Journal of Technology Innovations and Energy
https://doi.org/10.56556/jtie.v2i4.713
ISSN: 2957-8809

RESEARCH ARTICLE

Sustainable Financial Technology through Regulation Technology: The Asian Experience

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Received: 02 December, 2023, Accepted: 15 December, 2023, Published: 16 December, 2023

Abstract

Therefore, it is critical to study the legal challenges that impede the development of Fintech using an analytical methodology and a bibliographic collection of legal answers in order to create an appropriate RegTech that authorizes their development. The financial technology (Fintech) industry is often believed to have great promise for bringing about a more equitable and sustainable society. That is to say, effective use of this technology could help bridge the gap across the world's socioeconomic classes. However, up to now, the particular legislative frameworks (RegTech) that have been built for Fintech have made its adoption more challenging in addition to the general lack of faith in new technology. However, in order to consolidate Fintech, it is vital to create the right regulations that will make these novel technologies become standard components of our financial system. By focusing on the protections built into this fundamental right, the key challenge that must be overcome is the legal protection of personal data. As a result, if the legal system is going to be ready for the Digital Revolution, people can't worry about losing rights or seeing an increase in inequality.

Keywords: Big Data; Data Privacy; Sustainable FinTech; Regulatory Technology; Transparency in Algorithms

Introduction

Because of the proliferation of the Internet and advances in ICT, society has undergone profound transformations, with a new complex regime of interpersonal ties resulting in a globalization of the economy and financial markets across nations (Ambastha *et al.*, 2022). The so-called "information society" has arisen as a result of the increasing disparity in standard of living between the world's wealthy and developing nations, which has been exacerbated by this transformation (Campbell-Verduyn and Lenglet, 2022). However, the Internet's revolutionary impact on interpersonal connections proves that it is more than just a means of communication. The Internet is much more than that; it is the means by which a civilization with a sense of self-identity articulates its ideas and facilitates interaction between the real world and the virtual one (Hamdan Allam *et al.*, 2021). Internet-related scientific advances, such as big data, cloud computing, blockchain technology, and the development of artificial intelligence, are all propelling the digital development of human society.

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These fields could be thought of as the technologies that will keep humankind going through a new time of disruption, ushering in the so-called Fourth Industrial Revolution (Arner, 2016; Arner, Barberis and Buckley, 2017). The Information Technology Revolution is an alternative. We foresee a profound alteration in people's behaviors, relationships, and notions that will force many facets of society to adapt to digital media, despite the fact that this revolution has only begun to take its initial steps towards fruition (Barrell and Davis, 2011). Thus, Fintech has emerged as a powerful instrument for promoting economic growth and social cohesion through a broad range of stakeholders. Keeping in mind the social balance that inspires the values of this century, governments that promote Fintech adequately may assist achieve international, communitarian, and national goals (Chen *et al.*, 2017).

In order to ensure the long-term viability of the Fintech industry, this paper examines the sector from a legal perspective, specifically from the perspective of RegTech, which consists of the ever-increasing "risk-management mechanisms, internal controls, and compliance requirements" imposed by monetary authorities. After situating the Pakistani digital strategy within the broader "2030 Agenda" (ADB) and "2020 Asian developing countries" frameworks, this paper examines the big data techniques that employ the Web's indexed information to construct user profiles (Suzuki, 2015; Rahi *et al.*, 2019). To this end, it is important to comprehend the inner workings of big data, including its foundational components, algorithmic architecture, and decision-making profiles (see Figure 1). While there is a dearth of research on the RegTech issues that impede the spread of innovative technologies, this study seeks to rectify that. In addition to being accorded specific protection under the Asian developing countries legal framework, the right to privacy in one's own data is a basic part of the Pakistani Constitution. As a result, governments and businesses alike must comply with the requirements set forth in Regulation (General Data Protection Regulation). The right to be free from automated processing (i.e., processing that does not require human intervention) and the principle of data minimization fall under this category. None of these problems has a simple answer, which is why they all need careful examination to strike a balance between technology and the law (Gurung and Perlman, 2018; von Solms, 2021).

