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# Navigating the Regulatory Labyrinth: Compliance Dilemmas and Lead User Innovation in the Fintech Sector

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**Abstract:** *This research article deals with the lead user innovation difficulties in the Kenyan financial technology sector, specifying the regulatory compliance challenges. The flourishing of fintech firms in diverse aspects and sectors have faced numerous dilemmas, particularly in intellectual property, privacy and consumer safety regulations which may lead to lack of adherence. The consequences of non-compliance can be severe, including legal penalties and reputational damage. Despite the importance of innovation in fintech companies, the dilemmas innovators face in navigating regulatory compliance is not yet fully investigated. This research adopts and employs a sequential mixed-method approach that allows complex connection of lead users and regulators in terms of compliance. Survey data from 321 lead users and in-depth interviews with 36 lead users and five regulators revealed a range of compliance challenges. Intellectual property laws scored the least adherence, with the plethora of regulations and overseeing bodies contributing to increased non-compliance. The outcomes highlight the pressing compliance issues faced by lead users and underscore the potential of regulatory bodies to bolster adherence. The outcomes indicate the need for a different approach to regulatory compliance by lead users. This paper underscores the necessity of cooperative engagement between innovators and regulators to effectively maneuver through the dynamic compliance landscape of the financial technology industry.*

**Keywords:** Lead user, regulation, compliance, fintech, innovation

## Introduction

In the recent past, both society and company managers have viewed innovation as a key driver of their growth. Traditionally, the research and conversation around innovation has revolved around technology, market disruptions, and scrutinizing the competitive edge (Laeven et al., 2015). Fintech innovation often presents lead users with a series of obstacles. These lead users are the individuals who foretell market trends and develop innovative products which fill the unmet niche of the market (von Hippel, 2017). They are faced with the tasks of technical progress advancement and product deployment. Consequently, they ought to make vital choices such as privacy for consumers, intellectual property rights, and consumer's safety (Li & Tian, 2021).

Research in the field of strategic innovation and lead user innovation has, for long, mostly sought to explore the drivers of innovation, the innovation processes via which new services or products are developed, and the merits of implementing lead user suggestions into the innovation stream. For example, von Hippel's book on the innovation by lead users has shown that these users have gained a lot from their in-depth knowledge and foresight into certain industries (Von Hippel, 2017). Some research has also investigated the ways innovative companies can use such contributions in their product development processes (Hippel, Oliveira, 2011).

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Scholars have often debated regarding the adjustment of innovation strategies to match up with the business goals as well as the dynamic capabilities which are essential for sustainability of innovation (Teece, 2010). Moreover, different researchers have mentioned how organizations may face difficulties while innovating within regulated industries, insisting that aligning compliance with innovation is very much needed (Vogelgsang, 2020).



Although regulatory compliance is a potent factor that contributes to the protection of standards, not much exploration has been done in the academic field regarding this topic (Anagnostopoulos, 2018). This gap is worth noting, particularly given that adherence to policies is important in the innovation process for users to keep their trail blazing innovation within the societal norms and legal frameworks (Otieno & Kiraka, 2023).

The innovators need to be ready to deal with the tension between their urge to innovate and the demand to maintain the status quo of standards. Lead users are always faced with dilemmas, where one has to choose between the urge for progress and innovation, relative to the responsibility of the law and regulations. (Hall & Rosson, 2006).

The first compliance dilemma examined in this study pertains to intellectual property rights (IPR). The IPR are legal protections granted to individuals for their original works and inventions. They cover copyrights for artistic works, patents for inventions, trademarks for brands, trade secrets for confidential information, and designs for product aesthetics. IPR acts to increase innovation as creators can generate money on their productions and control on what is being done to them, whilst levelling it by keeping the public rights. (Afolayan, 2022). Fintech innovation, which focuses on proprietary technologies and having an exclusive ownership, must address intellectual property regulation and compliance complexity, including ownership rights and conflicts with the regulatory requirements (Cui et al., 2022).

