small-denomination banknotes they had and replacement banknotes they exchanged. Some also got help from local shops they were familiar with, which allowed them to purchase goods on credit and make payment after Demonetisation.

In this context, while Demonetisation reduced some informality in the form of cash payments, reflected in increased usage of non-cash payments in a temporary and limited manner, informality in the form of reliance on cash and informal financial institutions, along with pre-existing inequalities in the access to digital financial services, persisted as a barrier to financial inclusion. Like in the case of the use of informal means to deal with old banknotes, informal cash payments, while hindering the promotion of financial inclusion, served as an alternative to non-cash payments, and informal financial institutions supplemented formal ones. This also necessitated a more in-depth probe into the relations between informality and financial inclusion in Chapter 6.

In the short term, Demonetisation could have a positive impact on financial inclusion by incentivising people to deal with old banknotes through formal means and cope with cash shortages through non-cash payments. The analysis of changes in people's financial inclusion status during Demonetisation found that the policy managed to achieve neither significantly, as many resorted to informal alternatives, particularly when the functioning of formal financial institutions was disrupted. It confirmed that informality, though reduced in a temporary and limited manner, persisted as a barrier to financial inclusion, and other factors associated with pre-existing inequalities in income and access to traditional and digital financial services also played a role. I now analyse whether and how the relations between informality and financial inclusion changed in the longer term when formal financial services returned to normal and broader socio-economic effects of Demonetisation unfolded over time.

5.2.3 Demonetisation and Change in Financial Inclusion in the Longer Term

While the short-term analysis focuses on changes in people's financial inclusion status, in the longer term, even those who did not experience any change in the financial inclusion status might change their ways of saving, payment, and/or borrowing, which also had implications for financial inclusion. The longer-term analysis therefore covers both changes in the financial inclusion status and in the actual use of financial services.

Demonetisation could have a negative impact on financial inclusion by reducing savings interest rates, income, and employment opportunities, and have a positive impact on financial inclusion by extending its short-term impact to the longer term, reducing loan interest rates, and catalysing facilities improvement and digitalisation across sectors. I analyse from perspectives of those who experienced change and those who did not experience any change

in the financial inclusion status and/or use of financial services respectively to examine barriers to financial inclusion and the role played by informality in the process.

Among those who experienced change in financial inclusion, there were significant class differences in individual experiences. As shown in Table 5.10, those who were negatively impacted by Demonetisation were all from the lower class. They were mainly less-educated elder household members who were housewives or engaged in informal work. Lack of money to deposit due to lower income and lack of incentives to deposit due to lower savings interest rates were two major reasons for their reduced frequency of using formal financial services and/or reduced savings in formal financial institutions. The former was related to fewer employment opportunities, particularly in the informal sector, under the impact of Demonetisation. It was more so for lower-class household members, particularly less-educated elder ones, as they were more engaged in informal work with irregular income and their savings were more contingent on income than other classes. Lower savings interest rates also had more implications for lower-class household members because they were more reliant on interest received from formal financial institutions as a source of income.

In this context, informality in the form of informal employment, along with pre-existing class differences in income, turned out to be a barrier to financial inclusion or even a cause of financial exclusion, rendering the marginalised vulnerable to macroeconomic shocks like Demonetisation.

Table 5.10 Longer-Term Impact of Demonetisation on Financial Inclusion: between 2016 and 2019/2020

Number of Household Members who were Negatively Impacted by Demonetisation in terms of Financial Inclusion (Total Number of Household Members)

	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	0 (24)	4 (27)	3 (23)	1 (28)	3 (33)	1 (18)	0 (4)	3 (28)	0 (0)	1 (15)	0 (4)	0 (0)	4 (51)
Lower-Middle Class	0 (13)	0 (26)	0 (20)	0 (19)	0 (16)	0 (23)	0 (4)	0 (10)	0 (1)	0 (18)	0 (1)	0 (5)	0 (39)
Upper-Middle Class	0 (7)	0 (18)	0 (15)	0 (10)	0 (4)	0 (21)	0 (11)	0 (1)	0 (0)	0 (7)	0 (5)	0 (1)	0 (25)
Total	0 (44)	4 (71)	3 (58)	1 (57)	3 (53)	1 (62)	0 (19)	3 (39)	0 (1)	1 (40)	0 (10)	0 (6)	4 (115)

Number of Household Members who were Positively Impacted by Demonetisation in terms of Financial Inclusion (Total Number of Household Members)

	Age		Gender		Education		Occupation						
	≤ 35	> 35	Male	Female	Illiterate/ Primary	Secondary/ Tertiary	Formal Labour	Informal Labour	Digital Gig Worker	Housewife	Student	Others	Total
Lower Class	6 (24)	1 (27)	6 (23)	1 (28)	3 (33)	4 (18)	2 (4)	4 (28)	0 (0)	0 (15)	1 (4)	0 (0)	7 (51)
Lower-Middle Class	4 (13)	1 (26)	3 (20)	2 (19)	1 (16)	4 (23)	0 (4)	2 (10)	0 (1)	2 (18)	1 (1)	0 (5)	5 (39)
Upper-Middle Class	5 (7)	7 (18)	6 (15)	6 (10)	3 (4)	9 (21)	4 (11)	0 (1)	0 (0)	4 (7)	4 (5)	0 (1)	12 (25)
Total	15 (44)	9 (71)	15 (58)	9 (57)	7 (53)	17 (62)	6 (19)	6 (39)	0 (1)	6 (40)	6 (10)	0 (6)	24 (115)

Source: Author's fieldwork 2019, 2020.
Note: N=115 adult members (in total 45 households); In Occupation, others include the retired and the unemployed; Household members are categorised based on their personal information in 2016.

In contrast, among 24 interviewees who were positively impacted by Demonetisation in terms of financial inclusion, half were from the upper-middle class. They were mainly better-educated young household members who were students or engaged in formal work. Their account registration, more frequent use of formal financial services, use of more advanced and online financial services, increased savings in formal financial institutions, and/or increased non-cash payments were related to Demonetisation, as it changed people's use habit of financial services and facilitated the creation of a more dynamic payment environment.

Those who interacted more with formal financial institutions and used more advanced financial services during Demonetisation might experience an enduring impact thereafter. This impact could also be extended through interpersonal interactions, as changes in employers' way of wage payment could change employees' way of saving. While there were greater adoption of formal financial services, habit change to more regular use of them, and more trust in non-cash payments relating to coping strategies used during Demonetisation, only a small number of people were impacted this way.[74]

The creation of a more dynamic payment environment contributed more to reduced financial informality and increased financial inclusion, and it had different implications for people from different sections of society. There was such a spurt in digital transactions immediately after Demonetisation that made it a catalyst for change in India's digital payment ecosystem. Increased digital gig work opportunities mainly benefited better-educated young male household members from the lower and lower-middle classes. They were more in need of this job, which was better paid than traditional informal work, than those from the upper-middle

[74] Out of nine interviewees whose financial inclusion status was impacted by the use of formal means of dealing with old banknotes and one interviewee who started to use card/online payments during Demonetisation, only four were still impacted by these coping strategies by the time they were interviewed in 2019/2020.

class, and were better equipped with digital skills for getting this job than less-educated elder female household members from the same class.

Better banking facilities, securer digital payment systems, and greater digital payment incentives (from the private sector) mainly benefited upper-middle-class household members who had much higher income and better access to banks, smart phones, and the internet. They could readily switch to digital payments with money in their bank accounts as they wanted, while only a small portion from the lower and lower-middle classes could do the same. This class barrier hindered broader digital financial inclusion. Digitalisation, meanwhile, reshaped informality in the form of digital informal employment, which though not necessarily reducing the degree of informality in employment, promoted financial inclusion. Among the interviewed, none availed formal loans for lower interest rates related to Demonetisation, which I analyse in detail in Subsection 5.2.4.

Most people did not experience any change in the financial inclusion status or the way of saving, payment, and borrowing despite Demonetisation incentives. There were also significant class differences in terms of constraints to using more advanced financial services facing them. For people from the lower and lower-middle classes, the constraints were more from the user side, though there were also security concerns about digital payments. They felt less the need to open a formal account, deposit in it, and make non-cash payments, and over half mentioned that they lacked money and knowledge to do so. Cash dominated payment systems, particularly in the informal sector, as people engaged in the sector mainly received their incomes and made payments in cash. Even those who were paid by cheque or bank transfer in many cases preferred to withdraw cash and use it for everyday purchases. Lack of money and knowledge to use more advanced financial services was more significant, particularly for using online

payments, which cost extra money to purchase smartphones and mobile data and required digital literacy beyond financial literacy. This was more so for female and aged household members who were more reliant on someone else in the households for certain formal financial services, such as paying premiums and bills by cheque or online.

For the upper-middle class, the constraints were more from the provider side, though lack of knowledge also constrained aged household members from using digital payment. Despite improvements in banking and digital payment systems, such as One Time Passcode (OTP) that ensured only account holders could authorise transactions, people were still concerned about security risks of bank savings and digital payments, as reported bank scams, card hacking, and cyber fraud cases had seen a rise. They preferred to deposit money in more than one bank or in institutions other than banks, refused to use card and online payments, and only used Cash on Delivery (COD) for online services. For those who were willing to use digital payment wherever possible, the use was constrained by other people's willingness to accept this means of payment. Their maids and drivers, who were mainly from the lower class, might not even have a bank account, let alone accept wage payment by cheque or bank transfer. Many local shops that they relied on for daily necessities, like mineral water, food, groceries, and medicines, were run by people from the lower and lower-middle classes who only accepted cash payments. It was thus impossible for them to entirely abandon cash transactions.

While Demonetisation through its catalytic effects on digitalisation to some extent reduced informality associated with the use of cash in saving and payment, informality in the form of informal employment for the lower and lower-middle classes, in the form of illegal financial practices for the upper-middle class, and in the form of reliance on cash applied to both class

groups persisted as barriers to financial inclusion, while pre-existing inequalities in income and financial literacy were also involved in the process.

In the longer term, Demonetisation had an uneven impact on people from different classes in terms of financial inclusion. It negatively impacted lower-class household members engaged in informal work by reducing employment opportunities and lowering savings interest rates that mattered most to them. In contrast, the policy had more positive implications for upper-middle-class household members by promoting a more dynamic payment environment that incentivised them to use digital payments. Though people from the lower and lower-middle classes also benefited from the concomitant increase in digital informal work opportunities, there persisted a class barrier to financial inclusion. They were also less in need of more advanced formal financial services for lack of money and engagement in the informal sector. In contrast, the reluctance of upper-middle-class household members to use digital payments was more related to prevalent illegal financial practices. They were reliant on cash for different reasons. Informality therefore in various forms, along with pre-existing inequalities in income and financial literacy, remained a barrier to financial inclusion in the longer term.

The analysis of Demonetisation so far is from a user perspective that focuses on informality at an individual level and its implications for financial inclusion. A more comprehensive understanding necessitates an analysis also from a provider perspective that focuses on informality at an institutional level. I then shift my focus to financial institutions and their financial services that involve informality.

5.2.4 Demonetisation and Change in Financial Institutions and Financial Services

My interviews with staff in different financial institutions in the locality under study found that formal, semi-formal, and informal financial institutions co-existed to serve people from different sections of society.[75] The accessibility of financial services provided by financial institutions of varying degrees of informality, including those located outside the sampled ward, and the substitutability between the formal and the informal have implications for financial inclusion. I therefore first map all the major financial institutions that had physical presence in the locality and all the options of two major financial services—savings (investments) and loans—available there. On this basis, I analyse how financial institutions played their role and how they changed to shape the relations between informality and financial inclusion in the context of Demonetisation.

[75] I interviewed the staff of post offices, gold jewellery shops that offered gold savings schemes, shops that had POS machines, had mobile payment facilities, offered mini bank services, and accepted purchase on credit, and the non-governmental organisation (NGO) that organised self-help groups (SHGs), and the agent of Life Insurance Corporation (LIC) in the year of 2019/2020. I did not manage to interview the staff of banks, bond trading companies, non-banking financial companies (NBFCs), small finance banks (SFBs), and shops that provided the service of sending money to mobile wallets, as some of them were reluctant to be interviewed and my interview plan was disrupted by the outbreak of Covid-19. The missing information was instead provided by clients of these institutions.

Table 5.11 Mapping of Financial Institutions in the Locality

	Formal Financial Institution					Semi-Formal Financial Institution		Informal Financial Institution	
	Bank	Post Office	Insurance Company	Fintech Company	Bond Trading Company	NBFC/SFB	NGO-SHG	Jewellery Shop	Other Local shop
Main Financial Services	Saving/ investment, payment, and lending	Saving	Saving/insurance investment, and lending	Mobile wallet and payment	Bond investment	Micro lending	Saving and lending	Gold saving	Credit sale
Main Users	All	Lower-middle and upper-middle classes (mainly above 35 years old)	All	Upper-middle class (mainly below 35 years old)	Upper-middle class	Lower and lower-middle classes	Women from lower class (mainly those living in slums along railway tracks)	Women from lower and lower-middle classes	People living in the neighbourhood
Physical Presence	Bank branch, ATM, POS machine, agent (shopkeeper)	Post office branch	Agent (shopkeeper)	Local shops that provide services of sending money to mobile wallets; Big merchant establishments that have mobile payment facilities	Agent (trader)	Agent (staff of the institution)	NGO	Local jewellery shop	Local market, kirana shop, and pharmacy
Physical Distance	Walking distance	Walking distance	Home/Doorstep/ Walking distance	Home/Walking distance	Doorstep	Up to the type of loan	Walking distance	Walking distance	Walking distance
Role in Demonetisation	All allowed exchange and deposit of old banknotes; Non-cash payments replaced cash payments without extra charge	All allowed deposit of old banknotes	All accepted old banknotes/cheque payment and allowed delayed payments/ repayments for one month without extra charge	Mobile payments replaced cash payments without extra charge	All accepted cheque payments	Some accepted repayments in old banknotes/by cheque and allowed delayed repayments for one month without extra charge	It helped to exchange old banknotes and allowed delayed repayments up to two months without extra charge	Some accepted old banknotes with or without extra charge	Some accepted old banknotes with or without extra charge and allowed repayments for credit sales after Demonetisation

(*continued*)

Table 5.11 (*Continued*)

Main Users during Demonetisation	Account holders who had a large amount of old banknotes to deal with and had problem with replacement banknotes	Account holders who mainly saved money in post offices and had old banknotes to deal with	Policy holders and borrowers who had problem with replacement banknotes	Mobile payment users before Demonetisation who had problem with replacement banknotes	n/a	Borrowers who had problem with replacement banknotes	Group members who had no bank account and had problem with replacement banknotes	Gold depositors who had problem with replacement banknotes	Those who had a small amount of old banknotes to deal with and had problem with replacement banknotes
Immediate Impact of Demonetisation	Disruption to normal services; Normal services recovered after the end of Demonetisation	Disruption to normal financial services; Normal financial services recovered in five to six months	Negative impact on business activities; Business activities recovered in two months	Increase in mobile transactions	No impact	Initial slowdown in business activities	Problem with 2,000 banknotes[76]	Negative impact on business activities; Business activities recovered in two months	Mostly small impact on business activities
Change after Demonetisation	Fast increase in the number of branches, ATMs, POS machines; Increase in the number of users	No change in the number of branches; Decrease in the number of users	No change in the number of agents; No change in the number of users; Online options available since 2018	Increase in the number of shops with mobile payment facilities (requested by users); Fast increase in the number of users	n/a	Increase in the number of institutions and agents; Increase in the number of users; More cooperation with physical and online shopping stores	Decrease in the number of group members; Greater expansion into the slums	Increase in the number of jewellery shops; No more financial services since March 2019	Increase in the number of shops that accepted non-cash payments
Example	Allahabad Bank, State Bank of India, Syndicate Bank	Lake Gardens Post Office, Jodhpur Park Post Office	LIC	Paytm, Amazon Pay, UPI	n/a	Ujjivan Small Finance Bank, Bajaj Finance, Asirvad Microfinance	Lake Gardens Women and Children Development Centre	n/a	n/a

Source: Author's fieldwork 2019, 2020.

Note: ATM=Automated Teller Machine; POS= Point of Sale; LIC=Life Insurance Corporation; NBFC=Non-Banking Financial Company; SFB=Small Finance Bank; NGO=Non-Governmental Organisation; SHG=Self-Help Group; UPI=Unified Payments Interface; Kirana shop refers to a small, usually family-owned shop selling groceries and other sundries.

[76] The 2,000-rupee banknote was such a large denomination that local shops could not get change for their customers, particularly when the 500-rupee banknote was not available in the early phase of Demonetisation. Because of this, the 2,000-rupee banknote was gradually withdrawn by the government from the market recently.

As summarised in Table 5.11, formal financial institutions included banks, post offices, insurance companies, fintech companies, and bond trading companies; semi-formal financial institutions included non-banking financial companies (NBFCs), small finance banks (SFBs), and the local non-governmental organisation (NGO) that organised self-help groups (SHGs); and informal financial institutions included jewellery shops that offered gold savings schemes and local shops that accepted credit sales. These financial institutions of varying degrees of informality and varying forms of physical presence in the locality under study differed in the clients they catered to, the financial services they provided, and the way these services were delivered to their clients.

Among the formal financial institutions, bank services were most used and were used by people from all sections of society. The main services used were saving (investment), cheque and card payment, and lending. There were more than 20 functional bank branches and automated teller machines (ATMs) in the sampled ward, and point of sale (POS) machines were available at big merchant establishments, such as gold shops, supermarkets, pharmacies, electronics shops, and higher-end restaurants, cafes, and dessert shops. People mainly used services of the banks that they had accounts with. Some shops, or termed mobile business correspondents (BCs), also offered mini bank services, including cash deposit, withdrawal, and fund transfer, to those who did not have any account in local banks (mainly migrants whose accounts were in other states) and those who wanted to withdraw cash from ATMs more than the mandated number of free transactions.[77]

[77] As per RBI guidelines, banks could charge customers for transactions at ATMs over and above the mandated number of free transactions. For instance, the apex bank offered savings bank account holders a minimum of five free financial transactions in a month for transactions at the bank's own ATM and a minimum of three free transactions in a month for transactions at other banks' ATMs at metro locations. As the shop that offered mini bank services I interviewed charged less than banks, its users increased fast in number since its establishment in 2018.

Post office financial services, in contrast, were mainly used by elder household members from the lower-middle and upper-middle classes. The main service used in the locality was saving (investment). There were two post office branches in the sampled ward, but neither offered cheque facilities or installed ATMs that were available in some other wards.

Insurance company services, almost monopolised by the state-owned Life Insurance Corporation (LIC), were used by people from all sections of society,[78] and the main services used were saving (investment) and lending. There were many LIC agents whose main job was shopkeeping with a sign of "LIC" in front of their shops (or called LIC branches). People could visit the shops, which were usually located very close to their target clients (the lower and lower-middle classes), to get financial services. Premiums and loan repayments could be paid via bank transfer or in cash collected by LIC agents who visited policy holders and borrowers door to door on the agreed due date.

Mobile wallet and mobile payment services were mainly used by young upper-middle-class household members. Those who had access to a bank account and the internet could easily transfer money from their own or someone else's account to their mobile wallet wherever and whenever they wanted. Those who did not have an account could otherwise visit local shops that provided the service of sending money to the mobile wallet, i.e. shopkeepers accepted cash and transferred money from their own mobile wallet to their clients' for a small extra charge. People could therefore skip the process of bank account registration and leapfrog to use mobile money for online financial services. There were few such shops and a small number of merchant establishments that accepted mobile payments in the sampled ward.

[78] Bajaj Allianz Life Insurance, was also mentioned in my interview with a household member. Its agent was a village neighbour of the interviewee who came to his house to collect yearly premiums. The insurance was not popular among people living in the sampled ward, but popular among people living in the village, as the insurance company had an office in the village and offered higher returns than the LIC did.

Bond investments were only used by the upper-middle class. There was no bond trading company in the sampled ward. Introduced by someone else who used this service, traders visited target clients to advise on what bonds to buy and engaged in the buying and selling of bonds on behalf of them.

Among the semi-formal financial institutions, NBFCs and SFBs were analysed as a whole, as they provided similar financial services and some NBFCs expanded into SFBs between 2016 and 2019/2020.[79] Only the lower and lower-middle classes used their financial services and the main service used was lending. There were broadly two types of loans: group loans and individual loans. Group loans were targeted at women. NBFC and SFB branches providing group loans were located very far from the sampled ward, but many agents visited lower-class and lower-middle-class households door to door to introduce their programmes. People had to visit their branches in person to get the loans, but agents or group leaders would come to their place to collect loan repayments thereafter. Individual loans were accessible to both men and women and were mainly used by men. People could apply for the loan when buying goods in physical and online stores that cooperated with NBFCs or SFBs, and their agents would come to the stores to process the loan application or do it online. There was also no such physical store in the locality, but people could make repayments online or via bank transfer.

