

# EXAMINING THE INFLUENCE OF KNOWLEDGE MANAGEMENT ON PERFORMANCE OF BUSINESS PROCESS OUTSOURCING FIRMS IN NAIROBI CITY COUNTY, KENYA, IN THE CONTEXT OF STRATEGIC TECHNOLOGICAL PARTNERSHIPS

BY

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## Abstract

This study investigated the effect of Knowledge Management on BPO firms' performance in Nairobi City County, Kenya through strategic technological partnerships. In line with the Resource-Based View, Knowledge Management operationalized through knowledge acquisition, sharing, and storage and retrieval was treated as the focal independent variable, with Information Exchange, Business Support and Technology Transfer entered as statistical controls so that KM's distinct contribution to performance could be isolated. All four dimensions were found to influence performance of Business Process Outsourcing Firms at different statistical levels. Explanatory research design was used and 384 respondents (from a sample of 96 BPO firms selected from a population of 125 BPO firms in Nairobi City County) were targeted. A total of 307 questionnaires were returned (response rate = 79.9%). Descriptive statistics, Pearson correlation and multiple linear regression analysis were used to analyze data. Knowledge Management had composite mean of 3.76 and strongly and significantly correlated with BPO performance ( $r = .702$ ,  $p < .01$ ). Knowledge Management was found to be the strongest and most statistically significant predictor of performance ( $\beta = .327$ ,  $p < .001$ ) in a model that explained 61.0% of variance in performance ( $R^2 = .610$ ,  $p < .001$ ). These results highlight KM as an organizational capability that determines how much BPO firms get value from strategic technological partnerships.

**Keywords:** Knowledge Management; BPO performance; strategic technological partnerships; organizational capability; Resource-Based View; Kenya

## Introduction

Business Process Outsourcing (BPO) is a major part of the global digital-services economy. BPO firms provide many kinds of outsourced services customer support, data processing, IT support, payroll administration, accounting and HR services (Murphy, 2024). Beyond the efficient delivery of these processes firm competitiveness is now more dependent on their ability to respond to technological change, sustain service quality, build specialized competencies and support continuous organizational learning.

Artificial intelligence, cloud computing, automation and data analytics have increased the knowledge and capability requirements of BPO firms (Ndiritu & Anyieni, 2024). Since developing every technological and knowledge-related competency internally can be costly and slow, strategic technological partnerships have emerged as an alternative pathway through which firms access external technologies, specialized expertise and complementary capabilities from software providers, cloud service providers, technology consultants and other technology oriented organizations.

However, technology and external expertise do not necessarily lead to better performance. Kim, Lee and Park (2022) state that the value of such partnerships is largely determined by how much the receiving organization can absorb and apply the knowledge associated with them, what Cohen and Levinthal (1990) term absorptive capacity: a firm may have advanced technological systems but not realize their full potential if employees do not learn from technology partners, knowledge is concentrated in few individuals or practices learnt through partnership are not embedded into routine organizational processes.

Knowledge Management (KM) is therefore a key organizational capability through which externally sourced knowledge is turned into value for the organization (Duke, Smith & Taylor 2022). Knowledge Management refers to processes by which organizations acquire, share, retain, develop and apply knowledge to achieve their goals. In technological partnerships these processes capture technical and operational knowledge from external partners and embed it in employee competencies, operating procedures and organizational routines.

The Kenyan BPO sector provides a relevant context in which to consider this relationship. Nairobi City County has many technology-enabled service firms operating under conditions of rapid technological change, competitive pressure and changing skills requirements (Ndiritu & Anyieni, 2024). Strategic technological partnerships may access new technologies and knowledge for these firms but how much of the access translates into improved performance depends on how well firms manage and apply the knowledge obtained.

Both technological partnerships and knowledge management have been found relevant to organizational performance (Musili and Deya 2023). Musili and Deya (2023) showed that technology alliances were positively and statistically significant relationship with performance among tourism firms in Nairobi

County while Moseti, Oloko and Deya (2023) also found a similar relationship between knowledge management and firm performance among geospatial firms in Kenya. There is little evidence on the specific contribution of KM to BPO sector where studies have treated technological partnerships and KM as broad undifferentiated constructs or unrelated areas of inquiry. This paper fills that gap by treating KM as the focal independent variable and examining its relationship with BPO firm performance in Nairobi City County, Kenya controlling for Information Exchange, Business Support and Technology Transfer.

### **Statement of the Problem**

BPO firms operate in a fast-paced technological environment where artificial intelligence, cloud computing, automation and data analytics are constantly changing how services are delivered (Ndiritu & Anyieni, 2024). Firms are under pressure to acquire new knowledge, develop employee competencies and continuously improve routines. If knowledge is not managed well then firms may fail to turn technology opportunities into performance gains even when they appear promising.