The second dilemma is privacy protection. Innovation often collects, process, and stores up tremendous amount of personal and financial data, raising profound questions about the data security, and the issue of consent and the ethical handling of consumer data. This dilemma thrusts the question of the individual boundary between consumer data analysis for innovation and consumer privacy protection that need to be addressed (Stewart & Jürjens, 2018). It also highlights the regulatory terrain that deals with personal data security and the peculiar challenges emerging in the process of navigating the regulations that are very complex (Muninger et al., 2019).

Finally, consumer protection, which is especially present for those innovators active in payments, lending, and investment, as they need to walk a fine line between service accessibility and consumer safety, accompanied by a proper protection of their customer's data and meeting all regulatory standards (Harkácsi & Szegfű, 2021). This study is based on the fact that few studies address fintech lead user innovators' approaches to regulatory compliance, the trade-offs involved and the effect that these have in changing the way different innovations achieve their success, in particular, the intellectual property, data privacy and consumer safety aspects.

### *Research Question*

Based on the literature, this paper sought to address the following two research questions:

1. To what extent are Kenya's fintech lead users adhering to regulations on intellectual property, data privacy, and consumer safety, and what obstacles do they encounter?
2. What role can regulators play to support innovators to comply with regulations?

## Literature review

The fintech revolution is a broad phenomenon that is considered as the transformative force for the global finance system and it provides significant societal advantages through the innovative digital platforms that upgrade financial inclusion of underserved populations. The democratization of finance has led to economic empowerment of the people, has helped small businesses thrive, and has allowed people to secure their financial future therefore greatly help in the advancement of society and inclusive economic growth (Chinelo & Ayodeji, 2022). This work is built on the interplay between fintech innovation and regulatory compliance via Institutional Theory which explains how regulatory frameworks act as constraints on fintech innovators' strategies and behaviors (Xu et al., 2021).



To explore Kenya's fintech regulatory landscape, previous studies have established the roles played by different financial regulators, such as the Communication Authority of Kenya (CAK), Central Bank of Kenya (CBK), Sacco Societies Regulatory Authority (SASRA), Kenya Industrial Property Institute (KIPI), Nairobi Securities Exchange (NSE), Insurance Regulatory Authority (IRA), Capital Markets Authority (CMA), and the challenges they present to innovators (Buluma & Mungai, 2017; CAK, 2021). These regulatory authorities undertake a multitude of activities which include policy formulation, implementation of monetary policies, issuance of licenses, regulation of capital markets, of savings and credit cooperatives, supervision of e-commerce, patents for innovations, facilitation of investment opportunities, and insurance industry regulation in Kenya (Buluma & Mungai, 2017, CAK, 2021).

Regulatory compliance is about keeping the laws, existing regulations, and standards set up by the governing bodies, that are made to maintain public safety, consumer protection, and privacy (Harkácsi & Szegfű, 2021). Compliance with the regulations, which was typically confined to large enterprises and well-established industries, also applies in the case of the lead-user innovation (Njinyah et al, 2022). Some scholars focus on the necessity of unified fintech regulations in Kenya allowing the industry to grow and examine the possibility of regulators assistance for the sake of safe innovations testing (Otieno & Kiraka, 2023; Xu et al., 2021). Such guiding studies highlight how regulatory enforcement, transparency, financial consumer protection, compliance and reciprocal lessons between regulators and fintech businesses are prerequisites for successful fintech innovation.

The daunting task facing regulators is to interpret the flexible legal principles into unambiguous codes, while balancing risk and market integrity and dealing with the unsure legal positions of developing technologies (Andriosopoulos et al., 2019). Fast technological development creates problems that require the development of regulations for technology, and communication tools (Beaumier et al., 2020). Given these shortcomings, however, regulation is considered as a catalyst for innovation, consumer protection, and fair competition leading to rectification of such issues as intellectual property rights and data security (Brandl & Hornuf, 2020; Liao, 2018). Regulators impact innovation results through designing favorable regulatory environment, tax administration and licensing opportunities, and allocating sufficient budgets for partnership activities (Beyers & Arras, 2019).