The NGO-SHG, in contrast, only provided financial services to lower-class women (mainly those living in the slums along railway tracks),[80] and the main services used were saving and

[79] For instance, Ujjivan commenced operations as an NBFC in 2005 and became a SFB on receipt of the license from RBI in 2017.

[80] The NGO was founded in 1992 in the sampled ward and was funded by Terre des hommes Germany-India Programme since 2002. It organised SHGs and required group members to set their own goals within six months after the formation of the group. The goals could be economic (starting a certain business, e.g. spices, handicrafts, with raw materials provided by the NGO), social (solving a certain social problem, e.g. domestic violence, child labour), and political (writing suggestions to local politicians on issues like road repairing, power supply, identity

lending. The group head decided the amount that each group member would save on a weekly basis, and she would deposit the money collected into a joint account in the name of a NGO staff member and herself. Group members could borrow from this group fund. Those who wanted to save more could save extra money in a special fund organised by the NGO, and those who wanted to borrow more could also borrow from the institution. There was only one such NGO in the sampled ward and it was located close to the railway land.

When it comes to the informal financial institutions, many jewellery shops offered gold savings schemes, and they were mainly used by lower-class and lower-middle-class women. The most popular scheme was that a customer could choose a gold ornament (at an agreed price) from a jewellery shop, deposit a fixed amount (1/12 the agreed price) on a monthly basis in the shop for 11 months, and get the ornament at the end of the 11th month. The 12th instalment, equal to the monthly contribution, would be paid by the retailer and could be viewed as interest received from gold savings. There were many such jewellery shops located close to their target clients.

A loan from a shopkeeper as a lending source is among the most neglected by researchers on informal credit (Pellissery, 2006). In the locality under study, loans from shopkeepers that took the form of purchase on credit were mainly used by those living in the neighborhood of the shops. There were many such local markets, kirana shops, and pharmacies located close to and in the residential areas that accepted purchase on credit, and they had close ties with people living in the area.

card and ration card registration). The NGO also provided courses (e.g. literacy, calculation, family saving planning) and vocational training (e.g. beauty treatment, cooking) for its members.

These financial institutions of varying degrees of informality, along with those located outside the sampled ward, provided formal and informal alternatives of saving (investment) and loan services for people from different sections of society, but in a way that featured economic and social segmentation.

For savings (investments), as shown in Table 5.12, different socio-economic groups had access to and used different types of savings (investments). Lower-class household members mainly used lower-return formal savings, like bank and post office demand deposits and LIC insurances, and women who had no bank account alternatively used semi-formal SHG group savings. Almost only investments through informal financial institutions in gold, real estate, and land had higher returns. The higher returns were ensured by rapidly rising gold, real estate, and land prices related to prevalent illegal financial practices like speculation using black money in respective markets.

Table 5.12 Mapping of Saving/Investment Options in the Locality

	Formal Financial Institution									Semi-Formal Financial Institution	Informal Financial Institution	
	Bank			Post Office		Insurance Company		Bond Trading Institution	EPFO (outside the sampled ward)	NGO-SHG	Jewellery Shop	Middleman/ Agent (outside the sampled ward)
Type	Demand Deposit	Fixed Deposit	Mutual Fund, Stock Share	Demand Deposit	Fixed Deposit, Scheme	Insurance Scheme	Fixed Deposit	Bond	Pension Scheme	Group Saving Scheme	Gold Saving Scheme	Real Estate and Land Investment
Main Users	All	Lower- and Upper-Middle Classes	Upper-Middle Class	All	Lower- and Upper-Middle Classes	All	Lower- and Upper-Middle Classes	Upper-Middle Class	Formal Labour	Lower-Class Women	Lower- and Lower-Middle-Class Women	All
Saving/ Investment Amount	Small to Medium	Medium to Large	Medium to Large	Small to Medium	Medium to Large	Small to Medium	Small to Medium	Medium to Large	Medium	Very small	Small	Large
Saving/ Investment Liquidity	High	Medium	Low	High	Medium	Medium	Medium	Medium	Low	High	Medium	Low
Saving/ Investment Return	Low	Medium	High	Low (slightly higher than bank)	Medium (slightly higher than bank)	Medium (higher than bank fixed deposit)	Medium (higher than bank fixed deposit)	Medium (higher than bank fixed deposit)	High	Low (same as bank demand deposit)	High	High
Change in Return after Demonetisation	Decline	Decline	Fluctuate but Remain High	Decline	Decline	n/a	n/a	n/a	No Change	Decline	Increase (unavailable post-2019)	Increase

Source: Author's fieldwork 2019, 2020.

Note: EPFO=Employees' Provident Fund Organisation; NGO=Non-Governmental Organisation; SHG=Self-Help Group; For the Saving/Investment Return of the Pension Scheme, I take employer's contribution into account; For the Saving/Investment Return of the Real Estate and Land Investment, I take rents and capital gains after selling the real estate and land into account.

Lower-middle-class household members, who in average had higher income, in addition used some medium-return less-liquid formal savings, like fixed deposits and schemes with a pre-set date of maturity. Only a small portion from the lower and lower-middle classes, who were engaged in formal work, had access to high-return pension schemes, while this proportion was much higher among the upper-middle class. The latter had access to and used almost all types of savings (investments), except those catering specially to the financial needs of marginalised groups in urban society. They could therefore choose from combinations of various formal and informal savings (investments) to optimise their portfolios, and their knowledge of insider information almost ensured high returns from risky investments in mutual funds and stock shares.[81]

The analysis of savings (investments) found that while class through differential income and liquidity preference segmented the financial market and hindered upward mobility in financial inclusion, informality in the form of the use of "lucrative" informal options enabled by speculative trading in gold, real estate, and land markets had similar negative implications for people from different social classes in terms of financial inclusion. The difference was that while informal employment further constrained lower- and lower-middle-class household members from accessing high-return formal savings (investments) and incentivised them to use more informal alternatives, upper-middle-class household members were controversially incentivised by other illegal financial practices, like insider trading in stock markets, to stay engaged in the formal financial system that they could take advantage of.

[81] For instance, those who were well-connected knew that share prices of certain government-supported companies would never decrease.

Table 5.13 Mapping of Personal Loan Options in the Locality

	Formal Financial Institution		Semi-Formal Financial Institution		
	Bank	Insurance Company	NBFC/SFB		NGO-SHG
Type	Individual Loan	Individual Loan	Group Loan	Individual Loan	Individual Loan
Main Users	Upper-Middle Class	Lower and Lower-Middle Classes	Women from Lower and Lower-Middle Classes	Young People from Lower and Lower-Middle Classes	Women from Lower Class
Purpose	Durable Goods Purchase	Personal Use	Personal Use	Durable Goods Purchase	Personal Use
Loan Amount	Medium to Large	Medium to Large	Medium	Medium	Small
Loan Interest Rate	Low	Medium	High	High	Medium
Requirement	High	Medium	Low	Low (higher than group loan)	Low (lower than group loan)
Processing Time	Long	Medium	Medium	Short	Short
Change in Interest Rate after Demonetisation	Decline	n/a	Uncertain	Uncertain	No Change

Source: Author's fieldwork 2019, 2020.
Note: LIC=Life Insurance Corporation; NBFC=Non-Banking Financial Company; SFB=Small Finance Bank; NGO=Non-Governmental Organisation; SHG=Self-Help Group.

There was also such economic and social segmentation in the access to and use of personal loans (see Table 5.13).[82] While people from the upper-middle class had easier access to and almost only used bank loans (and credit cards, if credit card payment and cash withdrawal could be viewed a form of bank loans) at low lending rates, people from the lower and lower-middle classes could rarely do the same.[83] It was because they lived in informal or semi-formal settlements and lacked proof of residence ownership, and also because most of them had low income mainly from informal sources and lacked proof of income. They could alternatively borrow from the LIC, but had to have paid premiums for more than three years before that and the loan amount was contingent on the surrender value of insurance policies.

It was in this context that most lower- and lower-middle-class household members resorted to semi-formal loans provided by the NGO and NBFCs/SFBs. The former catered to the financial needs of marginalised women who were members of the SHG.[84] The latter had two variants: one was group loans for groups formed by five to six female members with shared liability for defaults,[85] and the other was individual loans for durable goods purchase, especially those

[82] Though interviewees also took out business loans, my research did not cover this type of loans as its accessibility and affordability were also contingent on the type, scale, and management of the business in question.
[83] Among the interviewed, only one slum dweller managed to get approved for a bank loan, because he worked for a local politician as a driver, who offered to call the head of the bank to disburse the loan. Fewer documents were required for his application (identity proof, address proof, and the politician's reference letter) and less time was taken to process the application (one week). This rare case of informalised practices built on specific socio-political connections confirmed that urban informality was a crucial element to segment the credit market that could not easily be circumvented.
[84] The application for NGO-SHG loans was reference-based and could be processed in one day. Only identity proof and reference from the group leader and staff (based on attendance rate in weekly meetings and previous loan repayment performance) were required. The lending rate (1% per month) did not change since the establishment of the NGO, and the amount that group members could borrow depended on their savings and outstanding loans (up to 10,000 Indian Rupee). People could extend the tenure up to one year, and flexibly make repayments every month or at the end of the tenure.
[85] The application for NBFC and SFB group loans only required documents like identity proof and address proof. Some mentioned that those who repaid the first group loan on time could apply for and get an individual loan from the same financial institution with the same documents next time.

processed online, mainly used by young males who had more advanced financial and digital knowledge.[86]

The analysis of personal loans found that class, intersecting with informality in forms of differential employment and housing conditions, further segmented the financial market and left even less upward mobility in financial inclusion compared to the case of savings (investments). Informality in the form of the use of informal and semi-informal options among the lower and lower-middle classes could also be viewed as a barrier to financial inclusion.

Could a strong demand push like Demonetisation change the pre-existing financial services market segmentation? Did the identified role of informality as a barrier to financial inclusion change under the impact of this policy? I analyse these questions from perspectives of the functioning of these financial institutions (and their financial services) during Demonetisation and their changes thereafter.

Banks and post offices were two main financial institutions facilitating the Demonetisation process (see Table 5.11). The former allowed people to exchange and deposit old banknotes and use cheque and card payments to cope with cash shortages,[87] while the latter accepted

[86] The application for NBFC and SFB individual loans required less documents as the durable goods themselves were a form of collateral. In addition to identity and address proof, only a cancelled cheque and a duly signed Electronic Clearing Service mandate were required for purchases made in-store. Those who repaid the first loan on time could next time directly apply for a loan online with the account issued by the semi-formal financial institution. For purchases made online, there would be a check of the borrower's Credit Information Bureau (India) Limited (CIBIL) score. It is a three-digit number ranging between 300 and 900 that measures the borrower's ability to repay the borrowed amount based on his or her payment history, credit exposure, credit type and duration, and other factors.

[87] People were allowed to exchange up to 4,000 Indian Rupee in cash in any bank branch with identity proof in the early phase of Demonetisation. Yet in practice, based on my interviews, people only exchanged old banknotes in the branches where themselves or their family members had accounts, unless these branches ran out of replacement banknotes.

depositing old banknotes into savings accounts.[88] Their normal operations were so disrupted under the pressure of queues outside the institutions that other financial institutions offered to cushion the impact of cash chaos. For instance, formal financial institutions like the LIC allowed their clients to pay premiums and loan repayments in old banknotes or by cheque, and even allowed them to delay these payments, while mobile payment services provided by fintech companies served to replace cash payments. Semi-formal financial institutions like some NBFCs and SFBs also accepted repayments in old banknotes and allowed cheque payments and delayed repayments, while the NGO helped their members to exchange old banknotes and allowed them to delay existing loan repayments. As for informal financial institutions, some jewellery shops accepted gold deposit payments in old banknotes, and many other local shops accepted old banknote payments and credit sales. While Demonetisation encouraged non-cash transactions mainly among existing non-cash payment users, the temporary expedient of enabling informal financial practices that saved people from interacting with busy banks and post offices rendered many more reliant on informal institutions and hindered financial inclusion.

In the longer term, operational problems exposed during Demonetisation stimulated bank expansion and digitalisation, reflected in a fast increase in the number of branches, ATMs, and POS machines and in the number of their services users. The trend of digital transformation extended to other formal financial institutions like the LIC that made the online payment option available in its website, customer portal, and mobile app in 2018, and to semi-formal financial institutions as many NBFCs and SFBs made it mandatory to borrow through a registered bank

[88] Old banknotes could not be exchanged in post offices. Depositing old banknotes into post office savings schemes accounts was initially allowed but refused in the later phase of Demonetisation.

account, encouraged cashless disbursement of loans and collection of repayments, and expanded cooperation with physical and online shopping stores.

More people started to use mobile payment and requested local shops to add this as a payment option. The increased demand for digital payments incentivised fintech companies to improve their mobile payment services and promote them in local shops, though many shops labelled "Paytm Accepted" did not actually have mobile payment facilities or refused to accept mobile payments. Other institutions that failed to improve their financial services or innovate digital solutions like post offices,[89] increasingly lost their prominence in the locality, as reflected in a fast decrease in the number of their financial services users.[90]

Despite the increasing adoption of digitalisation by major financial institutions under the impact of Demonetisation and the phaseout of informal ones like jewellery shops,[91] cash still dominated the local payment systems, as a vast number of local shops that penetrated many aspects of everyday life only accepted cash payments. While this form of persistent informality hindered broader digital financial inclusion, sharply decreasing mobile data and smart phone prices after Demonetisation made the class divide less a barrier to financial inclusion in the realm of payment.

The economic and social segmentation, however, persisted or even became more entrenched in saving (investment) and borrowing. For the former, compared to those from the upper-

[89] Post offices were criticised for having poorer connectivity, less cash for withdrawal each day, and less innovations (like introducing new savings schemes and promoting digital transformation), and taking longer processing time than banks. Meanwhile their savings interest rates, including unique savings schemes like Monthly Income Scheme and Kisan Vikas Patra, decreased to a level close to bank savings rates. Post offices were therefore less competitive than banks.
[90] The use of post offices was in a decline over the past 10 years, but it decreased faster after Demonetisation.
[91] It was related to extreme gold price volatility caused by a new regulation that effectively reduced gold smuggling rather than Demonetisation.

middle class, the access to high-return formal savings (investments) for people from the lower and lower-middle classes remained constrained by persistent low income and employment informality, and their use of formal financial services was more negatively impacted by Demonetisation. Lower savings interest rates related to Demonetisation resulted in lower returns for savings in banks and post offices, while returns for investments in stock shares, real estate, and land remained high or even increased after Demonetisation. As people from the lower and lower-middle classes were more reliant on deposit interest as a source of income and more sensitive to changes in interest rates, lower returns from formal savings and higher returns from informal investments incentivised them to reallocate money from the formal to the informal. I detail this phenomenon in Chapter 6. Therefore in the context of Demonetisation, informality in forms of informal savings (investments) and illegal financial practices became larger barriers to financial inclusion, particularly among the lower and lower-middle classes.

The same was the case with personal loans. The access to bank loans for the lower and lower-middle classes remained constrained by employment and housing informality, and Demonetisation did not improve the situation. While the policy led to lower bank lending rates, it did not necessarily reduce semi-formal lending rates, depending on the funding source of the institutions.[92] It therefore mainly benefited upper-middle-class household members, who had better access to formal loans. The fast expansion of NBFCs and SFBs and digitalisation of their loan services after Demonetisation also did not necessarily benefit their clients. While the institutions made their loans more accessible to the lower and lower-middle classes, they also established themselves as easy substitutes and discouraged people from even making efforts to get formal loans. In this context, expanding semi-informal loans controversially constrained

[92] Some interviewees reported declining NBFC and SFB lending rates. Some reported the opposite. A consensus could not be reached on this issue.

broader financial inclusion and perpetuated informality in forms of informal employment and housing as barriers to formal finance. I also examine this phenomenon in detail in Chapter 6.

In the area under study, informal and semi-formal financial institutions provided financial services catering to the needs of people underserved by formal financial institutions at their convenience. Though these institutions under the impact of Demonetisation increasingly formalised their operations through digital means in ways that served to reduce the use of cash in saving, payment, and borrowing, there persisted economic and social segmentation in the access to savings (investments) and loans that constrained people from accessing formal institutions. Prevalent informal financial practices tended to perpetuate the use of cash and interaction with financial institutions that involved informalised operation. Echoing the findings from the perspective of services users, the analysis from the perspective of services providers confirmed that despite the implementation of Demonetisation, there persisted informality and class barriers to financial inclusion.

Demonetisation as a policy that pushed up people's demands for digital financial services to the extreme through an absolute shortage of cash failed to universalise non-cash payments even among the upper-middle class due to persistent informality. How Covid-19 as another catalyst for digital transformation through an absolute shortage of goods and services structured the relations between informality and financial inclusion is worthy of further analysis.

5.3 Covid-19, Informality, and Digital Financial Inclusion among the Upper-Middle Class

The Covid-19 pandemic could have a positive impact on financial inclusion by incentivising people to shift from physical cash to digital and contactless payment instruments, particularly in the short term when there were restrictions on movement and shortage of essentials (see Chapter 3). As an extension of the analysis of Demonetisation, this section focuses on upper-middle-class household members, who were better prepared for digitalisation, to examine what barriers to digital financial inclusion remained despite consecutive Demonetisation and Covid-19 incentives. In this context, I start with a preliminary descriptive analysis of the households interviewed in Subsection 5.3.1. Then I focus on changes in their use of non-cash payments in different scenarios and cash withdrawals during the lockdown in Subsection 5.3.2 to examine barriers to broader digital financial inclusion and the role played by informality in the process.

5.3.1 Descriptive Statistics of Households Interviewed

I conducted phone and online interviews with 20 households living in different parts of Kolkata. They all belonged to the upper-middle class based on local perceptions of social class, which was empirically compatible with my classification (see Appendix A). I interviewed one member of each household, as household members were quarantined at home and coordinated their expenditure during the lockdown. It was found that the gender of respondents did not have observed effects on the responses.

Table 5.14 Preliminary Descriptive Statistics of Households Interviewed: 2020

Location	
Northern Part of Kolkata	12
Southern Part of Kolkata	8
Containment Zone	
Yes	5
No	15
Respondent	
Male	12
Female	8
Household Head	
Male	15
Female	5
Caste	
SC/ST/OBC	7
General Caste	13
Bank Account	
At least one member had a bank account	20
None had a bank account	0
Smart Phone	
At least one member had a smart phone	20
None had a mobile phone	0
Mobile Data	
At least one member had access to mobile data	20
None had access to mobile data	0
Wireless Broadband	
At least one member had access to wireless broadband	14
None had access to wireless broadband	6
Use of Card Payment before Demonetisation	
At least one member used card payment before Demonetisation	16
None used card payment before Demonetisation	4
Use of Online Payment before Demonetisation	
At least one member used online payment before Demonetisation	12
None used online payment before Demonetisation	8
Use of Card Payment before Covid-19	
At least one member used card payment before Covid-19	19
None used card payment before Covid-19	1
Use of Online Payment before Covid-19	
At least one member used online payment before Covid-19	20
None used online payment before Covid-19	0
Total Number of Households	20

Source: Author's fieldwork 2020.

Note: N=20 households; SC= Scheduled Castes, ST=Scheduled Tribes, OBC=Other Backward Classes.

As shown in Table 5.14, the households interviewed were evenly distributed over northern and southern parts of Kolkata, and five of them were located in areas identified as containment zones where the restrictions on movement and interaction were most severe and only the very basic supplies and services were allowed inside. Most households interviewed were male-headed and belonged to the general castes. In line with the findings of the study of Demonetisation carried out in a specific ward, the study of Covid-19 carried out at the city level confirmed that upper-middle-class households had at least one member who had access to banks, smart phones, and cellular networks, and most had access to broadband networks, which had better connection when the super cyclone Amphan severely disrupted internet connectivity in Kolkata circles (see Chapter 6 for details of the event).

While most upper-middle-class households interviewed had used card and/or online payments before Demonetisation, there was a further increase in the number of such households in the interval between Demonetisation and Covid-19. Before the outbreak of the pandemic, all the households interviewed had at least one member who had knowledge of and used online payments. It was found related to observed improvements in digital payment systems in India over the past few years, including greater security and convenience using OTP in digital transactions, better banking and UPI systems with simplified checkout process, numerous private-run mobile payments and online services apps with more user-friendly interfaces and cashback promotions, more advanced technology that links apps with one's mobile number and bank account, and faster and cheaper 4G internet. Rapid digital transformation, particularly in the urban area, enabled the upper-middle class to respond and thrive during the pandemic.

