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EFFECT OF AMBIDEXTROUS LEADERSHIP, INNOVATION WORK BEHAVIOR AND EMPLOYEE PERFORMANCE IN LEVEL 4, 5 AND 6 HOSPITALS IN KENYA

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Abstract

This study aims to investigate how ambidextrous leadership affects employee performance by fostering innovative work behavior (IWB) in this unique healthcare setting, thereby providing valuable insights into the implications of leadership styles on innovation within Kenyan hospitals. The study focused on a population of 10,789 medical doctors, including various specialties and determined a sample size of 433 through stratified and random sampling methods to account for potential non-response. Data was collected using a structured questionnaire designed with a five-point Likert scale, employing both quantitative and qualitative research methods. The analysis utilized Hayes Process Macro Model 4 to examine the direct and indirect effects of ambidextrous leadership on employee performance through IWB. The analysis revealed that opening leadership behavior positively influences innovative work behavior, suggesting that leaders who adopt this approach effectively foster innovative practices among employees, enhancing productivity and creativity. Moreover, innovative work behavior mediates the relationship between opening leadership behavior and employee performance, indicating that it plays a crucial role in translating the benefits of such leadership into improved performance outcomes. Additionally, closed leadership behavior also significantly impacts employee performance, demonstrating that leaders who employ this style can positively affect their employees' performance while fostering innovative behaviors that further enhance overall productivity. These findings underscore the importance of ambidextrous leadership, which

balances both opening and closed leadership behaviors, for enhancing employee performance in the healthcare sector. Organizations should consider adopting leadership training programs that equip leaders with the skills to effectively balance these two styles, as both can yield significant benefits for fostering innovation and improving work outcomes among employees. This study contributes to the existing literature by addressing the unique context of hospitals in Kenya, providing insights into how ambidextrous leadership influences employee performance through innovative work behavior. By focusing on both opening and closed leadership styles, this research enhances the understanding of ambidextrous leadership in a healthcare setting and offers practical implications for improving leadership practices in similar environments.
Keywords: Ambidextrous Leadership, Employee Performance, Hospitals, Opening Leadership Behavior, Closed Leadership Behavior

INTRODUCTION

Hospitals have to continuously face a trade-off between high quality of delivered service and cost reduction. In order to cope with these apparently opposing demands, these organizations are increasingly relying on innovation as a fundamental driver of continuous quality improvement as well as cost reduction (Barlow, 2017; Moreira et al., 2017). Recently, there has been a global health challenge and if a hospital has to survive in increasingly health care competition, they will require leaders with ability, expertise, strategy, and skills that improves performance of medical employees (Asbari, 2020). Thus, to attain and improve performance of medical employees it is paramount for management to consider Ambidextrous leadership's (Qammar & Abidin, 2020). Within the intensifying competitive landscape, innovation is swiftly gaining prominence as a critical tool for enhancing service delivery (Phong & Thanh, 2023; Le et al., 2022 and Gui et al., 2022). Creativity and innovation have emerged as critical tools for effectively navigating the swiftly transforming business realm, with an intrinsic interconnection (Allioui, & Mourdi, 2023). The promotion of innovative behavior within workplaces relies on support at both the organizational and individual levels (Sönmez & Yıldırım, 2018). The presence of innovative behavior within any enterprise is fundamentally driven by human-centric factors. It is the individuals who possess the ability to engage in critical thinking and offer creative solutions to intricate business challenges. In this trajectory, the effective implementation of leadership assumes a pivotal role (Noopur & Dhar, 2019).

Among the various factors influencing an employee's innovative capabilities, ambidextrous leadership has emerged as a key factor in recent times. Ambidextrous leadership's ability to effectively balance exploration and exploitation, foster a culture of

adaptive learning, and manage risks has established it as a decisive catalyst for enhancing a firm's innovation competence (Wang, et al., 2021). This leadership approach not only encourages continuous innovation but also ensures the long-term competitiveness and resilience of the organization in the face of evolving business dynamics. Ambidextrous leadership, a leadership style that combines exploratory and exploitative activities within an organization, has emerged as a promising solution to this dilemma (Duc, et al., 2020). In this context, exploration entails the pursuit of new opportunities and innovations, while exploitation involves the optimization of current resources and processes. In addition, ambidextrous leadership characterized by its situational, versatile, and flexible approach, aligns well with process linked to innovative work behaviour. This leadership style encourages leaders to foster a culture of innovation and risk-taking within the organization, while concurrently ensuring efficiency and stability (Zarb, et al., 2017). By encouraging and promoting a climate of creativity and a willingness to take calculated risks in the organization, ambidextrous leadership paves the way for new ideas and practices to thrive. This, in turn, enhances an organization’s capacity to innovate, enabling it to respond to changing market dynamics, meet evolving customer demands, and take advantage of emerging opportunities.

