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Challenges of Business Process Re-Engineering Implementation in Nigerian Banking operations

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ABSTRACT:This study explored the concept ofBusiness Process Re-engineering (BPR) in Nigerian Banking Operations, with a view to identify its implementationchallenges.The study collated and critically examined several works from different scholars with a view to shed more light on challenges of business process re-engineering in the Nigerian banking sector.Our findings show that although BPR is a dynamic practicein the Nigerian banking operations, there is still a lot more to be done in improving the capabilities of the managers themselves in order to have more successful implementation.Managers of Nigerian banks ought to understand that BPR will be successfully implemented if they engage more in the development of their competences and deploy adequate resources to support the process.This is a descriptive study; as such, the study is devoid of statistical inference. Thus, it would be fruitful for future worksto test quantitative models that contain correlates of BPR, in order to offer practical recommendations on how banks will conduct sustainable Business Process Re-engineering.The study contributes to the literature on Theory of Constraints by identifying the critical challenges encountered by the Nigerian Banking Industry,while implementing Business Process Re-engineering projects.

KEYWORDS: Business Process Re-engineering,top management commitment, organisational readiness for change, information technology capabilities, people management, Nigerian banking operations

I. INTRODUCTION

Organisationsare not closed systems. That is why there is mutual interaction and interdependence between organisations and the external environment (koontz, Weihrich&Cannice,2020). Moreover, in today's rapidly changing, hypercompetitive and challenging business environment, organisations are confronted with increased pressure to achieve set organisational goals, boost profitability and improve performance. Disruptive technologies, fast-paced globalisation, complex customer service needs and frenetic competition in an ever chaotic environment have forced organisations to "radically redesign the core processes that deliver services efficiently and effectively" (Nkurunziza, Munene, Ntayi&Kaberuka, 2019, p. 119).This scenario has necessitated organisations to re-engineer existing business processes in order to stay relevant, competitive (Akpinar&Ozer-Caylan, 2021) and continue to meet customers' expectations. Further, Business process reengineering (BPR) has been identified as a potent means that organisations can deploy to secure adaptability and survival in changing business contexts (Hashem, 2019).

The banking sector plays a pivotal role in economic growth and development, and requires constant re-engineering of business processes in order to adapt to the environment (Hashem, 2019). Moreover, Business Process Reengineering (BPR) stimulates higher levels of competitiveness among banks, while creating more contribution to the Nigerian economy. Also, BPR has become more important than ever in the Nigerian banking industry due to the need to reduce high operational costs amid changing customer preferences, regulatory changes, political pressures and product lag (Hashem, 2019).Transactions and services that were hitherto performed manually within banks are undergoing radical improvements. Reengineering in banking business occurs in cash handling processes, chequeprocessing, customer service delivery, loan management, data and application processing. These key operations are continually changing so as to improve banks' operational effectiveness. Despite the relevance of BPR, extant literature on it concerning the Nigerian banking sector are largely anecdotal, and without sound theoretical grounding. Furthermore, although previous studies have examined the role of Business Process Re-engineering on banking operations in Nigeria, research

work on the challenges and of BPR implementation in the sector is yet to be fully investigated. Moreover, it has been observed that despite the significant implementation of BPR projects by banks, not all of them achieve their desired results. This is attributed to inability of identifying and tackling the challenges of BPR implementation.This study therefore seeks to examine the concept of business process re-engineering and its implementation challenges in Nigerian banking operations.

The rest of this article provides an understanding ofthe current state of BPR in the Nigerian service industry, specifically the banking sector, and the factors that stiflethe successful implementation of BPR programs. The study also sheds light on the most critical factor, among others,managers should consider when implementing BPR project.

II. THEORETICAL FOUNDATION

The Theory of constraints (TOC) was propounded by Goldrattand Cox (1984)who consideredorganisations as complex systems with multiple chains of activities or processes. Any of these activities could be as a limiting factor or constraint for the entire system (Goldratt& Cox, 1992). A constraint is viewed as the weakest link of the system that prevents the organization from realising its objectives.According to Goldratt (1988), a constraint is "anything that limits a system from achieving higher performance versus its goal" (p. 453). Reid (2007) submits that "constraints may be either internal such as insufficient capacity of a physical resource or ineffective organizational procedures or policies, or external such the inadequate marketplace demand for the organization's various product-service bundles" (p.213). In this present study, the challenges of BPR implementation are regarded as the constraints. Moreover, constraints could be physical facility and policy constraints. Some rules, when enforced, could stifle a company's operational performance or jeopardize its capacity to meet set targets. For instance, the loan department may frequently fail in processing loans in a timely manner due to overly strict managerial policies.