Strategic technological partnerships can increase access to external technology, specialized expertise and industry knowledge. But access to these resources by itself does not ensure improved performance: firms must also have the internal capacity to identify relevant knowledge; absorb it from partners; share it across the organization; retain it for future use and apply it to organizational activities (Kim, Lee & Park 2022). The central issue then is therefore not whether BPO firms can get technological partners but whether they have the knowledge management capacity to turn what they learn in such partnerships into organizational value.

A number of studies link technology alliances and knowledge management to organizational performance (Musili & Deya 2023; Moseti et al.

2023) Musili and Deya (2023) showed that technology alliances significantly affected performance among tourism firms in Nairobi County whereas Moseti et al. (2023) found a positive and significant relationship between knowledge management and performance among geospatial firms in Kenya. However, the authors treat technology alliances and knowledge management as broad or separate constructs applied to sectors other than BPO so it is hard to isolate the distinct contribution of KM once other dimensions of technological partnership are taken into account. There is thus a contextual gap since very little research has been done directly on BPO firms in Nairobi City County; conceptual gap since KM's distinct contribution within strategic technological partnerships has not been clearly isolated; and methodological gap because evidence generated elsewhere may not capture dynamics of technology-intensive BPO firms.

The article focuses on one specific goal from a larger thesis on strategic technological partnerships and BPO firm performance: to demonstrate that Knowledge Management affects the performance of BPO firms in Nairobi City County, Kenya. Information Exchange, Business Support and Technology Transfer the other dimensions studied in the broader study are only included here as statistical control variables so that the effect attributed to KM can be separated from their influence.

### **Theoretical Framework**

The study is anchored in the Resource-Based View (RBV), whose theoretical roots trace to Penrose (1959) and were later formalized by Barney (1991). RBV attributes differences in organizational performance to differences in the resources and capabilities that firms possess and how effectively they deploy them; resources that are valuable, rare, difficult to imitate, and non-substitutable are theorized to underpin sustained competitive advantage (Barney, 1991). Knowledge constitutes one such intangible

resource: unlike physical assets, it accumulates through learning and experience and becomes embedded in employee skills, organizational routines, and decision-making processes (Duke, Smith, & Taylor, 2022).

Strategic technological partnerships extend a firm's access to knowledge and complementary resources beyond its own boundaries, but this access does not automatically generate organizational value; firms require capabilities that allow them to acquire, distribute, retain, and apply external knowledge internally (Alvarez & Barney, 2021). Knowledge Management fits within RBV as the organizational capability that converts externally sourced knowledge into internal resources and routinised practice, following the logic: strategic technological partnerships → external knowledge access → knowledge-management capability → organizational performance. Information Exchange, Business Support, and Technology Transfer were included in the statistical model as control variables, allowing the study to test whether Knowledge Management retains a statistically significant unique contribution to BPO performance once these related dimensions are accounted for.

### **Methodology**

The study used positivist research philosophy and explanatory research design (quantitative orientation and testing statistical relationships between variables) (Creswell & Creswell, 2023). The target population was 125 BPO firms registered to operate in Nairobi City County. Using Yamane's (1967) formula at 5% level of precision a sample size of 96 firms were drawn with four managerial respondents per firm (Strategic Partnership Managers, Finance Managers, Chief Operations Officers and Information Technology Managers) for a total target of 384 respondents.

Primary data were collected using structured questionnaires on a five-point Likert scale (1 =

strongly disagree to 5 = strongly agree) covering four dimensions of strategic technological partnerships and BPO firm performance. In this article Knowledge Management was taken as the focal independent variable and Information Exchange, Business Support and Technology Transfer entered as statistical controls, implying that their influence on performance was held statistically constant so that the effect attributed to Knowledge Management reflects its own unique contribution rather than overlap with the other three dimensions. The instrument was piloted with 38 respondents from BPO firms outside Nairobi

County; Knowledge Management scale had Cronbach's alpha .917 which means that it is internally consistent.

Data were analyzed in SPSS v.30; descriptive statistics presented KM responses, Pearson correlation tested bivariate relationship between KM and BPO performance and multiple linear regression tested whether KM retained a statistically significant unique contribution to performance after controlling for the other three dimensions ( $Y = \beta_0 + \beta_1IE + \beta_2BS + \beta_3KM + \beta_4TT + \varepsilon$  where Y is BPO firm performance and  $\varepsilon$  is error term).

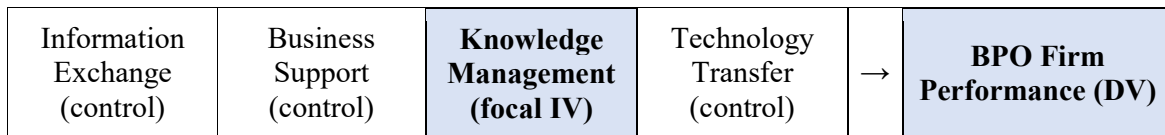


Figure 1: Conceptual model. Knowledge Management is the focal independent variable; Information Exchange, Business Support and Technology Transfer are entered as statistical controls.