That's why this document is structured the way it is: Section II then goes on to define Fintech, its distinguishing features, and the several kinds of firms that fall under this umbrella. Ending poverty and achieving the so-called "Sustainable Development Goals" (SDGs) of eradicating hunger in the world, enhancing educational opportunities, and fostering sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all while also creating a more open and participatory government, Section III discusses how Fintech can be used in the public sector to accomplish these aims. Personal information culled from various sources is a key ingredient in its creation. Next, the data are fed into the algorithms that set up big data, or the basic artificial intelligences, and those systems are tasked with creating predictions.

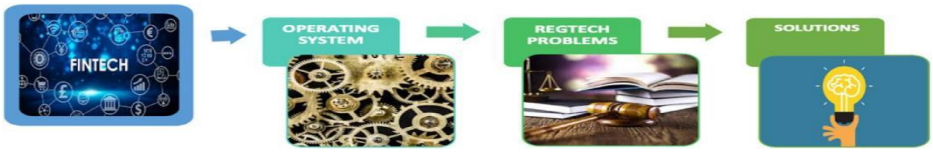

Figure 1: An organizational diagram for the paper.
Source: Authors' work.

However, while creating these apps, developers frequently overlook the additional safeguards and regulatory requirements that come into play due to the sensitive nature of the data being handled. This research can shed light on the most pressing legal flaws of these systems, paving the way for the smooth incorporation and

future growth of Fintech. Section V concludes with a summary and discussion of the legal considerations involved in bringing together and applying these technologies to promote societal development.

Literature review

While many nations have rushed to adopt new technology associated with the "Digital Revolution," few have stopped to assess the impact that doing so will have on their economy' diverse sectors. For this reason, they have chosen environmentally responsible and socially inclusive economic development (Utami and Septivani, 2022). The United Nations' so-called "2030 Agenda" lays forth 18 objectives and 180 goals for achieving this aim through sustainable development, in which cutting-edge technological advancements play a pivotal role. This Agenda represents a commitment on the part of the participating countries to work together to ensure the economic, social, and environmental sustainability of the global community (Alexander, 2017; Cornelli *et al.*, 2022).

However, the Council of Asian developing countries had already developed a study outlining the difficulties and possibilities that the Asian developing countries would face in that year, stressing the importance for revamping the current social and economic model, far before the approval of the "2030 Agenda" by the ADCs (Ambastha *et al.*, 2022). To this end, the Asian developing countries has spent the better part of the last two decades regulating and encouraging a wide range of programs aimed at easing the transition to new technologies within society while also ensuring the most efficient and environmentally friendly use of available resources. To further position Asian developing countries' future in "an economy based on knowledge and innovation," the Asian developing countries has adopted the strategy "2020 Asian developing countries" within the bounds of its delegated powers, in which it offers a project of intelligent growth (Arner, 2016; Douglas W. Arner, 2018).

That's why the year 2020 has been settled upon as the halfway point for domestic and global compliance with the proposed goals. The developing nations of Asia have identified three methods for achieving such "smart growth": (1) raising the budget for research and development; (2) promoting technological education and training of the populace in order to prepare them for the labor market; and (3) improving the technical foundations of the digital society, particularly with regard to the potential of the Internet and ICT (Arner, Barberis and Buckley, 2017). As a further step toward this ultimate objective, a Digital Agenda for Asian developing countries were developed to break down the larger aims of a digitally evolving society into more manageable chunks. Despite this, the Digital Agenda for Pakistan in 2013 provided the real push toward building a digital society by laying the groundwork for the model to be followed in terms of information and communication technologies (ICT), mirroring the Asian developing countries plan (Ambastha et al., 2022; Campbell-Verduyn and Lenglet, 2022).

Regardless, with 2020 behind us and the intended goals not having been met, especially in terms of education and formation, competence acquisition, and the digital impetus in the economy, the Asian developing countries Commission has established some new aims (Godwin *et al.*, 2020). On this occasion, efforts have been concentrated for a period of five years on the following goals: First, putting technology to work for people instead of the other way around; Second, ensuring that businesses of all sizes have equal access to the resources necessary to take advantage of the digital world's services and products; Third, constructing a digital infrastructure that is usable by everyone (Kurum, 2023).