TOC helpsorganisations to understand the current state of affairs, identify the most critical limiting factor for BPR implementation, and also suggests strategies for mitigating the constraint for optimal system performance. The specific scientific steps for TOC include: (1) identify the limiting factors (constraints) that prevent the firm from optimal performance (2) elevate or exploit the constraint to allow growth and increase the throughput by maximally utilizing the existing resources (3) subordinate, synchronize or adjust every other activities (or unconstrained resources) to improve efficiency within the prevailing situation (4)improve the performance of the firm by aiming at greater levels of contribution whilst decreasing the timeframe for implementation; and (5) go back to Step 1 to prevent inertia by identifying any other constraints that may appear as the firm achieves its desired state of performance. Several studies (e.g. Siha, 1999; Reid, 2007; Gupta & Kline, 2008) have provided explanations on how service firms deployed the general principles of the TOC to achieve higher levels of performance.

2.1: Business Process Re-Engineering and its Enablers

Business process re-engineering is defined as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed" (Hammer &Champy, 2006, p. 35).Hadidi and Abzakh (2022) aver that it is "a management improvement tool that entails radical changes to organizations' core processes, culture and legacy systems" (p. 204). It is the systematic implementation of a sea change in organisational processes, workflows, structures and strategies, which are revitalized and redesigned to harvest higher levels of performance in terms of improvement in core competences, service quality, service delivery speed, elimination of unnecessary tasks, customer satisfaction, efficiency, profitability, growth, adaptability and competitiveness (Al-Mashari, Irani&Zairi, 2001; Khodambashi, 2013; Bhaskar, 2018). According to Davenport and Short (1990), BPR is a process that involves (i) developing business vision and process objectives; (ii) identifying processes to be redesigned; (iii) understanding and measuring the existing processes; (iv) identifying IT levers; and (v) designing and building a prototype of the process. Furthermore, Hashem (2019) empirically identified the enablers of business process reengineering implementation as (i) management commitment, (ii) IT infrastructure, (iii) people management, (iv) organisational readiness for change, and (v) organisational Structure. In a recent study, Shahul-Hameed, Salamzadeh, Abdul-Rahim and Salamzadeh (2021) decomposed Business process re-engineering into top management commitment, organisational readiness for change, information technology capabilities and people management.This article adopts the latter's work as the critical success factors of business process reengineering implementation.

2.2: ***Top Management Support***

Top management provides direction and ambient internal environment in which employees and systems can effectively implement BPR initiatives throughout the company (Grant, 2002). To achieve this, management should: (i) have requisite knowledge about BPR process, (ii) allocateadequate resources for motivation and implementation,(iii) develop capabilities through training and education,(iv) formulatefavourable BPR policies, (v) foster collaborative climate with and within BPR team, (vi) and communicate the vision for BPR implementation (Zahoor, Ijaz&Muzammil, 2015). Prior research works emphasized management commitment as a key enabler not only for adopting new systems, but also in the adoption of BPR in organizations (Ikon, Onwuchekwa&Nwoye, 2018). Nowadays, managers have come to understand that the implementation of BPR practices foster competitive advantage, and depends on their own commitment towards the BPR practices.

2.3: ***Organisational Readiness for Change***

Armenakis et al. (1993) define organisational readiness for change as the "beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully undertake those changes" (p. 681). Also, Weiner et al. (2008) are of the view that organisational readiness for change is the extent to which employees are psychologically inclined and behaviourallyalert to be part of the change process.Thus,organisational readiness for change is a water-tight organisation-wide agreement to implement a change (change commitment), a shared belief that the change is possible to implement (change efficacy) and will ultimately produce positive outcomes at all levels of the organisation (change valence). Business Process Reengineering, like many other organisational change efforts, will not record any success if mangers do not orchestrate adequate levels of change readiness (Kotter, 1996). This argument is corroborated by Vakola's (2013) submission that "change initiatives may not produce the intended results because recipients are simply not ready" (p. 96).

2.4: ***Information Technology Capabilities***

Information Technology Capabilities(Ross, Beath& Goodhue, 1996) is anorganisation's capacity to plan, organise, integrate, leverage, optimise and execute quality IT resources in support of business operations, in order to meet its strategic goals. Ross et al. (1996, p. 31) define IT capability as "the ability to control IT-related costs, deliver systems when needed, and effect business objectives through IT implementations". Thus, IT capabilities can be viewed as the extent to which communicationnetworks, data architecture, applications and processesare reconfigured and utilized to provide and share timely, relevant, adequate, accurate and cost effective information across all units of the organisation in response to changing business context. Higher levels of IT capabilities are harvested when the organisation employs skillful and knowledgeable IT human resource, possesses a reusable technology infrastructure, and builds a formidable partnership network between the IT department and other functional areas, including management (Ross et al, 1996).