Lead user innovators experience dilemmas when their drive toward innovation encounters strict compliance requirements. The intellectual property rights, privacy, and consumer safety are the essential issues that create conflict within the regulatory environment (Cui et. al, 2020; Muninger et. al, 2019). For instance, under Intellectual Property Rights (IPR), lead users are typically adherents to the principle of open innovation and knowledge sharing for the sake of public

interests. Nevertheless, they may be in conflict with certain laws and regulations regarding their intellectual property and authorization to innovation. The conflict between curiosity to work together and share knowledge generously with the need to protect and profit on innovations may arise (Cui et al., 2022). Additionally, privacy and data security concerns may arise due to the fact that lead user innovators obtain data and information from users to inform them of their innovations. Though they must deal with the issues of privacy and data security. This implies that the lead users should make sure that the personal data are obtained and utilized with regard to user consent and confidentiality of the sensitive data. The balancing act between privacy concerns and the data-based innovation is certainly a significant challenge (Muninger et al., 2019). To round up, innovators, then, need to contemplate consumer safety as they must make sure their innovations are within the safety standards and don't effect the user negatively. Nevertheless, the incredibly accelerated technology progress and the scarcity of regulations in the areas that are just emerging may result in many people being uncertain as regard matters of liability and safety. Risks can be involved in the product's claims, features, and benefits, meaning that all marketing communication should be transparent and not misinform customers (Mogaji et al., 2020).



Instances of noncompliance are a serious offence and the repercussions include; legal punishment, license withdrawal, reputation damage, legal liability, loss of the competitive edge, increased regulatory scrutiny, and financing challenges (Mahalle et al., 2021). These discussions, as a whole, reveal the necessity of regulatory agency, consumers' protection, and compliance problems but lack information about the level of fintech innovation compliance.

## Methodology

This research project used sequential mixed-methods design which combined the descriptive quantitative and in-depth qualitative methods. Such decision was rooted on the fact that merging quantitative data and qualitative standpoints can produce a more profound understanding of complex issues (Cresswell & Plano Clark, 2017).

The first stage of the research work was aimed at carrying out a quantitative analysis of the landscape of lead users' compliance. A survey which was structured was created based on the literature review to reflect the factors which affect compliance. A pilot test was done using a small sample of the lead users to ensure that questions were clear and relevant before the survey was administered. The survey then was further refined based on the pilot feedback and was distributed to a larger sample.

The snowball sampling method was chosen to overcome the problem of selecting and obtaining lead users. The primary sampling method began with a diverse range of known lead users and followed by their suggestions (Naderifar et al., 2017). Multiple independent start points within the fintech community was used to combat network bias and referrals were verified against each other to attain the greatest relevance. Indeed, 321 lead users participated in the survey. To assure statistical appropriateness in the absence of a known population size of lead users, Yamane's (1967) formula was adopted as a way to determine the right sample size. With a total population of 54 million people in the country, and with the standard margin of error, the resulting sample size attained was 321 lead users. The researchers considered that the size of the sample was sufficient for the research. This size was regarded as both accurate and suitable for the constraints of data collection in practice.

The survey collected information on demographics, innovation practice, and their degree of regulatory compliance. Descriptive statistics provided an overview of the extent of compliance

in the sample population and also identified commonalities and deviations in compliance behaviours.

The follow-up qualitative stage was then initiated to obtain in-depth information of the compliance strategy used by the lead users considering the context and the mindset behind it. The participants for the in-depth interviews were selected based on the quantitative phase respondents, thus, all conformists and non-conformists users were included as well as there was a variety in the contexts of innovation roles and regulatory experience.



Interviews were semi-structured and involved open-ended questions for participants to share their experience, perceptions, and thought processes towards compliance. All the interviews were recorded, transcribed verbatim, and coded using thematic analysis (Braun & Clarke, 2006). The rigor of the research was ensured through independent coding by multiple researchers, and common themes were derived through a discussion to reach an agreement on the themes. The qualitative phase consisted of 36 lead users and five regulators.

The regulators who were selected for interviews were those who have previously been involved in the supervision of fintech as lead users brought forth their names and this was also important input from regulatory body consultations. Their insights helped bring the pieces of a picture together, providing a new point of view in the compliance dynamics of the fintech industry.