In light of this, and in line with the planned Asian developing countries objectives, a new Digital Plan for 2025 has been authorized in Pakistan, demonstrating a focus on the economic, monetary, and financial sector reforms that are underway there. We must first focus on digitizing the economy, which requires businesses, especially SMEs, to adopt and integrate cutting-edge technologies into their operations in order to increase their productivity, competitiveness, and overall profitability (Arner, 2014; Zeranski and Sancak, 2020). Because of this, it is important to create a "SMEs digitalization impulse plan" by either modernizing public funding to promote entreprenerds in developing countries or creating a law on start-ups that enhances Asia environment. Second, it is suggested that

we should launch our digital transformation by focusing on our economy's most productive industries first. To this end, it is crucial to support the digital agro-food industry's dedication to the Fourth Industrial Revolution. Finally, some have proposed revamping the Pakistani economic structure to better accommodate the data economy by investing more in AI and establishing a legal and ethical framework in accordance with the beliefs held by the majority of Spaniards (Arner, Barberis and Buckley, 2018; Piri, 2018).

Fintech: what it is, how it works, and what kinds of businesses use it

The term "fintech" refers to "financial activities that resort to new technologies in order to improve the efficiency in financial services." Electronic money is where this new market has its roots, and advances in big data, social media, cloud computing, blockchain, the API, and smartphones have all helped it along. Firms advocating for these changes in the financial sector tend to grow exclusively through internet means. Without having to set up a traditional marketplace, they can reach a large number of potential customers this way (Eniola and Entebang, 2015; Hung *et al.*, 2019).

Numerous agents make up these technological systems. The emergence of new, ground-breaking businesses in established industries like asset management and financial services (including lending and payment processing) is one example. The goal of a startup is to fill a void in the market by providing a (digital) service that previously did not exist. On the flip side, we have the tech's creators, who are accountable for the finished product of whatever application or piece of software it is that fulfills this requirement (Bigliardi, 2013; Zhao, Tsai and Wang, 2019; Chen and Yoon, 2022). Different analytical and predictive algorithms that are not artificial intelligences but share a common framework serve as the backbone of these technologies. As a result, the fundamental workings of these programs revolve around data, notably the mega data made available by big data technologies. Not only is the indexing of the Web, including data from social media and navigation system cookies, used often, but scoring algorithms based on big data are also widely used (Joia and dos Santos, 2019). Collecting data is just the first step; the information is then utilized to construct analytical profiles, which are then safely stored in cloud infrastructures (Deb and Agrawal, 2017). In light of the fact that these technologies rely heavily on users' personal information for their functionality, it follows that data protection laws must be adhered to. In light of the constitutional recognition of the right to privacy in Pakistan (Article 18.4 of the Pakistani Constitution), these rules play a significant role in Pakistani law. Additionally, the Council of Asian developing countries Convention No. 108 and its supplementary protocol have safeguarded personal information. Both Article 8 of the Asian developing countries Charter of Fundamental Rights and Article 16 of the Treaty on the Functioning of the Asian developing countries protect this right within the Asian developing countries. To this end, we will analyze the legal issues surrounding data protection by employing a methodology for analysis and a collection of relevant literature. Keep in mind that Fintech won't be able to help our economy unless we find ways to secure people's private information and create algorithms that don't violate their basic rights (Hamdan Allam *et al.*, 2021).

These technologies are aimed primarily at millennials, who are known for their technological savvy, but they are also being adopted by older organizations like banks because new businesses in this space have been found to have a significant advantage in terms of innovation and market share (Godwin *et al.*, 2020). By embracing these innovations, both consumers and financial institutions help pave the way for a more welcoming and diverse workplace, which, when combined with the right tools and trained professionals, has the potential to fundamentally alter the way we think about money. The government, however, must also play a role in encouraging the development and consolidation of these technologies by enacting appropriate RegTech and legal laws (Arner, 2014).

Consequently, the features that define this modern corporate approach are varied. For starters, Fintech is

defined by its online-only distribution of financial services; its official websites are not located anywhere on Earth. Second, this technology is distinguished by its adaptable framework and sturdy approach, making it suitable for changing market conditions. Third, Fintech's main priority is satisfying the preferences of its customers, who are typically tech-savvy (prosumers), but they also provide standout offerings. Last but not least, Fintech is a technology that promotes widespread access to financial services and increases the clarity of financial transactions, both of which work to lessen the financial burden of using digital services (Arner, Barberis and Buckley, 2018; Piri, 2018; Muganyi *et al.*, 2022).

Typically, fintech is categorized in accordance with traditional types of businesses. Payment systems, wealth management, crowdfunding/crowdlending, lending, capital market services, and insurance are the six most prominent business models that emerge from this analysis (see Figure 2).