Information Technology capability is known to promote service system quality (Alshaher, 2020), customer retention, return on sales, adaptability, agility (Cepeda, & Arias-Pérez, 2019), efficient appropriation of resources, optimal service flow, operational excellence and competitiveness. It also broadens and deepens knowledge base of organisations, which fosters innovation (Lu& Ramamurthy, 2011; Yoon, 2011; Arora&Rahman, 2017; Wei, Xu& Liu, 2021). Furthermore, IT capability is viewed as an essential attribute for organisations operating in a dynamic and turbulent contexts, since it can be effectively deployed to improve current processes and/or aid in introducing new ones (Marjanovic, 2000). It supports the successful implementation of BPR by providing timely, accurate and cost-effective information for decision making, while enabling organization-wide coordination and communication (Hasnan et al., 2017; Owens &Khazanchi, 2018).

2.5: ***Human Resource Management Capability***

The burgeoning interest in human resources capability is based on the notion that employees and the way they are managed is tangential to organisational prosperity and can amplify sustainable competitive advantage (Barney & Wright, 1998).Hammer and Stanton (1994) aver that one of the reasons BPR projects fail is the non-recognition of the human resource component of organisational life.Human Resource Capability can be viewed as a dynamic managerial capability (Helfat& Martin, 2015) through which managers effectively acquire, develop, integrate, recombine, and marshal firm's resources to drive strategic change or douse the debilitating effects of environmental shocks. Managers and Chief Executive Officers deploy Human Resource Capability by spotting external market opportunities and then align and reconfigure their business process by leveraging the human resources through effective communication,employee empowerment, involvement, training and education, and reward and compensation systems(Al- Mashari&Zairi, 1999). Common logic indicates that when agents bundle and orchestrate these human

resource practices in a coherent and consistent manner, it goes a long way to support BPR efforts which leads to the delivery of sustainable value.

Specifically, literature suggests that effective managerial communication builds trust, fosters positive relationships, and amplifies positive employee attitudes and behaviours(van Vuuren, de Jong &Seydel, 2007). A positive and open communication between managers and employees will make the employees cope better with major organisational changes such as BPR. Upward communication may provide avenue for employees to pin-point and announce the grey areas and problems that come along with the implementation of BPR in their organisations, while downward communication could be a means of providing direction and performance feedback for employees during a change process.

Empowerment is a feeling of self-efficacy among employees, whereby conditions that foster powerlessness among them are removed by the management of the organisation (Conger &Kanungo, 1998). When employees are empowered in a BPR project, they will believe that the role they play in the implementation of the project is important. Moreover, empowered employees are those who have been equipped to perform work activities in BPR project, while having choice over the initiation and accomplishment of tasks, up to the point of influencing the outcomes. Empowerment spurs the employees to be enthusiastic to initiate tasks in the BPR project, and persevere till the project is fully executed to a successful stage.

Employee involvement pertains to practices that create effective communication channels which keep employees abreast of the plans and objectives, and give employees avenues to participate in decision-making or express their views to the managers (Ollo-López et al., 2011). Thus, a BPR project that has involvement component will encourage the dispersion of decision-making power across the length and breadth of the organisation, with employees taking greater responsibility for the success or otherwise of the project (Al-Mashari&Zairi, 1999).

Training and education is a set of practices aimed at improving the skills, knowledge and competences of employees which leads to change in attitudes and behaviours, thereby yielding positive organisational outcomes (Dessler, 2013). Armstrong (2003) intimates that training is the formal and systematic modification of behavior through learning which occurs as a result of education, instruction, development and planned experience. Training and education also improves employees' self-efficacy - "an individual's beliefs about their capabilities to produce at designated levels of performance that exercise influence over events that affect their lives." (Bandura, 1994, p. 71).Moreover, Alnawfleh (2020) aver that training is the process whereby employees' aptitudes, skills and abilities enable them to do specific task. Business Process Reengineering is one of such tasks. There is a growing consensus among scholars that education and training are critical for the implementation of change programs or process improvement because training and education promote better utilization of the skills and abilities, and increase employees' motivation and commitment to their jobs in an organisation (Habib&Wazir, 2012).