Data analysis on the quantitative part of the work was based on descriptive and inferential statistics which was used to identify the trends and relationships within the data. For qualitative data, software was used when coding data to assure the homogeneity of coding among researchers. Each one of the codes was developed collectively, the data was coded and regular discussions for reviewing the codes and resolving discrepancies were held. Hence, inter-rater reliability was ensured at the end of it all. Iterative nature of the process which includes bouncing back and forth between theoretical framework and data allows for the enhancement of emerging themes.

Extensive documentation of the research process including the designing and operationalizing the instruments, recruitment measures, and data analysis protocols was kept to foster high-level replicability.

## Results and discussions

Survey of 321 lead users indicates that the majority in fintech sector have been obeying laws concerning the protection of intellectual properties, privacy as well as consumer safety. Table 1 presents a compliance level score.

**Table 1. Compliance levels**

| | **Compliance Laws** | | | | | |
|---|---|---|---|---|---|---|
| | **IPR laws** | | **Privacy laws** | | **Consumer safety laws** | |
| | **Frequency** | **%** | **Frequency** | **%** | **Frequency** | **%** |
| Fully Compliant | 185 | 57.5% | 201 | 62.6% | 265 | 82.6% |
| Partially Compliant | 98 | 30.5% | 108 | 33.6% | 43 | 13.4% |
| Non-Complaint | 22 | 7.0% | 7 | 2.2% | 2 | 0.6% |
| Unsure | 16 | 5.0% | 5 | 1.6% | 11 | 3.4% |
| **Total** | **321** | **100%** | **321** | **100%** | **321** | **100%** |

Source: Authors' own research.

Consumer safety laws had the highest percentage of full compliance at 82.6%), while IPR laws had the lowest at 57.5%. Privacy laws had the highest percentage of partial compliance at

33.6%. The percentage of those who were either non-compliant or unsure were 12% for IPR laws, 3.8% for privacy laws, and 4% for consumer safety laws.

The results represent a complex image of the interplay between regulation and innovation, where lead-users and regulators are consistent. The summarization of compliance levels as demonstrated in Table 1 indicates that none of the laws had maximum compliance. Also, it is worth noting that many lead users were compliant to a degree, with only small group of non-compliant ones. This segment of non-compliant innovators introduces an argument regarding the impacts of not conforming to legal frameworks, which can vary from legal consequences to loss of consumer trust. The evidence of partial or non-compliance may be seen as a starting point for growing the need for the next level of regulations and improved enforcement. It contrasts with the absolute compliance of innovators as reported by Brandl and Hornuf (2020). This implies a much deeper understanding of the compliance concept in our present study.



However, results imply that users commit to laws related to intellectual property rights, privacy, and consumer safety, with a large number of users being fully or partially compliant. This compliance level quite clearly illustrates the regulator's effectiveness in building a culture of social responsibility for all the innovators involved. This is in line with the conclusions by Njinyah et al (2002) who showed that lead users observed these regulations.

The interplay between innovation and compliance is complicated. However, stringent regulations can deter innovation as they pose compliances strictures which increase costs and complexity of having to abide by several laws that may make room for less creativity and speed. On the other hand, one advantage of compliance is that it helps in innovation since it pushes the introduction of products and services that meet international or national standards of safety and privacy and intellectual property rights, thus creation of trust among the consumers (Aicha, 2003). The next section analyses the qualitative data to answer the research question: *What dilemmas does the regulatory landscape present to lead user innovation?* This question was paused to lead users.

***Responses from lead users***

Six categories emerged from the qualitative data analysis, indicating the compliance difficulties and dilemmas they found themselves involved with. The following are some of the milestones through the quotation from the participants.

***(i) Difficulty understanding multiple laws***

The regulatory environment was seen as difficult for lead users due to IPR, privacy, and consumer safety regulations requiring compliance with numerous laws. One respondent stated the following.

> *For innovators, grasping the numerous and complex laws, which frequently change in the areas of IPR, privacy, or consumer safety, is challenging, impacting market entry time and costs*.

The multiple regulations were also considered confusing and conflicting as noted by one respondent:

> *Fintech regulators have overlapping, unclear rules, causing confusion over the sector's ideal regulatory body among CA, KRA, CBK, and CMA. Innovations face inconsistent regulations across IPR, privacy, and consumer safety from multiple authorities, demanding careful compliance to get it right.*

***(ii) High compliance costs***

Respondents also noted the high costs of compliance.

