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LITERATURE REVIEW ON HYBRID BANKING

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ABSTRACT

This study examines hybrid banking — an organizational model integrating traditional branch-based and digital financial services — within the Indian banking context. A systematic literature review (SLR) following PRISMA 2020 guidelines was conducted using the Scopus database (2021–2025), yielding 38 peer-reviewed articles for thematic analysis. Five themes were identified: customer trust and satisfaction, technology adoption, operational efficiency, financial inclusion, and cyber security compliance. The study's principal contribution is a conceptual clarification distinguishing hybrid banking from omni channel, phygital, assisted digital and blended banking — terms frequently conflated in the literature. Findings indicate that hybrid banking enhances digital adoption by combining channel convenience with the trust assurance of physical branches. However, benefits relating to financial inclusion and operational efficiency are contingent on enabling conditions and require further empirical validation across diverse populations and geographies.

KEYWORDS: *Hybrid Banking, Omni channel Banking, Phygital Banking, Digital Transformation, Customer Trust, Financial Inclusion, India.*

1. INTRODUCTION

Hybrid banking is an approach or model, in which there is integration of both, the bank's traditional brick and mortar presence along with the digitally enabled channels of the bank. Therefore, it emerged because of the changes in customer behaviour due to rapid development of mobile technologies and increasing competitive pressures from the Fintech firms. It seeks to combine the advantages of the traditional banks like, credibility, personalized service and compliance with regulation with the efficiencies, accessibility and scalability of digital platforms. Hybrid banking model was developed to address two main types of limitations. One type were limitations of traditional branch banking. Branch banking has high cost of operations and limited geographical reach. Another type of limitation is of pure digital banking. Pure digital banking has limited capacity to build customer trust. Also, some customers face barriers of digital illiteracy when they try to access digital banking. According to Laue et al. (2024), therefore hybrid banking model was developed. In accordance with service-dominant logic (Vargo & Lusch, 2016), hybrid banking model emphasizes co-creation of values across multiple contact points. This allows customers to move between on-line and off-line contact points depending upon their convenience. The literature on hybrid banking is increasingly positioning hybrid banking as an enduring element of financial

system instead of temporary one. However, the evidence supporting this position can vary significantly from study to study (Dietz et al., 2021).

Despite being prominent, however hybrid banking lacks clarity in terms of definition within academic literature. Many authors refer to hybrid banking using interchangeable terms such as omnichannel banking, phygital banking, and blended banking and assisted digital banking. Therefore it creates confusion regarding service architectures, customer interaction logics and technological infrastructures. Lack of clarity weakens theoretical strength of the field and creates difficulties in comparison studies. As a result, this review addresses the deficiency by making distinction between hybrid banking and similar concepts in section 2 prior to beginning analysis.

Adoption/acceptance of hybrid banking have been studied using TAM (Technology Acceptance Model; Davis, 1989) and UTAUT (Unified Theory of Acceptance and Use of Technology; Venkatesh et al., 2003). Both models indicate that factors such as perceived usefulness, perceived ease of use, trust and perceived security are major predictors of customers' intentions to utilize hybrid banking services (Srikanth et al., 2022; Khatri & Kaushik, 2021). Studies suggest that although various demographic characteristics such as age, education level and digital literacy influence usage/adoption patterns, hybrid banking has potential to reduce digital divide by providing extended assisted digital services through branches network (with varying levels of empirical support).

Due to its rapidly expanding digital financial markets and high degree of regulatory oversight provided by Reserve Bank of India (RBI), but at the same time due to significant inequalities in digital capabilities between urban-rural areas and generations, India was selected as focus country for this review. These conditions create a unique environment for analysing hybrid banking where tension between digital ambitions and structural constraints is most evident (Kumar et al., 2023).

The objective of this study is to investigate hybrid banking as a model that combines traditional branch banking and digital banking systems. Additionally, this study will examine implications of hybrid banking for customer satisfaction, trust and adoption behaviours as well as its contribution to operational efficiency and financial inclusion. To achieve objectives of this study, we formulate the following question:

- How does hybrid banking affect customer satisfaction and trust?
- What factors influence customer adoption of hybrid banking services?
- How does hybrid banking contribute to banks' operational efficiency and financial inclusion?

2. Conceptual Clarification: Hybrid Banking and Related Constructs

In the hybrid banking literature, there has been an ongoing problem with conflating many related but different concepts. The purpose of this section is to identify the concept space for hybrid banking and provide the definitions for each so we can be clear on how hybrid banking will be defined throughout this literature review.