According to Wang, et al., (2021), establishing ambidexterity inside an organization is primarily a challenge of leadership that is impacted by favorable elements of organizational structure that leaders in the company build. Numerous scholars have underscored the significance of ambidextrous leadership in navigating the conflicting demands associated with innovation, which includes the delicate equilibrium of governmental and societal imperatives while optimizing resource allocation (Jia, et al., 2022). Ambidextrous leadership encompasses a leader's capacity to nurture both exploratory behaviors which are denoted as open behaviours, and exploitative behaviors which are categorized as closed behaviours, combined with the ability to adeptly shift between them in response to the prevailing circumstances and task requirements (Mascareño, et al., 2022). In essence, ambidextrous leadership entails the establishment and maintenance of equilibrium within seemingly contradictory facets, including exploration and exploitation, adaptability and regulation, as well as effectiveness and efficiency (Wang et al., 2021). However, despite the wealth of studies connecting ambidexterity and employee performance via employee innovative work behavior, there is a noticeable gap in research related to Kenya, and specifically in the context of hospitals. This gap underscores the need for further investigations to explore how ambidextrous leadership influences employee performance via employee innovative work behavior within this unique setting. Such studies could provide valuable insights into the dynamics of qa and its impact on innovation within Hospitals in Kenya.

The performance of medical doctors is crucial for ensuring equitable healthcare and overall development in Kenya. Despite various government initiatives, such as Vision 2030 and the Kenya Health Policy 2014-2030 aimed at enhancing public service doctor performance, significant challenges persist in the Kenya healthcare system. Incidents such as the high infant mortality rates at Pumwani Maternity Hospital and reported cases of medical negligence at facilities like Mama Lucy Hospital underscore these challenges (Amref, 2018; Sokodirectory, 2022). A survey by Nyambane (2017) revealed minimal employee efficiency, productivity, and the ability to meet deadlines at the Ministry of Health. Additionally, the lingering impact of doctors' strikes, particularly the prolonged strike in 2017 that lasted for 100 days, has severely affected the performance of approximately 2,300 public sector doctors (Aluoch, 2018; Mwenda, Muturi & Olunga, 2018; Lugwe & Gichinga, 2017). These labor unrests, driven by unresolved issues related to promotions, pay, and working conditions, have further deteriorated service delivery in public hospitals, allowing patient suffering and mortality to occur (Anadolu, 2020; Africanews, 2021).

While many studies have established connections between employee performance and various leadership styles, including transformational leadership (Suryano et al., 2023) and transactional leadership (Qubbaj & Shalabi, 2023; Yansen & Yujie, 2023; Nguyen et al., 2023), there exists a significant gap in the literature regarding the association of ambidextrous leadership with innovative work behavior. Locally, studies such as those by K'Aol et al. (2023) have primarily linked innovative work behavior with supportive leadership. Furthermore, research by Gad David et al. (2023) demonstrated a connection between transformational leadership and open innovation through fostering an innovative culture. Given these observations, the gap regarding ambidextrous leadership style and its impact on employee performance among employees within employee performance becomes even more pronounced when considering the mediating role of innovative work behavior. This context raises critical research questions: Is ambidextrous leadership an effective style for enhancing employee performance in hospitals in Kenya? And does talent innovative work behavior enhance the relationship between ambidextrous leadership style and innovative work behavior in employee performance in hospitals in Kenya?