### Discussion of Findings

Knowledge Management had the highest composite mean (followed by Business Support,  $M = 3.74$ ; Information Exchange,  $M = 3.61$ ; and Technology Transfer,  $M = 3.57$ , in that order) of all four dimensions ( $M = 3.76$ ,  $SD = 0.71$ ) and access to new technological knowledge through strategic partners was rated highest ( $M = 3.79$ ,  $SD = 0.80$ ) followed by improved operational efficiency because of knowledge gained from partners ( $M = 3.78$ ,  $SD = 0.80$ ). These trends indicate respondents considered technology partnerships as a meaningful source of external knowledge that translated into operational benefits.

Pearson correlation analysis showed that Knowledge Management was strongly positive and statistically significant ( $r = .702$ ,  $p < .01$ ) with BPO firm performance: firms with stronger knowledge-management practices also tended to report higher organizational performance. This result is similar to Moseti et al.'s (2023) finding of a significant relationship between knowledge

management and performance among geospatial firms in Kenya as well as Musili and Deya's (2023) finding of positive effects of technology alliances on tourism-firm performance in Nairobi County. Collectively these results imply that external technological relationships create performance value only when organizations can acquire and use the knowledge associated with them. Because a bivariate correlation cannot rule out the impact of related partnership dimensions multiple regression analysis was performed to test whether KM retained a statistically significant unique contribution after controlling for Information Exchange, Business Support and Technology Transfer.

The regression model with all four predictors was statistically significant ( $F(4,302) = 96.84$ ;  $p < .001$ ), explained 61.0% of variance in BPO firm performance ( $R^2 = .610$ ; Adjusted  $R^2 = .605$ ). Knowledge Management was still a statistically significant positive unique predictor of performance after controlling for the other three dimensions ( $\beta = .327$ ,  $t = 5.596$ ,  $p < .001$ ) and had

the largest standardized coefficient among the four predictors — ahead of Business Support ( $\beta = .292$ ,  $p < .001$ ) and Information Exchange ( $\beta = .258$ ,  $p < .001$ ) but Technology Transfer's coefficient was positive but not statistically significant ( $\beta = .073$ ,  $p = .157$ ). Thus the null hypothesis that Knowledge Management has no statistically significant influence on BPO firm performance was rejected.

These results fit with the Resource-Based View which states that organizational performance is not only about having resources but also capabilities firms develop to convert those resources into value (Barney, 1991). Knowledge obtained through technological partnerships appears to deliver performance benefits only when it is incorporated into employee competencies and service delivery routines (not just because of a partnership) not in isolation. The fact that KM was still statistically significant even after Information Exchange, Business Support and Technology Transfer were held constant means that it contributes differently to performance than the other dimensions of the partnership and cannot be explained by them alone.

The relatively weak and non-significant coefficient for Technology Transfer should not be taken as evidence that technology transfer is unimportant but rather that within this model its association with performance was not clearly distinguishable from zero once the other dimensions were controlled. This pattern supports the view that organizational value of strategic technological partnerships is less about the transfer of technological systems themselves and more about firms' capacity to acquire, share, institutionalize and apply knowledge attached to those systems (Kim, Lee & Park, 2022).

## Conclusion

The study concludes that Knowledge Management is a significant and distinct organizational capability that influences the performance of BPO firms in Nairobi City County, Kenya through

strategic technological partnerships. Apart from general effects of technological partnerships on firm performance, it seems that the ability of firms to acquire knowledge from technology partners (share, retain and apply) is central to whether these partnerships improve organizational performance or not. This finding supports the Resource-Based View's view that capabilities (not resource access alone) are what differentiates performance differences among firms and that KM should be explicitly considered when designing and managing strategic technological partnerships in the BPO sector.

## References

- Alvarez, S. A., & Barney, J. B. (2021). Resource-based and dynamic capability contexts in strategic technological partnerships. *Strategic Management Journal*, 42(6), 1105–1124.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128–152.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Duke, E., Smith, J., & Taylor, L. (2022). Knowledge management practices, organizational learning, and operational sustainability. *Journal of Knowledge Management*, 26(8), 1980–1999.
- Kim, S., Lee, H., & Park, Y. (2022). Strategic partnerships, knowledge management, and absorptive capacity in service firms. *International Journal of Operations & Production Management*, 42(5), 580–604.
- Moseti, J. M., Oloko, M., & Deya, J. (2023). Relationship between knowledge management and firm performance of

- geospatial firms in Kenya. *Journal of Economics, Management Sciences and Procurement*, 3(1), 12–21.
- Murphy, K. (2024). IT outsourcing and its implication on organizational performance and innovation in the United States (US) industry. *Journal of Technology and Operations Management*, 19(1), 54–71.
- Musili, M. M., & Deya, J. (2023). Technology alliances and business performance of tourism firms in Nairobi County, Kenya. *The Strategic Journal of Business & Change Management*, 10(3), 712–729.
- Ndiritu, J. W., & Anyieni, A. (2024). Strategic management techniques and performance of business process outsourcing firms in Nairobi County, Kenya. *International Journal of Strategic Management*, 23(1), 88–105.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. John Wiley & Sons.
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.