2.1 Hybrid Banking

Hybrid banking refers to a designed service delivery model where customers have access to traditional branch-based services along with digitally enabled services at the same time. The critical factor here is that the two types of services are integrated together by design, or intentionally built to work together so that the customer's experience transitions seamlessly from one type of service delivery to another. Hybrid banking is driven by the bank itself -- therefore, the bank controls both of the service delivery channels and coordinates them (Dietz et al., 2021; Laue et al., 2024).

2.2 Omnichannel Banking

Omnichannel banking represents an extended concept of a harmonized, non-fragmented, integrated

customer experience over all the existing channels — bank branches, mobile apps, online banking systems, ATMs, contact centres, social networks — with a focus on preserving both data consistency and contextual integrity so that the initial stage of interaction conducted through one channel will be able to continue at the next channel without losing its content or context (Tyrväinen & Karjaluoto, 2019). Hybrid banking could be a necessary condition for providing an omnichannel banking service; however, hybrid banking and omnichannel banking are different concepts as they differ in their technological scope. The architecture of hybrid banking always implies the purposeful integration of architectures used in individual channels whereas it is not mandatory when using omnichannel banking.

2.3 Phygital Banking

PhyGital (a combination of Physical and Digital) is an experiential blend of both physical and digital spaces; this can be done with Interactive Kiosk, Video Banking Terminal or Augmented Reality Interfaces at Branch locations (Batat, 2019); while related to Hybrid Banking, PhyGital Banking emphasizes a Technology Enhanced In-Bank Experience over the Service Model Architecture and Multi-Channel Journey Design aspects of Hybrid Banking.

2.4 Assisted Digital Banking

Assisted Digital Banking is defined by Kumar et al. (2023) as providing digitally-enabled services to those customers that are either reluctant to use digital banking services for themselves, or are incapable of using them due to lack of familiarity with the technology, which are then provided via assistance from human intermediaries (branch employees), and ultimately, guided by the human intermediary during the customer's engagement with the digital channel. In addition, assisted digital banking is most commonly found in developing countries where there is a significant gap in terms of digital literacy (Ratra et al., 2023; Kumar et al., 2023). As such, assisted digital banking can be described as an additional feature or means of providing a hybrid banking model, rather than being considered as a separate bank service.

2.5 Blended Banking and Hybrid Financial Ecosystems

Hybrid banking is often viewed as being "less formal" than either of the other two terms - practitioners view hybrid banking as the general term describing any form of blended banking - a combination of traditional and digital banking services. Practitioners will often use the terms interchangeably; however, this research views them as "broadly equivalent", although accepting there may be some degree of ambiguity. A more macro view - describes hybrid financial ecosystems as the overall institutional landscape where banks, fintechs, regulators, etc. interact with each other through both digital & physical domains - i.e. the overall environment in which hybrid banking as a bank-wide service strategy exists. (Dietz et al., 2021)

Therefore, Hybrid Banking denotes an institution-wide service framework that physically integrates physical branch(s) and digitally available channels to serve one set of customers. Omnichannel, PhyGital and Assisted Digital Banking are all similar concepts and are therefore treated separately from Hybrid Banking in this thematic analysis.

3. Conceptual Framework

A figure that integrates the visual synthesis of the reviewed literature is presented below - in addition to developing the Integrated Hybrid Banking Framework inductively based on thematic analysis, the framework organizes the construct into four dimensions (the hybrid banking architecture, enabling inputs, outcomes and moderating conditions). It is intended as a descriptive synthesis of relationships identified within the reviewed studies, not as a causal model — the directionality and relative strength of these relationships require further empirical validation.

Figure 1: Integrated Hybrid Banking Framework (Synthesised from Reviewed Literature)

ENABLING INPUTS	HYBRID BANKING ARCHITECTURE	OUTCOMES	MODERATING CONDITIONS
• Customer trust & security perception • Digital literacy levels • Infrastructure availability • Regulatory support (RBI) • Institutional credibility • Technology readiness	• Branch-based services • Digital platforms (mobile/internet banking) • Assisted digital services • Omnichannel data integration • Risk & compliance systems	• Customer adoption & satisfaction • Trust & continuance intention • Operational efficiency • Financial inclusion • Regulatory compliance	• Age & generational disposition • Education & digital literacy • Rural–urban divide • Risk perception & aversion • Socio-economic status

INPUTS ⟶ ARCHITECTURE ⟶ OUTCOMES (moderated throughout by contextual conditions)

Source: Author's own synthesis based on reviewed literature. This is a descriptive framework; causal relationships require empirical validation.

