

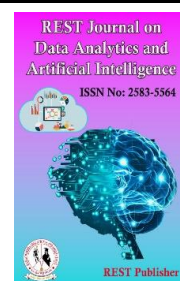


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Innovation and technology in Banking using the SPSS Method

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Abstract. *Technology and Innovation in Banking Financial Regulatory APIs, Bitcoin, Artificial Intelligence, M - banking and Payments, and Micro services are the technologies I'll be discussing in this part. Not all of them interact with customers (customer-facing). Banks may use strong AI tools to make well-informed choices more quickly utilizing predictive analytics, which is at the core of AI and ML. AI systems recognise internet searches made by potential customers and present pertinent content that promotes a quicker sale. Real-time data from enormous data sets may now be examined and displayed thanks to AI. solutions that are personalized for banking clients. Banks may use strong AI tools to make well-informed choices more quickly utilizing predictive analytics, which is at the core of AI and ML. As a result, technology innovation is frequently employed Since it helps banks to improve their services, comparative advantage and competitive intelligence are generated by the banking industry. while also reducing the need for traditional branches and increasing their cost effectiveness. Introduction of the card, Online Banking Service (ECS) in the late 1990s, electronic transfers of money, Real Time Cross Resolution (RTGS), NEFT (National Electronic Facilities Transfer) introduction, mobile banking, online banking, etc. Banking. Banks may use strong AI tools to make well-informed choices more quickly utilising predictive analytics, which is at the core of AI and ML. As a result, technology innovation is frequently employed Since it helps banks to improve their services, comparative advantage and competitive intelligence are generated by the banking industry while also reducing the need for traditional branches and increasing their cost effectiveness. Introduction of the card, Online Banking Service (ECS) in the late 1990s, electronic transfers of money, Real Time Cross Resolution (RTGS), NEFT (National Electronic Facilities Transfer) introduction, mobile banking, online banking, etc. Banking. Ratio studies are statistical evaluations of information from property values and appraisals. They are used by almost all states to generate quantitative measures of the percentage of the current market price that is used to evaluate the value of each piece of individually taxable property and to provide assessment performance indicators. International banking industry, Financial Innovation, Bank Performance, Financial Innovation and Bank Performance, Schumpeter Theory of Innovation and financial performance of commercial banks. The Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .658 which indicates 66% reliability. From the literature review, the above 50% Cronbach's Alpha value model can be considered for analysis. Characteristics of sisal fiber the Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .658 which indicates 66% reliability. From the literature review, the above 50% Cronbach's Alpha value model can be considered for analysis.*

Keywords: *International banking industry, Financial Innovation, Bank Performance, Financial Innovation and Bank Performance, Schumpeter Theory of Innovation and financial performance of commercial banks.*

1. Introduction

Insurers, lending, accounting services, property investment appraisal, asset management, investing, and other areas of the financial market have all seen significant change as a result of financial technologies. The most recent financial technologies are attracting increased interest from the government and regulatory bodies. The successful application of cutting-edge financial technologies provides the rapid creation of new banking offerings and services, a thorough resolution to the security concerns of financial transactions, an increase in consumer financial literacy, and the accessibility of financial services. The last ten years have seen major changes in the banking industry due to innovations that banks have employed in their operation [3]. technology and innovation in the banking industry's economic judgments. The revenue margin, which also includes interest margin and net commission, is the main point of emphasis. The question to be answered is whether technical advancements in the credit system are made to cut down on labor expenses or if they positively affect the bank's primary business's profits. In fact, implementing trying to cut data processing applications handling improve