THEORETICAL REVIEW AND HYPOTHESES DEVELOPMENT

Ambidextrous leadership theory initially attributed to Charles A. O'Reilly and Michael L. Tushman (1996) is a pivotal management and leadership concept. It revolves around the intricate balance of two seemingly contradictory organizational demands: exploration and exploitation. These two complementary components have been the focal point of numerous

studies in the realm of organizational leadership and management. Expanding on the foundational work of O'Reilly and Tushman, Rosing et al. (2011) have made substantial contributions to the field of ambidextrous leadership. In their research, Rosing et al., (2011) emphasize the critical importance of ambidextrous leadership, particularly in the context of innovation and organizational performance. Their work underscores the pivotal role of leaders who can effectively manage the inherent tension between exploration - which fuels innovation, and exploitation - which sustains operational efficiency. Rosing et al. (2011) argue that successful leaders need to exhibit the capability to simultaneously nurture and balance these two dimensions of ambidextrous leadership. They maintain that such leaders are essential for driving innovation while also ensuring the ongoing efficiency and stability of their organizations.

In an organization, exploration signifies the proactive pursuit of novel opportunities, the continuous opening of new frontiers, and a commitment to experimentation. It's about promoting a culture that encourages creativity, taking calculated risks, and adapting to the changing external landscape (Merkuž, & Mihelič, 2023). Exploration is the engine that drives innovation, and leaders who understand its importance are more likely to be at the forefront of industry advancements (Laser, 2023). On the other side of the spectrum, exploitation entails the process of optimizing existing resources, well-established processes, and known products or services. This represents the day-to-day closing of the gap between potential and actual performance (Mohiya & Sulphey, 2021). It is characterized by a focus on efficiency, cost reduction, and the consistent implementation of established strategies. Leaders skilled in exploitation ensure that the organization operates seamlessly and maintains a competitive edge in the current market. Therefore, based on the above the following theoretic framework was developed.

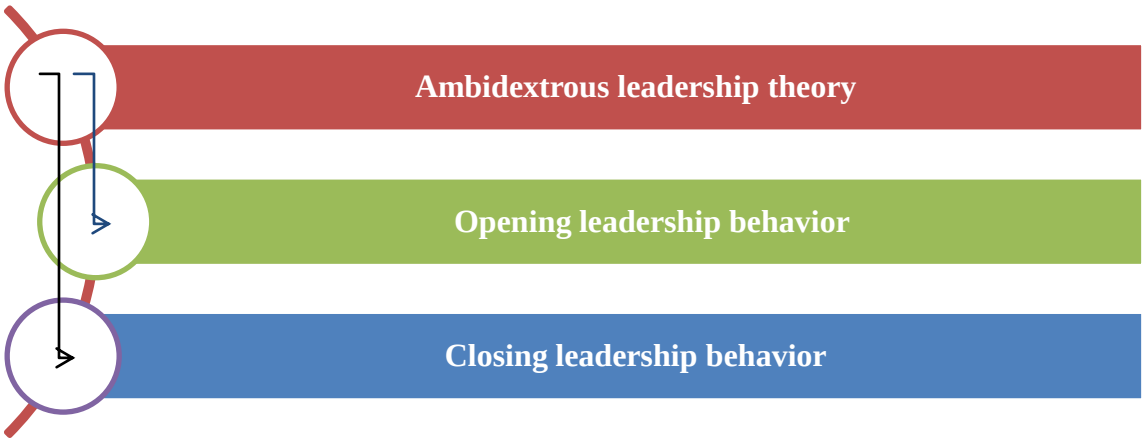

Figure 1 Theoretical Framework

Source: (Rosing et al., 2011; Zarb, et al., 2017)

The ultimate objective of ambidextrous leadership theory is to confront the challenge of simultaneously managing innovation and operational efficiency within an organization. Exploration, which involves seeking new opportunities, experimentation, and innovation, requires leaders to foster creativity, take calculated risks, and adapt to evolving external conditions. In contrast, exploitation centers on optimizing existing resources, processes, and products, focusing on efficiency, cost reduction, and the consistent implementation of established strategies (Zabiegalski, & Marquardt, 2022). Ambidextrous leaders are those who can skillfully manage these two seemingly opposing demands within their organizations. They not only encourage and support innovative, forward-thinking initiatives but also ensure the continued excellence of existing operations. This duality in leadership style necessitates a strong commitment to nurturing both creativity and efficiency, creating a dynamic equilibrium that is essential for organizational success in today's fast-paced and competitive business landscape (Alghamdi, 2018).

Empirical research exploring the application of ambidextrous leadership theory in the context of firm innovation reveals valuable insights into its impact and effectiveness. Several studies have examined the relationship between ambidextrous leadership and employee performance, shedding light on the practical implications of this leadership approach.