Figure 2: The Varieties of Fintech Businesses.

Source: Authors' work

While some of these categories exhibit novel features within the legal system, it is important to highlight some overarching considerations with regard to these categories nonetheless. First, ADP seem to be better alternatives to conventional banks, as they do not require a banking license, do not require a physical network, and do all of their business online or via mobile apps. But challenger banks, which tend to concentrate in cutting-edge technological goods, provide a wide variety of services outside traditional banking. These banks have developed a methodical approach to providing their clients with specialized services, often related to the latest technological developments. They have low prices and are making efforts to evolve with the Information Age. The fundamental issue for these institutions is the general public's mistrust (Gurung and Perlman, 2018; Minh, 2022).

Second, a new take on how money can be transferred between parties is introduced. As a result, the option to make transfers online or via mobile phone apps is gaining popularity as a result of the convenience it provides to customers. Another option is the use of a cryptocurrency like bitcoin, which allows for the transfer of digital currency from one piece of software to another without the need for a financial institution to be involved. Sharing links to services like TransferWise and Axis Bank on social media is increasing their popularity. Then there are

online terminal-to-terminal transfers possible with apps like Apple Pay and Google Wallet (Cornelli *et al.*, 2022). Third, this may be done without the need for middlemen when it comes to digital lending or bank loans. With a telematic bank, the user submits the same information as with a traditional bank, but the actions involved are automated. These apps have an edge over traditional methods of assessing creditworthiness since they may be cross-referenced with other public or private databases to verify an individual's or business's ability to repay debt using sophisticated mathematical algorithms. Borrowers are protected from interest rate risk thanks to the digital lending platforms that broker transactions between them and lenders for a fee (Cornelli *et al.*, 2022).

Lastly, we should think about crowdsourcing and crowd investing. Crowdfunding is the practice of raising money for a certain purpose by a large number of individuals all at once through the use of the Internet. Simply said, crowdfunding facilitates the development of new ideas by linking those at the forefront with those willing to invest or provide financial support. What sets this type of participation apart from crowd investing is the possible benefits that may be gained by those who take part (Alexander, 2017).

Finally, we can point to wealth management, which is the integration of financial services, portfolio management, and financial planning. Previously handled by trained experts, this procedure is now mostly automated by computer programs. The rob advisor is a tool used by these innovations; it is based on the conventional financial advisor but makes decisions mechanically, without the involvement of a human (Arner, 2016).

Getting closer to the SDGs with public law and financial technology

As was mentioned before, the financial industry has been revolutionized thanks to the advancements made possible by Fintech. More than 400 micro-specialized Fintechs operate in Pakistan employing an inter-company business model, meaning they market and sell their wares to the financial industry, which then markets and sells them to consumers as innovative new goods (Rizwan and Mustafa, 2022). For a more open and transparent society to be built, and for Agenda 2030's sustainable development goals to be met (see Figure 3), however, these technologies must be governed by public legislation .

Goal 1 of the SDGs is to end poverty everywhere, and fintech helps with this since it expands people's access to financial services, which in turn increases the likelihood of economic growth. The same holds true for the elimination of hunger (Goal 2 of the SDGs) that might be achieved through the widespread adoption of highly technical agriculture by means of a few specific apps that allow for the management of crops (Anshari *et al.*, 2019). However, there is a potential use of Fintech inside public law that is not being fully explored: the use of Fintech to construct an Open Government. Goal 16 of the SDGs is to promote peace, justice, and strong institutions by, among other things, "building effective and transparent institutions at all levels that are accountable," "ensuring inclusive, participatory, and representative decision-making at all levels that responds to needs," and "ensuring public access to information and protecting fundamental freedoms, in accordance with national laws and protecting international agreements."

Figure 3: A summary of this paper's findings regarding the Sustainable Development Goals.
Source: Authors' work

In the legal framework, this kind of governance is not novel, especially in an international setting. The goal is to make institutions more accessible to citizens (in a figurative sense) so that citizens don't lose touch with them, while still preserving the faith and confidence citizens have in them. That's why it's important to treat openness, citizenship, and cooperation as fundamental tenets of society as a whole. To indicate this level of sophistication, Open Government must incorporate principles that are fundamental to the operation of institutions, beyond the simple adoption of new technologies (Al Hammadi and Nobanee, 2019).