4. Review Structure and Methodology

4.1 Research Design and Philosophical Orientation

The methodology used for this study was a systematic literature review (SLR). The philosophy supporting the study can be described as pragmatic; consistent with many studies using an SLR in banking and management, this study's position is pragmatic as well since its purpose is to synthesize what the available evidence indicates regarding hybrid banking. As such, when reviewing literature which interprets how customers perceive hybrids, trust and their behaviour toward adopting these types of banking products; this study will read the results contextually and considerately. However, this will remain at the level of analytical synthesis – not ethnographic/phenomenologic. This study has attempted to follow the PRISMA 2020 guidelines (Page et al., 2021) so that we can demonstrate rigor and transparency in our methodology and reporting.

4.2 Database Selection and Search Strategy

The Scopus database was chosen for this review based on its broad scope of peer reviewed articles related to business/management; finance and Information Systems; also its high level of indexing quality and wide use of citation metrics. While relying on one database may limit the number of articles found within a study's results compared to multiple databases, it aligns with Tranfield et al. (2003) who noted that many systematic reviews place greater emphasis on having a precise theme than ensuring all possible relevant studies are included. Further systematic reviews could include other sources such as Web of Science and Google Scholar to improve upon the current study.

The search for articles was performed in November 2024 using the following Boolean Search String which was used on article Titles, Abstracts, and Author Keywords:

TITLE-ABS-KEY ("hybrid banking" OR "phygital banking" OR "digital-physical banking integration") AND PUBYEAR > 2020 AND PUBYEAR < 2026

The search string was intentionally kept narrow just to ensure high thematic precision, which will be consistent with the study's India-focused contextual scope. The initial search have yielded 642 records.

4.3 Screening Protocol and Eligibility Criteria

Screening was conducted in two sequential stages:

Stage 1 – Title and Abstract Screening:

Title and abstract screening resulted in 642 total records being reviewed; 289 were excluded based upon their status as not being peer-reviewed journal articles and 15 records were excluded because they are "in press", resulting in 338 records for full-text review.

Stage 2 — Full-Text Review:

Of the 338 records screened, only those studies that specifically referenced the Indian banking system were retained. As a result of this additional filtering process, 259 studies were excluded from the study, with the remainder of the 79 studies included in the next stage of the study. Due to access restrictions, 41 studies were subsequently excluded from consideration, resulting in 38 studies eligible for full-text evaluation and subsequent thematic coding.

It is recognized that applying a country-specific filter to define the scope of the literature review may be considered atypical criteria for a literature review. However, it should be noted that the decision to apply such a filter was made intentionally and reflects a specific methodological limitation rather than a quality limitation. India was chosen because of the unique combination of rapid digital expansion of financial services, strong regulation by the Reserve Bank of India, and significant differences in digital equality across urban-rural and age lines, which combine to create a compelling case study for examining hybrid banking adoption and the societal impacts associated with this form of banking. It also should be noted that this selection will limit generalizability of the results to other geographic locations.

4.4 Duplicate Removal

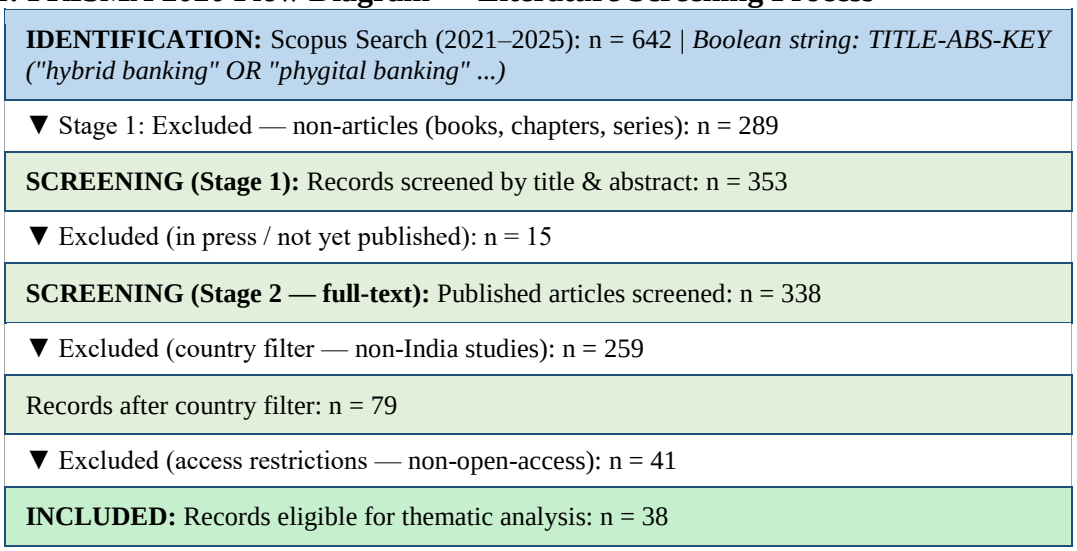
Scopus's built-in deduplication filter was used to identify and remove the duplicate records at the point of database export, prior to the initial screening stage. No manual deduplication was needed, as the review relied on a single database.