5.3.2 Covid-19 and Change in Use of Digital Payments and Cash Withdrawals in the Short Term

While Demonetisation and Covid-19 both fast-forwarded digital payments, a consensus could not be reached among the households interviewed as to which event had a larger impact on digital financial inclusion. It was instead widely acknowledged that the experience with digital payments during Demonetisation served to make this means of payment more a habit and make people more confident with digital tools. This was supported by the finding that a fast-growing number of interviewees' social reference groups—including families, friends, and peers—started to use online services and digital payments, and even persuaded others to do the same. Under this impact, more shops, including low-value informal services providers like fish sellers and rickshaw drivers, adopted digital payment methods. Covid-19 further accelerated digital adoption, best illustrated in the finding that while younger household members interviewed were main users of online payments during and after Demonetisation, the elder also learned to use or used more online payments during the lockdown for fear of contracting Covid-19. This might have long-lasting effects even after everything returns to normal.

In this context, at the household level, I demonstrate how Covid-19 changed the use of card and online payments for groceries, medicines, food, other physical goods (like clothing, books, and appliances), and bills among upper-middle-class household members and their cash withdrawals in the short term. On this basis, I probe into the role played by informality in the form of informal cash payments, usually associated with informalised operations of goods and services providers, and in the form of illegal financial practices of cyber crimes as a barrier to digital financial inclusion.

Covid-19 had different effects on card and online payments and different effects on payment for different goods and services among the upper-middle class. As shown in Table 5.15, while the pandemic in general hindered people from using or using more card payments, its effects on online payments were more divergent. This was closely related to the availability of formal and informal options for getting essentials, the formality of which was determined by the degree of involvement of non-cash payments, and also related to individual evaluation of payment security and infection risk.

Table 5.15 Short-Term Impact of Covid-19 on Financial Inclusion: 2020

Number of Households that were Negatively Impacted by Covid-19 in terms of Card Payment and Online Payment					
	Groceries	Medicines	Food	Other Physical Goods	Bills
Card Payment	7	0	5	3	0
Online Payment	1	1	4	6	0
Number of Households that were Positively Impacted by Covid-19 in terms of Card Payment and Online Payment					
	Groceries	Medicines	Food	Other Physical Goods	Bills
Card Payment	1	0	0	0	0
Online Payment	3	2	7	8	2

Source: Author's fieldwork 2020.

Note: N=20 households.

For grocery shopping, people usually bought groceries from three main places: local markets, supermarkets, and online grocery shops. They were dominated by different means of payment and to some extent offered differentiated products. Most stalls and shops in local markets only accepted cash payments, and very few accepted cheque and mobile payments. They usually sold fresher groceries at lower prices than supermarkets and offered on-call home delivery services for customers living around with flexible payment time. Supermarkets with a more formalised operation provided mobile payment options, but people mainly made small payments in cash and large payments by card. They had a wider variety of groceries than local markets, and some also offered home delivery services for phone orders. Online grocery shops

provided cash on delivery (COD) and online payment options, and people preferred COD, concerned about online service quality and online payment security. Even rare or unusual product lines were available online, and online grocery shops in general charged higher prices than local markets and supermarkets.

During the lockdown, many supermarkets were closed or people could not go there in person due to travel restrictions. Even if they could, the high risk of getting infected in a confined and crowded space discouraged them from doing so. These combined to result in less card payments. Online grocery shops were also closed in the early phase of the lockdown, but when they resumed their normal services, the COD service was disabled as a measure to contain Covid-19. While those who remained concerned about online payment security and/or health conditions of delivery persons were reluctant to purchase groceries online, the change of payment options forced people who wanted to avoid unnecessary contact to start to use or use more online payments, despite inconvenience caused by limited home delivery slots and longer-than-usual delivery times. Local markets, in contrast, faced problems of temporary stockouts and shortened opening hours (more so in the containment zones). All the households interviewed, including active users of non-cash payments during the lockdown, however remained reliant on them. It was more so for those living in the containment zones, as online orders were not allowed to be delivered to them according to local regulations. A major reason for continuing buying groceries in the markets was that people did not think that cash payments and interpersonal interactions with local sellers were riskier than cashless payments and contactless deliveries, as they knew these sellers well about their health conditions and they could easily maintain physical distance in the open air.

Similar to grocery shopping, there were also different places to buy medicines dominated by different means of payment. While small local pharmacies only accepted cash payments, many big pharmacies with a more formalised operation also accepted card, cheque, mobile payments and bank transfers, but people mainly made small payments in cash and large payments by card. They both offered on-call home delivery services for customers living around with flexible payment options.[93] Online pharmacies, in contrast, attracted customers with discounts and promotions. Though only a small number of households interviewed used their services, they all made payments online even before the COD option was suspended during the lockdown. As most physical pharmacy shops were not much impacted by Covid rules, except long queues outside pharmacies and stockouts of certain medicines, most people did not change their routines. In this context, people chose between physical and online pharmacies depending on the availability of certain medicines and the urgency of getting them, and it was widely recoginised that online pharmacies could not fully replace traditional ones.

Likewise, people could buy food from street vendors who almost only accepted cash payments, buy from restaurants that in some cases accepted card and mobile payments, or order online. For other physical goods, they could also buy from stalls and shops in local markets that almost only accepted cash payments, buy from big shops and supermarkets that had card and mobile payments facilities, or shop online. Different from grocery and medicine shopping, during the lockdown, street vendors and restaurants that did not provide delivery services completely stopped operation and all non-essential shops, either formal or informal, big or small, physical or online, were closed or reduced their services to sell only essential items, like hand sanitisers and face masks. In this circumstance, online food ordering was the only way for those who did

[93] For card payment on delivery, people needed to tell the pharmacy in advance that they would pay by card, and the delivery person would take a POS machine along with him or her.

know how to cook or could not cook by themselves to get food, and online shopping was the only way to get essentials that were out of stock in local shops and supermarkets. Online shops (including those selling food) also disenabled the COD service and forced their services users to make online payments. Those who were concerned about online payment security, food sanitation, and/or health conditions of delivery persons otherwise learned to cook and/or reduced their consumption to a minimum.

For virtual goods like bills, payment was impacted by Covid-19 in a completely different way. People could pay mobile phone bills at local shops in cash, at telecom branches and self-service kiosks in cash or by card, or on websites and apps online. For other bills like water, electricity, and gas, they could also pay at corresponding offices in cash or by card, pay via bank transfers and direct debts, or make payments online. Online bill payment was commonly viewed as the safest and in many cases the first taste of online payment for new online services users, as bills were standard goods and payment could be directed to official accounts using online banking. Therefore most households interviewed had used online bill payments before the outbreak of Covid-19. During the lockdown, as people could still call local shop owners they were familiar with to recharge mobile phones and pay them in cash when they could meet in person, and many branches and offices remained open despite long queues outside, most did not change their usual ways of payment. It was however widely acknowledged that while making non-cash payments for physical goods was equally unsafe as making cash payments in terms of infection risk, making bill payments online could reduce unnecessary travel and contact. It was particularly so in the case when people found their local telecom branches closed and had to switch to online payments.

Despite some improvement in digital adoption, most households interviewed did not reduce the value of cash withdrawals during the lockdown, but reduced the frequency to avoid visiting bank branches or using ATMs for fear of being infected with the virus. Cash, in this context, was held more as a store of value than a medium of exchange, as people feared about another banking crisis and associated imposition of limits on cash withdrawals and closure of ATMs, like what happened during Demonetisation. The lockdown policy intended for reducing people's reliance on cash therefore controversially rendered many more reliant on it. Some people even increased their overall cash withdrawals and cash payments during the lockdown, even though wage payments in cash to domestic helpers and drivers, who were not allowed to commute and work for them due to movement and gathering restrictions, were reduced to zero.

In this context, while Covid-19 led to some reduced informality in the form of cash payments by encouraging people to pay bills and opt for pre-paid methods to order groceries, medicines, food, and other physical goods online, the government-enforced closure of non-essential shops and initial chaos of online deliveries during the lockdown discouraged them from actively doing so. Even among people from the upper-middle class, who were better prepared to go cashless, informality in the form of illegal financial practices that raised security concerns about online payments, convenient informal options supported by social connections that acted as substitutes for or supplements to their formal counterparts, and payer-payee systemic reliance on cash persisted. Informality in these forms remained a barrier to digital financial inclusion despite fast digitalisation in recent years. More observable habit change in the way of payment has to be analysed in a longer term when lockdown restrictions are eased and more digitalisation efforts are made in the post-Covid world, but it can only be captured as time passes with a new round of interviews, which I detail in future research in Chapter 7.

5.4 Conclusion

Informality, in the form of informal employment, informal housing, and informal financial practices, remained a barrier to financial inclusion despite the strong demand push of Demonetisation and Covid-19 that reduced some use of cash in saving, payment, and borrowing.

Most informal workers did not become more financially included under the impact of Demonetisation, as they did not have to deal with their old banknotes through formal means or use non-cash payments to cope with cash shortages. What constrained them from using formal savings (investments) and loans persisted or even worsened, given further reduced income and reduced bank savings rates associated with Demonetisation. Though digitalisation created new job opportunities that involved using online payments, it did not solve the problem with the lack of access to pension schemes and formal loans associated with employment informality. Those living in slums and flats built on occupied land (informal and semi-formal settlements) also remained excluded from formal loans for lack of residence ownership proof.

In this context, people remained, if not became more, reliant on informal and semi-formal financial institutions, and prevalent informal financial practices constrained broader financial inclusion. For instance, they used informal means to deal with old banknotes and cope with cash shortages, borrowed more from semi-formal financial institutions, and invested more in land and real estate for high returns enabled by pervasive speculation. Concerns about other illegal financial practices like card hacking and cyber fraud also remained and hindered active use of digital payments. Despite numerous digital innovations burgeoning under the impact of

Demonetisation, cash still dominated the payment systems. These barriers to digital financial inclusion persisted even after the outbreak of Covid-19.

Beyond informality, there were also class barriers to financial inclusion that made a distinction between the lower and lower-middle classes and the upper-middle class. Closely linked to differences in income, wealth, and employment and housing informality, class differences existed in many aspects of the experiences of Demonetisation, including the means of dealing with old banknotes, use of non-cash payments, responses to macroeconomic shifts, paths of digital transformation, constraints to financial inclusion, and the access to and use of financial institutions and their savings (investments) and loans services. The differences were so distinct that people from the lower and lower-middle classes could not easily advance the same way as those from the upper-middle class did in terms of financial inclusion, though informal practices like the use of cash were also prevalent among the upper-middle class even in the context of Covid-19. The multi-layered feature of society with further gender, education, and age divides in income, financial literacy, and access to and use of various financial services added new dimensions to this class segmentation.

While informality, class, and other social identities intersected to shape individual experiences of financial exclusion and inclusion and of Demonetisation and Covid-19, experience narratives were largely missing in this statistical analysis. I probe deeper into how this intersectionality worked in everyday life and in the context of Demonetisation and Covid-19 through an in-depth study of narratives relating to each social factor in Chapter 6. The negative impact of Demonetisation and Covid-19 chaos was further found to some extent cushioned by informal financial institutions, and people's reliance on cash and informal financial practices persisted despite these two events. This raised new questions as to whether informality is

necessarily a barrier to financial inclusion and whether India is prepared to go cashless. These questions will also be explored in Chapter 6.

CHAPTER 6

Bottom-Up Approach to Financial Inclusion: Experience Narratives in Everyday Life and in the Context of Demonetisation and Covid-19

The residential area of Ward 93, where I conducted the major part of the interviews and observations, accommodates people from different sections of society. Most middle-class families lived in apartment blocks of varying sizes and states of disrepair. The locality was home to a range of small retail and service businesses, such as small shops selling food, clothing, and medicines and providing tailoring, haircuts, and mobile recharge services and local markets selling groceries and other daily essentials. The former were usually run by the lower-middle class living in the locality, while the latter by migrants living in tarpaulin tents in vacant lots. They almost only accepted cash payments and in rare cases cheque payments. There were also a large air-conditioned mall, supermarket chains, and upmarket restaurants and café shops that accepted digital payments, and financial institutions like banks, post offices, insurance companies, and jewellery shops that provided formal and informal financial services.

Lower-class families established themselves in the interstitial spaces of these areas. They lived in scattered slum clusters without private toilet, bathroom, and water tap. Many worked for upper-middle-class families as maids, drivers, and caretakers, while local markets and shops run by lower-middle-class residents and migrants served the whole neighbourhood. These combined to establish interdependence between people from different socio-economic backgrounds, which was found to have implications for financial inclusion and coping

strategies for Demonetisation. Such interdependence was also found to exist in other parts of Kolkata based on my extended interviews on the Covid-19 lockdown.

In this context, I collected narratives of reasons given by my informants for using or not using formal financial services and entering or not entering the digital economy and of their everyday experiences of financial exclusion and inclusion and coping strategies for Demonetisation and Covid-19 to generate a deeper insight into the role played by social relations in the process. On this basis, the chapter delivers bottom-up perspectives on what advanced and hindered financial inclusion, and develops a typology to explain the complex role of financial informality that was mentioned but remained under-theorised in Chapter 2. Some aspects of the findings were missing or misrepresented in the top-down narratives in Chapter 3, while some were only referred to cursorily in the pattern analysis in Chapter 5 without details and insights that can otherwise be valuable policy inputs.

Section 6.1 examines the role played by caste, class, gender, occupation, education, and age in everyday life and in the context of Demonetisation and Covid-19, and how these social identities intersected to produce experiences in ways that reduced or increased informality and helped or hindered financial inclusion. Section 6.2 lists other factors that hindered financial inclusion beyond the scope of social identities that everyone within the system could face. Challenges identified in Section 6.1 and 6.2 were what remained to be tackled by the government despite Demonetisation and Covid-19. Section 6.3 typologises financial informality according to its implications for financial inclusion and broader social inclusion, and identifies the forms of financial informality that are not necessarily barriers to financial inclusion and the forms that need to be reduced as policy priorities.

6.1 Exploring the Intersectionality of Social Identities in Financial Inclusion

The intersectionality of social identities that produces specific experiences of financial exclusion and inclusion has been statistically analysed in the context of Demonetisation in Chapter 5. In the short term, less-educated lower-class and lower-middle-class young women who were housewives or engaged in informal work were more likely to be more financially included under the impact of Demonetisation. It was because a larger proportion of them did not have any account of formal financial institutions registered in their names, never used their financial services, or seldom used the accounts before the announcement of Demonetisation and could thus benefit from the forced interaction with these institutions. That most of them had either no old banknotes to deal with or dealt with them through informal means, however, constrained broader financial inclusion. Even less people benefited from using non-cash payments during Demonetisation. Mainly upper-middle-class household members who were better-educated and engaged in formal work coped with cash shortages this way, but they were already active users of non-cash payments before the event.

In the longer term, lower-class household members, particularly less-educated elder ones who were housewives or engaged in informal work, were more likely to be negatively impacted in terms of financial inclusion by reduced income and savings interest rates associated with Demonetisation. In contrast, upper-middle-class household members, particularly better-educated younger ones who were students or engaged in formal work, were more likely to be positively impacted by their changing use habit of financial services and expanding digitalisation associated with Demonetisation. While the lower and lower-middle classes could

also benefit from digitalisation, it was mainly in the form of working as digital gig workers and this form of work was almost only relevant to better-educated young men. Such class barriers to financial inclusion were also evident in the unequal access to formal savings (investments) and loans.

The statistical analysis, though useful in identifying general patterns of the intersections of class, gender, education, occupation, and age in financial inclusion, has two limitations. First, the role of caste as an important social factor that has implications for informality and financial inclusion in India cannot be analysed statistically with the small sample size of low-caste populations. Second, intimate details of variations in people's experiences and narratives that allow for a deeper understanding of the inner workings of intersectionality are reduced to a minimum in the statistical generalisation.

I therefore in Subsection 6.1.1 examine how people living in the city of Kolkata talked or refused to talk about caste based on my interviews and observations to provide some insight into the role caste played in everyday life and in the context of Demonetisation and Covid-19. In the subsequent four subsections (6.1.2 to 6.1.5), I examine how four social factors—gender, occupation, education, and age in sequence—co-constructed each other in crucial aspects of lived experiences such as intimate social relationships in everyday finances and responses to Demonetisation and Covid-19 among people from different social classes. The analysis of the first two factors involves case comparisons, while the analysis of the last two is more description-based. Both serve to enrich the understanding of identified social-factor-related barriers to financial inclusion.

6.1.1 Diminishing Relevance of Caste in Local Narratives

While caste has influenced a near-perfect segregation of residential spaces in rural India as people from the same caste tend to congregate in a specified area (Gattupalli, 2022), the matters are more complicated in cities. As cities increasingly accommodate people from different communities and afford greater anonymity to them, location is no longer a good indicator for finding out one's caste (Harad, 2016). This is what had been happening in the ward where I conducted field research in Kolkata, though Singh et al. (2019) found persisting or even worsening residential segregation by caste or tribe in most cities of West Bengal from 2001 and 2011. There were Brahmins living in the slums and Dalits living in expensive apartment buildings in the ward.[94] They shared water and drainage systems with people from other castes living in the same residential areas, attended the same temples, and drank from the same cups in tea stalls, which were observed as almost impossible to happen between Dalits and non-Dalits by Narula (1999). Identified discrimination against Dalit tenants in the urban rental housing market (Thorat et al., 2015) was also not evident in the ward. When I asked questions about housing, none of the informants complained about any form of caste-based discrimination in renting and buying properties.

Apart from housing, there was also a growing dissociation between caste and hereditary occupation. I could not deduce a person's caste by looking at his or her occupation. There were Dalits working as professors and civil servants or running big businesses in the ward and also

[94] The Brahmins are members of the highest caste or varna in Hinduism above Kshatriyas, Vaisyas and Sudras, and they were traditionally associated with priestly duties (Szczepanski, 2020). Dalits, also known as untouchable, is a name for people belonging to the lowest stratum castes in India (Ghildiyal and Mathur, 2018). They were excluded from the four-fold varna system of Hinduism and were believed to be impure as their historic hereditary occupations were viewed debased, such as working with leather, disposing of dead animals, manual scavenging, or sanitation work (Lochtefeld, 2002).

Brahmins working as rickshaw drivers and maid servants or running small businesses. When I asked people to introduce someone else they knew that might be willing to be interviewed, they identified the person according to his or her achieved status like occupational position, educational qualification, and income rather than caste identity. Similarly, when a couple built a close relationship with my interpreter after several visits and asked him to recommend their son for a job, the resume they provided only covered information about age, gender, home address, educational background, and past work experience.

The caste factor was also not considered by restaurants, shopping malls, local festivals, and public institutions like post offices and banks, and other private establishments in the ward. The voter identity card and Aadhar card, commonly used as proof of identity for opening an account of formal financial institutions, do not reveal the caste of the card holder. When I asked about customer experience in bank and post office branches, none of the informants mentioned any form of caste-based discrimination. When they did complain about bad attitudes and behaviours of young staff in the institutions, they viewed it a systemic issue rather than discrimination against their specific caste groups. In general, people regardless of their caste enjoyed good access to and fair use of public space in the ward.

This is not to say that caste has lost its relevance in everyday life. Caste-based reservations, while enhancing the representation and participation of historically disadvantaged groups in education, employment, government schemes, and politics (Kumar, 2020), to some extent emphasise the presence of caste differences. For instance, caste identity of students is directly shown in the student cards issued by schools and universities, and the University of Calcutta that I was affiliated with is one of them. This also happened to the students I interviewed in the sampled ward. When I asked my supervisor at the University of Calcutta which caste should I

write in my student card, he was embarrassed and told me that caste was not that important and there were many lower-caste professors in the university.

The reluctance to talk about caste, particularly among the upper castes, was also found in my interviews. While a person's caste can be discerned by looking at his or her surname, Harad (2016) finds that the lower castes are likely to change or drop their surnames to escape discrimination. For precision purpose, I asked each household interviewed about the caste they belonged to. None of the lower-caste households hid or attempted to hide their caste backgrounds, but they usually described themselves as the Scheduled Castes (SCs), Scheduled Tribes (STs), or Other Backward Classes (OBCs). The middle and upper castes also preferred to describe themselves as belonging to the General Castes (GCs), and some progressive ones were even ashamed to say that they were Brahmins or otherwise declared themselves as casteless. In the rest of the interviews about problems people faced relating to Demonetisation and/or Covid-19 and their corresponding coping strategies, some mentioned their specific experiences of being a woman, being aged, being poor, being unemployed, and being illiterate, but none mentioned anything related to caste. It seemed not to pervade their life and narrative.

As Dr. Muhammed stated, "caste does not have any meaning without discriminatory space" (Gattupalli, 2022). While it is too early to conclude that caste is no longer prevailing in Kolkata or even in the ward where I conducted this field research, it is safe to say that there was no identified discrimination in banking and other financial services against certain castes among those interviewed. It is in this context that I do not factor caste into the analysis of intersectionality of social identities in financial inclusion, but focus on other more important factors like class, gender, education, occupation, and age.

