

The Impact Mechanism of Business Process Management on Corporate Financial Efficiency in the Context of Digital Economy

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Abstract: Organizations should design, realise and improve optimisation in different areas based on the above trends today. The attention of business process management (BPM) is on improving organisational processes, enhancing the efficiency of operations for companies' profitability growth at an increasing rate recently. Although there is no clear path by which BPM impacts financial performance theoretically or empirically currently; More particularly In an Environment of Digital Economy. Based on the public Data supplied by The World Bank, The Organisation for Economic Cooperation and Development (OECD), Industry research reports, etc., as well as under existing theories of hammer & champy's business process reengineering theory, barney's resource-based view, and davenport's process innovation framework. Three types of influencing mechanisms have been clarified and studied separately: the process automation-cost reduction mechanism, the integrated use-of-data-and-decision-making-efficiency mechanism, and the risk management-compliance-efficiency improvement mechanism. Three-level impact mechanisms of a theory-based innovative organisation that has been on this path for some time and is now managing itself practically.

Keywords: Business process management; Corporate financial efficiency; Digital economy; Process Automation; Digital Transformation; Resource-Based View; Process Reengineering.

1. Introduction

Digital economy has put forward some changes to many aspects of my business under normal circumstances. According to data released by the World Bank at present, Digital Technology brings substantial economic Contributions to countries around the world whether they are developed or not in terms of their share of global GDP by 2021 is expected to reach over ten per cent compared with only five per cent in 1986 [1]. This type of digital transformation is expected to reshape business models through significant changes in the competitive landscape, giving more attention to Speed-To-Market capability, data-driven decision-making abilities, and Process Optimisation repeatedly.

In terms of strategies for improving business operations and profit levels in light of the growing significance of business process management over recent years. BPM stands for approaches, methods and tools used to plan, implement, manage and analyze human activity plans in business systems such as organisations, applications, drafts and data, etc. [2] At present, the application scope of digitalisation techniques has extended to cover every stage of industrial production; In combination with the progress of real-time data integration technology and analysis methods, it has become a problem that is directly relevant to enterprises' finances at its core.

In general terms, the use efficiency and economic benefits of an enterprise's current assets over a specific time frame are higher; or to avoid risk through more rationalised resources at this stage [2]. So far, most scholars believe that there exists a strong connection between the efficiency improvement under-process-management and profit-growth; However, whether digitalised business process management driven by BPM technology can bring some effects remains puzzling for them. Currently, most existing research only focuses on the

outcome of BPM implementation without considering its effects separately; In addition, it cannot reveal how these measures help improve financial efficiency in an integrated digital economic system holistically.

This paper will aim to achieve the following goals in sequence. Establish the theoretical foundation of BPM for linking corporate financial efficiency through existing management and information systems frameworks. Firstly, this paper will investigate the main ways that BPM affects financial Efficiency under the background of Digital Economy based on public Data and empirical studies. Thirdly, according to this systematisation of the impact mechanism framework for organisations wishing to make full use of their BPM investment in enhancing financial performance better.

2. Literature Review

2.1. Theoretical Frameworks

Based on various integrated frameworks within the fields of management Science, Organizational Theory and Information Systems Research for exploring BPMs' relationship with a firm's Financial Efficiency.

Hammer and Champy put forward the theory of organisational transformation based on Business Process Reengineering (BPR) in order to realise it; according to them, reorganising out-dated business processes so they operate more efficiently will help companies improve productivity and market competition status. Reorganising from this angle offered references on the effects of process-level interventions at the cost of redundant functions and shortened processes to reshape work efficiency in producing values compared with functional departments' divisions [3]. Even though the re-engineering strategy has always been accused of being an extensive change treatment method to processes; its basic assertion about organisational effect derived from

process design remains highly relevant today in most contemporary BPM theory research and application practice.