2.6: *Total Rewards*

Total Reward has been defined as "types of reward indirect as well as direct, and intrinsic as well as extrinsic. Each aspect of reward, namely base pay, contingent pay, employee benefits and non-financial rewards, which include intrinsic rewards from the work itself, are linked together and treated as an integrated and coherent whole" (Manus & Graham, 2003, p. 6). For Jantz (2005), it is "the value proposition the employer provides to the employee in exchange for his or her investment in the organization" (p.1). The denominations of total rewards include financial rewards, material rewards and psychological rewards (De Gieter et al., 2006). It is also viewed as a firm's strategy of rewarding and compensating workers by optimally combining different managerial practices such as learning and growth, quality of work-life initiatives, pay,promotion, fringe benefits, incentives, recognition, challenging work, job security, conducive work environment (Byars& Rue, 2010; Nienaber et al., 2011).

Managers reward their employees in exchange for the employees' efforts in achieving organisational tasks, goals and objectives. A well-articulated total rewards package promotes intention to stay and stimulateshigher levels of motivation, job engagement, satisfaction, commitment, employee performance and competitive advantage(Rumple &Medcof, 2006;Tsede&Kutin, 2013;Aladwan et al., 2015).An appropriate reward system could be deployed as management tool to reinforce change (Champy, 1996). A successful Business Process Re-engineering program requiresnew appropriate job designs andmatching results-driven reward components that will extract commitment among the workers (Hammer &Champy, 2006). Employees' commitment to business process reengineering could be explained by the expectancy theory, which suggests that employees are more likely to be motivated to participate and

exchange innovativeideas (Malhotra, Grover &Desilvio, 1996) during BPR effort when they believe their performance will attract desirable and valuable reward (Mendonca, 2002).

2.7: Business Process Reengineering in Nigerian Banks

One of the overarching objectives of financial institutions is to always enhance processes that provoke higher levels of customer service and profitabilitythrough costs reduction, quality improvement, optimal delivery speed and flexibility.Business Process Re-engineering is viewed as one of the means banks deploy to achieve these objectives in addition to having access to the market. Since the consolidation exercise that was conducted in the Nigerian banking industry in 2004, the implementation of BPR initiatives as a focal business strategy has received serious consideration among managers and chief executives. Moreover, the Nigerian banking industry is now faced with plethora of business challenges that hitherto threaten their sustainable performance and success in a highly chaotic business milieu. The tremendous changes in the industry have put fresh constraints on the traditional institutions' relevance and future profitability. As a result, banks have gradually changed their strategies to suit this development.

In times past, banks only provided venues where consumers went to complete money transactions such as cash deposits and withdrawals having access to wide range of diversified and sophisticated financial products and services. Customers could spend a whole day in the banking hall of a typical Nigerian bank to consummate simple transactions like cash deposits or withdrawals which may likely not be completed the same day due to large crowds, poor network,etc. Customers often had to return to the same bank at a future date to conclude transactions as they could not perform transactions in another branch due to obsolete banking practices. In fact during the traditional banking era in Nigeria, operations were grossly inadequate because they were carried out manually due to a lack of technological innovation (Oluwatolani, Abah&Achimugu, 2011).

However, nowadays, banks are steadily evolving from these traditional roles (Tinnila, 2013) into commercial points of sale for customers. Banks have very consistent business processes and interior designs, and they re-design locations where clients can feel at ease. Simultaneously, money transactions are shifting away from bank counters and moving toward remote-controlled platforms, which are typically located near branches (ATMs) or accessible over the internet (internet/mobile banking). Currently, banks provide self-service platforms and facilities such as electronic funds transfers, mobile banking Apps, debit and credit cards and agent banking (Agbolade, 2011). Customers can now conduct transactions without having to see the four pillars of any bank branch. Thus Nigerian banks have begun to develop new strategies aimed at reforming the layout and re-engineering business processes from a customer-centric standpoint.

III. CHALLENGES OF BUSINESS PROCESS REENGINEERING IMPLEMENTATION - ITEM GENERATION AND SUBJECTIVE VALIDATION

Shahul-Hameed, Salamzadeh, Abdul-Rahim and Salamzadeh (2021) decomposed business process re-engineering into top management commitment, organisational readiness for change, information technology capabilities and people management. Challenges arise when managers are unable to leverage on these dimensions of business process re-engineering.Javidroozi, Shah and Feldman (2019) submit that the challenges businesses face when adopting, improving or effecting changes in business processes could be classified as (i) Managerial, (ii) Functional, (iii) Inter-organisational, (iv) Environmental and (v) Human challenges.

Drawing from Javidroozi et al. (2019) and Shahul-Hameed et al. (2021), we generated 35 items from extant literature that reflect these challenges. We then spent two weeks to consult 5 bank managers and 3 experts in business process improvement and innovation who scrutinized the items in terms of appropriateness, relevance, conciseness and simplicity. The items were anchored on a 5-point Likert's like scale whereby 1 = strongly disagree and 5= strongly agree. Items that did not score up to 3.0 on the scale were dropped. For instance, item 13 ("*The work atmosphere promotes learning in new processes*") which scored 2.0 and had same meaning with item 20 ("*Support learning and training opportunities*") was deleted.