banks' overall effectiveness, but it should also make it possible to raise their interest margin and commission margin [4]. Moreover, technology has increased customer involvement in financial services (Tabolkar, 1994). Transactions in the banking sector have changed from depending on manual entry methods to being driven by online customers. Human-to-human contacts have frequently lost their value in the delivery of retail banking services (Bittner, Brown, & Meter, 2000; Quinn, 1996). Others claim that consumers of banks today more regularly utilize technological devices than bank employees. The client now has more control as a result of these improvements [5]. The empirical analysis is based on US commercial banks' implementation of video banking between 1977 and 1987. A fresh concept is video banking. It is a special form of innovation which it allows us to solve the previous question concerning the direction or material of the invention. We think that the banking sector is a great place to test a theory of organisational innovation that is historically based. Despite the fact that its test is industry-specific, the conclusions can be applied to other business models and forms of innovation. We are certain that this study will highlight the benefits of survey design and make significant contributions to innovation research outside the financial services sector [1]. The Banking Industry and Financial Markets In complement to published studies, we looked at reports and studies produced by significant organisations with an interest in the financial system and its institutions. While some of these sources (BCBS, 2017) focused on particular FinTech company segments, others examined the opportunities and dangers facing the industry as a whole (IOSCO, 2017). Despite the fact that we primarily concentrate on the banking industry, we think that FinTech effect is only prevalent in the financial Banks and markets have a few slight variances. When the local environment, management, and the global environment evolve, there are various aspects that affect how exposed an industry is to opportunities' advantages and hazards. The crucial distinction between banks is made by their capacity to generate strategic value utilising financial technology [2]. There is growing skepticism regarding the future rate of environmental change as well as the technology and market surroundings of commercial banking. We predict that managers of depository institutions will typically be more adaptable than managers among several competing banking agencies as in face among these environmental changes. We can better understand how escalating environmental change and environmental uncertainty result in both faster and slower regulatory responses by incorporating this variable adaptive capability into regulatory dialectics [7]. Services innovation is crucial in part due to its status as one of the only strategies to stop commoditization. The factors pushing services towards commoditization are strong and growing as these markets open up, become more transferable, and become more competitive. Because innovations have lesser patent protections, fewer upfront capital inputs, and short development cycles than physical products, commoditization often happens more quickly in services than the one in physical things. This tendency is demonstrated by the sharp increase in international commerce in services, the notable liberalization of money and service flows across borders, and the quick internationalization of many service-related businesses [9]. The development of tailored services and enhancing client connection and communication are therefore the key problems facing banks, and these measures must be implemented in conjunction with competing pricing and revenue structures. Innovation in financial technology is a particularly promising strategy for overcoming these difficulties [10]. The introduction of this technology in the middle of the 1980s marked a significant improvement over the paper-based settlement procedure. With the help of this technology, customers can quickly obtain loans to get beyond the restriction of clearing checks during the constrained banking hours. Machine-readable checks have MICR codes added to them. The bank can route check to the appropriate bank locations using this technology. A quicker settlement process was made possible by this system [6]. Bank of Scotland will look at the organisational and technical challenges of strategically managing technological innovation. The case study raises the possibility that the authors' proposed textbook solutions for the "strategic management of technology" may undervalue the organisational and technical obstacles to the strategic use of new technology. Technology-related strategic decisions can be better understood by examining the interactions between organisational learning, structure, and strategy processes [8]. Banking is governed by stringent regulations. Because of this, the goods and services that rival banks provided, the procedures they followed to create and manage the offerings, and the methods they employed to deliver them to clients, were remarkably similar. Australian banking between the 1950s and 1970s was characterised by Taylor and Hirst (1983, p. 267) as "an age of easy non-primary competition where rates were established and bargained around, products were essentially the same between banks, communication was limited [11]. The banking sector is characterised as a certain technical path's evolution. The third stage of the cycle, which relies on little steps and cumulative impacts, is where its innovative potential is fully explored. By product innovation, this stage will fundamentally alter what banking means and looks like, as well as have a significant expansionary impact on demand. Enough to elevate the banking industry above the industrial era of the previous century to join the industries leading the "service revolution" [12]. FinTech's growth in fields like mobile broadband, cloud technology, big data, search engines, and blockchain has to adjust and advance. Researchers from Citigroup (Citi GPS 2016) forecast that over the next ten years, Blockchain innovation will result in a reduction of traditional banks' workforce by roughly one-third. The current state of the banking business, according to John Baird, CEO of Global Commercial Banking at Citigroup, is one in which banks