Barney's resource-based theory provides an additional reference for organisational capabilities and sources of long-term competitiveness in business activities based on this concept [4]. According to the resource-based view, capabilities that are valuable, rare, inimitable, and non-substitutable generate above-average financial returns over time. The suggested method for the improvement of BPM recommends that the degree of process management capability be correlated with whether there has been a deep incorporation into organisational habits and additionally deployed new-generation digital infrastructure to maintain cost advantages over competitors. Based on the above theoretical framework, this paper analyses from a functional perspective what kind of effect it will have on the performance under some assumptions.

Davenport's Process Innovation Framework builds on the above foundations to integrate IT as a driver for process innovations explicitly [5]. According to Davenport's argument, Information Technology has not only automated existing procedures but also introduced new designs of Processes that cannot occur in a physical environment. The application technology innovation of this process re-creation method is more relevant to demonstrating the business operation mechanism in a digitized economy context; That is to say, cloud computing, intelligent devices and others have created a quantitative new space for processes after being reconstructed.

2.2. Empirical Evidence on BPM and Financial Efficiency

Numerous empirical researches have shown that there is a close association among Promoting BPM and enhancing corporate Performance. The pioneering work by TrkB-man suggests that there is a positive association between the extent of implementation and performance; An increase in operating efficiency and Speed will result. This is crucial as it changes the focus of analysis away from whether companies have adopted BPM systems to their actual application effectiveness in improving financial performance; thus, highlighting that how implemented matters just as much as deciding to implement [6].

Recently, many studies have shown that the relationships between various components of the financial-efficiency indexes formed after digitising enterprises are mutually reinforcing; their interdependence is highly tangible. Based on the above results of Mithas' investigation in 2014-2023, there exists a positive relationship among IT investment levels, corporate profitability indices (EPSRO), share price fluctuations and stock market liquidity measures. Recently, some large studies have been conducted separately focusing only on the Digital Investment in BPM-related fields [7]; The results show that Organisations equipped with comprehensive and feasible BPM Systems combined with Advanced Intelligent Analysis Tools can obtain higher returns for their investments than those that are entirely reliant on simple procedures.

Attention paid by scholars to how data integration improves the efficiency of enterprise's financial Decision-making has been growing over time. Rai et al. found through their research on the supply chain process integration, which is promoted by Information Technology for Enterprises' Financial Performance Improvement by Increasing

Coordination Efficiency and Reducing Asymmetrical Information among Different Organisations [8]. Based on these results, it is hoped that more profound understanding of how BPM-driven data integration at both enterprises' and function subordinates level enhances corporate financial effect through reduction in coordination cost, improve timeliness of accounting operation process, Support the business decisions by providing accurate information will be gained.

3. Methods

Using the method of systematic review combined with analytical Framework Development to integrate publicly available macro-economic and Industry Data with research results from peers in this field. Macroeconomic and digital economy data were sourced directly from the World Bank's World Development Indicators Database [1] and OECD's Digital Economy Outlook reports [9]; they offer freely accessible, regularly updated, and systematically reliable indicators about changes in countries' digitised economic developments. The BPM market and usage status data are from public industry research reports published by recognised research institutions.

Based on empirical research with high methodology rigour demonstrated through peer-reviewed publications in management, finance, and Information Systems journals; relevant to BPM implementation effects and outcomes; And the time span extends from the early 1990s to the early 2020s. There is enough time to demonstrate the history Development Process of BPM Theory and its Application Transition From Initial reorganising Approaches To Current Emphasis On Digital Transformation In Practice. Throughout this analysis, we refer back to the three theories mentioned above to explain the results of our study and build up an impact Mechanism Framework as outlined in Chapter 5.

4. Findings and Discussions

4.1. BPM Development in the Digital Economy Context

Currently, there are both an increasing scale of the digital economy transformation and its increasingly significant role in it. According to World Bank data, during the last 10 years, there has been a noticeable acceleration in global growth of the digital economy compared to total world GDP [1]; moreover, many fields have integrated digital technology into their key operations. According to the OECD Digital Economy Outlook, by 2021, cloud computing usage at enterprises in the OECD countries was about 65%, having increased from 26% in 2016; It has also built a technological support system for deploying complex BPM platforms [9].