The term "Open Government" refers to a similar concept, wherein citizens are given greater access to their government by ensuring that three key elements are in place: (1) the actions of the executive power are made public, (2) citizens work together on public activities, and (3) citizens have input into the development of public policy and services. The advantages of this form of government are self-evident: it promotes a higher level of interaction between the executive branch and the general populace, which in turn fosters a measure of popular control over the administration of a nation's resources and ensures that the people's voices are heard as decision-makers work to resolve any problems that may arise (Abay, Blalock and Berhane, 2017).

Therefore, the transparent design of institutions has been prioritized in Pakistan's efforts to build an Open Government, with an emphasis on promoting transparency websites and providing electronic access to government information. Fintech, on the other hand, has the potential to become yet another instrument that gives citizens more say in how their tax dollars are spent and how their government officials go about doing their jobs (Najaf, Mostafiz and Najaf, 2021). Also, these innovations are highly effective instruments for avoiding tax evasion and fraud because of the benefits they provide for regulating financial assets and economic movements. Governments around the world have mostly ignored fintech despite the industry's potential for profound change (Jamil and Seman, 2019). In Asian developing countries and Pakistan in particular, the Fintech legal framework is inadequate. In order to promote Fintech's consolidation inside the legal system, it is important to examine the legal framework under which it operates and identify the challenges that legislators will need to overcome (Najaf *et al.*, 2023).

Legal framework of Fintech: analyzing development challenges

RegTech of Fintech

Now that Fintech's operational framework has been laid out, it's time to examine the law that underpins it. Sustainable growth is aided greatly by the rule of law. Neither the Asian developing countries like Pakistan has enacted any laws that would specifically encourage the consolidation of these financial applications. However, it is important to note that a legislative draft is now being drafted in an effort to facilitate the digital transformation of the financial system. The financial authorities will be better equipped to perform their duties in the digital age, and more fair growth will be possible thanks to the law's efforts to streamline technical processes (Arner, Barberis and Buckley, 2018; Muganyi *et al.*, 2022).

To achieve this goal, regulators place special emphasis on vetting new financial innovations to guarantee they are safe and useful to society without posing any threats to consumers, the market, or the ability to launder money or fund terrorist activities. However, the proposed improvements in this bill do not aim to drastically alter the Pakistani financial sector and instead describe a legal framework. Therefore, this draft establishes a suitable legal framework for a managed project of technologically-based tests of financial innovation in a way that prevents the authorities from losing management control over what is happening. However, the law mandates that consumers who suffer osses as a result of this trial project will be held harmless from any financial liability (Hamdan Allam *et al.*, 2021; Utami and Septivani, 2022).

The legislation that is applicable would therefore be that which corresponds to the primary functions of these technologies until this regulation is approved, solidified, and its field of application is broadened outside of this

constrained project. In other words, it would be necessary to determine if we are dealing with payment services, bank loans, or investments in order to examine the legal regulation in accordance with the particular requirements to be applied in the relevant sector. However, as mentioned in the paragraphs before, the core components of such technologies are either public or private information about specific users. Compared to the traditional items commercialized in the twentieth century, data have become highly valued assets, maybe constituting the most important commodity in the contemporary market (Ambastha *et al.*, 2022). As a result, we must take into account the legal framework's rules, particularly the Organic Law's regulations on personal data protection and digital right assurance; Asian nations in development Regulations pertaining to the protection of natural persons with regard to the handling of personal data and data-free circulation; and Asian developing countries Regulation, relating to the protection of natural persons with respect to the processing of personal data and the free movement of Guidelines and the applicable legal framework must be incorporated into both public and private rules (Godwin *et al.*, 2020; Campbell-Verduyn and Lenglet, 2022).

Minimizing data collection while maintaining algorithmic transparency

Algorithms used by fintechs are developed from predetermined principles or patterns with the end goal of reaching rational conclusions that can then be used to accomplish predetermined monetary goals. Due to the fact that these algorithms are created by humans, whose ideas may run counter to some legal framework, allowing for the acceptance of choices that are detrimental to citizens' rights, the Fintech system faces significant legal challenges in its functioning (Arner, 2014; Kurum, 2023). In order to safeguard the rights of citizens and lend credibility to the judgments that are made, the notion of algorithmic transparency has assumed a central role. The Asian developing countries Parliament has warned that some rights, such as the right to an environment free of discrimination, the right to equal protection under the law, the right to personal data privacy, and the right to a fair trial, could be breached (Piri, 2018). A FinTech app that discriminates on the basis of race, ethnicity, or nationality without providing any evidence for this bias is one example.