must fast change to forge new competitive positions or progressively vanish. Also, he stated that Citigroup is currently struggling to survive. In China, over 10,000 Internet-based financial organisations have pierced the traditional financial industry's defences and disrupted its ecosystem. Giants like Baidu, Tangents, and Ali (BAT) have various licences and are attempting to create financial empires on the Internet based on their technology advantages. Oriental Wealth Co. and Dong Chin Securities are another. Traditional financial institutions like (ICBC) have unveiled audacious Internet financing initiatives. China CITIC Bank has partnered strategically with Baidu and established a banking joint venture with BaiX. Beijing Bank and Ten Cent, Shanghai Pudong, have furthered their cooperating relationships [13]. Throughout the past 25 years, developments in communications and information technology (IT) have significantly impacted the nature of banking as well as the organisation of banks and financial institutions organisations. In contrast to developed markets where well-established capital markets perform such functions, banks play a significant role in providing money and mobilising savings, especially in developing nations. This makes the study of technical advancement in the banking sector vital. Efficiency in technology will lead to decreased transaction costs and increased bank profits. For instance, technology will allow banks to market both new and existing products to customers. New financial solutions can be highly innovative thanks to technology [14]. For the past 30 years, banking has seen financial innovation. The results of empirical study help us understand the characteristics of those who utilise and adopt technologically-driven investment projects and the resulting welfare consequences depending on the process and the good advances. A more effective payment system has been produced, together with related product advances that may easily reach vast sectors of the public. Consumer credit has evolved as a result of technological progress, which has replaced manual underwriting with computer insurance that relies on credit scores and other objective data [15]. The emergence of digital ICT has caused tremendous developments in the banking sector today. Banks can increase fault tolerance and efficiency by utilizing numerous data centers. For instance, the load-balancing of the farm of web servers in Figure 1 utilizing the BIG-IP controller from F5 Network and the 3-DNS product from F5 in each bank will automatically distribute Internet traffic among them [16]. Innovations are viewed as a tool for long-term performance and success of organizations and as a crucial way to gain a competitive advantage, implement change initiatives, and adapt suit the requirements of a constantly shifting atmosphere. Because of this, businesses invest a lot of time and effort in learning how to advance and construct organizational cultures [18]. Innovations are viewed as a tool for lengthy growth and achievement of companies and as a crucial way to gain a competitive advantage, implement change initiatives, and adapt suit the requirements of a constantly evolving setting as a result, businesses invest a lot of time and effort in learning how to advance and strengthen corporate cultures. (2) ascertain the connection determine the relationship between Online account activity and the Zambian banking sector's financial health; 3) Establish a connection between ATM usage and commercial banks' financial health. [19]. There is another aspect to the progress made so far in Nigeria's banking system's technological overhaul. These study operations as well as shareholders. Yet, as bank fraud is a global problem that affects all countries, it is more prevalent in some than others. commonly found in poor the likes of Nigeria Technology have unquestionably improved bank customer service, even while channels for u t goods and services are not frequently used by users the majority their data records are processed and transferred at remote sites where they have no way of monitoring monitor, which is why this happens So, despite some limitations, technology advancement has greatly improved financial services [20]. The delivery the conventional banking amenities has recently been greatly impacted by four fundamental categories of self-service banking technology (SSBTs). Electronic money transfers at the point of sale, telephone banking, automatic teller machines (ATMs), and internet banking (IB), all of which were initially launched in the late 1970s and early 1980s, respectively Meuter et al. Those SSBTs are all necessary to the provision of banking services in the twenty-first century [17].

2. Material and Method

International banking industry: Similar to many other banking services, international banking is conducted abroad or in other nations. In all other word, it is when a domestic bank of one region offers financial services to citizens of another. A bank is still a type of banks that has facilities beyond national borders. It is comparable to a national bank in that it provides the same assistance to customers worldwide. It includes both consumer and commercial customers in both categories.

Financial Innovation: The process of developing fresh financial goods, commodities, services, or practices. Modernized science, corporate governance, risk transfer, the establishment of credit and equity, and many more innovations are among these improvements. Financial innovation encourages broader financial growth by lowering transaction costs and reducing risk, which in turn boosts economic growth by having a beneficial effect on output, savings, and investment. The most crucial driver of growth is financial innovation.