Opening Leadership Behaviour

Opening leadership behavior, as conceptualized by Rosing et al. (2011), is defined by actions that introduce variety in subordinates' behaviors. This involves motivating them to approach tasks differently, promoting experimentation, providing opportunities for autonomous thinking and execution, and supporting their efforts to challenge existing situations. Within the framework of the ambidexterity theory of leadership for innovation, opening leadership behavior is hypothesized to lead to increased exploration activities among subordinates. This behavior cultivates a mindset of approaching tasks differently, reinforcing exploratory behaviors related to chance exploration and idea generation and execution. Employees, under the influence of opening leadership behavior, are prompted to perceive possibilities and contemplate new approaches or products, as emphasized by Al-Eida (2020).

Furthermore, opening leadership behavior plays an important role in supporting idea development and acceptance. Research findings indicate that granting autonomy to employees not only stimulates idea generation but also positively influences execution behavior. This is consistent with the concept of opening leadership behavior, which comprises a range of activities such as inspiring followers to adopt novel strategies, fostering self-directed thinking,

investigating substitute techniques, and offering assistance in questioning the status quo (Coleman, 2016; Zacher and Rosing, 2015).

According to Mohammed and Mohammed (2021) research, when leaders exhibit open leadership characteristics, followers' behavior becomes more varied. This is accomplished by encouraging them to try out new strategies for completing tasks or taking on new duties. It entails creating an environment of assurance where making errors is accepted and giving people the freedom to think and act for themselves. Furthermore, leaders aggressively encourage initiatives aimed at challenging and challenging the status quo. Open leadership is associated with "organic structures," characterized by flexibility, creativity, autonomy, and chaos, fostering innovation, adaptation, and the ability to face the unknown (Alghamdi, 2018). Open leadership promotes novel approaches and ideas, deviating significantly from existing operational levels. It provides organizations with future long-term opportunities. Exploration-based opening leadership style necessitates a thorough reevaluation of an organization's long-held convictions. During this process, these beliefs are replaced with superior ones that are tailored to certain situations (Mohiya & Sulphey, 2021). Conversely, exploration (opening leadership behavior) guarantees long-term operational flexibility and fosters innovation; whereas closed leadership behavior (exploitation) helps firms become more efficient in the near term.

According to Rosing et al. (2011), providing employees with the necessary freedom to accomplish specific tasks characterizes opening leadership behavior. This nurtures exploration behavior among subordinates, involving breaking away from established routines and fostering an innovative thought pattern. "Open-minded" leaders encourage the emergence of autonomous thought processes and the challenging of accepted norms and practices. They deliberately encourage a mindset that gives followers the freedom to think and act independently by encouraging them to approach assignments with an experimenting attitude. These leaders also inspire their followers to question the current quo (Mascareño et al., 2021). The opening leadership style increases the possibility of exploring and coming up with fresh ideas by pushing followers to approach tasks in novel ways. In turn, the growth of creative goods and services is greatly aided by this recognition of invention (Messmann & Mulder, 2012; Busola Oluwafemi et al., 2020). Therefore, study hypothesized that:

$H_{1:}$ Opening leadership behavior has significant effect on employee performance

Closing Leadership Behaviour

According to Rosing et al. (2011), activities taken to lessen behavioral unpredictability among subordinates are included in the idea of closing leadership behavior. This decrease is accomplished by taking corrective action, creating clear instructions, and closely observing the

accomplishment of objectives. The ambidexterity theory of leadership for innovation postulates that followers who experience closed leadership behavior are more likely to be involved in exploitative activities (Zacher and Rosing, 2015; Rosing et al., 2011). Closing leadership conduct implies that leaders define objectives and monitor them, thereby reinforcing idea development and acceptance, as these activities strengthen procedural behaviors. This behavior encourages opportunity exploration and idea generation, supported by evidence that managerial backing and monitoring activities are positively linked to creativity and idea generation. It includes taking steps to improve efficiency, productivity, and similar aspects by launching initiatives based on organizational experiences. This methodology is intimately associated with "mechanistic structures," which include controls and systems, in addition to making use of existing technology (Jiang, et al., 2023). Exploitation, associated with closing leadership, provides incremental improvements to the organization's routine activities, contributing to the current operational proficiencies and ensuring stable short-range profitability (Alghamdi, 2018).