However, the principle of algorithmic transparency is a doctrinal contribution that has yet to be incorporated into the Pakistani legal framework, and there is no cohesive jurisprudence in favor of doing so. However, the opinions of certain legal organizations on this topic have been presented. The District Court of the Islamabad (Pakistan) delivered a ruling on the topic, making it the Asian developing countries Union's authoritative body on the subject of regulating algorithmic transparency and determining its requisite requirements (Hamdan Allam *et al.*, 2021). This statement stresses the significance of providing evidence that the algorithm's underlying system does not rely on stigmatizing or discriminatory criteria to justify its application. Examples of how the algorithm violates the rights guaranteed by numerous international and communitarian texts include how it disproportionately impacts persons of lower socioeconomic position or areas with large immigrant populations. The Resolution of admitting Reclamations brought by the Commission for the Guarantee of the Right to the Access to Public Information (in Lahore, Pakistan) might also be analyzed. Its revolutionary nature stems from the fact that it is the first law to recognize the public's entitlement to see the inner workings of the algorithm that ends a contest between rival parties (Hamdan Allam *et al.*, 2021).

Since big data is where these technologies originate, they rely on a wide variety of data, notably Web-indexed information. However, by accessing the device's cookies, additional information may be gathered, such as social media activity, publications, mobile phone manufacturer and model, and recent commercial activity. This practice violates Asian developing countries data protection laws (Ambastha *et al.*, 2022; Campbell-Verduyn and Lenglet, 2022). Therefore, as a result of Asian developing countries regulation, an obligation to minimize data use when adopting a solution exists, which runs counter to the underlying systems of these technologies. Big data is used as

a source of information in these technologies, and there is no preference given to any particular type of data (Cornelli *et al.*, 2022). These technologies are predicated on the idea that more detailed information about a person leads to more accurate and appropriate decisions being made by the underlying algorithms. It's also important to remember that the information collected or requested might not serve a direct purpose, but rather, it might be done so as to gain more criteria that could be used to build a more general profile of the user. When combined with other factors, such as a person's country of origin or current place of residence, the make and model of their mobile phone may serve as a proxy for their financial well-being or signal that they are living above their means (Arner, 2016; Douglas W. Arner, 2018).

The issues surrounding the automated processing of personally identifiable information

Even after a system is in place that is open, fair, and uses only relevant data, legal challenges may still arise as a result of the technologies' origins. It is imperative that first and foremost, app developers adhere to the general rights consolidated in data protection rules. This means that the app's settings need to be configured properly ahead of time in order to make use of these privileges throughout the duration of data processing. Therefore, digital firms must plan ahead from the start for a system that protects the rights provided by legal norms, even if doing so poses a danger to the underlying systems on which these programs run (Barrell and Davis, 2011; Arner, Barberis and Buckley, 2017).

Second, Fintechs should be especially careful about where they get the analyzed data that informs their decisions. Using information gleaned from social media or cookies is where the debate heats up the most (Hasan, Yajuan and Mahmud, 2020). As a result, the creators of these platforms make use of any and all publicly accessible internet data, under the assumption that they do not require the owner's permission to do so. Although courts have ruled that such conduct is not illegal, it does violate the privacy rights that are guaranteed by law for individuals' sensitive information (Liu *et al.*, 2022). This shows that the Constitutional Court recognizes that a user's mere status as a social media user, with accompanying general treatment consent, precludes any further use of the user's data. As a result, the consent that users give without their full understanding cannot be used indefinitely or for an unknown purpose, and more specifically, as indicated by current doctrine, when data are gathered without receiving any service in exchange — that is to say, when the economic value of their data has no counterparty for users. This is why social media platforms need to build user consent into their systems so that data collected from users may be put to good use. Data privacy is a basic human right that would be compromised otherwise (Chen *et al.*, 2017; Lv, Shao and Lee, 2021).