Another set of 5 bank managers and 3 experts in organisational studies scrutinized the statement items, whereby some of them were fine-tuned to make more meaning. They then confirmed that the remaining 34items were sufficient, appropriate and unambiguous in describing the challenges of implementing BPR in the banks. With these steps taken, the items were deemed to pass the test of face and content validity (Leedy&Ormrod, 2004;DeVellis, 2012). Table 1 shows the items that were generated and retained for further analysis.

Table 1: items generated and subjectively validated for the study.

CH_1: Convince the employees on the need for BPR and making all departments understand the process	CH_24:Communication between all units and management during BPR implementation
CH_2: Aligning BPR with overall corporate goals	CH_25: Continuous improvement of the business processes is important within our organization
CH_3: I believe that the entire BPR process is very important for my stay in the organization	CH_26: We receive feedback from our target users
CH_4: Commit required resources for BPR effort	CH_27: I am involved in the implementation of the BPR project
CH_5: Setting unrealistic scope and expectations	CH_28: Act as mentors to various teams during BPR effort
CH_6: Management has difficulty in finding BPR team members who have required skills and knowledge	CH_29: Departments can share data and applications on the communication networks
CH_7: Share information with employees	CH_30: I feel competent to perform BPR tasks required for my position
CH_8: I have significant autonomy in determining how I do my part in implementing BPR	CH_31: Our IT systems are well integrated and organized to execute and optimize BPR efforts
CH_9: Making reliable cost-benefit analysis on BPR	CH_32: I feel adequately prepared to perform my task related to BPR
CH_10: Employees support change efforts concerning new reengineering	CH_33: We have regular maintenance schedule for IT infrastructure
CH_11: Ability to forecast HR, financial and other resource requirements for BPR	CH_34: Our employees are encouraged to participate in quality decisions in BPR implementation
CH_12: The potential benefits (including financial benefits) of the changes due to BPR are clearly defined in our company.	CH_35: Employees of our organization skeptical and have fear of having loss of control, position or job if BPR is implemented
CH_13: The work atmosphere promotes learning in new processes	**Note:** CH= Challenge. ***CH_13 (in bold)****: was deleted as recommended by experts*
CH_14: My manager trusts me to make the appropriate decisions concerning BPR	**Sources:**Davenport, 1993; Grover et al., 1995; Jackson, 1997; `Al-Mashari and Zairi, 1999; Khong and Richardson, 2003; Hammer and Champy, 2006;Uluskan, McCreery and Rothenberg, 2018; Javidroozi et al, 2019;Fasna and Gunatilake, 2020).
CH_15: Monitoring and controlling BPR process and measuring the outcomes	
CH_16: Our employees are well motivated and rewarded for contributing to the success of BPR project	
CH_17: Our company arranges seminars or workshops on BPR methods to train employees about the new BPR project in our organization	
CH_18: Empower staff to help achieve BPR implementation	
CH_19: Customer requirements are clearly defined within our organization	
CH_20: Support learning and training opportunities	
CH_21: Communicate job expectations for BPR implementation	
CH_22: Our employees are provided with the feedback on their performance.	
CH_23: Our IT infrastructure is designed to maximize efficiency in BPR implementation	

IV. STATISTICAL MEASUREMENTS, ANALSYSIS, RESULTS AND DISCUSSION

4.1: Demographic Characteristics of the Respondents

The face validated indicators, which describe the challenges of BPR implementation, were placed on a 5-pointLikert'stype scale, where 5 = extremely challenging, 4 = very challenging, 3 = moderately challenging, 2 = slightly challenging, and 1 = not at all challenging. The instrument was administered to members of staff with positions such as branch manager,customer service manager and operations manager in 188 branches of the 17 banks in Rivers State.After 5 weeks of questionnaire administration by physical means and through survey monkey, a total of 241 responses were retrieved for subsequent data entry and analysis. There was no incidence of missing data. Moreover, 241 cases exceeded the 200 cases recommended by MacCallum, Widaman, Zhang and Hong (1999) for a robust EFA. Hence all responses were keyed into the International Business Machine Statistical Package for Social Sciences (IBM@SPSS) version 27.0 for further analysis. Table 2 reveals the demographic characteristicsof the respondents.