6.1.2 Comparison of Cases: Gender

Patriarchal gender norms within households that undermine women's control over their money in formal financial institutions have been well studied in rural settings. For instance, women's accounts are in many cases operated by middlemen and their male relatives (Mathur, 2015) or are jointly owned with their husbands (Ghosh et al., 2017). While mobile phones give women some autonomy in accessing banking facilities like checking balance, transferring money, and receiving interest without leaving home, their actual use is often monitored by the women's husbands and extended family members and constrained by their dependence on male household members for access and ownership (Doron and Jeffrey, 2013; Scott et al., 2021). Mobile phones therefore remain mostly the prerogative of men.

The situation, as Guérin et al. (2017) found, has worsened because of Demonetisation. Women who used to juggle various hidden financial circuits to maintain some sort of control over their finances had to reveal their secret stashes of cash to irresponsible, lazy, and alcoholic husbands to get the demonetised banknotes changed. Banking and digitalisation of payments in this context gave them more a feeling of dispossession from control over their wealth and spending-related decisions than a sense of empowerment due to the traceability and transparency of bank deposits and digital payments.

These rural empirical findings do not always apply to the urban context. My interviews and observations in the sampled ward did not find any form of restrictions on women's mobility outside the home imposed by social norms in a patriarchal society. Most public spaces were accessible to women of all social classes, and they did not have to travel long distances to the outlet of most financial institutions. Most women interviewed had their own mobile devices,

but less than half had access to the internet. Their privacy and autonomy in using the devices for purposes other than mobile payments, however, remained to be explored. Most women had bank accounts in their own names, but there were cases where the accounts were jointly owned with their husbands and their banking transactions were managed or monitored by their husbands. Such lack of women's financial autonomy could be observed in households of all social classes.

Gender roles and stereotypes imposed on women were found to restrict them more from participating in the labour force and making use of financial services with regular cash inflows. Over two-thirds of women interviewed were housewives, including well-educated upper-middle-class ones. They were financially dependent on their husbands, who handed over the family budget to them in cash on a daily, weekly, or monthly basis, and therefore most had few or no old banknotes to deal with during Demonetisation and were reliant on their husbands to exchange the old banknotes. As the face-to-face interviews often took place in the presence of the women's husbands and/or in-laws, which as Aquilino (1993) found could affect their responses to sensitive family issues, no one mentioned any amount they stashed away from the family budget that was unknown to the husbands.

The sense of subordination of wives to their husbands could not only be felt in marital finance terms but in their narratives. Husbands, when they were present in the interviews, often volunteered to answer questions for their wives and claimed that they knew everything about their wives. When I went one step further to ask questions about individual perception of Demonetisation and financial inclusion and its impact on the voting choice, husbands often said "my wife thinks the same way". Even if I insisted on getting answered by the wives in person, in most cases they only replied that they had no idea and voted for a certain political

party because their husbands and/or other household members did so.[95] Such subordination was so prominent among the housewives that even my interpreter—an educated lower-middle-class young man whose wife and mother were housewives—kept saying that they were just housewives and knew nothing about Demonetisation and financial inclusion. The vanishing "voice" of women could be more clearly sensed in lower- and lower-middle-class households, while upper-middle-class women, even if they were housewives, were more willing to express their opinions about public issues.

The role gender played in financial inclusion and Demonetisation was more complex than the above general description indicated. It called for an in-depth analysis of dynamics at the individual level. I examine two pairs of cases to enrich the understanding of how women were financially excluded or included and how they benefited or did not benefit from Demonetisation. One involves a case where even a well-educated upper-middle-class woman became a housewife after getting married and was so dependent on her husband that she did not benefit from Demonetisation. The other involves a somewhat atypical case where a largely uneducated lower-class woman was economically and financially empowered to an extent that she benefited more from Demonetisation than her husband did.

6.1.2.1 Housewife

Table 6.1 provides a husband-wife comparison in terms of their socio-economic backgrounds, access to and use of financial services, and responses to Demonetisation. Though Mrs Ray finished a bachelor's degree and could find a decent job with this degree, she became a

[95] This echoes the finding of Harriss-White (2002) that women are as docile politically as they are reputed to be economically based on literature review.

housewife immediately after marrying Mr Ray, who worked for a nationalised general insurance company. The job was well paid and the salary was paid directly into his bank account. On a monthly basis, Mr Ray withdrew a certain amount of cash as his own pocket money and as a family budget given to his wife to run the household, but whenever his wife asked for additional budget for a good reason, he would give her extra money. Even though she had a bank account, Mrs Ray only kept money in cash at home because she could see it and access it very easily without running the risk of losing it.

Table 6.1 Housewife and Husband in an Upper-Middle-Class Household[96]

	Mr Ray (HH20 Upper-Middle Class)	Mrs Ray (HH20 Upper-Middle Class)
Age	58	43
Gender	Male	Female
Caste	General Caste	General Caste
Education	Bachelor of Commerce	Bachelor of Arts
Occupation	Public official	Housewife
Access to Bank Account	State Bank of India passbook and debit card, opened for receiving salary more than 30 years ago	State Bank of India passbook, opened for depositing cash in 2014, but no longer used now
Access to Mobile Phone	Smart phone	Smart phone
Access to Internet	Mobile data, wireless broadband	Mobile data, wireless broadband
Amount of Old Banknotes (Indian Rupee)	15,000 (pocket money)	5,000 (money given by husband)
Means of Dealing with Old Banknotes	Bank clerks came to the office to exchange old banknotes	Husband helped to exchange old banknotes
Means of Coping with Cash shortages	Withdrew money from ATMs	Used husband's money
Change in Financial Inclusion Status between 2016 and 2019/2020	No, remained a basic active user	No, remained a registered inactive user
Change in Way of Saving, Payment, and Borrowing between 2016 and 2019/2020	No, remained mainly saving in the bank and only using cash payment	No, remained only saving in cash and only using cash payment
Reasons for Change/No Change	Did not use card and online payments for security concerns	Preferred cash for security concerns
Perception of Impact of Demonetisation on Financial Inclusion	Demonetisation is overall a good policy. More people started to use banking services. It is painful in the short term but good in the long term.	The same as husband said
Voter Choice in 2019 General Election	Voted for CPI(M) because the extended family has long supported the party	The same as husband did

Source: Author's fieldwork 2019, 2020.
Note: HH20 means the 20th household interviewed; ATM=Automated Teller Machine; CPI(M)=Communist Party of India (Marxist).

[96] Pseudonyms are used to preserve anonymity. It applies to the rest of the chapter.

During Demonetisation, Mr Ray had old banknotes valued at 15,000 Indian Rupee to deal with, among which 5,000 were from his wife. As bank clerks came to the office to exchange old banknotes for all employees, he did not have to queue outside the banks and could easily get replacement banknotes. This allowed him to avoid using digital payment, which he did not trust as a secure means of payment, and to some extent increased his wife's reliance on him to get her old banknotes exchanged and get replacement banknotes for day-to-day expenses. Therefore Mrs Ray, who could otherwise benefit from interacting with banks during Demonetisation, did not even use her bank account, let alone build a habit of regular use of it.

The lack of financial autonomy also constrained her from independently thinking about the meaning of financial inclusion and the impact of Demonetisation on it, while her husband based on his own experience, perceived financial inclusion as the use of banking services and linked the increased use of banking services to Demonetisation. This case exemplifies how gender norms and intra-household dynamics could be a source of challenge to financial inclusion.

6.1.2.2 Female Empowerment

While the subordination of wives to their husbands seemed to be a social norm in everyday life and in the context of Demonetisation, Table 6.2 provides a somewhat atypical case where the wife dominated financial decision making within the household. While Mr Jain and Mrs Jain were both engaged in the informal sector, it was the husband who had a more irregular source of income as a puja performer who only worked during the pujas and was the primary caregiver taking care of their underage child.

Table 6.2 Working Wife and Husband in a Lower-Class Household

	Mr Jain (HH5 Lower Class)	Mrs Jain (HH5 Lower Class)
Age	28	25
Gender	Male	Female
Caste	General Caste	General Caste
Education	Class 4	Class 6
Occupation	Puja performer	Maid
Access to Bank Account	Oriental Bank passbook and debit card (Jan Dhan account), opened by the gram panchayat for MGNREGA wage payment in 2009, no longer used now; Allahabad Bank passbook and debit card, opened for depositing cash in 2015, no longer used now; Allahabad Bank passbook and debit card, joint account with wife, opened for depositing cash in 2017	Allahabad Bank passbook and debit card, joint account with husband, opened for depositing cash in 2017; Allahabad Bank passbook and debit card, opened for applying for a loan from Allahabad Bank in 2017 and used for receiving a loan from Bandhan Bank in 2019
Access to Mobile Phone	Basic phone	Smart phone
Access to Internet	No	Mobile data
Amount of Old Banknotes (Indian Rupee)	0	5,000 (monthly wage paid in cash)
Means of Dealing with Old Banknotes	n/a	Used in local medicine shops
Means of Coping with Cash shortages	Buy on credit	Buy on credit
Change in Financial Inclusion Status between 2016 and 2019/2020	No, remained a basic active user	Upgraded from an unregistered user to a basic active user
Change in Way of Saving, Payment, and Borrowing between 2016 and 2019/2020	No, remained mainly saving in the bank and only using cash payment	Remained only using cash payment, but started saving in her own bank account and changed from using Jana Small Finance Bank to Bandhan Bank group loan for her grandmother's medical treatment
Reasons for Change/No Change	Did not use card payments for lack of money and for security concerns	Opened her own account for receiving a loan via bank transfer
Perception of Impact of Demonetisation on Financial Inclusion	Demonetisation is a bad policy for poor people. People's income has decreased. The price of everyday goods has increased. Poor people's use of banking services has decreased.	Demonetisation is a good policy. It has led to higher prices of goods and increased expenditures on them. As increase in income takes longer time, people's savings have decreased. Poor people have to take loans from banks to maintain their livelihoods and they are more inclined to borrow from banks because they charge lower interest rates. In the end, they become more dependent on banks and increase their use of banking services.
Voter Choice in 2019 General Election	Joined a self-organised protest against Demonetisation, but voted for the BJP because the policy reduced black money and the party increased security against Pakistan and removed Article 370 to require Kashmir to abide by the Indian constitution like any other state.	Voted for the BJP because she saw sacks of old banknotes floating in the drains in the road on television and knew that Demonetisation reduced black money and the party also banned triple talaq, which benefited Muslim women.

Source: Author's fieldwork 2019, 2020.
Note: HH5 means the fifth household interviewed; MGNREGA=Mahatma Gandhi National Rural Employment Guarantee Act; BJP=Bharatiya Janata Party; Triple talaq is a form of divorce practised in Islam that allows a Muslim man legally divorce his wife by pronouncing talaq (divorce in Arabic) three times.

Mrs Jain, in contrast, worked as a maid during day time and was paid in cash on a monthly basis. The work required her to maintain close contact with her upper-middle-class employers, who taught her how to use a smart phone and chat online, while her husband, also being undereducated, never used any online service. As the primary breadwinner with a better knowledge of finance, Mrs Jain enjoyed full financial autonomy, though her husband also used their joint account. To avail a loan from Allahabad Bank, she opened another account in her own name, but the loan application was refused by the bank and the account was later used for receiving a loan designed for women from Bandhan Bank.

During Demonetisation, Mr Jain had no income and no old banknotes to deal with, while Mrs Jain received old banknotes valued at 5,000 Indian Rupees as wage payment from her employers who did not have enough replacement banknotes then. She used the banknotes in local medical shops, and as her husband did, relied on informal credit purchase to cope with cash shortages. While Mr Jain was not much impacted by Demonetisation and remained reluctant to use card payment for lack of money and for security concerns, Mrs Jain attributed her opening an account in her own name and changing to use a lower-interest group loan to Demonetisation.

In 2016, she took out a group loan from Jana Small Finance Bank at an annual interest rate of 45% and fully repaid the loan in 2018. The next year, she took out another group loan from Bandhan Bank, which was a microfinance institution (MFI) before being granted a banking licence, at a much lower rate of 17.5%. Mrs Jain stressed that it was only in 2019 that bank staff came to their house to introduce the cheaper loan programme and that Demonetisation made people like her more dependent on bank loans and increased the use of banking services. In contrast, Mr Jain, who had never used any loan service, held the opposite view with a focus

on the negative impact of Demonetisation on the poor's income and their use of banking services. Though they both voted for the BJP in the general election, their reasons for it were also different. Unlike many other couples interviewed, Mrs Jain was more willing to express her opinions, which were often different from her husband's, and demonstrated a better capability of critical thinking than her husband did.

This case illustrates how women could be empowered through employment and financial services that met their needs to challenge the social norms that had long exerted a powerful influence over the roles they were expected to play in society and to neutralise the negative impact of such gender norms on their financial inclusion. Comparison of the cases of the housewife and the working wife raises further questions about whether and how the way women earn a living and maintain control over resources has implications for their experiences of financial inclusion and Demonetisation and whether and how the implications are different for men.

6.1.3 Comparison of Cases: Occupation

As reviewed in Chapter 2 and empirically examined in Chapter 5, informality in the form of informal employment is a barrier to financial inclusion. For one thing, people engaged in the informal sector receive their incomes and make payments in cash, as cash dominates the trading and supply chains of the sector (Jones, 2008; Ghosh et al., 2017). For another, they are excluded from employment-related social security benefits like pensions that are paid through authorised banks (Bordoloi et al., 2020). Both determine that people in informal employment do not have to interact with formal financial institutions and use their services.

The informal sector is further marked by low productivity and the majority of workers in the sector live on low incomes (Basole, 2022). As the source of income and the amount of income are important determinants of class variation (Aslany, 2019), the majority of people in informal employment are poor and belong to the lower strata of society. From a gender perspective, while female labour force participation is extremely low in India (Basole, 2022), those who do participate in paid work are mainly employed on a casual contract, and the type of work available to women constrains their economic empowerment and their demand for and access to formal financial services (Harriss-White, 2002). Bull (2021) instead argued that women can more or less equally participate in the digital economy and use digital tools and financial services to capture new opportunities as men do.

As the informal sector is more dependent on cash than the formal sector, Demonetisation that led to an absolute shortage of cash had a larger negative impact on the informal sector through reduced income and employment opportunities (Ghosh et al., 2017). The growing problem of cash shortage and financial stress had negative implications for the demand for even basic formal financial services. Empirical research further found that informal workers in rural and semi-rural areas had more problems accessing and using formal infrastructures and switching to digital means of payment during Demonetisation (Kumar, 2017). These combined to undermine the policy's intended goal of formalising informal savings and transactions.

The experiences of people in informal employment interviewed and observed in the sampled ward, while largely echoing the above findings, provide an insight into variations that are missing in existing literature. The majority of informal workers received their incomes and conducted transactions in cash. Daily wage earners who had a very low income often used up the money the same day they earned it without even bothering to think about where to park

their money. But there were cases where even daily wage earners had a habit of depositing whatever money they earned into accounts and where people employed on a casual contract were paid by cheque as requested by their employers and had to cash the cheque at the bank. This counters the view of Collins et al. (2009) that the poor do not know how to manage day-to-day money using their accounts, though their perceptions of financial inclusion were found to be confined by the basic financial services they used.

It was true that only informal workers and their dependents reduced bank savings due to reduced income and employment opportunities associated with Demonetisation. Even if their income was not impacted by the policy, many were still reluctant to reduce their use of cash either as a means of saving or payment because it was not necessary for them to do so in a cash-dominated informal economy. But it was not to say that none of the informal workers became more financially included under the impact of Demonetisation. Further in this urban context, informal workers had more or less equal access to most basic formal financial infrastructures like banks and post offices as formal workers did, and most had at least one account and kept some money in the account, even if their work did not require them to do so. Over half of them had a mobile phone and had access to the internet, but very few actually used digital payments. Lack of money, lack of financial literacy, and distrust of the digital system were among the most cited reasons for not using digital financial services rather than lack of access to digital infrastructures commonly discussed in rural settings.

Findings of the field research also confirmed some intersections between occupation and class and between occupation and gender. It was mainly people from the lower and lower-middle classes that were engaged in the informal sector. Occupation and class are further found to intersect to shape the access to and use of formal financial services and responses to

Demonetisation. The only upper-middle-class interviewee in informal employment was the owner of a small electronic shop. He was already an active user of various forms of online services and payments before Demonetisation and used formal means to deal with old banknotes and digital means to cope with cash shortages. In contrast, only a small number of lower-class and lower-middle-class informal workers ever used digital payments. While over half of lower-middle-class informal workers had old banknotes to deal with and dealt with them through formal means, the share was much smaller for lower-class informal workers.

While working women were more likely to be in informal employment than their male counterparts, my field research also found other gender differences in informal employment. Most working women worked in "private" spaces, such as providing maid, tutoring, and beauty services at the home of their employers, cooking and teaching in local women-centric non-governmental organisations (NGOs), and operating tailoring business at home. Men, in contrast, had more career options in the informal sector and could work in more "public" spaces. For instance, they could work as personal drivers or rickshaw, taxi, or van drivers, work as deliverymen or salesmen, commute to work for small private companies, or run their own small shops or tea stalls. This type of work can generate a sense of freedom—both social and mobility-related—that poses a threat to the long-established ideas of patriarchy and masculinity that seek to confine women to the domestic and private sphere (Bansal, 2021).

The gender-related cultural norms constrained women from taking up male-dominated professions. While the type of informal work did not have direct implications for financial inclusion, it had indirect implications as traditional industries were increasingly digitalised. For instance, traditional drivers and delivery persons could turn into online ride-hailing drivers and food delivery persons, and traditional shop owners could turn into online shop owners. The

dominance of men in these traditional industries persisted in their digital counterparts. As I found in the sampled ward, only men worked as Uber drivers (online ride-hailing), Swiggy deliverymen (online food ordering and delivery), and Amazon sellers (e-commerce). Though cash remained the dominant payment method for these online services and digital gig workers like them remained excluded from formal credit despite digital records of their income, they were all active users of online payment, different from most traditional informal workers. It was because as long as online payment was accepted as a payment method, they had to acquire a good knowledge of how to use it themselves and they preferred to use the small amount of money received in digital forms online rather than withdraw it to a bank account and cash it out. Such gender difference in employment in the digital gig economy was a contributing factor to persistent gender gaps in the access to and use of digital financial services.

While existing literature has predominantly focused on informal employment and assumed that its formalisation would enable financial inclusion, it was not always the case as I found in the field research. It was true that people in formal employment, except those running their own businesses or providing high-value services, had their salaries paid into the accounts and received pensions via bank transfer after retirement. They often withdrew money from banks on a regular basis and in some cases even the full amount of pay for monthly expenses. This money turned out to be a source of old banknotes that they had to deal with during Demonetisation and they did not have to deal with them through formal means as some companies had a good connection with banks and offered to exchange the banknotes for their permanent employees. It was also true that most people in formal employment had access to mobile phones and at least had access to the internet in their offices. Not all of them ever used digital payments and they refused to do so for security concerns and digital literacy constraints even when Demonetisation caused a sudden cash crunch. Even the most active users of digital

payment did not completely abandon cash as a means of payment, as there were always situations where only cash payment was accepted. All these challenged the idea of formalisation of the informal economy as a panacea to financial inclusion.

As there existed significant gender differences in employment, particularly among the lower and lower-middle classes, and this could have implications for the role occupation played in financial inclusion and Demonetisation, I examine two sets of cases selected from different gender groups. One involves the cases of three better-educated lower-class and lower-middle-class young women: a woman who had a formal job, a woman who had an informal job, and a woman who used to be a housewife and recently found an informal job. Among all the lower- and lower-middle-class women interviewed, only one managed to find a formal job. Therefore the formal-informal comparison on this basis may not be representative of the population living in the ward, but the set of cases exemplifies how a job, either formal or informal, could make a woman more financially included and benefit from Demonetisation.

The other set of cases compares three better-educated lower-class young and middle-aged men: a man who had a formal job, a man who had an informal job, and a man who used to have an informal job and recently changed to do some digital gig work. The set of cases exemplifies how a man in informal employment could become as digitally financially included and benefit from Demonetisation as the one in formal employment did, and how a man could leapfrog from an unbanked person to an active online payment user through engagement in digital gig work.

6.1.3.1 Working Women

As shown in Table 6.3, I choose three cases of women who were from similar socio-economic backgrounds but followed different career paths. Saanvi worked in the formal sector and only started to receive her salary via bank transfer in August 2019. Though her salary was paid in cash before that, she deposited most into her own account and only had her mother's old banknotes to deal with during Demonetisation. As an active user of basic banking services, she helped to deposit the old banknotes into her account and withdraw new ones for her mother, but she refused to use card and online payments because it was more convenient to use cash and she did not have knowledge of these more advanced financial services.