4.5 Thematic Coding and Analysis

Thematic analysis was done by way of an inductive-deductive method for coding themes. Based on the five research question categories, five a priori thematic categories were established based on deductive reasoning. These categories include: (1) Customer Trust and Satisfaction; (2) Technology Adoption; (3) Operational Efficiency; (4) Financial Inclusion; and (5) Cybersecurity/Regulatory Compliance. Inductively developed sub-themes associated with each of the thematic categories were developed throughout several iterations of close-reading. A limitation to the use of a single coder is the potential for interpretative bias; therefore, future reviews are encouraged to utilize two coders with inter-coder reliability assessments (for example, Cohen's Kappa).

4.6 PRISMA Flow

Figure 2: PRISMA 2020 Flow Diagram — Literature Screening Process



Source: Adapted from Page et al. (2021) PRISMA 2020 guidelines. Author's own elaboration.

Table 1: Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Keyword search	"Hybrid banking" OR "phygital banking" OR "digital-physical banking integration"	Records with no conceptual relevance to hybrid banking service delivery
Timeframe	January 2021 to November 2024	Studies published before January 2021
Document type	Peer-reviewed journal articles	Books, book chapters, conference papers, editorials
Publication stage	Published final versions	In press, pre-prints, working papers
Geographic focus	Studies contextualised within the Indian banking sector	Studies focused exclusively on non-Indian contexts
Access	Open-access, full-text retrievable	Paywalled or otherwise inaccessible
Language	English	Non-English publications

Source: Author's own elaboration

5. Theoretical Background

5.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT model provides a theoretical base for examining how consumers adopt new technologies in banking. Performance expectancy demonstrates how consumers see improvements in banking transactions with the speed and availability of digital channels versus the personalized service offered by a bank's branch network when making complex or difficult decisions. In mobile banking environments, Khatri & Kaushik (2021), Alalwan et al. (2016) both found that ease of use and perceived risk were also significant moderating factors of consumer intentions to adopt new technologies; therefore the need to minimize technological barriers in hybrid channel designs. Effort expectancy can be supported by having staff assist customers in the branch as well as providing training, which helps reduce the barrier associated with learning how to use digital technologies,

especially among older generations (Khatri & Kaushik, 2021). The social influence and facilitating conditions — such as regulatory support and having accessible branch locations for grievance resolution — will also enhance the adoption of digital banking. The UTAUT framework could provide insight into why hybrid banking typically has higher levels of consumer adoption across demographics compared to pure digital banks. However, at this point, the application of UTAUT in hybrid banking research is less frequent than in the area of mobile banking.

5.2 Diffusion of Innovation Theory

The theory (Rogers, 1962), "Diffusion of Innovations," describes how an innovation spreads through a social structure based upon five factors: relative advantage, compatibility, simplicity, trial-ability, and visibility. Compatibility has been shown to be present for hybrid banking; as such, customers do not have to eliminate their use of traditional bank branches. Visibility is also likely, as consumers are able to observe other's use of digital banking (Shankar & Jebarajakirthy, 2019). Additionally, the theory provides context for explaining how some segments within society will move at different rates towards adopting a particular technology. For example, early adopter and late majorities may be using the same hybrid banking system in completely different ways; this was noted by the review articles discussed above.