Table 2: Demographic Characteristics of the Sample (*N* = 241)

Variable	Description	Percent
Gender	Male	57.3%
	Female	42.7%
Age (Years)	**Age bracket**	**Percent**
	< 26	5.3%
	26-35	26.6%
	36-45	46.1%
	>45	22.0%
Job Tenure	**Tenure Bracket**	**Percent**
(Years)	< 5	31.4%
	5-10	32.7%
	11-15	22.6%
	16-20	7.9%
	>20	5.4%

Table 2 indicates that out of the 241 respondents, 57.3% were male, whereas 42.7% were female. A plausible reason the banking sector is male dominated is because most women leave the industry after getting married. Moreover, 46.1% of the respondents are between 36-45 years old, whereas 26.6% are between 26-35 years, 22.0% are above 45, and 5.3% are below 26 years in age. The mean age is 38.1 years (*SD* = 2.05). Nigeria is populated by youths who are ever available for the job market.

In addition, table 2 shows that 32.7% of the respondents have worked in their organisations from 5-10 years, 31.4% have worked below 5 years, 22.6% have worked between 11-15 years, 7.9% for 16-20 years and 5.4% have been working in the organisations for more than two decades. Mean number of years in the industry was 9.26 years (*SD* = 2.51).This shows that more than half of the respondents have not worked for more than 10 years. Thus, the banking industry employs young people perhaps because the industry needs energetic generation Z employees who may be knowledgeable in contemporary IT tools.

4.2: Exploratory Factor Analysis and Psychometric Integrity of the Factors

We deployed the Principal Component Analysis (PCA) as an aspect of Exploratory Factor analysis (EFA) to transform or reduce the initial dataset while maintaining maximum variation (Osborne & Costello, 2009). The IBM@SPSS version 27.0 was utilized for the PCA. Varimax rotation (Hinkin, 1998) was applied to the dataset to arrive at minimal number of items. Moreover, the dataset was also exported from the IBM@SPSS version 27.0 to SmartPLS 3.2.9. to determine convergent and discriminant validity of the scale. The EFA output for the items that describe the challenges of BPR in Nigerian banks is shown in Table 3.

Table 3: Results of EFA for Challenges of BPR in Nigerian banks (*N* = 241)

	Factors				
Latent Variables and items	**1**	**2**	**3**	**4**	**5**
Managerial Capabilities (Factor 1)					
CH_5: Setting unrealistic scope and expectations	0.796				
CH_1: Convince the employees on the need for BPR and making all departments understand the process	0.770				
CH_11: Ability to forecast HR, financial and other resource requirements for BPR	0.741				
CH_15: Monitoring and controlling BPR process and measuring the outcomes	0.723				
CH_9: Making reliable cost-benefit analysis on BPR	0.709				
CH_2: Aligning BPR with overall corporate goals	0.708				
Leadership Support (Factor 2)					
CH_18: Empower staff to help achieve BPR implementation		0.774			
CH_28: Act as mentors to various teams during BPR effort		0.752			
CH_20: Support learning and training opportunities		0.747			
CH_4: Commit required resources for BPR effort		0.637			
CH_7: Share information with employees		0.619			
Organisational Readiness for Change (Factor 3)					
CH_10: Employees support change efforts concerning new reengineering			0.737		
CH_35: Employees are skeptical and have fear of having loss of control, position or job if BPR is implemented			0.730		
CH_12: The potential benefits (including financial benefits) of the changes due to BPR are clearly defined in our company.			0.711		
Information technology (Factor 4)					
CH_23: Our IT infrastructure is designed to maximize efficiency in BPR implementation				0.732	
CH_31: Our IT systems are well integrated and organized to execute and optimize BPR efforts				0.713	
CH_33: We have regular maintenance schedule for IT infrastructure				0.710	
CH_29: Departments can share data and applications on the communication networks				0.708	
People management Capability (Factor 5)					
CH_16: Our employees are well motivated and rewarded for contributing to the success of BPR project					0.813
CH_6: Management has difficulty in finding BPR team members who have required skills and knowledge					0.808
CH_32: I feel adequately prepared to perform my task related to BPR					0.772
CH_24:Communication between all units and management during BPR implementation					0.744
CH_8: I have significant autonomy in determining how I do my part in implementing BPR					0.719
CH_34: Our employees are encouraged to participate in quality decisions in BPR implementation					0.712
Kaiser-Meyer-Olkin's (KMO) (Total = 0.791)	0.841	0.838	0.752	0.709	0.815

Engenvalues (Total = 5.074)	3.908	3.633	5.297	3.883	7.000
Common Variance Explained by individual factor (%) (Total = 67.188)	31.80	10.521	12.443	10.206	11.093
Average Variance Extracted (AVE)	0.551	0.502	0.527	0.512	0.581
Cronbach's Alpha (Total = 0.801)	0.839	0.808	0.791	0.764	0.826

Bartlet's Test of Sphericity:Approx. Chi-Square **=** 1186.174, df= 311, Sig. = 0.002.