Aadya, engaged in the informal sector, was also paid in cash and deposited most in the bank. Her employer did not have replacement banknotes the first month after the Demonetisation announcement, so she accepted old banknotes and used them in local markets. She did not apply for a debit card or use card payment because it required a minimum balance and she did not have money to do so.

Table 6.3 Lower- and Lower-Middle-Class Women in Formal and Informal Employment

	Saanvi (HH2 Lower Class)	Aadya (HH11 Lower Class)	Kiara (HH14 Lower-Middle Class)
Age	32	24	34
Gender	Female	Female	Female
Caste	General Caste	General Caste	General Caste
Education	Bachelor of Arts	Bachelor of Arts	Class 9
Occupation	Nurse (private nursing home)	Private tutor	Housewife—Casual worker
Access to Bank Account	State Bank of India passbook and debit card, opened for paying LIC premiums and used for depositing cash in 2010; Housing Development Finance Corporation Bank passbook and debit card, opened for receiving salary in 2019	Allahabad Bank passbook (Jan Dhan account), opened for depositing cash in 2016	Allahabad Bank passbook, opened for depositing cash in 2015; debit card recently requested for withdrawing money from ATMs
Access to Mobile Phone	Smart phone	Smart phone	Smart phone
Access to Internet	Mobile data	Mobile data	Mobile data
Amount of Old Banknotes (Indian Rupee)	1,000 (mother's money)	4,000 (monthly wage paid in cash)	0
Means of Dealing with Old Banknotes	Deposited into her own bank account and withdrew new banknotes	Used in local markets	n/a
Means of Coping with Cash shortages	Used small denomination banknotes	Used old and small denomination banknotes	Used husband's money
Change in Financial Inclusion Status between 2016 and 2019/2020	No, remained a basic active user	No, remained a basic active user	Upgraded from a registered inactive user to a basic active user
Change in Way of Saving, Payment, and Borrowing between 2016 and 2019/2020	No, remained mainly saving in the bank and only using cash payment	No, remained mainly saving in the bank and only using cash payment	Remained only using cash payment, but changed from only saving in cash to mainly saving in the bank
Reasons for Change/No Change	Did not use card and online payments for convenience of using cash and lack of financial literacy	Did not use debit card for lack of money	Went to the bank more often for getting a job

Source: Author's fieldwork 2019, 2020.
Note: HH2 means the second household interviewed; HH11 means the 11th household interviewed; HH14 means the 14th household interviewed; LIC=Life Insurance Corporation; ATM=Automated Teller Machine.

While the cases of Saanvi and Aadya indicated that having a source of income—be it formal or informal—could help to develop a habit of saving in the bank, the case of Kiara, who found a job in the interval between 2016 (the Demonetisation announcement) and 2019 (when she was interviewed), more directly supported this view. Kiara used to be a housewife who was financially dependent on her husband and only used cash given by him. That was why she had no old banknotes to deal with and used her husband's money during Demonetisation. As their child grew up, she found an informal job to support their family and started to deposit money she earned into her own account that was registered but seldomly used before. Though she did not use card payment, she applied for a debit card to make it easier to withdraw money.

The set of cases combine to illustrate how some degree of financial independence could increase the adoption of banking services among women. This echoed the finding of Singh (2004) that working women were more aware of the type of investment instruments and could take better investment decisions than non-working women. From another perspective, that many women left work upon marriage and childbirth following cultural norms was often a neglected barrier to financial inclusion. So was the nature of the work available to them.

6.1.3.2 Working Men

Three cases of men from similar socio-economic backgrounds but in different occupations are presented in Table 6.4.

Table 6.4 Lower-Class Men in Formal and Informal Employment

	Rudra (HH37 Lower Class)	Ishaan (HH18 Lower Class)	Shivay (HH1 Lower Class)
Age	40	27	24
Gender	Male	Male	Male
Caste	Scheduled Caste	Scheduled Caste	Scheduled Tribe
Education	Class 10	Class 10	Bachelor of Arts (dropout)
Occupation	Permanent employee (private company)	Driver	Salesperson—Shop owner (Amazon)
Access to Bank Account	State Bank of India passbook and debit card, opened for depositing cash in 2009; Axis Bank passbook and debit card, opened for receiving salary in 2009	Syndicate Bank passbook, opened for depositing cash in 2012; debit card requested in 2017	Bandhan Bank passbook and debit card, opened for receiving online shop income in 2017
Access to Mobile Phone	Smart phone	Smart phone	Smart phone
Access to Internet	Mobile data	Mobile data	Mobile data
Amount of Old Banknotes (Indian Rupee)	12,000 (monthly salary withdrawn before Demonetisation and cash savings)	25,000 (monthly wage paid in cash and cash savings)	20,500 (father and mother's money, monthly wage paid in cash, and cash savings)
Means of Dealing with Old Banknotes	Exchanged over the counter in a bank he did not have an account with because State Bank of India had no replacement banknotes; used in local shops	Deposited into his own bank account	Exchanged over the counter through father's account; used in local markets and medicine shops and paid for mobile phone bills
Means of Coping with Cash shortages	Used small denomination banknotes and card payments	Used small denomination banknotes	Used old and small denomination banknotes
Change in Financial Inclusoin Status between 2016 and 2019/2020	No, remained an advanced active user	Upgraded from a basic active user to an advanced active user	Upgraded from an unregistered user to an internet active user
Change in Way of Saving, Payment, and Borrowing between 2016 and 2019/2020	Remained mainly saving in the bank, but reduced cash payments	Remained mainly saving in cash, but increased bank savings and reduced cash payments	Changed from mainly saving in cash to mainly saving in the bank and Amazon Pay wallet; changed from only using cash payment to mainly using card and online payment
Reasons for Change/No Change	Did not use online payments for security concerns; used more card payments for time-saving convenience and user-friendly interface	Saved more in the bank for paying LIC premiums by bank transfer; used card payments when having no cash at hand	Opened his own account, saved more in the bank and Amazon Pay wallet, and used more online payments for running an Amazon business

Source: Author's fieldwork 2019, 2020.

Note: HH37 means the 37th household interviewed; HH18 means the 18th household interviewed; HH1 means the first household interviewed; LIC=Life Insurance Corporation.

Rudra was a formal worker and his salary had been paid into his account for 10 years. Each month he withdrew money from the account for personal and family use and the money withdrawn before Demonetisation was a major source of old banknotes that he had to deal with. He exchanged the old banknotes in a bank that had a more adequate supply of replacement banknotes and used some in local shops—a combination of formal and informal means, and used card payments that he had used before Demonetisation to cope with cash shortages. Though he used more card payments thereafter as he found this means of payment became more convenient, time-saving, and user-friendly, he remained reluctant to use online payments for security concerns.

Ishaan, in contrast, became more financially included under the impact of Demonetisation. He was in informal employment and was paid in cash. As his employer had no replacement banknotes, he accepted one-month wage payment in old banknotes during Demonetisation and dealt with them through formal means. Though he did not use any card payment then, he applied for a debit card immediately after the event and used it as an alternative to cash payment. Despite this change, as with Rudra, Ishaan did not upgrade to use online payment.

Shivay instead experienced the biggest change by working in the digital gig economy. He used to be an informal worker who had no registered account before Demonetisation, but used his father's account to deal with other household members' old banknotes and used his wage paid in cash in local shops. In 2017 when digital transformation accelerated, he quit his job and became an Amazon seller. This completely changed his use of financial services. He opened his own account to receive income and save money and started to use a mobile wallet and online payment, and now only 20 per cent of his payments were still made using cash.

Shivay's experience in comparison with others in formal and informal employment illustrated how digital gig work, though remaining informal in nature, could promote digital financial inclusion in an unprecedented way. Yet few women worked in this sector, and the comparison of female and male cases indicated that working women were less likely to adopt digital payments and benefit from Demonetisation than their male counterparts did.

6.1.4 Other Social Factors: Education

Lack of basic education can be another barrier to financial inclusion. It contributes to the problem of financial illiteracy and reduces people's ability to avail of benefits of formal financial services (Agarwalla et al., 2015). Like occupation, education is also a factor that intersects with class and gender. It is an important determinant of social class (Aslany, 2019). The lower income groups have less chance to get formal education, and even if they have, there are lower participation and higher dropout rates (Tilak, 2018). The rate of literacy for women is also lower than that for men (Katiyar, 2016). While there is an expansion of primary education, a large number of girls drop out before they reach secondary or higher stages of education, especially in the rural areas, because they get married, become young mothers, or are just required to do so to take on household responsibilities (Singh, 2007).

My field research also found such intersections. For instance, more lower- and lower-middle-class interviewees were illiterate than their upper-middle-class counterparts, and most did not pursue higher education. Even if they did, many dropped out of university or did not attend the class, because they still needed to work to support their families and learn working skills that formal education could not teach. More women were illiterate than men. Though the state government's Kanyashree Prakalpa initiative gave annual and one-time scholarships to

unmarried girls aged 13-18 years who remained in education till at least the age of 18, there were still cases of girls in a de facto relationship far below the legal age of marriage even in contemporary urban society. They did not further their education and remained illiterate or undereducated after marriage.

Illiteracy was a constraint on financial inclusion and people's perception of it. While many illiterate people also owned mobile phones and some even used their internet services, none dared to conduct financial transactions on the device without being able to understand the exact meaning of the written words on websites and apps. For the same reason, they were less likely to have an account registered in their names, use banking services on their own, and form their own perceptions of financial inclusion compared to their literate counterparts. The disparity remained in the context of Demonetisation, as a larger share of those illiterate either had no old banknotes to deal with or dealt with them through informal means, and their use of financial services did not change or was even reduced under the impact of the event. This was in some cases directly related to illiteracy as it added to the fear of using financial services that they had no knowledge of, and in some other cases indirectly related to illiteracy as it limited the range of jobs available to them—non-skilled informal occupation with low income.

Yet higher education did not necessarily guarantee financial and digital literacy and a formal job. Though higher education usually involved basic computing and digital skills training, lack of knowledge of modern technology remained a reason for not using digital payments even in the context of increasing digitalisation after Demonetisation. Further, few online service providers had local language options. Only the privileged few who studied in English-medium schools could fully understand the content on the internet. Having a bachelor's or higher degree also did not mean that students from the lower and lower-middle classes could improve their

employment prospects, as Saanvi was the only person interviewed who managed to find a formal job with her degree from a poor background. This indicated a low level of social mobility in India. Yet education could indeed influence their choice of job in ways that had positive implications for financial inclusion. For instance, there was a case where a lower-middle-class undergraduate student, after realising that a formal degree could not guarantee a formal job, quit his studies and became an online second-hand mobile seller. It was in the university that he learned to use the internet and discovered this business opportunity.

Though there was no identified gender gap in higher education participation, many upper-middle-class women who could otherwise find a formal job chose to become a housewife after receiving higher education and became financially reliant on their husbands.[97] This further confirms that government efforts to promote universal access to education alone cannot guarantee universal financial inclusion.

6.1.5 Other Social Factors: Age

Age is a more controversial factor in terms of its implications for financial inclusion in India. Scholars like Kandari et al. (2021) find that the likelihoods of having a bank account and using credit increase with the age of an individual. Mphidi (2004) instead emphasises the digital divide between age groups because the youth are more exposed to technology and more willing to use it, whereas older people are resistant to change. The finding of Kandari et al. (2021) that the odds in favor of using mobile banking decrease with the increase in age of the individuals

[97] This echoes the findings of Clark (1993) and Harriss-White (2002) that educated women in the propertied classes are often not allowed to work and are effectively secluded, wasting the economic potential of their education.

supports this view. Heimann and Mylenko (2011), in contrast, argue that the middle-aged have better access to financial institutions, and conversely, those tending to be without access are mostly the young and the old. This is supported by the study of Simon (2020), which finds that the middle-aged have the highest chance to have a bank account.

A consensus cannot be easily reached among scholars and even the public themselves on the boundaries of youth, middle age, and old age (Smith, 2018). In India, people aged between 45 and 64 are commonly viewed as middle-aged, like in the case of Simon's work (2020), and people aged between 15 and 34 are officially defined as youth (CSO, 2017). The simple classification assumes that people are divided into homogeneous subgroups with similar attitudes towards different forms of financial inclusion, which is not the case as my field research found. It is not the age of people interviewed but the stage of life they are at that caused age-related differences.

This understanding could explain the co-existence of different views on the role of age in financial inclusion. The young adults, even if they were of a similar age, could be at different stages of life. For instance, those from the upper-middle class remained in school and even pursued further studies, while many from the lower and lower-middle classes quit early or did not even go to university at all. They remained unemployed, got married early and became a housewife, or found informal or digital gig work. Being too young and being a student without income were most mentioned reasons for young students' not registering their own accounts or even using any banking service with their parents' accounts before Demonetisation. The need to hide how much money they spent and where they spent the money from their parents also explained their preference for cash. Most of them had no old banknotes to deal with as they only had a very small amount of pocket money given by parents. When they did have old

banknotes to deal with, those from the upper-middle class were more likely to rely on their parents, while their counterparts from the lower and lower-middle classes preferred to do it themselves and sometimes even helped their parents to exchange the banknotes. Despite this, more upper-middle-class students switched to opening accounts and using online payments after Demonetisation, because their cohorts were doing so. Among lower- and lower-middle-class students, there was another trend of installment buying for their online purchase of smart phones and laptops as a prior step to going digital. In either case, young students were likely to be temporarily unbanked and were likely to be positively impacted by the changing environment for digital payments.

Those who finished their studies but did not get married were at an another stage of life. They usually lived in a joint family with their parents and even grandparents. Similar to what Agarwalla et al. (2015) found, living in a joint family could result in indifferent financial attitudes among other members of the household because it was the household head who held key financial decisions. At this stage, their use of financial services and response to Demonetisation were more likely to be determined by whether they had their own source of income and whether their work involved using bank transfers and digital payments, rather than household financial responsibilities.

This might or might not change after marriage depending on whether the couple moved out of the joint family, and if they stayed, whether they became main breadwinners of the family. Those who formed a new nuclear family and those who took over financial responsibilities were more likely to be the persons who dominated the discussion of financial inclusion and helped other household members to deal with old banknotes during Demonetisation. Among them, lower and lower-middle-class interviewees, mostly in their 30s and 40s, borrowed from

financial institutions for housing, family business, daughter's marriage, family member's medical treatment, and other family-related purposes. Separation from a joint family could also involve some other changes in the use of account. That someone else in the joint family had an account was no longer a reason for not registering their own account. The couple had to apply for a separate account for receiving liquefied petroleum gas (LPG) subsidies from the government after moving to a new place. This inevitably made them more financially independent and financially included.

The stage of financial dominance could last for a very long time, until they retired, or could not work due to ill health, or their child or children grew up and earned more than they did. Most then entered a phase of old age. Even in the cases where their children moved out and only the couple stayed in the household, old age still had a role to play in financial inclusion through its intersections with illiteracy and slow digital adoption. Illiteracy was common among the elderly, particularly those from poor backgrounds, possibly because compulsory primary school education was not considered a priority after independence.[98] It was partially because the then government intended to accommodate people who preferred to retain the right to use or sell the labour of their children rather than send them to school (Weiner, 1996).[99] Many of these children remained uneducated, and when they grew old, relied on their children or relatives if their children did not live with them to deal with old banknotes during Demonetisation. Some only in recent years opened their own accounts to receive national and state government allowances, usually with the help of their children, local politicians, and staff of the local NGO.

[98] Education was only made mandatory in 2010 when the Right of Children to Free and Compulsory Education Act came into force.

[99] See also Harriss-White (2002) for the state's neglect both of education and of implementing the existing limited law banning child labour in hazardous industries; and the comment of Ghose (1999: 2604): "it is not that the economy cannot do without child labour, it is rather that many children cannot do without employment."

For those who owned and actively used an account, old age was often a cited reason for not learning to use digital payment. When they did need to purchase something or make payment online, they would ask younger members of the household for help. It did not mean that none of the aged used online payment. Those who did so were from the upper-middle class. Their children usually worked and lived in other big cities and kept persuading them to use online payment and taught them how to do it step by step.

Age was thus identified as a factor that could have complex implications for financial inclusion, usually associated with change in one's economic status in the family. The finding that housewives shared some similarities in their experiences across age partially supported this view, as their economic status did not change with age. Therefore being too young, too old, and/or at an age when one had to live with household members from other generations could all be barriers to financial inclusion, especially among men, for different reasons.

While the above analysis of challenges to financial inclusion associated with social factors like class, gender, occupation, education, and age is mainly based on my face-to-face interviews and observations in the field before the outbreak of Covid-19, many also apply to upper-middle-class households I interviewed during the lockdown. For instance, though many women were well-educated, they chose to be housewives and were financially dependent on their husbands. This discouraged them from learning new technology and using online payment. Therefore in their traditional domains of household responsibility like grocery purchase, they were likely to keep on going to local markets and supermarkets rather than learn to shop online during the lockdown.

It was also found in the interviews that the younger generation adapted faster than their parents to new changes caused by Covid-19. Most of them were undergraduate students, who had already used online services and online payments or at least had some friends using them before the pandemic. When their parents experienced difficulties purchasing essentials through traditional means due to changing regulation on the use of the transport system during the lockdown, the young volunteered to order or teach their parents to order groceries, medicines, food, masks, and sanitisers online as alternative solutions for the shortage. This in general led to a greater acceptance of online payment among the elder generation during the lockdown. Yet in families where the elder generation remained skeptical of this means of payment, that someone else in the household was tech savvy and knew how to shop and pay safely online conversely discouraged them from actively learning to use online services on their own.

These findings in everyday life and in the context of Demonetisation and Covid-19 confirmed that social factors like class, gender, occupation, education, and age intersected and in some cases intersected with different forms of informality to shape individual experiences of financial exclusion and inclusion. Being poor, being women (housewives in particular), being engaged in the informal sector, being uneducated, and being too young or too old could make people more reliant on informal financial practices and constrain broader financial inclusion despite promoting events like Demonetisation and Covid-19. Therefore even within one household, people could be at different stages of financial inclusion, had different experiences of these two events, and faced different constraints to using more advanced formal financial services. The persistence of these pre-existing social inequalities as barriers to financial inclusion and their intersectionality that complicated the task of achieving universal financial inclusion were missing in the government narrative. There were also other challenges outside this framework that remained to be tackled by the government.

6.2 Other Challenges to Financial Inclusion

It is undeniable that previous government promotion policies expanded financial inclusion in the locality under study. None of the interviewed had been deliberately denied access to bank accounts. Instead most had at one account in their names and over half had held the account for more than 10 years. While opening the account for reasons like receiving wage or salary payments via bank transfer and using non-cash options for bills payments was more a reflection of private-sector contributions to financial inclusion, opening the account for reasons like availing of the benefits of zero-balance accounts and receiving government subsidies was more a reflection of public-sector ones. The latter were closely related to the government schemes of Pradhan Mantri Jan Dhan Yojana (PMJDY) and Direct Benefit Transfer (DBT). That local politicians visited the slums from door to door to teach people how to open a (zero-balance) bank account further contributed to the high banking penetration in the area.

There were also marked digital improvements. For instance, one-time password (OTP) systems provide a mechanism for logging on to a network or service using a unique password that can only be used once. This increased the protection of user accounts and by linking the account with a mobile number, this further enhanced internet banking and digital payment security. Online payment experience was improved with simplified steps for making payments so that one no longer needs to start over again if the payment system breaks down halfway through. The private sector also played an important role in the process. There was faster and cheaper 4G internet—thanks to Reliance Jio that initially offered free internet and forced other companies to reduce their prices to compete. Start-ups competed to provide more user-friendly digital platforms and apps and ensured their security and stability. Promotions in the form of cashbacks incentivised more people to use mobile payment and more to accept this means of

payment, including even rickshaw drivers. Even a small amount could be paid or transferred digitally without extra charge. The progress made in digitalisation—be it related to Demonetisation and Covid-19 or not—allowed people to skip the stages of first opening a bank account and depositing money into it, to leapfrog to the stage of using mobile payment with mobile money transferred by someone else to their accounts.

Yet despite these improvements, my field research found that in addition to the challenges relating to unequal distribution of income, education, and power identified in the previous section, there were other systemic challenges to financial inclusion independent of one's social identity such that everyone within the system could face. The problems observable in everyday life and exposed in the specific context of Demonetisation and Covid-19 included security, administrative, and infrastructure ones and e-commerce and traditional retail conflicts. They combined to challenge the government narrative that the two events could tackle existing barriers to financial inclusion and challenge the idea that India has been prepared to go cashless.