5.3 Trust and Risk Theory

The Integrative Model of Organisational Trust by Mayer et al. (1995) was adapted and applied to the Financial Services Industry by Kaur and Arora (2021) to understand how Perceived Institutional Credibility has an important part to play in the Adoption of Hybrid Banking. Hybrid banking tools present perceived vulnerabilities regarding data security, fraud, and system failures and these are likely to be greater in individuals who are more risk averse or have lower levels of digital literacy (Raza et al., 2022). Hybrid banks address some of the perceptions of vulnerability through the presence of physical bank premises as indicators of accountability and regulatory compliance; they also provide a means whereby customers can regain a sense of control over their digital transactions through combining traditional forms of banking governance with secure digital platforms (Jafari et al., 2024). However, as indicated within the Cybersecurity Trust Paradox in Theme 1, the directionality of trust is bidirectional - that is, while digital channels can facilitate building and enhancing trust, they can also undermine trust.

6. Literature Analysis

The final dataset of 38 studies was organized into five thematic categories that corresponded to the research question. The citations used for the following analysis are all based on studies related to hybrid banking; the integration of digital-physical channels in banking; the adoption of technology by banks; or, financial inclusion in India. In addition, this analysis is also intended to reflect some of the ongoing debates and issues present within the reviewed literature.

Theme 1: Customer Trust, Satisfaction, and Perceived Security

Customer Satisfaction and Customer Trust are arguably the most frequently cited constructs across all of the studies mentioned. In their extension of TAM into mobile banking apps, Munoz-Leiva et al. (2021) found that Perceived Usefulness and Ease of Use were the leading determinants of Banking Adoption Intention. These findings demonstrate that Hybrid Digital Interfaces should be designed to provide clear functional benefits with minimal effort required.

Baptista and Oliveira (2015), whose study was replicated in India by Khatri and Kaushik (2021), have shown that Trust is likely the best single predictor of Continuance Intention within Mobile Banking when Physical Branches serve as a backup or "safety-net" for users.

In a study of mobile banking adoption in Islamic banking settings using a modified version of UTAUT, Raza et al. (2022) identified Trust and Performance Expectancy as among the top two

predictors of Adoption Intentions. Hybrid Banking may address this issue through the combination of Secure Digital Platforms and Accessible Branch Infrastructure.

Shaikh & Karjaluoto (2015) have established that Perceived Security — including Data Privacy, Fraud Prevention, System Reliability etc. — is a key Antecedent of Trust in Mobile Banking Settings. On the other hand, there is evidence of a Paradox in the Literature: The same digital channels which hybrid banking relies on to access its customers are also the primary conduit for Cybersecurity Risks. Jafari et al. (2024) point out that if customers have been exposed to widely reported Data Breaches, they will be much less likely to be willing to use digital services; and even with physical branch signals, no amount of digital security signalling can completely mitigate these risks. The Cybersecurity Trust Paradox — where the branch builds trust and at the same time, the digital channel undermines it — presents one of the least well-resolved areas of conflict in the Field.

There is another area of concern — albeit little explored in the reviewed Literature — which relates to whether elderly users are being systematically excluded. Several studies acknowledged that Age Moderates' Adoption, but very few investigated how older customers who are unwilling/unable to use digital channels, would be affected as branches closed due to funding for new digital investments. There exists a serious risk that hybrid banking could potentially create a Two-Speed Service: Digitally-capable customers would enjoy Full Channel Integration whilst elderly and digitally-excluded users would experience a diminished service as physical branches are closed to support digital developments (Srikanth et al., 2022).

Theme 2: Technology Adoption Frameworks and Hybrid Banking

The use of TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003) theory represents the most widely applied methodological framework within the reviewed literature. In a hybrid banking context, an example of how "performance expectancy" can occur is when consumers are able to complete banking tasks quickly using digital banking or when they have access to those tools; whereas a consumer's ability to receive personalized services from employees at a local bank provides the opportunity for consumers to accomplish complex banking transactions (Khatri & Kaushik, 2021). Alalwan et al. (2016), who researched the factors affecting the adoption of mobile banking in Jordan, found that the primary determinants of mobile banking were perceived usefulness, ease of use, perceived risk, and self-efficacy -- all of which confirm the central role of TAM constructs among various banking environments. Consumers with limited digital proficiency may utilize in-branch employee support to lower their effort expectancy (the degree to which performing a task is easy to do), thus reducing their learning curve (Khatri & Kaushik, 2021).

Diffusion of Innovation theory (Rogers, 1962) provides a complementary lens to understand hybrid banking adoption. Oliveira et al. (2014), in a study extending UTAUT with Task-Technology Fit and Investment Model constructs in mobile banking, find that compatibility with users' existing practices and task requirements is among the strongest predictors of adoption intention — a finding directly applicable to hybrid banking, where the availability of both digital and physical channels lowers the compatibility threshold for a wider range of users. Shankar and Jebarajakirthy (2019) find that trust mediates the relationship between e-banking service quality and customer loyalty in Indian banking contexts — a dynamic that hybrid banking is well positioned to leverage by reinforcing digital service quality through the accountability signals of physical branch presence.