Source: IBM SPSS version 27 output.

Table 3 shows that 24 items uniquely loaded above 0.5 (Tabachnick&Fidell, 2007). We retained these 24 items and labeled factors 1, 2, 3, 4 and 5 as Managerial Capabilities (6 items), Leadership Support (5 items), Organisational Readiness for Change (3 items), Information Technology (4 items), and People Management Capability (6 items), respectively.

A total of 10 items were expunged from the 34 items used for EFA. Nine of the 10 items were redundant (< 0.5), while 1 item cross-loaded on two factors. Items that clustered under Organisational Readiness for Change which were dropped from the original battery of items due to redundancy are: *CH_19 and CH_25*. Items that clustered under People Management Capability which were dropped for being practically irrelevant are*: CH_3, CH_14, CH_21, CH_22, CH_26, CH_27, and CH_30*. In addition, *CH_17*cross-loaded more than 0.4 (Field, 2013) onOrganisational Readiness for Change and Leadership Support, and so was removed from the array of factorial loads.

Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy (Kaiser, 1974; Malhotra& Dash, 2007; Sarstedt&Mooi, 2014) ranged from middling (0.709 for Information Technology) to meritorious (0.841 for Managerial Capability), with a middling total KMO of 0.791. In addition, the sample is adequate (Chi-Square = 1186.174, df= 311, Sig. 0.000 < 0.002) at 95% confidence level Bartlett's test of sphericity, suggesting that correlations between the variables are significantly far from zero (Hair Jr., Black, Babin, Anderson &Tatham, 2006). Moreover, eigenvalue of individual factors are greater than 1.0 (3.633= Leadership Support) to 7.000 (People Management Capability), while total eigenvalue is 3.908> 1.0. Explained variances of factors range from 10.206% (Information Technology) to 31.80% (Managerial Capability), while the total explained variance is 67.188%.

Moreover, Table 3 also shows that all AVEs are above 0.5, meaning that each cluster of items explains more than 50% of their corresponding factor. Thus, the dataset does not have convergent validity issue (Taylor & Hunter, 2003). In addition, all the Cronbach's alphas for the individual factors surpassed the acceptable threshold of 0.7 (Nunnally, 1979), meaning that homogeneity exists in all the families of items which consistently and reasonably explain the variances within the factor structure. Discriminant validity checks were computed using the Heterotrait-Monotrait (HTMT) ratio of correlations (Wong, 2019) as shown in Table 4.

Table 4: Heterotrait-Monotrait ratio (HTMT) correlations for test of discriminant validity.

Challenges	**MAC**	**LES**	**ORC**	**IFT**	**PMC**
MAC	1.00				
LES	0.302	1.00			
	CI [0.216;0.376]				
ORC	0.326	0.341	1.00		
	CI [0.319;0.436]	CI [0.262;0.368]			
IFT	0.415	0.392	0.406	1.00	
	CI [0.361;0.498]	CI [0.301;0.452]	CI [0.381;0.420]		
PMC	0.379	0.309	0.395	0.411	1.00
	CI [0.366;0.487]	CI [0.272;0.380]	CI [0.300;0.470]	CI [0.308;0.430]	

Note: MAC = Managerial Capabilities; **LES** = Leadership Support; **ORC** = Organisational Readiness for Change; **IFT** = Information Technology; **PMC** = People Management Capability

Source: SmartPLS 3.2.9 output on research data, 2020

Table 4 shows that all the $HTMT_{.85}$ scores for the families of challenges are below the recommended cut-off value of 0.85 (Kline, 2011; Wong, 2019; Franke&Sarstedt, 2019). In addition, none of the $HTMT_{inference}$ values on 85% normal bootstrap confidence interval, with a Bonferroni correction, included the value 1 on any of the constructs (Henseleret.al., 2015). Furthermore, none of the $HTMT_{.85}$ values fell outside their respective confidence intervals. Thus, the scale does not have discriminant validity issue. Based on the above outputs from the EFA, the five-factor structure, which comprises 24 items, practically represents the challenges of BPR implementation in the Nigerian banking sector.

4.3: Ranking of the Challenges of BPR Implementation: Descriptive statistics

The degree of manifestation of the factors (the identified challenges) in implementing BPR is measured by their means. Moreover,skewness and kurtosis were used to ascertain normality of the dataset distribution. Mean values mean (M) values were calibrated as 1.0 - 2.4; 2.5 - 3.4; 3.5 - 4.4; and 4.5, which signify low, moderate, high and very high manifestation, respectively (Asawo, 2009). Skewness (S_K) and kurtosis (K_U) values that lie between -2 and +2 signify that the dataset does not have normality issue (George &Mallery, 2010; Gravetter&Wallnau, 2014). Table 5 shows the outputs for mean, skewness and kurtosis of the data.