Closing leadership behaviors are employed by managers in an effort to reduce follower variability. This entails putting steps to be taken in place to reduce unacceptable risk-taking, creating precise, structured guidelines, and keeping a close eye on their followers' progress (Alghamdi, 2018). According to the idea, follower control behaviors are predicted by closure leadership actions, which reduce follower performance variation (Zacher & Rosing, 2015). Closing behaviors are exhibited by leaders that give clear instructions to their followers while continuously monitoring the process. When followers engage in such conduct, it encourages an exploitative strategy that emphasizes rationalization as a means of reducing variability and fostering the development of routines. Closing behavior leaders set clear expectations, work to correct particular behaviors, and supervise closely in order to achieve company goals. By taking corrective action, providing clear instructions, and keeping a close eye on followers, this leadership approach seeks to reduce behavioral variability (Rosing et al., 2011). Closing leadership, characterized by its emphasis on minimizing variation and maintaining control, plays a pivotal role in organizational dynamics. By guiding followers to execute tasks in specific ways under close supervision, leaders adopting this style aim to create a standardized and controlled environment. The focus on rationalization and the reduction of variance aligns with the exploitation aspect of the ambidexterity theory, emphasizing efficiency, and routine implementation. In the context of closing leadership, the establishment of clear-cut guidelines reflects an intention to streamline processes and reduce ambiguity. Corrective actions and close monitoring further underscore the commitment to maintaining a structured and controlled work environment. This approach is particularly effective in settings where adherence to specific

procedures is crucial for achieving organizational innovation goals, ensuring consistency and reliability in task execution.

Closed leadership behavior is a collection of behaviors that include setting clear expectations, taking corrective action when necessary, and keeping a close eye on target completion. When employees are required to perform their duties precisely, leaders usually support this behavior, stressing the effective fulfillment of job duties and the reduction of employee behavior variance. Closed leadership emphasizes adherence to work procedures, ensuring compliance with laws, monitoring goal achievement, and taking corrective actions when necessary (Havermans et al., 2015). Consequently, the study hypothesizes that:

$H_{2:}$ Closed leadership behavior has significant effect on employee performance

Employee Innovative Work Behavior

The relationship between ambidextrous leadership behaviors and employee innovative work behavior (IWB) has garnered significant attention, revealing nuanced insights into how these dynamics influence workplace performance. Research by Oluwafemi et al. (2022) underscores the substantial impact of ambidextrous leadership on employees' innovation behaviors, demonstrating that the adaptability inherent in ambidextrous leadership—balancing exploration and exploitation is particularly effective in environments demanding agility and innovation for sustained success. This adaptability aligns well with the shifting needs of modern organizations, where leaders must navigate between leveraging existing competencies and exploring new possibilities for growth. Further support for the positive relationship between ambidextrous leadership and innovation is found in the work of Gerlach et al. (2021), who identified that ambidextrous leadership contributes significantly to enhancing employee creativity and innovation within firms. Additionally, Jia et al. (2022) highlighted a clear linkage between ambidextrous leadership and firm innovation, suggesting that both exploitation knowledge search and exploration knowledge search serve as pathways through which ambidextrous leadership exerts its influence. This notion is echoed by Jiang et al. (2023), who emphasized the crucial role of ambidextrous leadership in fostering innovation among employees, establishing a robust correlation between leadership style and innovative behavior.

The distinction between "opening" and "closing" leadership behaviors within the ambidextrous leadership framework further enriches this understanding. Xia et al. (2023) specifically pointed out the significance of opening leadership behaviors in enhancing employee innovative work behavior. Hu et al. (2020) explored this concept within the IT sector, demonstrating that opening leadership positively interacts with newcomer innovation, thereby illustrating the contextual variations that ambidextrous leadership can exhibit. Duc et al. (2020)

supported this notion by asserting that both closing and opening behaviors are key in boosting team innovation, particularly in the retail services context. In contrast, Hafeez et al. (2022) indicated that overly stringent closing leader behaviors may inhibit innovative work behavior among employees, highlighting the delicate balance required within an ambidextrous leadership approach.