As the world's BPM software and service markets grow alongside development of the digital economy. The above-market trend shows that the organisations' recognition of systematic process management has exceeded merely paying attention to routine expenses; With the promotion of digital technology to create new opportunities for process automatic control, Integration And optimization of resources To enhance indicators related To return On investment Capital.

The geographical distribution of BPM application shows the key Patterns related to financial-efficiency Analysis. North American and Western European enterprises have historically led in BPM adoption and sophistication, but Asia-

Pacific organizations have demonstrated rapidly accelerating adoption rates driven by large-scale digital transformation initiatives in China, Japan, South Korea, and India [9]. The spatial distribution of the implementation of BPM provides a larger sample for studying across cultures empirically to help us better understand how global enterprises adopting BPM affect their performance.

4.2. Mechanisms of BPM Impact on Financial Efficiency

Some empirical studies have found that according to different pathways via which business-process-management-improvement programmes affect corporate financial performance in the digital era.

Process Automation and Cost Reduction, as an immediately observable mechanism for improving financial benefits. Robotic Process Automation (RPA) and Intelligent Automation Technologies can be applied in BPM Frameworks to reduce manual labour through automated execution of repetitive, structured tasks. Research shows that the implementation of all-round process automation through BPM platforms can significantly reduce operating costs and some cases have achieved cost cuts as high as 25-50 per cent for automated processes relative to manually operated baseline [6]. Beyond the reduction of labour costs, automaticisation decreases errors and rework due to it, raises productivity through speed-ups by shortening processes, and ensures stable operations of high consistency under manual methods beyond scope. These cost-efficiency gains are converted directly into enhanced operating income, profit after tax, asset turnover rate indicators at the corporate-level financial performance level.

The data fusion and decision-making speed two links of BPM with financial efficiency are needed. BPM platform creation records processes; consolidates them in different organizational units to form a unified database environment of the company for real-time financial supervision, as well as accurate forecasts. Organisations that have established a high-integration of BPM-empowered data environment show the longest shortest period for accounting closure, highest accuracy in budget forecasting and best managing system resources [8]. Based on the integration of process data, decisions will be more rapid in planning finance; Providing a strong support for capital allocation based on real-time and detailed reports on enterprise operation status; Being able to respond quickly to new financial risks or opportunities in time.

Risk management and compliance efficiency, as a third mechanism with considerable financial-impact implications. Through BPM's organisation structure design, it was possible to establish an organisational form for integrating the construction process of Compliance Inspection System, Audit Information Management and Setting up Real-time Monitoring Alarm function without affecting business operation processes. Strict Control Zone, such as Finance and Healthcare/medical technology sectors, have lower compliance expenses due to the higher Achievement Score. Organizations with longer histories of adopting the implementation of business process management (BPM) application construction cooperation with regulators to avoid penalties compared by working primarily through manual regulation.

4.3. Implementation Barriers and Moderating Factors

Although there are considerable financial-impact possibilities for BPM in the background of the Digital Economy, strong limitations prevent it from achieving full effect at present. Organisational-change resistance has been formally observed to occur repeatedly. BPM implementation requires a large-scale change in the existing work habits of employees and middle management; they have accumulated certain competence and positional power within their organisations that could be challenged by such changes[3]. Organisations lacking proper investment in the organisation of changes alongside technology introduction exhibit poorer financial efficiency after deploying BPM systems.

The second essential moderator is a technical deficiency problem. Digital BPM platform's financial-efficiency potential directly relates to how well an organisation builds its own data foundation construction, designs integrations as well as establishes organisational Data Awareness. Organisations with scattered old systems, low-quality data and weak analytical ability fail to make full use of the benefits brought about by BPM-data-integration for decisions; thus, this reduces their return on investment in BPM-platform development significantly. Data security and regulatory-compliance risk of the integrated digital process environment for implementing it directly affect businesses in terms of financial loss from legal punishment or brand damage, etc., such risks cannot be offset by improved business efficiency through this scheme.