Bank Performance: One of the most essential KPIs for banks, Net Income Percentage (NIM) expresses the bank's operating revenue on interest-earning assets also including loans or investments. Since the bank's main

source of income is interest from these assets, this metric reflects the bank's earnings. Many criteria or indicators can be used to determine how well banks are performing. The financial statements of the relevant bank are the characteristic or indicator used as the source of evaluation. Its worth will increase if banks' efficiency is increased. The banking industry outpaced all other industries in 2022, particularly the PSU banking sector, which grew by 65 to 75% year over year and saw returns of over 100% in several smaller PSU banks over the previous year.

Financial Innovation and Bank Performance: Because of its potential to increase the banking sector's effectiveness and profitability, as well as its effect on consumers, financial innovation is seen as one of the primary forces influencing banks' performance (Silber, 1983; Kane, 1981). Research financial innovation is positively correlated with the financial sector, particularly commercial banks. The findings support that. More people are adopting more effective financial methods to replace less effective conventional systems, which further supports this.

Schumpeter Theory of Innovation: According to Schumpeter's thesis, market power in the form of innovation can lead to outcomes that are more effective than those produced by pure price competition. He claimed that technological advancements lead to transient monopolies that produce disproportionate profits. Schumpeter believed that capitalism's inevitable triumph will cause it to fail. He anticipated that the economic system would eventually lead to the emergence of a sizeable intellectual class that would attempt to survive by undermining the concepts of private property and individual freedom.

Financial Performance of Commercial Banks: One of the key internal aspects that affects bank profitability is management effectiveness. It is reflected by several financial parameters such like total asset growth, spending growth ratio and earnings growth ratio. Economic efficiency, which is characterized by the percentage of total net income, is the variable that this study explains. Profit from Assets (ROA). The bank's profitability is measured by its ROA. It calculates capability. The administration of the bank makes money by using the resources at their disposal. The most recent financial analysis model's CAMEL parameters were used for the evaluation. According to this model, the study banks' capital adequacy, solvency position, management effectiveness, and liquidity are all good or satisfactory.

Method: SPSS Statistics is a statistical control Advanced Analytics, Multivariate Analytics, Business enterprise Intelligence and IBM a statistic created by a software program is a package crook research. A set of generated statistics is Crook Research is for a long time SPSS Inc. Produced by, it was acquired by IBM in 2009. Current versions (after 2015) icon Named: IBM SPSS Statistics. The name of the software program is to start with social Became the Statistical Package for Science (SPSS) [3] Reflects the real marketplace, then information SPSS is converted into product and service solutions Widely used for statistical evaluation within the social sciences is an application used. pasted into a syntax statement. Programs are interactive Directed or unsupervised production Through the workflow facility. SPSS Statistics is an internal log Organization, types of information, information processing and on applicable documents imposes regulations, these jointly programming make it easier. SPSS datasets are two-dimensional Have a tabular structure, in which Queues usually form Events (with individuals or families) and Columns (age, gender or family income with) to form measurements. of records Only categories are described: Miscellaneous and Text content (or "string"). All statistics Processing is also sequential through the statement (dataset) going on Files are one-to-one and one-to-one Many can be matched, although many are not in addition to those case-variables form and by processing, there may be a separate matrix session, there you have matrix and linear algebra on matrices using functions Information may be processed.

3. Result and Discussion

TABLE 1. Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
International banking industry	25	4	1	5	2.88	1.236
Financial Innovation	25	4	1	5	3.08	1.525
Bank Performance	25	4	1	5	2.72	1.458
Financial Innovation and Bank Performance	25	4	1	5	3.00	1.528
Schumpeter Theory of Innovation	25	4	1	5	3.04	1.428
financial performance of commercial banks	25	4	1	5	2.84	1.491
Valid N (listwise)	25					

Table 1 shows the descriptive statistics values for analysis N, range, minimum, maximum, mean, standard deviation International banking industry, Financial Innovation, Bank Performance, Financial Innovation and Bank Performance, Schumpeter Theory of Innovation and financial performance of commercial banks this also using.