Expanding the inquiry into the United States, Kousina and Voudouris (2023) confirmed the profound influence of ambidextrous leadership on employee innovation, reinforcing the notion that leaders who effectively navigate between closing and opening behaviors can drive significant innovation within their teams. The importance of IWB as a driver of performance is further supported by Berisha et al. (2020), who note that employees exhibiting higher levels of innovative behavior tend to be star performers in their workplace. Luhgiatno and Santoso (2021) also emphasize the positive effect of IWB on improving employee work performance. Babu et al. (2024) concluded that ambidextrous leadership has a significant and positive impact on innovative work behavior, reinforcing the idea that IWB plays a crucial role in influencing employee performance. Their findings suggest that the impact of ambidextrous leadership—through the lens of innovative work behavior has a more pronounced effect on enhancing employee performance. Based on the existing literature, the study formulated that

$H_{3:}$ innovative work behavior mediates the relationship between opening leadership behavior and employee performance.

$H_{4:}$ innovative work behavior mediates the relationship between closed leadership behavior and employee performance.

RESEARCH METHODOLOGY

Research design

This study employed positivist philosophy in gathering of quantitative data to evaluate the underlying hypotheses of the study and produce knowledge that has an impact on decisions (Creswell, 2014). The proposed effect of ambidextrous leadership on employee performance via innovative work behaviour in level 4, 5 and 6 hospitals in Kenya was investigated using an explanatory research methodology.

Sampling

The study targeted a population of 10,789 medical doctors. The doctors were categorized into medical officers, pharmacists, and dental officers. A sample size of 394 was initially determined using Krejcie & Morgan (1970) methodology, with a 10% increase to 433 to

account for potential non-response, as recommended by Jones (1996) and Kiongo (2015). The final sample of 433 doctors selected through simple random sampling via SPSS.

Data Collection Tools and Procedures

This study utilized both quantitative and qualitative methods to gather data. A structured closed-ended questionnaire was administered to medical doctors, designed with a five-point Likert scale to quantify responses. Face validity was established pilot study, while criterion validity was tested by aligning items with established studies and theories. Content validity was confirmed with a Content Validity Index (CVI) of 0.923, surpassing the minimum acceptable level of 0.8 (Polit & Beck, 2011). Reliability for the quantitative data was assessed using Cronbach's Alpha, with a threshold of 0.7 or above considered acceptable (Cronbach Alpha, 1951). Data collection involved direct administration of the questionnaires to available doctors, with a drop-and-pick method used for those who were unavailable due to busy schedules. The study achieved a high response rate, with 378 out of 433 distributed questionnaires returned, resulting in a 92.7% response rate. After data cleaning, including addressing missing values and outliers, 7 questionnaires were deemed unusable, reducing the usable response rate to 90.5%. To achieve this, the researcher and assistant actively managed data collection through daily site visits, personal reminders, and the drop-and-pick-later method for those unavailable on-site.

Measurement of Variables

Employee performance is linked to the level of expertise that workers apply in fulfilling their roles, which ultimately aids organizations in achieving their objectives (Gragnano, 2020). This performance can be analyzed through three key dimensions: task, contextual, and adaptive performance. These dimensions were evaluated using a set of 27 closed-ended questions.

Ambidextrous Leadership was measured through two subscales identified by Rosing et al. (2011), focusing on opening and closing leadership behaviors. Both types of leader behaviors were examined at the between-person and within-person levels, utilizing a measurement scale designed by Zacher and Rosing (2015). The assessment of opening leader behaviors consisted of seven items, while closing leader behaviors were measured with another seven items, rated on a scale from 1 (not at all) to 5 (very strongly).

Innovative Work Behavior (IWB) was evaluated using eleven items adapted from the works of Kleysen and Street (2001) and De Jong and Den Hartog (2010). All questionnaire items were assessed using a five-point Likert scale, where responses ranged from 1 (never) to 5 (very often). Each of the four dimensions of IWB previously mentioned was thoroughly addressed.

Data Analysis

Prior to conducting data analysis, the survey data underwent sorting, coding, and input into the SPSS statistical analysis software. This software was then utilized to generate tables and descriptive statistics, encompassing frequency, percentages, mean, and standard deviation of the study variables. Inferential statistics was analyzed using correlation and regression analysis. The study utilized Hayes Process Macro Model 4 to test for both direct and indirect effects of ambidextrous leadership on employee performance through innovative work behavior.