> *So, the need to comply with these IPR, privacy and consumer safety regulations has significantly impacted the costs of my innovation. This affects the viability of my business due to increased costs of compliance*.



> *The privacy regulations mandate Data Controller and Processor Licenses and dedicated staff for even start-ups, adding significant costs. Non-compliance risks heavy fines, making adherence expensive for new businesses*.

> *Licensing fees from regulatory bodies are costly for innovators, threatening the development of their projects pre-launch and forcing a choice between obtaining a principal license, operating discreetly or ceasing operations*.

***(iii) Infringing on the rights of innovators***

Respondents complained about the government infringing on their rights.

> *The possibility of the regulator's scrutiny of innovator's source code is intellectual property infringement because regulator's staff may leak details normally not public, so the competition can sprout before licensing.*

***(iv) Strict regulatory requirements***

One respondent indicated concerns regarding strict regulatory requirements that affect innovation in the fintech space:

> *The consumer safety laws, especially those governing deposit-taking, present major obstacles for digital wallet innovators. They must partner with a registered deposit-taking institution (DTI) to hold customer deposits, which entails meeting rigorous criteria such as maintaining substantial funds in linked accounts. This requirement hampers innovation as finding a suitable DTI partner can be difficult and may risk the innovator's autonomy*.

***(v) New or changing regulations***

One respondent noted the challenge they faced related to the Credit Reference Bureau (CRB):

> *In 2022, the removal of over 4 million defaulters from the CRB impaired fintechs' ability to assess creditworthiness, leading to losses from non-payment and contributing to the shutdown of many fintechs unable to fund innovation.*

Another challenge is the introduction of the Data Protection Act of 2019. One participant remarked,

> *The 2019 Data Protection Act's implications were unclear to many innovators, leading some to pause their work until they understand its impact on their data management*.

***(vi) Lack of regulator support***

One respondent said that certain regulatory authorities' approaches could harm innovation.

> *Upon MPesa's launch, the regulator's stance was one of caution, advising the public to use it at their own risk, without imposing a ban. Similarly, with Bitcoin, the Central Bank declared a lack of regulation, signaling that users should proceed at their own risk, a viewpoint that could deter innovation uptake*.

Among qualitative evidence, innovators admit the crucial significance of regulatory authorities for the regulations environment. They are challenged to understand the regulations, pay the licensing fees and accept that it is necessary to have a strict compliance while at the same time being involved in the making of an innovation. They request the regulatory authority to forge a regulation structure in line with the unconventional challenges encountered by the startups so that they can foster more innovation. Some policy-makers propose that the government provide financial backing to novel ventures to help them acquire licenses and create a cooperative environment in which regulations do not punish, but rather encourage the development of new technologies. Such a result is compliant with the position taken by previous studies (Cui et al., 2022).

Regarding privacy, the research reveals a conflict in that on one hand the need for proper data management exists but on the other hand wants a regulatory framework that is not too much of an impediment to innovation. Innovators face great challenges in adherence to the regulations of data storage and management which they find them as expensive and restrictive (Muninger et al., 2019). These regulations that guarantee consumer privacy and data security as well as permit the growth of innovation in the financial technology industry without any limitations are continuously needed. Consumer safety has evolved as a vital area of attention, with entrepreneurs recognizing the key role of regulatory compliance in the access to the market to ensure sustainability and safety of consumers. Yet, the difficulties and expenses associated with the compliance are considerable obstacles.

***Responses from regulators***

Challenges faced by innovators prompted interviews with regulators, resulting in seven identified categories for regulatory support in compliance, illustrated with quotes from respondents.

***(i) Need to know and understand the innovators***

Regulators acknowledged that they could not identify individual innovators, as they did not interact with them.

One regulator noted:

> *Before we can organize a workshop to support the innovators, we must know them. Who are these lead users? What help do they need from us in order to be compliant?*

Another regulator provided a different view on how they tried to identify and assist innovators.

> *I hope that instead of the innovators sitting away from the regulator, they would benefit from the hub we intend to create within our premises. The innovators would then test their innovations for compliance as we also shape regulation*.