TABLE 2. Frequencies Statistics

		International banking industry	Financial Innovation	Bank Performance	Financial Innovation and Bank Performance	Schumpeter Theory of Innovation	financial performance of commercial banks
N	Valid	25	25	25	25	25	25
	Missing	0	0	0	0	0	0
Mean		2.88	3.08	2.72	3.00	3.04	2.84
Median		3.00	3.00	3.00	3.00	3.00	3.00
Mode		3	5	1	5	3	1 ^a
Std. Deviation		1.236	1.525	1.458	1.528	1.428	1.491
Sum		72	77	68	75	76	71
Percentiles	25	2.00	2.00	1.00	2.00	2.00	1.00
	50	3.00	3.00	3.00	3.00	3.00	3.00
	75	3.50	5.00	4.00	5.00	5.00	4.00
a. Multiple modes exist. The smallest value is shown							

Table 2 Show the Frequency Statistics in Innovation and technology in Banking and International banking industry, Financial Innovation, Bank Performance, Financial Innovation and Bank Performance, Schumpeter Theory of Innovation and financial performance of commercial banks curve values are given.

TABLE 3. Reliability Statistics

Cronbach's Alpha Based on Standardized Items	N of Items
.861	6

Table 3 shows the Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is. 865 which indicates 86% reliability. From the literature review, the above 50% Cronbach's Alpha value model can be considered for analysis.

TABLE 4. Reliability Statistic individual

	Cronbach's Alpha if Item Deleted
International banking industry	.881
Financial Innovation	.840
Bank Performance	.817
Financial Innovation and Bank Performance	.822
Schumpeter Theory of Innovation	.831
financial performance of commercial banks	.851

Table 4 Shows the Reliability Statistic individual parameter Cronbach's Alpha Reliability results. The Cronbach's Alpha value for International banking industry-.881, Financial Innovation-.840, Bank Performance-.817, Financial Innovation and Bank Performance-.822, Schumpeter Theory of Innovation-.831, Financial performance of commercial banks-.851This indicates all the parameter can be considered for analysis.

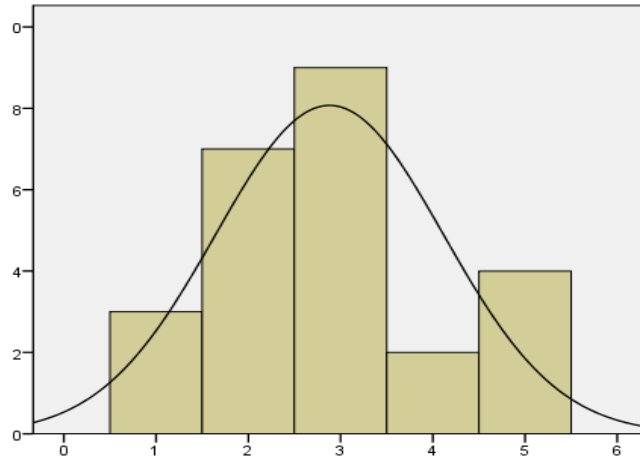


FIGURE 1. International banking industry

Figure 1 shows the histogram plot for International banking industry from the figure it is clearly seen that the data are slightly Right skewed due to more respondent chosen 3 for International banking industry except the 2 value all other values are under the normal curve shows model is significantly following normal distribution.

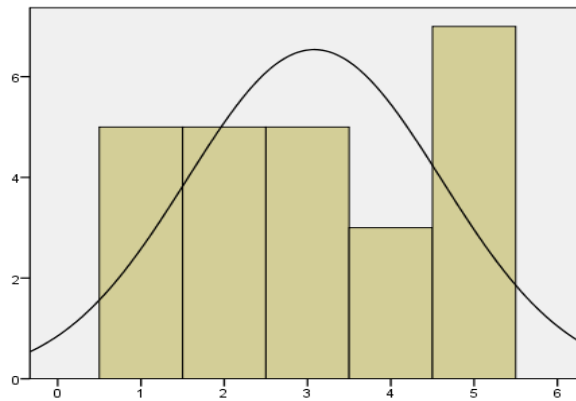


FIGURE 2. Financial Innovation

Figure 2 shows the histogram plot for Financial Innovation from the figure it is clearly seen that the data are slightly Right skewed due to more respondent chosen 5 for Financial Innovation except the 2 value all other values are under the normal curve shows model is significantly following normal distribution.