5. Impact Mechanism Framework

Based on the above theory and empirical evidence review, a three-level impact mechanism Framework for Systematic Exploration of How Business Process Management Influences Corporate Financial Efficiency under Conditions of the Digital Economy will be constructed.

The Process optimisation Layer forms the basic mechanism level and includes direct financial efficiency Effects resulting from process Re-organisation, standardization, Automation). At the third layer, using BPM intervention to lower unit-process cost; Eliminate non-value-added activity and speed up process cycle time by applying system-reengineering methods or technology in digital transformation [3]. At this level of the supply chain, financial-efficiency improvements can be quantified by operational-cost ratios, process-cycle-time indicators and errors rates reduced. Organisations need to pay more attention to the large number of routine operations that can be easily automated and those with a relatively low-cost improvement opportunity [5].

Information Integration Layer Refers to the second level of mechanisms that have captured a financial-optimisation effect through BPM-assisted data integration and organisational intelligence enhancement. Based on Davenport's process-innovation framework [5] and Rai et al.'s studies on the effects of supply-chain integration [8], this layer includes improvements in financial-reporting-accuracy-and-timely-data generation based on a unified-process-data-environment, as well as work-capital-management-efficiency-improvement and capital-allocation-decision-quality-upgrade driven by that environment. Organisations aiming to enhance their own business results by improving the efficiency of processes need to increase investments in BPM platform technologies to ensure they can monitor processes in real time, perform

predictions, connect systems easily and other needs are met for true Data-driven financial management required.

At the top end of this strategy framework are referred to as Strategic Capability Layers that significantly impact profit stability by improving enterprise process management ability; It is consistent with Barber and Cunha (1984)'s Resource Dependence Theory. Thirdly, at this stage, the company has accumulated some experience in BPM (Business Process Management) construction, possesses a certain amount of process know-how, and has formed its own set of organisational processes for managing business operations. Strategic investments in the construction of BPM talents' development, building process management governance structures and forming continuous improvement cultures all belong to enhancing capabilities at this level.

From a practice perspective, organisations will need to follow this order: First, improve the organisational processes and integrate data flows; Second, build strategic capabilities; Therefore, there must be foundational process reorganisation before advanced system construction takes place. Government and regulatory authorities need to formulate corresponding supportive policies for the related digital investments in BPM; Meanwhile, support building of data standards to facilitate coordinated operations under varied circumstances within organisational boundaries [9].

6. Summary

Business Process Management (BPM) can help businesses improve their financial outcomes in the Age of Digital Transformation more effectively; The Interaction Path consists of three parts: Automatic Processes + Costs and Data Integration and Efficiency-Oriented Decision-Making Based on Compliance Operations Risk Control. In this study, the three-level impact mechanism model of "process optimisation" + "information integration" + "strategic capability building", which has theoretical and practical references for grasping how BPM can enhance financial performance through its mechanisms.

According to this analysis, realizing the full financial efficiency of BPM requires not only technological innovation but also multiple dimensions' multi-level promotion across organisational change Management, data infrastructure construction quality capability building support governance frameworks. Organizations that can deal with both complementarity contents and technologies used in the

application of BPM platform businesses are less costly financially compared to other businesses.

Future research should use a combination of long-term quantitative analysis to investigate how changes in corporate Financial Efficiency over Time relate Organisations' Performance at varying periods within different Industries across all companies. Identify which Mechanisms are most effective under certain conditions. Cross-national comparison research on the impact of BPM on financial performance under different institutional and regulatory conditions may offer rich theoretical guidance and context-based reference cases for organisational and government entity digitisation drive via finance-enthusiastic channels.

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