A gap in the reviewed literature worth noting is that most adoption studies apply TAM or UTAUT to *current* users of digital banking, not to the segment of the population that has actively avoided digital channels altogether. The adoption frameworks may therefore be systematically under-theorising the experiences of non-adopters, who represent precisely the population that hybrid banking claims to serve through assisted digital mechanisms.

Theme 3: Operational Efficiency and Cost Optimisation

Several sources suggest that hybrid banking may support measurable improvements in operational efficiency. Vives (2019), in a comprehensive review of digital disruption in banking, documents that the most significant efficiency gains in contemporary banking arise from the selective integration of digital processes into existing institutional architectures — precisely the model that hybrid banking attempts to operationalise. Lee and Shin (2018), in a comprehensive review of fintech business models and ecosystems, identify automation of routine transactions as one of the most consistently documented operational advantages of technology-enabled financial services — a benefit that hybrid banking institutions may capture through their digital channels while preserving branch capacity for advisory and relationship-intensive activities. Shankar and Nandini (2022) identify that the achievement of operational success is dependent upon appropriate alignment of technology implementation and change management within organisations; further, they found that ineffective transformation programs are the most significant barriers to achieving operating efficiencies.

Miklaszewska et al. (2021) examined how bank risk and performance were impacted by Central and Eastern European economy operations during the COVID-19 pandemic. Their findings indicated that banks with multiple income sources and strong digital capabilities exhibited increased resilience when faced with extreme operational disruptions. These results provide indirect evidence that diversifying channels — such as the use of hybrid banking — can help increase institutional stability under pressure.

However, there is a structural contradiction regarding efficiency benefits in the literature — namely that cost reduction via branch rationalization (typically cited as an efficiency benefit) also creates reduced physical access to services for customers in rural or remote locations who rely on the availability of local branches to build trust in hybrid banking. The authors of several studies discussed above recognize this paradoxical relationship and attempt to address it but have not resolved it completely.

Theme 4: Financial Inclusion and Digital Equity

The arguments for hybrid banking in the Indian context have consistently included the idea of financial inclusion. Ratra et al. (2023) provide evidence that combining digital platforms to offer banking services to people who live in rural or low-income environments with offering those same services through physical branches can greatly increase financial access. The World Bank (2022) has noted that hybrid banking could be an option for addressing the digital divide — especially in developing countries where there are large discrepancies in internet access. Kumar et al. (2023) reference RBI's Business Correspondent (BC) program as one example of how hybrid banking can be implemented — specifically, providing a way for banks to extend their formal services through agents at physical locations that use the same core system as other branches.

Hybrid banking also offers the potential for environmental sustainability. Gandhi and Sharma (2023) referenced that because some hybrid banking methods include online payments — and therefore reduce the amount of paper used, and subsequently energy and resources, etc. — it can promote sustainable development. However, all of these environmental and social inclusion advantages will only occur if several critical factors exist; however, in most cases, these factors are rarely proven and often assumed in the majority of studies cited above. These critical factors include:

1) Reliable rural internet service — which does not always exist.

2) Adequate training for both bank employees and Business Correspondents — which is not always possible.

3) A high enough number of physical bank branches in the area — which is also not always possible.

4) Affordable smartphones — which is not available to everyone.

As such, when these enabling conditions do not exist, the ability of hybrid banking to deliver greater levels of financial inclusion will be limited. Additionally, Ozili (2018) found that although digital financial services can create greater access to financial services, this benefit is not evenly distributed, and its realization depends upon having adequate infrastructures and quality regulations — a point that is often overlooked by proponents of hybrid banking.

Theme 5: Cybersecurity, Regulatory Compliance, and Risk Management

Dalal et al. (2022) suggest that hybrid banks must deal with multiple and often conflicting legal, regulatory and governance regimes governing issues related to data protection, cyber-security, consumers rights and anti-money laundering obligations. Arner et al. (2017), in their re-conceptualization of financial regulation in the Fintech-era, suggest that financial regulators must continue to develop their regulatory frameworks in order to embrace technology enabled financial services delivery models; that RegTech represents an important source of opportunities for regulated entities to provide greater efficiency in meeting oversight requirements; and that these developments present hybrid banking operators with challenges (in terms of complying with evolving regulatory frameworks) and opportunities (to apply automated compliance monitoring systems across integrated digital-physical channel architectures). Kumar et al. (2023) describe how the RBI has played a key role in promoting hybrid banking regulations that foster innovation whilst maintaining system stability.