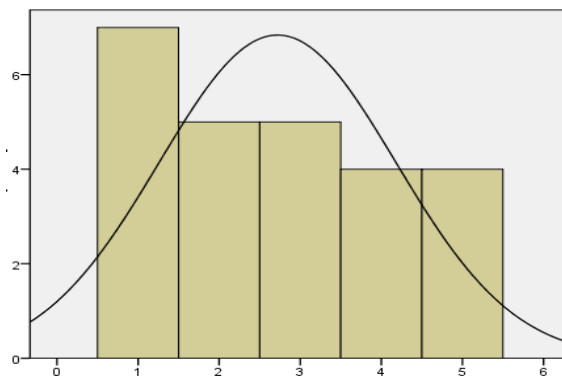


FIGURE 3. Bank Performance

Figure 3 shows the histogram plot for Bank Performance from the figure it is clearly seen that the data are slightly Left skewed due to more respondent chosen 1 for Bank Performance except the 3 value all other values are under the normal curve shows model is significantly following normal distribution.

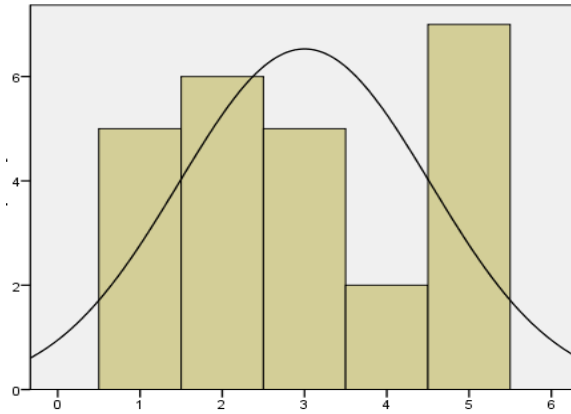


FIGURE 4. Financial Innovation and Bank Performance

Figure 4 shows the histogram plot for Financial Innovation and Bank Performance from the figure it is clearly seen that the data are slightly Right skewed due to more respondent chosen 5 for Financial Innovation and Bank Performance except the 4 value all other values are under the normal curve shows model is significantly following normal distribution.

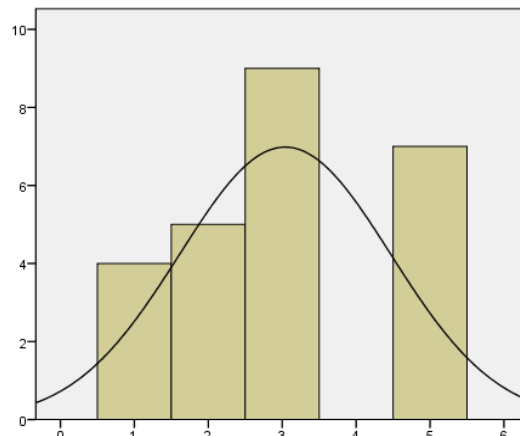


FIGURE 5. Schumpeter Theory of Innovation

Figure 5 shows the histogram plot for Schumpeter Theory of Innovation from the figure it is clearly seen that the data are slightly Right skewed due to more respondent chosen 3 for Schumpeter Theory of Innovation except the 3 value all other values are under the normal curve shows model is significantly following normal distribution.

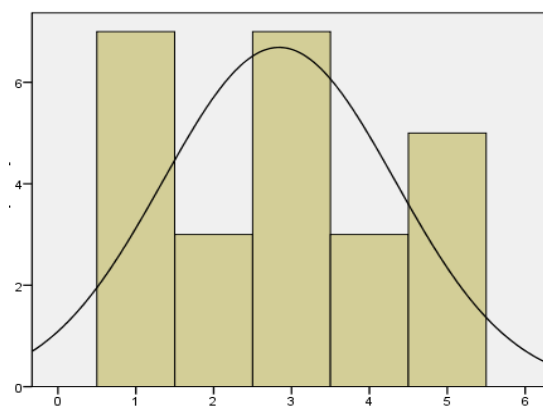


FIGURE 6. Financial performance of commercial banks

Figure 6 shows the histogram plot for Financial performance of commercial banks from the figure it is clearly seen that the data are slightly Right skewed due to more respondent chosen 1,3 for Financial performance of

commercial banks except the 2 value all other values are under the normal curve shows model is significantly following normal distribution.