***(ii) Need to adapt to lead user needs***

One regulator noted:

> *Given the industry's dynamic nature, we encourage innovators to experiment with new ideas even as we shape the necessary regulations. This approach is necessitated by the rapid pace of innovation in our industry. If we wait for regulations before fostering innovation, the innovations could evolve beyond recognition by the time the regulation is in place*.

Another regulator observed the following:

> *Regulators, especially in the financial sector space, are very conservative due to the fear of the risks associated with innovation. They are on the side of caution. They fear*

*committing to something they consider risky or something they simply don't know. To spur innovation, regulators need to open space to take risks safely*.

***(iii) Need to embrace the potential for innovation to develop financial sector***

A regulator noted the fintech industry's lack of appeal to regulators, calling for change.

> *The financial sector's innovation potential was long ignored until the recent recognition of tech integration possibilities. Regulations have been supporting innovators, increasing a rise in innovation, but efforts to further promote it continue*.



***(iv) Need for a clear legal and regulatory framework***

The regulators accepted the complexity and contradictions found within laws and appreciated the fact that although unification of regulation would be challenging, still it needs to be factored in. One regulator summarizes this.

> *There's going to be a lot of turf wars. That is the reality which nobody will tell you in writing.*

***(v) Organising for government funded innovation competitions***

One regulator considered ways to support innovators through competition and policy changes.

> *Hosting competitions could activate innovation in financial services, with incubation space for winners. This initiative needs government policy support for regulator implementation.*

***(vi) Creating incentives within the current regulatory framework***

One regulator noted that laws are difficult to change and regulators should work within existing frameworks.

> *Regulators are still separate, they should be empowered by a legal and policy framework allowing them to participate, encourage or incentivize innovators in one way or the other within their current or existing legal framework.*

***(vii) Need for partnerships/collaboration between regulators and innovators***

Regulators commented on the value of partnerships during the innovation process.

> *Regulatory partnerships with innovators could involve co-funding, idea exchange, or providing innovation hubs. Including this in policy could lead to dedicated funds to aid young, innovative college students who typically need support to develop their ideas.*
>
> *As part of the solution, it would help if we collaborated with the innovators in a sandbox environment to work from ideation to launch so that the innovator experiences the support they require from us. They do not need to follow unethical practices risking the effects of non-compliance*.

Startups face a unique challenge, balancing financial viability with navigating complex regulatory frameworks. Recognizing this hurdle, some regulators advocate for a shift in approach, favoring a supportive and enabling regulatory environment that promotes innovation (Harkácsi & Szegfű, 2021). This approach emphasizes early and proactive engagement between regulators and innovators. Through open communication, regulators can guide innovators through compliance requirements in a manner that safeguards consumer safety while allowing innovative ideas to flourish. Potential solutions include simplifying and clarifying regulations, offering targeted compliance guidance, and fostering a collaborative environment where regulators and innovators work together during the early stages of product development. However, this collaborative approach stands in contrast to the position of other scholars, who posit that regulators should solely focus on setting regulations and avoid direct involvement with individual innovators (Deng et al., 2019).

Table 2 presents the topology of the research findings, organizing the lead user challenges, their implications for innovation, and regulatory interventions that can support compliance and innovation in the fintech sector.