Table 5: Mean,skewness and kurtosis of the data.

Challenge		Min.	Max.	Mean	Std. Deviation	Skewness (S_k)		Kurtosis (K_u)	
	Stat	Stat	Stat	Stat	Stat	Stat.	Std. Error	Stat.	Std. Error
MAC	241	2	5	4.30	0.619	1.107	.558	1.293	0.772
LES	241	2	5	3.21	0.704	-1.393	0.710	-1.809	0.491
ORC	241	2	5	2.33	0.600	1.008	0.508	1.666	1.830
IFT	241	2	5	3.06	0.577	-1.902	1.185	-1.387	1.191
PMC	241	2	5	3.24	0.640	1.125	0.946	0.901	0.182
Note: MAC = Managerial Capabilities; **LES** = Leadership Support; **ORC** = Organisational Readiness for Change; **IFT** = Information Technology; PMC = People Management Capability									

Source: IBM SPSS v27 output, 2022

Table 5 shows that all the skewness and kurtosis outputs fall within the acceptable range of ∓2.0. Thus, the distribution of the dataset does not have normality issues. Table 5 also reveals that Managerial Capabilities was highly challenging in the industry (M = 4.30, SD = 0.619), followed by moderate manifestation of People Management Capability (M = 3.24, SD = 0.640), Leadership Support (M = 3.21, SD = 0.704), and Information Technology (M = 3.06, SD = 0.577), in order of magnitude. However, Organisational Readiness for Change constituted a low challenge (M = 2.33, SD = 0.600) in the implementation of BPR. This means that the most challenging factor for the successful implementation of BPR in Nigerian banks is Managerial Capabilities, followed by People Management Capability, Leadership Support, and Information Technology; whereas Organisational Readiness for Change is the least among the five challenges.

V. DISCUSSION, LIMITATIONS AND SUGGESTIONS FOR FUTHER STUDIES

This study identified and ranked the challenges of BPR in Nigerian banks by using thelens of Theory of Constraints. The study gives further illumination to the micro-foundations of banking operationswhich suffers from dearth of literature on process improvement. Moreover, the study empirically investigated the relative weights or sequence of challenges that banks face while implementing BPR. Specifically, the study systematically generated several attributes of challenges banks encounter that jeopardize BPR projects. A parsimonious number of items were retained via EFA, which reflected Managerial Capabilities, People Management Capability, Leadership Support, Information Technology and Organisational Readiness for Change. These factors, which were empirically identified and validated, synchronize with the recent study of Shahul-Hameed, Salamzadeh, Abdul-Rahim and Salamzadeh (2021). Also, the findings align with the earlier study of Al-Mashari and Zairi (1999) that biggest obstacles of BPR implementation are: challenges related to

management system and culture, management support, organisational structure, and information technology (IT) infrastructure.

By implication, the findings of this study providebank managers and policy makers an understanding of not only the five-factor challenges of BPR implementation, but also which challengeposes the greatest source of concern. Overall, the study suggests that managers of Nigerian banks should tackle issues which border on their own capabilities in implementing BPR, before attending to People Management Capability, followed by Leadership Support, Information Technology and Organisational Readiness for Change. Thus, they should attend management development programs that will enable them set realistic scope and goals for BPR, adequately convince employees on the need for BPR and make all departments understand the process, conduct quality forecast on HR, financial and other resource requirements, effectively monitor and control BPR process and measure the outcomes, carry out reliable cost-benefit analysis on BPR, and create a congruence between BPR with overall corporate goals.

Whereas, our findings have theoretical and practical relevance, they are not free from certain limitations, thereby creating a space for further research. Firstly, the study was purely empirical and did not involve interviews. Future researchers should deploy mixed methodin order to discover more challenges of BPR implementation. Secondly, the study merely identified and calibrated the challenges without developing a causal model. Thus, future researches should develop, validate and test hypothesized models on the nexus between these five factors (predictor variables) and competitiveness, or other criterion variables, in the banking sector of developing countries. Moreover, although only the 24 items passed psychometric tests, there is the possibility that several other items could be included into the model. Robinson and Bennett, (1995) aver that item generation is an on-going exercise, and so researchers should not consider a set of items exhaustive. Thus, future inquirers are at liberty to generate more items concerning the variables and retest the five-factor model in other regions or cultural settings.

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