Literature reviews have identified a structurally based form of cyber-risk specifically associated with hybrid banking architecture types: the combination of physical and digital channels results in an extended and therefore more vulnerable attack vector. Singh et al. (2024) describe man-in-the-middle attacks and social engineering type of attacks against customer facing interface elements (e.g., when a bank employee assists a customer to access a digital terminal) as examples of emerging hybrid-type risks. Chorey and Sahu (2024) also describe the potential utility of using blockchain based transaction formats to improve security however the scalability of this solution in traditional banking environments is unclear.

More broadly speaking, there is an additional unresolved issue contained within this theme which can be described as "platform dependency risk": since hybrid banking becomes increasing reliant on a smaller set of core banking technology vendors, payment infrastructure vendors (i.e. NPCI in India), and cloud-platforms, the degree of systemic risk generated by commonality increases. A loss-of-function event at the platform-level would have the effect of disabling both physical and digital channels simultaneously.

7. Discussion

Hybrid Banking in India - An Analysis Based on Review Literature

In contrast to many other countries, Hybrid Banking in India represents an enduring banking model rather than a transitionary banking model. However, despite its persistence, the evidence base supporting this assessment is inconsistent and incomplete. The most consistent finding among the reviewed studies was that physical branches contribute to establishing trust in digital banking. The presence of physical branches reduces anxiety related to performing digital transactions among those who would have been excluded from digital financial services due to lack of confidence. All five theoretical models used across the reviewed articles (TAM, UTAUT, Diffusion of Innovation, Trust and Risk Theory) identified ease of use, usefulness, trust and security as key factors influencing acceptance of digital banking. Additionally, there were significant demographic

differences in the rate at which individuals adopted digital banking based upon the individual's age, level of education and digital literacy (Venkatesh et al., 2003; Khatri & Kaushik, 2021).

Section 2 provides an additional definition of Hybrid Banking and assists in clarifying concepts used throughout much of the reviewed literature. Specifically, it illustrates that a large number of the benefits attributed to Hybrid Banking can also be attributed to Assisted Digital Banking or Omnichannel Banking. Therefore, the conflation may lead to an inflated perception of evidence-based research concerning Hybrid Banking. Subsequently, when reviewers apply definitions provided in Section 2 they will likely locate a smaller yet more accurate body of relevant literature for Hybrid Banking.

There are several areas of tension within the reviewed literature that need to be acknowledged more explicitly than previously. First, although physical accessibility is a critical component for both the trust and inclusion components of Hybrid Banking, closing bank branches (often referred to as cost-cutting measures) undermines the availability of a physical location where customers can access digital banking options. Thus, if banks continue to close branches to fund digital investments, they run the risk of converting what could have been a hybrid model into a purely digital model for communities that rely heavily on physical locations to access banking. Second, artificial intelligence (AI) and automation pose a lesser discussed yet equally significant threat to Hybrid Banking. As banks begin to utilize more technology to automate relationship-building activities (i.e., using chatbots, robo-advisors and AI-powered credit scoring) the experiential difference between accessing digital banking versus hybrid banking will diminish. It should be noted that none of the reviewed literature discusses how these trends will affect hybrid banking over the long term. Thirdly, there is growing concern regarding digital surveillance and how granular data collected from hybrid banking platforms affects the power dynamics between banks and consumers. Although some of the reviewed literature briefly references potential issues with privacy, it does so without providing a clear understanding of how these issues relate to the collection and sharing of cross-platform customer data.

Fintech-Bank Power Disparities in India Need Further Research

Gimpel et al. (2018) present a typology of consumer-oriented fintech service offerings illustrating that fintech companies focus their products on specific functional domains (e.g., payment systems, lending, investing) and do not offer comprehensive multi-channel service delivery solutions. While this domain specialization enables greater agility compared to traditional banks, it means that the comprehensive channel integration that defines hybrid banking remains one of the few distinguishing characteristics of traditional banking organizations. In addition to positioning themselves as the stable organizational anchor around which digital innovations occur, many of the reviewed studies appear to suggest that traditional banks represent a stable institutional backbone for hybrid banking. However, since the rapid development of platform-based financial services has emerged in India (Paytm, PhonePe and Google Pay), the competitive landscape may be evolving in ways that exceed expectations for hybrid banking. Furthermore, as hybrid banking models become institutionally established today they may become technologically marginalized by platform-based ecosystem providers that deliver financial services outside of the branch-digital interface. This risk receives virtually no formal discussion in any of the reviewed articles and may provide the most important omission in existing literature.