Though technology paved the way for a safer digital payment ecosystem, concerns about security persisted and constrained people from actively using digital financial services. People kept mentioning cybercrimes they saw on the news and experienced by their friends and relatives in person. The stories seen and heard added to the fear of account information and password hacking not only among those who had never used any digital financial service but those who had used some. Their narratives implied a hidden system of trust in different financial institutions. People in general had more trust in public sector banks than private sector and foreign ones because the latter were more motivated by their own interests and were more likely to go bankrupt rather than being bailed out by the government, though they did mention that public sector banks had more server connection errors and private sector banks provided

better and more professional services. The concern about the risk of saving money in banks incentivised them, particularly those from the upper-middle class, to deposit money in more than one bank or in financial institutions other than banks. When it came to the use of digital financial services, people preferred to make payments through internet banking over third-party platforms, and they only trusted official and most visited websites and apps and others recommended by their friends and relatives. Lack of proper financial privacy and cybercrime laws added to the sense of distrust. The persistent security concerns despite Demonetisation and Covid-19 indicated that trust in digital financial institutions could not be built solely on positive experiences of digital payments during these two events, but on improved security measures taken in a systematic way.

As to administrative constraints, one was related to lack of nationwide information networks that could provide an interoperable information infrastructure connecting disparate systems. For instance, an interviewee who migrated from a village to the city many years ago could not link her bank account with Aadhar because the address she used to open the account was different from the one on her Aadhar card. When it was made mandatory to update Know Your Customer (KYC) details with Aadhar for continued use of the account, she preferred to deposit money into her son's account rather than go back to the village to change her bank address and reactivate her own account. That the change of address constrained people from opening account and actively using the account also happened to those who moved from one place to another within the city. There was a household where none of the members had a bank account because they needed to update their address in Aadhar before using it to apply for an account, but this involved first requesting bills and other documents sent to their current address as proof of residence and then getting confirmation from the local councillor. It did take time to complete and their use of banking services was delayed.

Full process digitalisation could also be constrained by unreasonable administrative procedures, best exemplified in the case of online payment for educational institutions. The compulsory online tuition payment, particularly for government colleges and universities, while turning out to be a decisive reason for many young adults and their parents to open an account and make the first online payment, had its limitations that neutralised the benefits of digitalisation and of online payment as a convenient means of payment. People complained that though they paid tuition fees online, they still had to go to the bank counter to get a challan printed to prove that they had made the payment. This design ran counter to the original intention of digitalisation to simplify the payment process and dis-incentivised people from actively pursuing digitalisation. Similar improper design could also be found in the private sector, as Uber drivers complained that if their customers chose the digital payment option, it would take them roughly seven days to receive the money. This explained why they preferred cash payment even during the Covid-19 pandemic.

Faster internet and better online services did not mean that digital infrastructure in India had been developed to an extent being able to support a cashless society. Server connection errors persisted, as my interviewees mentioned that they had problem accessing mobile and internet banking from time to time and could not always make payments online. The network failure caused by Cyclone Amphan further demonstrated the vulnerability of a society built on the internet during times of disasters. Amphan was the first super tropical cyclonic storm to occur in the Bay of Bengal in over 20 years (Mitchell et al., 2022) and made landfall in Kolkata in a way that severely damaged internet links, particularly those running on power grids (South Asia Monitor, 2020). This caused a slower internet connectivity if not a completely disrupted one during the Covid-19 lockdown, and the restoration of the telecom networks—wired and wireless—took long time to be done (Sengupta, 2020).

As one of my interviewees complained, in a village in North 24 Parganas where his relative lived, there had been no internet connection for nearly one month since the cyclone struck. Even he himself, who resided in the city of Kolkata, was disconnected from the electricity grid and telecom network for four days. The outage was caused by a tree falling on optical fibre cables, and because the tree was inside a Pepsi factory, the local government refused to send technicians there to replace the snapped cables, while the factory claimed that it was the government's responsibility to do so. Eventually it was local people who helped to remove the tree and restore power and internet connection. Many such conflicts at the local level further delayed the recovery from the disastrous event.

As the mobile network took even longer to recover and had weaker connection than the broadband one, which was usually a privilege of the rich, the vast majority of people reliant on the mobile network for online services were severely impacted by the cyclone. For instance, an undergraduate student mentioned that classes that moved online during Covid-19 had to be suspended temporarily after Amphan because over 70 per cent of students in his university lost access to the internet, most of whom were from the lower class. In this context, the university decided to give additional offline tuition after the lockdown ended. Another example was more relevant to financial inclusion. Those who ordered groceries, food, and other consumer products online during the lockdown could no longer do so due to the internet outage and disruption caused by the cyclone and had to resort to traditional retailers, many of whom only accepted cash payment. These two examples illustrated that given existing digital infrastructure and emergency response capacity, online services and online payments could not fully replace traditional services and cash payments.

There also existed conflicts between traditional and online retailers that remained to be resolved before the government pushed towards embracing new technologies and digital platforms to promote greater digital financial inclusion. The conflicts were implicit in the narrative of Shivay, who started to sell daily necessities to customers living in Kolkata online for a local physical store run by his friend in 2017. He told me that the number of his online sales stabilised at around1,500-2,000 per month in the year of 2019 and if he kept working this way, he could save some money to buy a small flat and leave the slum he grew up in. The hope, however, was dashed when the Amazon agent in charge of online sellers in this area told him that his business had to be suspended for some period of time or ceased entirely, depending on whether the government imposed stricter rules on e-commerce that would raise costs for online retailers. One reason for such change was that traditional retailers mobilised to protest and lobby against the onslaught of e-commerce on local businesses. The ensuing regulatory uncertainty inevitably dampened the market's enthusiasm for digital transformation and the growth prospects of online merchant sales and online payments.

Similar to the challenges to financial inclusion associated with pre-existing social inequalities, the security, administrative, and infrastructure problems and e-commerce and traditional retail conflicts identified in the section remained to be tackled by the government. They also contributed to greater informality, mainly in the form of informal financial practices. Yet is informality necessarily a barrier to financial inclusion? Should the government treat different forms of informality equally? To answer this question, a deeper probe into heterogenous informal practices and their implications for financial inclusion is required.

6.3 Rethinking the Role of Informality as a Barrier to Financial Inclusion

As it has been reviewed in Chapter 2 and 3, the empirical study confirmed the roles of economic informality in the form of informal employment and urban informality in the form of informal housing as barriers to financial inclusion and their persistence despite Demonetisation and Covid-19. While it has also been reviewed that financial informality has more complex implications for financial inclusion, with informal financial practices acting as substitutes for or supplements to formal practices, playing a developmental role, or involving illegal elements in the process, the dimensions are often studied in an implicit and separate manner and their implications for financial inclusion are seldom specified.

The section on this basis advances a typology—substitutive, supplementary, developmental, and illegal informality—to explore the ways in which the relations between financial informality and financial inclusion (and broader social inclusion) can be charted. The analysis of bottom-up narratives found that while both substitutive and supplementary informality had negative implications for financial inclusion, the latter served to increase social welfare; while developmental informality directly challenged the top-down narratives constructed on the underlying assumption that informality is always a barrier to financial inclusion, illegal informality that in some cases promoted financial inclusion among certain groups of people hurt the interests of the vast majority. This typology enables differentiated treatment of financial informality from a policy perspective, as informal financial practices that fall into the category of developmental and sometimes supplementary informality can be encouraged and illegal and some substitutive financial practices need to be curbed as a priority.

The co-existence of these four dimensions of financial informality in the area under study, like what was found in the analysis of dimensions of economic informality by Harriss-White (2019), was enabled by a diverse society that brings together various groups of people spanning many backgrounds and institutions providing financial services of varying degrees of informality to accommodate these different groups. The following subsections review substitutive, supplementary, developmental, and illegal informality in sequence to examine how these dimensions of financial informality took shape in everyday life and how they were reinforced under the impact of Demonetisation and Covid-19.

6.3.1 Substitutive Informality

Substitutive informality was best exemplified by informal saving (investment) and semi-formal credit as substitutes for their formal counterparts, and this substitution disincentivised people from actively pursuing formalisation. As briefly mentioned in Chapter 5, people chose from formal saving (investment) options whose rate of return was linked directly or indirectly to interest rates and informal ones that tended to circulate money out of the financial system. It was particularly so for those from the lower and lower-middle classes, who had fewer saving (investment) options and were more reliant on deposit interest as a source of income and more sensitive to change in interest rates than their higher-income counterparts.

There was a typical accumulation path: people worked to earn money, deposited it in formal financial institutions to earn interest, and invested the surplus in gold, real estate, and land. Gold, as Goedecke et al. (2018) found in rural India, served multiple purposes, such as socio-cultural one as a sign of social status and a means of fulfilling social obligations, and economic one as a quasi-liquid asset and a means of speculation with a high rate of return. The latter was

found more prominent in this urban area, as people viewed gold as a more reliable store of value than currencies and bank deposits, particularly in the context of increasing inflation and decreasing interest rates. When they accumulated a large enough sum of money, they started to think about purchasing land and/or real estate.

Landholdings in rural India constituted not only an investment asset, but represented local political power that reinforced existing hierarchical relations through unequal access to land (Levien, 2015). In this urban context, their economic functions played a more significant role and the functions were contingent on class. While upper-middle-class households viewed land and real estate investment more as a means of making wealth,[100] people from the lower and lower-middle classes viewed it more as a means of storing wealth with returns from rent income (or for those who had no property before, rent expense saved). Few would sell their property unless they were in extreme urgent need of money.

Whatever form of informal savings (investments) used for whatever purpose, the existence of informal substitutes whose returns were less sensitive to inflation and interest rates reduced people's propensity to save in formal financial institutions. It was more so after Demonetisation that caused declining interest rates, particularly for the lower and lower-middle classes, as some even mentioned that they would speed up property purchase to avoid leaving money idle in savings accounts.

Similarly, the availability of semi-formal credit options also reduced people's use of formal credit and interaction with formal financial institutions. Semi-formal credit, while financing

[100] Price manipulation in the property market almost ensured high returns from buying and selling land and buildings.

the segments of society that formal credit failed to cover, not only discouraged formal financial institutions from extending cheaper loans to the disadvantaged, but discouraged people from actively applying for them. On the one hand, banks had so close connection with non-banking financial companies (NBFCs) and small finance banks (SFBs) that they introduced NBFC and SFB loans to those whose bank loan applications were rejected and acted as a guarantor in their loan applications, instead of teaching them how to improve their chances of getting a formal loan. On the other hand, these semi-formal loans had lower requirements that almost every lower-class and lower-middle-class household member could meet and had faster processing and disbursement. Therefore when people were informed by banks that they had to prepare for a large volume of documents and wait for a long time, many just gave up and applied for semi-formal loans even if they were not in urgent need of money.

Despite involvement of some formality in registration of loan providers and procedure of disbursement, lending rates on semi-formal loans remained high, almost twice those of formal loans as the study found. Expanding provision of such loans after Demonetisation could entrap more people from the lower and lower-middle classes into a vicious cycle of debt, and reduced job opportunities associated with the event further exacerbated this problem. There were cases where people kept renewing semi-formal loans year by year with little money left for saving. In this circumstance, the existence of semi-formal substitutes not only reduced people's opportunities and propensity to borrow from formal financial institutions, but their use of formal saving.

Among all the interviewed, only one lower-class interviewee managed to get approved for a bank loan, because he worked for a local politician as a driver, who offered to call the head of the bank to disburse the loan. Fewer documents were required for his application (identity proof,

address proof, and the politician's reference letter) and less time was taken to process the application (one week). Even digital gig workers, who had formal digital records of their income, did not even try to apply for formal loans.

The substitution between formal and informal (or semi-formal) financial services—either in the form of informal saving (investment) as a better option in the context of lowering interest rates or in the form of semi-formal credit as an easier access to personal loans—dis-incentivised people from saving in and borrowing from formal financial institutions. Informality featuring substitution of this type was undeniably a barrier to financial inclusion.

6.3.2 Supplementary Informality

Informal initiatives functioned in some spaces as supplements to dysfunctional formal ones, particularly in the context of Demonetisation and Covid-19 that disrupted normal economic and financial activity. Similar to the findings of Besley (1995) and Pearlman (2010) that people could make use of their extensive knowledge within social networks to cope with income-related shocks, Chapter 5 found that informal institutions like family, relatives, and local markets and shops run by their neighbours pulled people through the two events. These initiatives, while cushioning the impact of Demonetisation and Covid-19, controversially had negative implications for financial inclusion.

The policy of Demonetisation that was intended to incentivise people to open and use accounts of formal financial institutions to deal with old banknotes and cope with cash shortages caused institutional paralysis. Bank staff were so busy facilitating the Demonetisation process that other financial services like opening accounts and providing loans were postponed. None of

the interviewed managed to open an account to exchange or deposit their old banknotes, order a payment card to withdraw money from ATMs and make digital payments, or avail loans to cope with income-related shocks during Demonetisation. They either had their old banknotes exchanged by other household members and relatives and borrowed from them as an expedient, or used old banknotes in local markets and local shops usually run by their neighbours and purchased on credit without extra charge. Informal institutions like these and informal financial practices of dealing with old banknotes and borrowing occupied the space between lived realities of local unbanked and underbanked population as victims to Demonetisation and state imaginaries of Demonetisation as a catalyst for digitalisation and financial inclusion.

The initial phase of the Covid-19 lockdown, claimed as another catalyst for digital payments, was also full of chaos. Supermarkets were closed and e-commerce businesses faced disruptions to their warehouse and delivery operations, as police were not fully aware of exemptions announced by the state government. Even after these operational issues on ground were resolved, delivery to containment zones was still prohibited or otherwise slots were fully booked. It also took longer than usual for deliveries and they charged extra during the lockdown. Therefore even though the Covid-19 situation encouraged using online services and digital payments, most people relied on local shops and markets for daily necessities, and they preferred it this way because they knew better about the health condition of local sellers than delivery persons who usually came from other parts of the city. There were also vegetable vendors commuting with cycle vans from nearby villages to sell cheap groceries despite barricades all the way. Mainly the poor living in slums, who had no access to online services or could not afford expensive online ordering, bought groceries this way.

The local markets, shops, and vegetable vendors that people could always resort to, while making up for the deficiencies of their online alternatives, reinforced financial informality, for most of them only accepted cash payment. It was either because sellers and shop owners were afraid that digital payment would leave records and reduce their profit margins if they were taxed, even though their income was usually below tax thresholds, or because they, mainly from the lower and lower-middle classes, were integral part of the cash-dominated informal economy and did not feel the need or have the knowledge to enter the digital economy.

Those who could otherwise go entirely cashless, like most of the upper-middle class, were reliant on people who followed informal financial practices, not only during Demonetisation and Covid-19, but in everyday life. For instance, delivery did not fully cover the outskirts of the city, let alone small towns and rural areas. People who could not cook or did not want to cook could not order food online even if they wanted to and had to hire maids to cook for them, most of whom were from the lower class and did not actively use or even have a bank account. There were also social ties between those living in the area and those running shops. People might leave their wallets at home or had no change when making small payments, but because shop owners knew well about them as neighbours, they were allowed to purchase on credit. The shops also provided customised services like delivering the order people placed over the phone and allowing them to pay on a monthly basis or whenever they visited the shops in person. Financial issues like these could always be mediated through social relations. It was in this context that one upper-middle-class interviewee who was an active user of online services said, “the traditional way (of buying goods and making payments) will not be fully replaced by the online one, because it is more about exchange and experience.” Interdependence in forms of employer-employee and seller-buyer relationships, however, forced people who were willing to be fully digitalised to keep using cash as a method of payment.

These informal initiatives supplemented formal ones that had their limitations in everyday life and could not even function properly in emergencies like Demonetisation and Covid-19, but the involvement of the use of cash hindered broader digitalisation and financial inclusion. This, while confirming that informality of this type is a barrier to financial inclusion, challenged the view that informality is necessarily a negative attribute in welfare terms.

6.3.3 Developmental Informality

There were also cases where semi-formal financial institutions served to promote financial inclusion. Informal money lenders (or loan sharks) that were found strongly embedded within social relationships in rural India (Schrader, 1996) had no presence in this urban context, because existing financial institutions managed to meet local credit demand at a somewhat affordable price and extended to provide services beyond that to advance financial inclusion.

The local NGO that organised self-help groups (SHGs) was such an institution that provided cheap loans to slum women. Saving money in the institution was a prerequisite for availing loans and the money would be deposited into a bank account. Credit history built on previous saving and loan repayment helped to shape individual perception of financial inclusion—the more you save and more credible you are, the more you can borrow. The NGO not only provided indirect bank saving services like this, but easier access to banks. For instance, in November 2019, the institution invited bank clerks to the site to open account for women who only had an identity document like Aadhar card with them to receive government subsidies via bank transfer. It also empowered women by teaching them how to make saving plans for family and child education, how to reduce least important and unnecessary expenditure, and how to change their mindset from “working enough to survive” to “working more to save”. These

helped to build saving habits and money management skills, which had positive implications for financial inclusion.

NBFCs and SFBs also helped to ensure that unforeseen exigencies and long-term financial goals would not push the lower and lower-middle classes into the usury debt trap. They not only charged lower lending rates than informal money lenders, but promoted the use of formal financial services.[101] Institutions like Ujjivan Small Finance Bank made it mandatory to register a bank account before applying for their loans and the loans were disbursed through the banking system. Institutions like Bajaj Finserv cooperated with online shops and disbursed loans and collected repayments through digital means that involved bank transfers and online payments. Demonetisation was an important factor that facilitated digitalisation of these financial institutions. Some like Bandhan Bank, after years of operation, received a universal banking licence and extended their services to deposits, credit cards, insurance, mutual funds, and more. The reinforced link between these institutions and their formal counterparts, and in some cases their own formalisation, contributed to building their clients' credit and improving their chances of availing cheaper formal loans in the future.

Management of these quick and easy loans borrowed from semi-formal financial institutions further facilitated accumulation among the lower and lower-middle classes in a way that promoted financial inclusion. There were cases where traditional informal workers borrowed to buy smart phones and two-wheelers to become higher-income digital gig workers and active users of online payments. There were also cases where slum dwellers borrowed to run small businesses and planned to buy a flat with money earned, which might help to change their

[101] The exact lending rate of usurious loans from informal money lenders is unknown, but it must be higher than that of semi-formal loans, which is regulated by the Reserve Bank of India (RBI).

socio-economic status and further access to formal loans. Financial informality, through these means, facilitated the transition to formalisation and mitigated negative effects of informal employment and informal housing on financial inclusion. The ability to accumulate was, however, strongly influenced by structural factors like gender norms. Group loans borrowed in the name of women were sometimes occupied by their husbands and other male household members, and women were often confined to the domestic and private sphere and excluded from the digital gig economy. Social institutions like this inevitably shape the pattern of accumulation and further financial inclusion achieved through this mechanism.

Despite these limitations, semi-formal financial institutions contributed to financial inclusion by providing affordable loans to people who otherwise had to resort to usurious ones, opening up economic opportunities for them, teaching them financial basics, and linking them to the formal financial inclusion infrastructure. Informality with such developmental features was far from being a barrier to financial inclusion. It instead allowed precarious populations to build viable relations with the formal system and even become part of the system.

6.3.4 Illegal Informality

Implications of illegal financial practices for their legal counterparts and further financial inclusion were more complicated. They were primarily the domain of the privileged few, but had extended effects on the vast majority of people living in poverty. Those from the upper-middle class, as mentioned in Chapter 5, could choose from different combinations of assets to diversify their investment portfolios and flexibly adjust the portfolios based on their needs.[102]

[102] For instance, a retired professor told me that she replaced some bank savings by schemes and bonds with higher returns because pension schemes in West Bengal could not cover her expenses.

They usually invested a large portion of their wealth in mutual funds, stock shares, and bonds with assistance of wealth management advisors, and could almost ensure high returns from these investments with insider information.

A lawyer who had clients deeply engaged in the black economy told me that the well-connected always knew which company's share price would increase, and they hoarded and invested black money in a more sophisticated way after Demonetisation, even though the policy was initially formulated to curb the black economy. For instance, they deposited black money into a foreign bank account through the hawala system and bought shares of their own Indian company with this money in the name of a foreign shell company. This manipulation ensured an increase in the share prices and they could earn money from the stock market without being detected by the income tax department. Different from real estate and land speculation using black money in a way that circulated money out of the formal financial system, insider trading in the financial market, while raising ethical concerns, kept the rich within the system and controversially had some positive implications for financial inclusion.

Another case of financial inclusion with ethical concerns was money laundering during Demonetisation. People mentioned that someone offered to pay them commissions for depositing a large amount of old banknotes into their accounts, which were usually black money earned through illegal means. Some also witnessed people who did not live in the area queueing outside banks close to the railway station to exchange old banknotes. These undermined Demonetisation as a policy to eliminate black money, but controversially increased ordinary people's interaction with formal financial institutions and use of formal financial services, particularly the use of zero-balance accounts, in an unethical and illegal way, contrary to the interests of the majority.