TABLE 5. Correlations

	International banking industry	Financial Innovation	Bank Performance	Financial Innovation and Bank Performance	Schumpeter Theory of Innovation	financial performance of commercial banks
International banking industry	1	.271	.351	.353	.263	.419*
Financial Innovation:	.271	1	.629**	.662**	.553**	.464*
Bank Performance	.351	.629**	1	.729**	.726**	.553**
Financial Innovation and Bank Performance	.353	.662**	.729**	1	.688**	.457*
Schumpeter Theory of Innovation	.263	.553**	.726**	.688**	1	.512**
Financial Performance Of Commercial Banks	.419*	.464*	.553**	.457*	.512**	1

Table 5 shows the correlation between motivation parameters for International banking industry for Financial Performance of Commercial Banks is having highest correlation with Schumpeter Theory of Innovation and having lowest correlation. Next correlation between motivation parameters for Financial Innovation for Financial Innovation and Bank Performance is having highest correlation with Financial Innovation and Bank Performance and having lowest correlation. Next correlation between motivation parameters for Bank Performance for Financial Innovation and Bank Performance is having highest correlation with International banking industry and having lowest correlation. Next correlation between motivation parameters for Financial Innovation and Bank Performance for Bank Performance is having highest correlation with International banking industry and having lowest correlation. Next correlation between motivation parameters for Schumpeter Theory of Innovation for Bank Performance is having highest correlation with International banking industry and having lowest correlation. Next correlation between motivation parameters for Financial performance of commercial banks for Bank Performance is having highest correlation with International banking industry and having lowest correlation.

4. Conclusion

Technology and Innovation in Banking Financial Regulatory APIs, Bitcoin, Artificial Intelligence, M - banking and Payments, and Micro services are the technologies I'll be discussing in this part. Not all of them interact with customers (customer-facing). Banks may use strong AI tools to make well-informed choices more quickly utilizing predictive analytics, which is at the core of AI and ML. AI systems recognise internet searches made by potential customers and present pertinent content that promotes a quicker sale. Real-time data from enormous data sets may now be examined and displayed thanks to AI. Banks may use strong AI tools to make well-informed choices more quickly utilising predictive analytics, which is at the core of AI and ML. As a result, technology innovation is frequently employed since it helps banks to improve their services; comparative advantage and competitive intelligence are generated by the banking industry while also reducing the need for traditional branches and increasing their cost effectiveness. Insurers, lending, accounting services, property investment appraisal, asset management, investing, and other areas of the financial market have all seen significant change as a result of financial technologies. The most recent financial technologies are attracting increased interest from the government and regulatory bodies. The successful application of cutting-edge financial technologies provides the rapid creation of new banking offerings and services, a thorough resolution to the security concerns of financial transactions, an increase in consumer financial literacy, and the accessibility of financial services. Similar too many other banking services, international banking is conducted abroad or in other nations. In all other word, it is when a domestic bank of one region offers financial services to citizens of another. A bank is still a type of banks that has facilities beyond national borders. The process of developing fresh financial goods, commodities, services, or practices. Modernized science, corporate governance, risk transfer, the establishment of credit and equity, and many more innovations are among these improvements. One of the most essential KPIs for banks, Net Income Percentage (NIM) expresses the bank's operating revenue on interest-earning assets also including loans or investments. Since the bank's main source of income is interest from these assets, this metric reflects the bank's earnings. According to Schumpeter's thesis, market power in the