8. CONCLUSION

Hybrid banking is shown to have significant advantage to customers in terms of Customer Trust; Service Accessibility; Operational Efficiency & Financial Inclusion. However, the degree of strength and generality of such findings differ among the studies. Hybrid banking is portrayed by increasing literature as an enduring form of banking, and not a transitional one, however this characterization may be more applicable to some aspects (i.e. Customer Trust & Adoption) than

others (i.e. Financial Inclusion & Operational Efficiency). Furthermore, the mechanisms through which hybrid banking delivers its benefits are typically assumed rather than empirically demonstrated.

The review made three key contributions. Firstly, a conceptual clarification was offered that distinguished hybrid banking from Omnichannel, PhyGital, Assisted Digital and Blended banking models - distinctions that were not commonly recognized or articulated throughout much of the reviewed literature. The second contribution made by the review was a systematic review of 38 studies focused on hybrid banking in India, carried out according to a PRISMA protocol and based on a transparent multi-stage screening process with explicit screening criteria. Lastly, through the Integrated Hybrid Banking Framework presented in Section 3 and the critical tensions discussed in the Discussion section, the review identified several emerging debates regarding hybrid banking's future, including those related to Branch Closures, Artificial Intelligence Displacement, Surveillance and Platform Competition.

9. Limitations of the Study

There are several significant caveats associated with this research. It is based solely on open access, peer reviewed articles from 2021 to 2025 that have been included in the Scopus database. This limits the scope of the research to all relevant studies on hybrid banking within India (which increases the focus on context) as well as excludes studies on hybrid banking conducted outside of India (which limits comparative analyses across countries). The results therefore cannot be generalized to hybrid banking systems in other countries and/or jurisdictions until additional research has been completed. There also exists an opportunity for coders to introduce their own biases when conducting thematic analyses. Future research reviews should consider employing two separate coders for these types of analyses and assessing for inter-rater reliability. While the Boolean search term was narrowly defined (to ensure thematic specificity), it likely did not identify all relevant literature that uses language different than what was used in the Boolean search terms. Lastly, since the review is based on published literature, it does not reflect either practitioners' knowledge, internal evidence collected by banks, or real time data related to implementations.

10. Implications of the Study

The results from this research can help bank practitioners to develop their Hybrid Banking Models where digital innovations meet continued provision of physical services, so as to support increased levels of customer trust and satisfaction in an Indian context. The distinctions developed in section 2 will provide managers with greater precision when identifying and articulating their Channel Integration Strategies. Regulatory bodies such as the Reserve Bank of India have evidence that they may need to take account of the risks of exclusion caused by rationalising branches, which is in addition to the efficiency gains provided through digital investments. Researchers benefit from the PRISMA compliant methodology used here; and also the conceptual framework outlined in section 3, as these both provide replicable building blocks for comparative and longitudinal review.

11. Future Research Directions

Future studies may extend this study by economically collecting primary data on customers experiences of trust dynamics and adoption behaviour across different demographic and socio-economic groups using validated survey instruments or mixed-method approaches. Cross-country comparative studies would provide insight into the degree to which findings from the Indian context can be generalized and which contextual factors (regulatory architecture; digital infrastructure; cultural disposition towards institutions) most significantly moderate hybrid banking outcomes. Longitudinal studies will also provide valuable insight into whether efficiency gains and inclusion are maintained over time as branch networks contract. Future studies should also address some of the gaps identified in this review including: how non-adopters of hybrid banking experience hybrid

banking; how relationship-banking is replaced by AI and automation; how cross channel data integration will affect consumer privacy; and competitive dynamics between traditional hybrid banking models and platform based financial ecosystems. Finally, the conceptual framework developed in Section 3 needs to be tested through empirical validity studies with the possible use of confirmatory factor analysis or structural equation modelling

Declarations

Ethical approval: This article is a systematic literature review based entirely on publicly available published sources. No primary data collection from human participants was conducted. Ethical approval was therefore not required.

Informed consent: Not applicable. No human participants were involved in this study.

Author contributions: U.R.C. conceived the study, conducted the systematic literature review, performed thematic analysis, and drafted the manuscript. R.R.K. contributed to the conceptual development of the hybrid banking framework and critically revised the manuscript. Both authors read and approved the final version.

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