Other illegal financial practices like financial scams that disincentivised people from actively using digital payments and even basic banking services triggered further debates as to whether financial inclusion is beneficial for people from every section of society. The most discussed case was the 2019 Punjab and Maharashtra Cooperative (PMC) Bank fraud that involved misreporting of loans with senior bank officials' involvement. It caused panic and distress among depositors when the RBI placed withdrawal restrictions on the bank, and even now not all depositors received the full money back (Das, 2022). Reports of financial scams like this drove people, particularly those who were historically placed at a disadvantage in terms of access to formal financial services that financial inclusion aimed to accommodate, to rethink its welfare effect. They increasingly viewed financial inclusion as a mechanism through which money circulated from the poor to the rich: the poor saved money in banks, and the rich managed to borrow from banks. It was true that when the latter misused the money, the government would bail affected banks out, but the cost was borne by all taxpayers, including the poor, who did not benefit as much as the rich did from bank loans.

While these financial scams resulted in growing distrust of the banking system, it was undeniable that illegal financial practices like insider trading and money laundering during Demonetisation promoted financial inclusion, though in an undesirable way. Informality featuring illegality of this type not only forced a rethink of the role of informality as a barrier to financial inclusion, but of the welfare effect of financial inclusion.

The four dimensions of financial informality—substitutive, supplementary, developmental, and illegal—co-existed in an entangled way in the area under study. The co-existence was enabled by economic segmentation, interdependence between classes, and other social stratification. People from the lower and middle-middle classes living in informal and semi-

formal settlements and engaging in the informal economy were excluded from cheaper formal loans and higher-return formal savings (investments). Informal and semi-formal financial institutions filled the space between financial exclusion and inclusion, serving as substitutes for insufficient formal institutions or promoters of formalisation, depending on what services and how the services were used. The flawed formal system was further exploited by the privileged few, from the upper-middle class and more the upper class that I did not manage to interview but kept popping up in conservations, in illegal ways that hurt the interests of the vast majority. Social interdependence, maintained by specialisation of work and mutual trust between people from different classes at different levels of digital adoption, supplemented the formal system that failed to function properly in everyday life and even broke down during emergencies in ways that perpetuated the use of cash in payments.

While the existence of developmental and illegal informality challenged the underlying assumption of informality as always a barrier to financial inclusion behind the government narrative of Demonetisation and Covid-19 as catalysts for digitalisation and financial inclusion, the two events were found to reinforce the multiple roles of financial informality, particularly substitutive and supplementary roles that had negative implications for financial inclusion, rather than reduced them.

6.4 Conclusion

While the top-down narratives justified Demonetisation and Covid-19 as catalysts for digitalisation that could address existing barriers to financial inclusion and extolled financial inclusion as beneficial for people from all sections of society (see Chapter 3), the bottom-up

narratives, based on interviews and observations in Kolkata, showed different localised experiences and perceptions.

Social-factor-related barriers to financial inclusion and others independent of one's social identity that were unrecognised or underestimated by the government as challenges that could be easily resolved by digitalisation remained despite the catalytic events of Demonetisation and Covid-19. While there was no observed caste discrimination in access to and use of formal financial services in the area under study, inequalities associated with other social identities like class, gender, occupation, education, and age were observable. Poverty, unemployment (or informal employment), and illiteracy (or undereducation) intersected to constrain financial inclusion. Patriarchal gender norms within the households confined women to the domestic and private sphere, excluded them from the digital gig economy that encouraged online payments, and deprived them of capabilities to independently think about financial inclusion and conduct financial transactions. The extreme young and the extreme old in the households were dependent on the middle generation, as change in financial practices was associated with change in one's economic status in the family. These barriers to financial inclusion embedded in pre-existing social inequalities persisted and in some cases became more prominent with Demonetisation and Covid-19 leading to more pressing demands for both basic and digital formal financial services.

Other barriers to financial inclusion observable in everyday life and further exposed during Demonetisation and Covid-19 included security problems associated with distrust of the digital payments system, administrative problems reflected in the lack of nationwide information networks and reasonable administrative procedures, infrastructure problems exacerbated by the cyclone, and e-commerce and traditional retail conflicts that dampened the growth prospects

of digital flatforms. These systemic barriers also remained to be tackled by the government, as they combined to challenge the idea that India has been prepared to go cashless.

As to informality that was narrated by the government as a major barrier to financial inclusion that could be addressed by Demonetisation and Covid-19, it was more complicated, particularly for financial informality that has four distinct dimensions (substitutive, supplementary, developmental, and illegal). On the one hand, not all dimensions of financial informality hindered financial inclusion. For instance, developmental informality promoted access to formal financial services among those who otherwise had no access to them, and illegal informality in some cases kept the rich in the formal financial system and incentivised the poor to interact with formal financial institutions. On the other hand, the dimensions of financial informality that hindered financial inclusion was reinforced rather than reduced by the two events. Substitutive informality disincentivised people from actively using formal financial services, and supplementary informality increased people's reliance on informal institutions engaged in informal financial practices. Their roles as barriers to financial inclusion were reinforced under the impact of Demonetisation and Covid-19. Therefore the two events not only failed to address challenges to financial inclusion that were not elaborated or even mentioned in the top-down narratives, but failed to reduce the role of informality.

The analysis of bottom-up narratives further found that greater employment formalisation, better education, higher income, and greater digitalisation alone could not solve the problem of financial exclusion. Informality that involved the use of cash, informal saving, and informal credit, and interaction with informal financial institutions was not necessarily something negative that had to be eliminated. Instead the deficiencies of the insufficient and dysfunctional formal financial system that tended to perpetuate this prevalent informality were what needed

to be corrected as a priority. Financial inclusion achieved through illegal means like increased use of zero-balance accounts for money laundering during Demonetisation, while likely to improve welfare indicators, hurt the interests of the vast majority. The intersectionality of social factors, the complexity of financial informality, and the welfare effect of financial inclusion are elements that need to be considered in policy making for financial inclusion and broader social inclusion. I detail them in Chapter 7.

CHAPTER 7

Discussion and Conclusion

Prevalent informality and financial exclusion are twin challenges facing the Indian government. To critically assess the validity of the government's claims to address challenges to financial inclusion, particularly informality as a barrier to financial inclusion, through Demonetisation and more widely a programme of digitalisation facilitated by the policy and the unexpected event of Covid-19, the thesis answers two research questions through a bottom-up approach:

(3) To what extent did Demonetisation and responses to Covid-19 reduce the role of informality as a barrier to financial inclusion?

(4) What challenges to financial inclusion remained despite Demonetisation and Covid-19?

In order to provide a situated account of the dynamics between informality and financial inclusion implicit in people's everyday lives and in their experiences of Demonetisation and Covid-19, I conducted eight-month field research across 2019 and 2020. During this time I lived in an urban community in Kolkata. This long-term engagement in the field employing mixed methods for researching Demonetisation and digital, qualitative methods for researching Covid-19 sought to develop and extend the body of scholarly work on the relations between informality and financial inclusion (for instance, see Schneider and Tufano, 2007; Solo, 2008; Marsili, 2013; Kanbur, 2014, 2017) with a focus on the underlying assumption of the government narrative that informality is always a barrier to financial inclusion. Other unresolved challenges to financial inclusion, including social-factor-related ones in intersection

with different forms of informality and others independent of one's social identity, also emerged from interviews and observations.

The thesis, through this empirical study, shows how some forms of informality persisted and reinforced their roles as barriers to financial inclusion, while some reduced under the impact of Demonetisation and Covid-19 and in some cases even played a positive role in the process, and how other factors contributed to the persistence of informality and financial exclusion. Addressing the findings and broader relevance of this thesis, the concluding chapter is structured as follows. It starts by bringing together key findings from the empirical chapters to develop an analytical framework for assessing the role of informality in financial inclusion in Section 7.1, and within this analytical framework, answer the research questions in Section 7.2. The chapter then discusses how the findings contribute to policy-making in Section 7.3 and outlines their methodological, empirical, and theoretical contributions in Section 7.4. The final section of the chapter discusses the limitations of this thesis and proposes a series of recommendations for further research.

7.1 Developing an Analytical Framework for Assessing the Role of Informality in Financial Inclusion

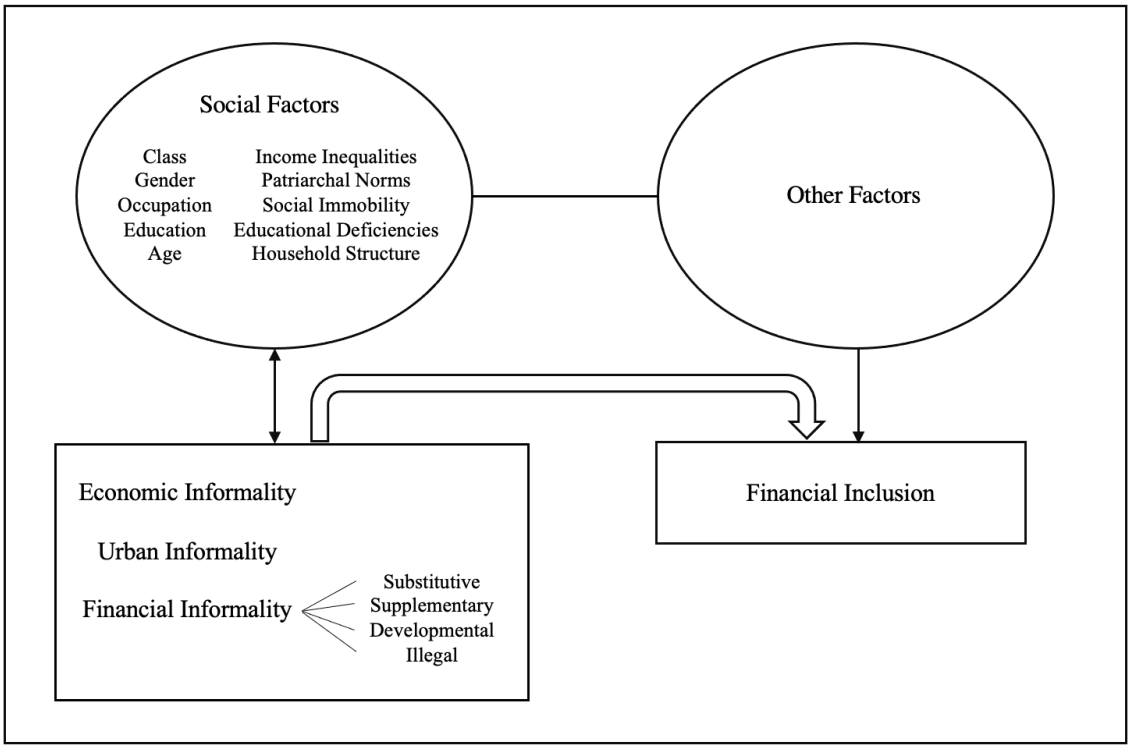
The role of informality in financial inclusion at the core of the thesis is under-theorised in existing literature on relations between informality and financial inclusion, as it predominantly concentrates on economic and urban informality in forms of informal economy and informal housing as barriers to financial inclusion. Financial informality in the form of informal

financial practices that has more complex implications for financial inclusion, as financial practices are heterogeneous in nature, acting as substitutes for or supplements to formal practices, playing a developmental role, or involving illegal elements in the process, is less studied in a comprehensive way. What make the interplay between informality and financial inclusion more complex are social factors that intersect with economic, urban, and financial informality in ways that have implications for financial inclusion, but few literature attempts to provide rationale for it.

In order to answer the research questions as to the extent to which Demonetisation and responses to Covid-19 reduced the role of informality as a barrier to financial inclusion and other remaining challenges, the thesis first develops an analytical framework with empirical evidence collected in the field to specify which forms and dimensions of informality and intersecting social factors have implications for financial inclusion and what exactly the implications are. This section is therefore an integral part of the research findings and makes some contributions to the advancement in existing theory.

As illustrated in Table 7.1, there are two building blocks of the analytical framework of the role of informality in financial inclusion. One produces a more nuanced understanding of different forms of informality and their implications for financial inclusion. The other produces a more nuanced understanding of the intersectionality of informality and other social factors in structuring financial exclusion and inclusion.

Figure 7.1 The Analytical Framework of the Role of Informality in Financial Inclusion



Source: Author's visualisation.

The first building block specifies three forms of informality: economic, urban, and financial informality, and proposes a typology of financial informality—substitutive, supplementary, developmental, and illegal—to explain its more complex implications for financial inclusion.

Economic informality in the form of informal employment hinders access to formal loans and use of formal savings and digital transactions. People in informal employment are excluded from formal loans for lack of income proof and from high-return pension schemes exclusive for formal workers paid through authorised banks. Engagement in the cash-dominated sector (with the exception of the digital gig economy) also dis-incentivises them from actively saving money in formal financial institutions and using digital means of payment. Similarly, urban informality in the form of informal housing hinders access to formal loans, as those living in

slums and flats built on occupied land (informal and semi-formal settlements) do not have any acceptable proof of residence ownership.

Financial informality, including informal financial practices, such as the use of cash, informal saving, and informal credit, interaction with informal financial institutions, and illegal financial activities, has four distinctive dimensions with different implications for financial inclusion. Substitutive informality in the form of informal substitutes for the insufficient formal financial system, and supplementary informality in the form of informal supplements to the dysfunctional formal system dis-incentivise people from actively pursuing formalisation and digitalisation in using financial services. Developmental informality in the form of semi-formal financial institutions that serve to promote access to formal financial institutions challenges the idea that informality is always a barrier to financial inclusion. Illegal informality in the form of illegal financial practices, while reducing public trust in and incentive for engaging in the formal system, in some cases controversially keeps people within the system to exploit illegal investment opportunities.

The second building block specifies the rationale behind the linkages between informality and other intersecting social factors, including class, gender, occupation, education, and age in ways that have implications for financial inclusion. For different social classes, financial exclusion and inclusion are structured by income inequalities. People from the lower and lower-middle classes living in informal and semi-formal settlements are more likely to be in informal employment. They may have basic knowledge of money management using accounts, but do not have money to do so, and are more reliant on informal financial practices. Interdependence between different social classes in forms of employer-employee and seller-

buyer relationships, however, forces people from the upper-middle class who are willing to be fully digitalised, to keep using cash as a method of payment.

Patriarchal norms confine women to the private sphere and make it more difficult for them to digitalise their work in ways that involve digital transactions, even if they are well-educated upper-middle-class women. Deficiencies in the education system are reflected in the exclusion from formal education, particularly among women from the lower and lower-middle classes, and in the failure of higher education institutions to improve employment prospects in the formal sector for poor students, or in other words, provide upward social mobility for them. Illiteracy, unemployment, and engagement in domestic and informal work render people reliant on informal financial practices. Household structure associated with the stage of life that each household member is at causes age-related differences. Mainly the middle-aged in a household manage financial accounts, while those who are too young or too old are more engaged in informal financial practices.

Other systemic challenges to financial inclusion, independent of one's social identity, are also identified in this thesis. For instance, lack of proper financial privacy and cybercrime laws adds to public distrust in formal financial institutions and digital platforms. Lack of fully digitalised and instant procedure for address change, tuition payment, and gig work payment, and inadequate digital infrastructure constrain people from opening accounts, actively using the accounts, and using the accounts for digital purpose. There also exist conflicts between traditional and online retailers that dampen the prospects for digital transformation. All these serve to perpetuate financial informality, and further challenge the idea that India has been prepared to go cashless.

On the basis of this analytical framework that specifies the implications of three forms of informality, intersecting social factors, and other challenges for financial inclusion, I summarise to what extent Demonetisation and responses to Covid-19 addressed existing challenges to financial inclusion, particularly informality as a barrier to financial inclusion, and what challenges remained despite these two events.

7.2 Informality and Other Challenges to Financial Inclusion under the Impact of Demonetisation and Covid-19

While economic and urban informality were found to constrain broader financial inclusion, the empirical research on Demonetisation and Covid-19 suggested that the two events neither reduced them nor reduced their roles as barriers to financial inclusion. It was more complex for financial informality, as the empirical research confirmed the existence of developmental and illegal informality that could have positive implications for financial inclusion and that the two events managed to reduce some forms of financial informality associated with the use of cash in saving, payment, and borrowing. They, however, did not reduce the role of financial informality when it served as a barrier to financial inclusion, and even reinforced the role of substitutive and supplementary informality that had negative implications for financial inclusion. Social inequalities that intersected with different forms of informality to hinder broader financial inclusion were also reinforced in the process, while identified systemic failures were left largely untouched.

In the short term, Demonetisation had a positive impact on financial inclusion by incentivising people to interact with formal financial institutions to deal with their old banknotes and to use

non-cash payments to cope with cash shortages. These reduced financial informality in the form of the use of cash in saving and payment. But few were found to be impacted this way, because those who had a small amount of old banknotes could deal with them by asking someone else to do so or using them in local shops and those who faced the problem of cash shortages could cope with it by borrowing from other family members and relatives and purchasing goods on credit from local shops. These informal financial practices built on institutions of indebtedness, help, and support networks became more prevalent during the phase when Demonetisation caused significant economic and financial disruption. While informality in this form constrained broader financial inclusion, from a welfare perspective, it reinforced its role as a supplement to dysfunctional formal initiatives. Money laundering as a form of illegal informality further emerged in a way that expanded the positive impact of Demonetisation on financial inclusion, as black money holders paid for getting their old banknotes exchanged by ordinary people. It was, however, contrary to the interests of the majority of people.

In the longer term, Demonetisation had a positive impact on financial inclusion by facilitating habit change and catalysing facilities improvement and digitalisation across sectors. These reduced financial informality, as semi-formal loan providers increasingly formalised their operations through digital means and a number of people reduced their use of cash in saving, payment, and borrowing. This exemplified developmental informality facilitated by Demonetisation. Semi-formal financial institutions at the meanwhile, however, increasingly established themselves as substitutes for formal institutions and discouraged people from even making efforts to get formal loans. This controversially constrained broader financial inclusion. The economic and financial disruption caused by the policy also had a negative impact on financial inclusion in the longer term, as it was associated with reduced income, employment

opportunities, and savings interest rates. These dis-incentivised people from saving in formal financial institutions but diverted resources to higher-return informal institutions in a way that reinforced substitutive informality.

Similarly, the lockdown policy during Covid-19 had a positive impact on financial inclusion by further accelerating digital adoption and reducing the use of cash payment among the upper-middle class. Yet there were also cases where people became more reliant on cash-dominated local shops and markets for getting groceries, medicines, food, and other physical goods when more formalised operations of supermarkets, big shops, restaurants, and online shops were disrupted during the initial phase of lockdown and when these institutions were evaluated as associated with more risks of exposure to the virus. This also reinforced the supplementary role of informality.

Despite Demonetisation and Covid-19, economic and urban informality remained barriers to financial inclusion. Digitalisation facilitated by the two events increasingly blurred the boundary between the formal and informal, as digital gig workers are different from formal workers in their lack of regular incomes and welfare benefits and are also different from traditional informal workers in their use of online financial services at work. However, digital records of incomes and transactions did not ensure access to formal credit, and digital gig workers remained far away from the formal financial ecosystem. While engagement in the expanding digital gig economy and digitalisation of wage payment reduced the degree of informality involved in financial practices among a small section of informal workers, they did not significantly reduce informal employment or its role as a barrier to financial inclusion.

For informal housing, its role as a persistent barrier to accessing formal loans was supported by the finding that in the interval between the announcement of Demonetisation and the time when I conducted the interview, only one slum dweller interviewed managed to get approved for a bank loan, because he worked for a local politician as a driver, who offered to call the head of the bank to disburse the loan. This rare case of informalised practices built on specific socio-political connections confirmed urban informality as a crucial element to segment the credit market that could not easily be circumvented.

Pre-existing inequalities associated with class, gender, occupation, education, and age also remained challenges for financial inclusion, and in some cases even widened under the impact of Demonetisation and Covid-19. People from the lower strata of society had a smaller amount of old banknotes to deal with and dealt with them more through informal means. They were more impacted by economic disruption caused by Demonetisation and more sensitive to savings interest rates, as they were more engaged in the cash-dominated informal sector and more reliant on deposit interest as a source of income. Unlike people from the upper strata, who could readily switch to digital payments with higher income and better access to banks, smart phones, and the internet, they benefited less from increasing digitalisation catalysed by Demonetisation and Covid-19.

Women who did not have a job but stayed at home as housewives relied on their husbands to deal with old banknotes and cope with cash shortages. Similarly, those who were too young or too old and were illiterate relied on other members in the households who had financial dominance and financial knowledge. These marginalised groups, particularly those from the lower and lower-middle classes, were excluded from the benefits of increasing digitalisation, not only in using online services and digital payments, but in participating in the growing

digital gig economy, as only a small section of better-educated young men managed to seize this employment opportunity. In this context, Demonetisation and Covid-19 did not reduce but reinforced the role of pre-existing inequalities as barriers to financial inclusion.