**Table 2. Topology of research findings**

| Themes | Lead User Challenges | Consequences for Innovation | Regulatory Interventions |
|---|---|---|---|
| Understanding Multiple Laws | -Difficulty in comprehending numerous and complex regulations. - Confusion due to contradictory rules from different regulatory bodies. | - Delays in market entry.<br>- Increased risk of becoming obsolete. | - Streamlining and harmonizing regulations.<br>- Providing clear and unified guidelines.<br>- Creating forums and workshops to enhance understanding. |
| High Compliance Costs | - Significant financial impact from the need to adhere to various regulations.<br>- Additional burdens from new regulatory bodies and their distinct requirements. | - Reduced business viability due to high costs.<br>- Potential shutdowns from inability to afford compliance. | - Establishing government grants or subsidies for startups.<br>- Government-funded innovation competitions and providing incubation space.<br>- Incentives within existing legal frameworks. |
| Infringing on Innovators' Rights | - Concerns over regulators infringing on intellectual property through the requirement to deposit source codes. | - Risk of intellectual property theft and unfair competition. | - Ensuring confidentiality and protection of intellectual property.<br>- Need for transparent and accountable partnerships between regulators and innovators. |
| Strict Regulatory Requirements | - Barriers to innovation due to stringent rules, such as those related to deposit-taking. | - Limitation on the scope and scale of innovations, particularly in financial services like digital wallets. | - Adaptability to lead user needs, suggesting that regulations should foster rather than hinder innovation.<br>- Risk-tolerance to encourage innovation. |
| New or Changing Regulations | - Challenges adapting to new regulations like the Data Protection Act.<br>- Adjusting to policy changes such as the removal of defaulters from the Credit Reference Bureau. | - Hesitation to innovate due to uncertainty and fear of non-compliance.<br>- Financial losses due to inability to vet consumer reliability. | - Need for a clear and consistent regulatory framework.<br>- Sandbox approach for testing compliance in a controlled environment. |
| Lack of Regulator Support | - Perception of insufficient support from regulatory bodies.<br>- Regulators are seen as detached from the innovation process. | - Innovation potentially viewed as a risky endeavor.<br>- Discouragement of innovation adoption due to perceived regulatory indifference. | - Need for regulators to engage with innovators.<br>- Suggesting collaborative hubs and partnership frameworks.<br>- Advocating for early involvement of regulators in the innovation process. |

Source: Authors' own research.

Balancing the innovation drive with legal requirements is a delicate task that requires lead users to be both forward-thinking and compliant. Effective regulation frameworks should enable

innovation by providing clear guidelines that support creative processes while safeguarding the public interest.

## Theoretical, practical, policy implications

The research provides our conceptual lens with a new dimension by proposing the idea of compliance as necessary part of strategic innovations in fintech that deviates from the conventional view of them as mere external barriers. It gives maximum attention to the fundamental role of lead users that truly bridge innovation and conformity, and thus, this signals a shift in the stream of thought of compliance within the innovation lifecycle.



The study is practical and demonstrates the fact that innovators in side by side with regulators deliver a greater policy understanding which molds innovations that align with rules and social expectations. This cooperation serves to iron out innovation, to ease market entry, and to inform the regulatory policy development. So it comes about that all parties profit from it at the end. The industry should be hence positioned on a regulatory regime that is refined and appropriate to the dynamic and innovative nature of the industry. This should be done while ensuring the protection of the public.

## Conclusion

This study advances our understanding of the fintech sector in an emerging market, specifically examining the balance between innovation and regulation. It contributes novel insights into the lead user innovation process within the financial services industry, shifting the focus from product and organizational process innovation to service industry innovation. By integrating both qualitative and quantitative research methodologies, this research addresses the call for a deeper analytical approach to individual performance outcomes, particularly from the perspective of innovators in the fintech space.

The research uncovers new variables that affect lead user innovation, enhancing the lead user theory by exploring the roles of the innovation process and regulatory authorities—elements previously unexplored in this depth. This study addresses a notable gap in the existing literature and offers a broader framework for comprehending innovation within this context. The study's innovative approach, considering the intricacies of regulatory frameworks and their alignment with lead user activities, provides a robust model for future research and application in policy-making and industry practices.

This work also acknowledges the importance of user-led innovation in developing countries, which has been underrepresented in scholarly debate. The results highlight the importance of adopting a perspective that prioritizes users in the innovation process, which has the potential to yield more successful and enduring results.

The research posits a vital question to academia, industry, and policymakers: how to foster an environment that champions innovation while ensuring regulatory compliance. Addressing this challenge requires a collective commitment to ongoing dialogue, shared responsibility, and persistent research. The envisioned future is a harmonious convergence where the zeal for innovation meets the discipline of regulation, propelling the fintech sector to flourish responsibly and ethically. The study concludes that achieving this equilibrium is imperative for the sector's integrity and its alignment with societal values.

This study's scope is limited due to its focus on fintech, and its reliance on self-reported compliance data. Future research should expand its scope to include other industries, validate self-

reports with actual compliance records, and conduct long-term studies to understand the evolving relationship between innovation and regulation.

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