The same holds true for any data gleaned via browser cookies or the device in question. Naturally, permission from a data owner is required before doing anything with data obtained online. However, the terms of this online approval must be identical to those used in the real world. To treat data for a particular purpose and have it supported by an affirmative declaration, the consent must be free, precise, informed, and unequivocal (Issaka Jajah, Anarfo and Aveh, 2022). Therefore, the supplier in charge of collecting these data must offer clear and complete information in a manner that allows the user to comprehend the implications of their consent in the event that a service is provided. Therefore, the offered information must include the duration during which cookies would be active on the device, the reason for acquiring this information, and the extent to which data can be transferred to other parties while still being considered private (Zhao, Tsai and Wang, 2019).

On the other side, it is crucial that the data used have not been prejudiced by utilizing particular criteria in order to obtain correct procedural resolutions. Thus, it is crucial to use authentic microdata rather than data collected from platforms where it has already been modified. However, there are further issues beyond information mining itself, as data storage raises some ethical concerns as well (Chen and Yoon, 2022). Due to the massive amounts of data available today, traditional computer architecture programs are no longer viable, and businesses are instead

deciding to pool their storage space or perform distributed computation across multiple webservers. The problem here is that different laws and competent jurisdictions may apply depending on where these webservers are physically located. This is not a major issue in the Asian developing countries because all Member States follow the same rules when it comes to protecting sensitive and non-sensitive information. The difficulty occurs when the data originate from nations outside the Asian developing countries with less stringent regulatory frameworks.

Finally, it is true that the approaches behind these technologies contribute to the development of professional profiles via aggregation systems, even though they do not always employ solely personal data. Current jurisprudence holds that the General Data Protection Regulation's legal regime applies to the development of these profiles; as such, all rights are potentially applicable (Joia and dos Santos, 2019). However, it is important to note that citizens can still object to the decisions made by the program in the absence of express consent, even if the data in question are not personally identifiable. Because of this, the Asian developing countries Convention on Human Rights requires that all data held in a communications network be safeguarded because it is an intimate part of the lives of its users. In light of the potential for hidden IDs or similar devices to gain unauthorized access to the aforementioned computer equipment, it is imperative that all data stored in said equipment be protected, regardless of whether or not it contains personally identifiable information.

Conclusion

Though fintech has emerged as one of the finest allies in the fight for sustainable development, it is still important to evaluate how much it might be able to do to help the SDGs be accomplished. The Asian developing countries-wide protective regulatory framework for data protection, however, is now restricting the growth of the fintech industry. This isn't just a Fintech problem; rather, it's a problem that affects all technologies that use data as a fundamental building block and big data to enhance and deliver higher-quality services. In this scenario, artificial intelligence and the Internet of Things. The General Data Protection Regulation must, however, be viewed in the context of a Asian developing countries civilization that aspires to create a digital society based on the vast optimization and use of data.

Due to this, we may mention the development of a study about the requirement for adopting legal measures related to issues influencing the relationships between the various economic actors inside of a flexible economy of data management as one of the measures agreed upon by the Asian developing countries Data Strategy. This plan also chooses an ambitious project involving Asian developing countries data spaces that entails data interchange architecture, governance mechanisms, and an Asian developing countries federation of cloud infrastructure, all from a proactive and dependable standpoint, along with its connected services. According to estimates, this would cost between four and five billion Asian developing countries in total investments. Furthermore, the creation of common data spaces in Asian developing countries crop is anticipated for a number of key public sector important economic sectors. This must open the door to the development of large data repositories in particular locations that, when combined with the required equipment and technical framework, would permit the use and exchange of all forms of data. It would also be important in this regard to create some suitable governance mechanisms in charge of the handling and management of these data. Based on this experience, the Asian developing countries Cloud of Open Science would be built, whose shared spaces would be the following: business, the Asian developing countries Green Deal, mobility, health, financial issues, energy, the agricultural sector, public administrations, and qualifications. These industries have high expectations for fintech because they have access to a legal system that allows them to explore all of their potential.

Declaration

Acknowledgment: The authors would like to thank the respondents who participated in this study. Furthermore, the authors would like to express their sincere gratitude to the editor and anonymous reviewers for their insightful comments and suggestions.

Funding: There is no funding sources from any agency or institute.

Conflict of interest: There is no conflict of interest between authors.

Authors contribution: The author read and approved the final manuscript. Shahid Hussain contributed to data curation and writing—original draft preparation, contributed to conceptualization, methodology, software, and supervision. Saad ur Rehman contributed to writing—reviewing, editing, and supervision.

Data availability: Data is available on request.

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