The identified systemic challenges, like security concerns, administrative barriers, infrastructure inadequacies, and e-commerce and traditional retail conflicts, also persisted despite Demonetisation and Covid-19. Positive experiences of digitalisation during these two events did not eliminate security concerns about digital payments, and the problem of inadequate digital infrastructure was more exposed during the Covid-19 lockdown when Cyclone Amphan caused severe network failure. All these posed challenges to a cashless economy that the Indian government proposed to achieve through Demonetisation and responses to Covid-19.

Therefore, while Demonetisation and responses to Covid-19 managed to reduce some forms of financial informality associated with the use of cash in saving, payment, and borrowing, other informal financial practices, such as the use of informal savings (investments) and semi-formal loans and interaction with informal financial institutions, persisted or even reinforced their roles as barriers to financial inclusion, serving as substitutes for or supplements to the insufficient and dysfunctional formal system. Digitalisation catalysed by the two events did not eliminate cash, as the economy was not prepared to go cashless. Nor could economic and urban informality, intersecting social inequalities, and other systemic challenges to financial inclusion be tackled or circumvented this way. The empirical findings of widening social inequalities, partially attributed to growing digital divides, further countered the top-down narrative of the government that exaggerated the welfare effects of digitalisation and ignored

other impact mechanisms of these two events. The lived realities of those supposedly targeted by and benefitting from the policies point to the need for more sensitive policies.

7.3 Policy Implications

The diversity of individual experiences of financial exclusion and inclusion and of Demonetisation and Covid-19 exemplified by the study in the sampled ward and broader Kolkata confirms that there persist different forms of informality and co-exist demands for access to basic financial services and for advancement to digital ones among people from different sections of society at different stages of financial inclusion. While persistent informality and co-existent demands for financial inclusion shaped by class, gender, occupation, education, and age can be different in different contexts considering local social structure and path of digital transformation, the empirical findings still have implications for government policies. They suggest that India cannot skip the process of formalisation and correction of social inequalities to achieve financial inclusion and that formalisation and correction of social inequalities cannot be achieved by one-size-fits-all approaches like Demonetisation and responses to Covid-19.

Many improvements could have been made by the government. It could have taken measures to reduce chaos and regulatory uncertainty during Demonetisation and Covid-19 that disrupted normal formal financial services and increased people's reliance on informal institutions. Or in a more extreme sense, the government did not have to take such extreme measures like Demonetisation to promote digitalisation and financial inclusion. On the one hand, the Digital India campaign was in progress and other supportive policies for digitalisation could also play

the role Demonetisation played without disturbing normal life of the general public. On the other hand, though Demonetisation and later Covid-19 accelerated the existing trend towards embracing digitalisation, a cashless economy cannot be achieved without measures being taken to address existing challenges to financial inclusion.

The challenges are from both supply and demand sides. To tackle supply-side challenges, the government can formulate rules for both traditional and digital financial institutions to reduce banking and cyber fraud and boost consumer security and privacy, promote full process digitalisation in government services and tuition payments, improve digital infrastructure and internet connectivity, and encourage cooperation between traditional and online retailers.

The demand-side challenges are more complex. They require the government to take Indian specificities of persistent informality into account in formulating targeted policies to financially include the excluded. For instance, lack of money is a major reason why people from the lower and lower-middle classes refuse to use more advanced saving and payment services, and lack of valid income and residence ownership proof is a major reason why they fail to avail formal loans. While the former can be mitigated by making policies more growth-centric than politics-centric to generate more employment opportunities, the latter cannot be easily resolved, as economic and urban informality are deeply entrenched in the ongoing process of structural transformation and digital transformation accelerated by Demonetisation and Covid-19.

Given the large population working in informal sectors and living in informal settlements, the government cannot afford to ignore their credit demand. While semi-formal financial institutions have emerged to bridge the gap, their credit rating either based on group liability or Credit Information Bureau (India) Limited (CIBIL) score is too simplistic to capture an

accurate view of creditworthiness of individual borrowers. The government can instead promote better data sharing across organisations to leverage big data and artificial intelligence for credit scoring process. This may encourage people to build their credit records by using more digital transactions and allow semi-formal institutions to disburse cheaper loans to creditworthy clients. The developmental role of semi-formal institutions can also be extended by allowing them to recommend their creditworthy clients to formal institutions, and in this way providing a graduation path for informal workers and slum dwellers to formalise their borrowing.

The government also needs to take intersectionality into account in formulating financial inclusion policies. Women who fall within the intersections of poverty, illiteracy, and unemployment face more extreme constraints on the access to and use of formal financial services. The empirical study finds that neither expanding compulsory and higher education for girls and women nor promoting social mobility serves to improve this situation, even if educational qualifications and family connections guarantee a decent job. It is related to deeply-entrenched gender norms that encourage women to be housewives after marriage. While change in gender norms is slow, the government can instead set up more women-only factories, create more job opportunities exclusive for women, and encourage women to set up cottage industries and digitalise their businesses by selling products online, and ensure that formal business loans disbursed to women are used by themselves for productive purposes.

It does not mean that education is not important, but that education for lower- and lower-middle-class students can be more employment-targeted. The government can encourage the establishment of technical institutions to improve their employability, particularly in the higher-paying digital gig economy, by empowering them with digital skills, and promote

internships with wage subsidies and grants to ensure that poor students will not drop out for financial reasons. The government can also push the private sector to guarantee real-time payments for digital gig workers to protect their rights and increase their willingness to accept online payments, and encourage the sector to promote mobile payments in physical shops.

For the general public, online services should not be a privilege of English-speaking elites, particularly in a country that has so many local languages like India. The government can encourage the creation of online content in local languages, development of real-time translation embedded within digital platforms, and further provision of text-to-speech solutions for the illiterate. Financial literacy education should also not be limited to teaching people how to save money, how to open an account, and how to use most basic financial services, but can be extended to more advanced money management, online banking, and other digital financial services to benefit those who already have basic financial knowledge.

Furthermore, the age divide, particularly in the use of digital financial services, can be bridged by encouraging door-to-door and on-site financial literacy education, or simply relying on self-education in multi-generational households, which are typical in India. Considering that age is often associated with a decline in cognitive ability to learn new things (Clark et al., 2015), new concerns are raised as to whether the government should rush to go cashless or wait till younger generations who were born into and raised in the digital world—either poor or rich, educated or uneducated—grow up. The latter seems to be more realistic in a country like India that features such prevalent informality and financial exclusion.

This means at least in the near future, banking and financial transactions in India will remain a highly complex combination of digitalised and cash-based methods featuring co-existent

formal and informal financial practices. From a welfare perspective, the persistence of informal financial practices that involve the use of cash, which is also an issue in developed countries, is not necessarily a negative thing, particularly when they serve as supplements to the dysfunctional formal system and play a developmental role in promoting access to the formal system. A cashless economy therefore should not be an end in itself. Rather digitalisation is supposed to ensure that everyone has access to digital options and can use these options to cope with macroeconomic shocks like Demonetisation and Covid-19. The government can instead in the long term concentrate on reducing informality in forms of informal employment and informal housing with more targeted development plans and informality in the form of illegal financial practices that can cause property bubble burst and financial institution bankruptcy, the cost of which will ultimately be borne by the vast majority of taxpayers.

7.4 Methodological, Empirical, and Theoretical Contributions

Apart from these important policy implications, the research also contributes to Indian and even global social science studies in significant ways. The contributions are made in three fields: methodological, empirical, and theoretical.

The first is methodological contributions. The research used mixed methods to collect, analyse, and interpret both quantitative and qualitative data. The data that covered access to, usage of, and quality of a wide range of financial services allowed me to study financial exclusion and inclusion in relative terms (as a degree) rather than absolute terms (as a dichotomy) that is commonly employed in existing research. This served to generate a comprehensive understanding of the impact of Demonetisation on financial inclusion beyond digital

transactions and access to loans narrated by the government. The quantitative and qualitative data related to Demonetisation further allowed me to study the magnitude of its impact on financial inclusion, patterns of the impact, reasoning behind the patterns, and the role played by informality, social factors, and other systemic factors in the process.

Another methodological contribution is the use of data triangulation that incorporated qualitative information like preferences, motivations, and reasons for financial behaviours collected from both users and providers of financial services. Weaknesses in the data from one source were compensated for by the strengths of other data to generate a deeper insight into the interactions between people living in the locality and financial service providers that had a presence there, including informal and semi-formal ones. Few existing research has attempted to collect data of such "thickness" to study informality and financial inclusion and further the impact of Demonetisation on their interplay.

As an extension of the face-to-face interviews about Demonetisation, after the outbreak of Covid-19, I tailored the research methods to social distancing guidelines and conducted phone and online interviews to collect qualitative data related to its impact on people's use of cash and digital payments. Digital methods that involve the use of online and other digital technologies to collect research data are burgeoning in the post-pandemic world, but are not commonly used in orthodox social science research. One of the most obvious limitations of the methods is the exclusion of the vast poor who have limited access to mobile phones and the internet in the research. Another is the difficulty in collecting data of fine granularity that can otherwise be collected through in-field observations. This research thus serves as a good example as to how to adjust the scope of research and target interview groups to circumvent

the limitations of digital methods and how to make digital methods a supplement to traditional methods when participant observation is still possible during the pandemic.

Second, the thesis makes significant empirical contributions. Existing empirical research that has contributed to the understanding of relations between informality and financial inclusion focuses on certain forms of informality that have implications for certain forms of financial inclusion. This study, situated in a specific context in the city of Kolkata, probes deep into interactions between different forms of informality and their implications for the access to and use of a wide range of traditional and digital financial services in a comprehensive manner, and meanwhile probes into the role played by social factors in the process. It also fills the empirical gap in the study of the effectiveness of Demonetisation and responses to Covid-19 on addressing informality as a barrier to financial inclusion. Existing literature either focuses on the extent to which the two events reduced informality or promoted financial inclusion. Few has attempted to construct a linkage between them like this research does.

Empirical research that managed to collect data of such fine granularity in an urban context is another contribution made by the thesis, as relevant literature in India is predominantly rural-centric. Research in urban contexts is important in that it allows for a deeper insight into the performance of digital infrastructure and financial institutions, which otherwise have less or even no presence in rural contexts, and a better understanding of remaining challenges to financial inclusion and ultimately a cashless economy despite digitalisation catalysed by Demonetisation and Covid-19. Other countries, including developed ones, can also be researched this way to assess the feasibility of going cashless and suitability of implementing extreme financial inclusion and digitalisation policies like Demonetisation to achieve this goal.

Third, the thesis further makes some theoretical contributions. As the research project is situated in India, dealing with contemporary issues of Demonetisation and Covid-19, the concepts of informality and financial inclusion are refined to reflect era features of the development of mobile technologies and digital payments. The updated conceptualisations of informality and financial inclusion that modify multiple dimensions of the two concepts identified in existing literature with the consideration of mainstream trends towards a cashless society have relevance to other countries in contemporary studies.

While existing research has attempted to theorise the role of economic, urban, and financial informality in financial inclusion with scattered empirical evidence showing the interplay between them, the thesis on this basis develops an analytical framework with the advancement of a typology of financial informality to explain its more complex implications for financial inclusion and broader social inclusion, along with a list of multiple and intersecting social factors that have a role to play in the process. This framework can be used to categorise informality and assess government policies that aim to promote financial inclusion through addressing informality as a barrier to it.

It is true that if the research was conducted in another city or even in another ward in the same city, the financial institutions that played substitutive, supplementary, developmental, and illegal roles and social factors that contributed to unequal access to and use of financial services could be different. The four dimensions of financial informality that are identified in the theoretical review and empirically tested in the research can find their equivalents in other contexts, though likely to be in different concrete forms with different degrees of significance. The factors that intersect with informality can also be modified to reflect local realities. For instance, caste and religion can be factored in when certain caste and religious groups are

systematically discriminated against in employment, renting, and accessing formal financial services, like in some other parts of India. Race should be factored in if it is a critical social factor, like in many developed countries.

7.5 Limitations and Perspectives for Future Research

The thesis has presented a series of empirical findings surrounding interactions with financial institutions in everyday life and in the context of Demonetisation and Covid-19 among residents from different sections of society in Kolkata. There are, however, a number of limitations to this study, which became apparent through the course of this research project. These limitations are reflected on to improve future research.

When conducting interviews in the field, I found that two groups of people were difficult to access. One was slum dwellers living along the railway track. Different from those living in other slum clusters, they were target clients of the local non-governmental organisation (NGO) and also political clients of the Trinamool Congress (TMC)-led state government that protected them from being expelled from the railway land regulated by the Bharatiya Janata Party (BJP)-led central government. These connections might give them better access to financial services, and they were an important category that should have been interviewed separately. But they refused to answer questions relating to the Demonetisation policy implemented by the central government, particularly those relating to their vote choice influenced by the policy. The other was the upper class living in gated tall and expensive apartments. I did not even have chance to knock on their doors and request them to accept the interview, as their security guards would not allow any stranger in. The former could have otherwise been accessed if I managed to get

approval from the local councillor, and the latter could be accessed if I had acquaintances living in the apartments. Both required me to first expand my social network in Kolkata, which was not feasible given the timeline for doctoral research. Further research could instead focus on how these slum dwellers at the centre of centre-state conflict managed the conflict, how they bargained for access to formal financial services, and the role the NGO played in the process, and focus on how upper-class households coped with Demonetisation and Covid-19, how they engaged in illegal activities, and how close they were to cashless.

As mentioned earlier, digital methods used during the Covid-19 lockdown have their limitations. Lower- and lower-middle-class households were excluded from the interview, while their use of online services and digital payments and concerns about digitalisation tend to be different from the upper-middle-class ones I interviewed. Other problems associated with digital methods, such as their impact on the way people answer questions, particularly sensitive ones, for fear of being recorded, could also only be solved by revisiting the site and conducting another round of retrospective interviews after restrictions on international travel are removed. The findings presented would also benefit from a longitudinal perspective in order to examine the longer-term impact of Covid-19, particularly after lockdown restrictions are completely lifted and services that involve face-to-face interactions return to normal. This would allow for a deeper insight into whether and how the event changed financial behaviours, relationship dynamics, and further the role played by informality and other social factors in financial inclusion.

Time and budget constraints and the sudden outbreak of Covid-19 also made the approach vulnerable to criticism by statisticians as there were only interviews and observations in one field site. While internal generalisation could to some extent be achieved with this large enough

sample size, external generalisation requires collecting data in as many contexts as possible. Ward-wise comparisons can otherwise be made by interviewing in a BJP-led ward or a Muslim-dominated ward in Kolkata to examine the effects of local political party organisation or dominant religion on people's interactions with financial institutions. Rural-urban comparisons are meaningful in that financial institutions prevalent in villages tend to be completely different from those in cities, so are people's ways of interacting with these institutions and their coping strategies for Demonetisation and Covid-19. State-wise comparisons can further be made to identify the role of the state government in building financial and digital infrastructure and implementing solutions to macroeconomic shocks like Demonetisation and Covid-19. Comparative studies in these ways can reduce the bias associated with a specific local situation and sharpen the research questions. These can be directions for future research.

Beyond the scope of this study, the question about implications of financial inclusion for informality remains to be explored. The analytical framework that identifies economic, urban, and financial informality as important influencing factors for financial inclusion can still be employed to research this question. While it was found in the field that greater financial inclusion was usually associated with less financial informality, reflected in reduced use of cash in saving, payment, and borrowing, whether it could reduce informal employment and informal housing has to be researched in longitudinal follow-up studies. For instance, I can revisit the digital gig workers I interviewed in the field in five to ten years to inquire whether they have managed to accumulate wealth to change their housing conditions by working in this higher-income sector and whether the sector has managed to formalise their employment in ways that provide them with benefits of social security and welfare and valid proofs of income and employment. These questions are important in that financial inclusion itself is not always

desirable and beneficial to all as found in this thesis, and its welfare effects have to be achieved through reducing informality or reducing its role as a barrier to inclusive development.

Two of the world's most pressing development challenges underpinned by the need to formalise the informal and financially include the excluded are therefore interlinked: Where will digitalisation and ultimately a cashless economy lead? Will it lead to reduced informality and increased financial inclusion? And if so, through what mechanisms? Answers to these broad questions have to be constructed on many pieces of contextualised empirical findings like this thesis provides.

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APPENDIX A

Class Classification and Empirical Justification

My classification of class is based on people's housing conditions and local perceptions of social class. Empirical evidence supports the view that this classification is more suitable for my analysis of class differences in financial inclusion than other classifications summarised in Aslany (2019), based on household income, lifestyle, education, and main source of income, in the locality under study.

As shown in Table A, in the both samples for assessing the impact of Demonetisation and Covid-19 on people from different social classes, my identified lower-class households had in average the lowest per capita income, least consumer durables, lowest education level, and least formal source of income, while the upper-middle-class households were the opposite. When divergences occurred, my classification turned out to be more suitable for the analysis of class differences in financial inclusion than others, as it not only took into account measurable factors contributing to class differences, but unmeasurable ones that required a better understanding of the local context.

There were rare cases where my identified upper-middle-class households did not meet the minimum income requirement of being upper-middle class in other classifications and/or received income from informal sources. This could be partially explained by greater incentives for upper-middle-class households, particularly those owning small businesses, to understate their incomes in the interviews and/or keep their businesses informal to avoid tax and

regulation.[103] In contrast, the lower-class households in the selected ward had less incentives to understate their incomes, as they were closely connected with local politicians and could readily enjoy the benefits of being categorised as below poverty line (BPL).[104] Another explanation was that unexpected changes, such as death of breadwinners, reduced household income but not household wealth. It was prominent in some female-headed households, but they managed to find new, sometimes informal sources of income, like rents and investments in small businesses. As reduced income and informalised income source did not necessarily change one's upper-middle-classness, classifications based on household income and main source of income had their limitations.

It was the same for classifications based on lifestyle and education. Deviation from expected upper-middle-class lifestyle and education could be explained by factors other than social class. For instance, upper-middle-class households did not always have a microwave and a washing machine at home, because their maids could do the cooking and laundry for them. The unwillingness to use consumer durables should not be treated the same as lack of money to do so in class classification. There was also a case where a 70-year-old widower who lived alone did not receive formal education, but received financial support from his sons who were educated, high-income businessmen. This allowed him to live an upper-middle-class lifestyle. The inability to receive formal education in one generation did not mean that one's socio-economic status cannot be changed by the efforts of the next generation. There were also more-than-expected young household members from the lower class enrolled in higher education

[103] Though many small businesses had turnovers below minimum taxable amount, their owners were reluctant to disclose actual incomes to avoid unnecessary trouble.
[104] The benefits of being categorised as BPL by the central/state government included purchasing food grains at lower-than-market prices from local ration shops. Slum residents were a vote bank of the local ruling party Trinamool Congress. As long as they voted for the party, they could easily obtain BPL ration cards from their ward councillors. Yet it did not mean that every household in the slums had a BPL card. My field research found that many households did not even know that they could get ration cards by writing a letter to their ward councillor.

under supportive government policies.[105] While they also received higher education, empirical evidence suggested that the quality of education was different from that received by their middle-class counterparts and higher education did not improve much their social mobility.

[105] For instance, the central government's reservation policy reserved seats and lowered the qualifications needed in exams for low-caste students. The state government's Kanyashree Prakalpa initiative gave annual and one-time scholarships to unmarried girls aged 13-18 years who remained in education till at least the age of 18. Many beneficiaries of these policies were from the slums.

Table A Factors Contributing to Household-Level Class Differences: 2019/2020

	Household Income (monthly per capita, Indian Rupee)			Lifestyle (number of households)		Education (number of households)				Main Source of Income (number of households)		
	Minimum	Maximum	Average	0-3	4-7	Illiterate	Primary	Secondary	Tertiary	Informal	Both	Formal
Sample for Researching Demonetisation												
Lower Class (Slum)	1,300	5,000	3,149	19	0	3	6	6	4	15	3	1
Lower-Middle Class	1,667	10,000	4,769	9	5	0	1	10	3	10	0	4
Upper-Middle Class	2,000	100,000	41,451	1	11	1	0	2	9	3	1	8
Sample for Researching Covid-19												
Upper-Middle Class	7,500	150,000	37,387	2	18	0	0	1	19	1	0	19

Source: Author's fieldwork 2019, 2020.

Note: Sample for Researching Demonetisation: N=45 households; Sample for Researching Covid-19: N=20 households; Lifestyle is indicated by the ownership of seven specified consumer durables: fridge, microwave, washing machine, air conditioner, TV, two-wheeler/four-wheeler, and laptop/computer; Education is indicated by the highest level of adult education in the household; Formal sources of income include income from formal work (including high-value service work), pension, and investment in stock market, mutual fund, and other high-return schemes; Informal sources of income include income from informal work (including digital gig work and low-value service work), investment in small businesses, and rent without a written contract.