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References

- [1]. Glushchenko, Marina, NailaHodasevich, and Natalia Kaufman. "Innovative financial technologies as a factor of competitiveness in the banking." In *SHS Web of Conferences*, vol. 69, p. 00043. EDP Sciences, 2019.
- [2]. Campanella, Francesco, Maria Rosaria Della Peruta, and Manlio Del Giudice. "The effects of technological innovation on the banking sector." *Journal of the Knowledge Economy* 8 (2017): 356-368.
- [3]. Parameswar, Nakul, Swati Dhir, and Sanjay Dhir. "Banking on innovation, innovation in banking at ICICI bank." *Global Business and Organizational Excellence* 36, no. 2 (2017): 6-16.
- [4]. Pennings, Johannes M., and FaridHarianto. "The diffusion of technological innovation in the commercial banking industry." *Strategic management journal* 13, no. 1 (1992): 29-46.
- [5]. Al-Ajlouni, Ahmed, Dr Al-Hakim, and MonirSuliaman. "Financial technology in banking industry: Challenges and opportunities." In *e International Conference on Economics and Administrative Sciences ICEAS2018*. 2018.
- [6]. Kane, Edward J. "Accelerating inflation, technological innovation, and the decreasing effectiveness of banking regulation." (1981).
- [7]. Lyons, Richard K., Jennifer A. Chatman, and Caneel K. Joyce. "Innovation in services: Corporate culture and investment banking." *California management review* 50, no. 1 (2007): 174-191.
- [8]. Rao, Y. V., and Srinivasa Rao Budde. "Banking technology innovations in India: Enhancing customer value and satisfaction." *Indian Journal of Science and Technology* 8, no. 33 (2015): 1-10.
- [9]. Gupta, Sweetey, and Anshu Yadav. "The impact of electronic banking and information technology on the employees of banking sector." *Management and Labour Studies* 42, no. 4 (2017): 379-387.
- [10]. Scarbrough, Harry, and Ronnie Lannon. "The successful exploitation of new technology in banking." *Journal of General Management* 13, no. 3 (1988): 38-51.
- [11]. Roberts, Peter W., and Raphael Amit. "The dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981 to 1995." *Organization science* 14, no. 2 (2003): 107-122.
- [12]. Buzzacchi, Luigi, Massimo G. Colombo, and Sergio Mariotti. "Technological regimes and innovation in services: the case of the Italian banking industry." *Research Policy* 24, no. 1 (1995): 151-168.
- [13]. Chen, Zhuming, Yushan Li, Yawen Wu, and Junjun Luo. "The transition from traditional banking to mobile internet finance: an organizational innovation perspective-a comparative study of Citibank and ICBC." *Financial Innovation* 3, no. 1 (2017): 1-16.
- [14]. Rishi, Meenakshi, and Sweta C. Saxena. "Technological innovations in the Indian banking industry: the late bloomer." *Accounting, Business & Financial History* 14, no. 3 (2004): 339-353.
- [15]. Frame, W. Scott, Larry D. Wall, and Lawrence J. White. "Technological change and financial innovation in banking: Some implications for fintech." (2018).
- [16]. Adeosun, O. O., T. H. Adeosun, I. A. Adetunde, and E. R. Adagunodo. "Strategic application of information and communication technology for effective service delivery in banking industry." In *2008 International Conference on Computer and Electrical Engineering*, pp. 135-140. IEEE, 2008.
- [17]. Uz Kurt, Cevahir, Rachna Kumar, HalilSemihKimzan, and GözdeEminoğlu. "Role of innovation in the relationship between organizational culture and firm performance: A study of the banking sector in Turkey." *European Journal of innovation management* 16, no. 1 (2013): 92-117.
- [18]. Haabazoka, Lubinda. "A study of the effects of technological innovations on the performance of commercial banks in developing countries-A case of the zambian banking industry." In *The Future of the Global Financial System: Downfall or Harmony* 6, pp. 1246-1260. Springer International Publishing, 2019.
- [19]. Ohiani, AdekuSalihu. "Technology innovation in the Nigerian banking system: prospects and challenges." *Rajagiri Management Journal* 15, no. 1 (2020): 2-15.
- [20]. Kaushik, Arun Kumar, and Zillur Rahman. "Innovation adoption across self-service banking technologies in India." *International Journal of Bank Marketing* (2015).