RESULTS

Preliminary Analysis

The study employed the Principal Component Method to investigate components that were highly connected with Ambidextrous leadership, firm innovation, and service delivery in order to increase the trustworthiness of the data. During the analysis, weak or negative correlation components were eliminated. The validity of the tool was further evaluated using the Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin Test of Sampling Adequacy. To extract components from each construct, all variables underwent a component factor analysis using varimax rotation. Following the advice of Hair et al., items with a loading factor of less than 0.50 were removed, while those with a loading factor of more than 0.50 were kept. The results from the factor analysis summarized in Table 1 reveal insightful dimensions of employee performance, leadership behaviors, and innovative work behavior. The measures for employee performance demonstrate strong structural integrity, supported by a high KMO value of 0.799 and a Cronbach's Alpha of 0.826, indicating reliable internal consistency. The eigenvalue of 3.355 suggests that this factor accounts for a significant amount of variance (69.386%), with all items (EM1 to EM9) exhibiting substantial loadings, particularly EM2 (0.893) and EM1 (0.857).

In contrast, the opening leadership behavior dimension, although also reliable with a Cronbach's Alpha of 0.847, presents a lower KMO of 0.559, suggesting less sampled adequacy compared to employee performance. The total variance explained (63.638%) is still notable, with the highest loading observed for OLB6 (0.943), indicating its strong contribution to the construct. Similarly, for closing leadership behaviors, the KMO of 0.605 and a Cronbach's Alpha of 0.761 indicate adequate reliability, with a total variance explained of 68.953%. Items like CLB4 (0.856) show high factor loading, reinforcing the construct's reliability.

Lastly, the innovative work behavior dimension displays a solid KMO of 0.753, and a high Cronbach's Alpha of 0.840, reflecting consistency among its items. The eigenvalue of 4.105 accounts for 55.739% of the variance, with notable item loadings like IWB2 (0.807) and IWB3 (0.771). Overall, these results suggest that both employee performance and leadership

behaviors both opening and closing play crucial roles in fostering innovative work behaviors, highlighting the interrelationship between effective leadership and employee outcomes within an organizational context.

Table 1: Factor Analysis

N=378	loadings	Total Variance Explained: Cumulative %
Employee performance (KMO=.799, eigne value=3.355, Cronbach's Alpha= 0.826, AVE=0.584		
EM1	0.857	69.386
EM2	0.893	
EM3	0.728	
EM4	0.801	
EM5	0.821	
EM6	0.707	
EM7	0.703	
EM8	0.836	
EM9	0.631	
Opening leadership behavior (KMO=0.559, eigne value=2.71, Cronbach's Alpha= 0.847, AVE =0.608)		
OLB 1	0.878	63.638
OLB2	0.770	
OLB 3	0.774	
OLB 4	0.758	
OLB 5	0.843	
OLB 6	0.943	
Closing leadership behavior (KMO=0.605, eigne value=1.71, Cronbach's Alpha= 0.761, AVE =0.642)		
CLB1	0.748	68.953
CLB2	0.840	
CLB3	0.739	
CLB4	0.856	
CLB5	0.686	
CLB6	0.744	
Innovative work behavior (KMO=0.753, eigne value=4.105, Cronbach's Alpha= 0.840, AVE = 0.655)		
IWB1	0.743	55.739
IWB 2	0.807	
IWB 3	0.771	
IWB 4	0.7	
IWB 5	0.759	
IWB 6	0.749	

Descriptive and Correlation Analysis

The descriptive and correlation analysis presented in Table 2 provides a detailed overview of the relationships among employee performance, leadership behaviors (both

opening and closing), and innovative work behavior (IWB) based on a sample of 378 respondents. The mean scores indicate that employees perceive their performance (mean = 3.53, SD = 0.43) and opening leadership behaviours (mean = 3.55, SD = 0.66) positively, with closing leadership receiving the highest mean score at 3.66 (SD = 0.69), suggesting a generally favourable view of leadership in this context. In terms of correlation, significant positive relationships were found among all variables at the 0.01 level, indicating strong interdependencies. Notably, employee performance has a moderate correlation with opening leadership (r = 0.550) and a slightly stronger correlation with closing leadership (r = 0.612), suggesting that both types of leadership significantly influence employee performance levels. Furthermore, the correlation between employee performance and innovative work behavior shows a moderate positive relationship (r = 0.508), implying that as employees perform better, their innovative behaviors are also likely to increase.

Opening leadership and closing leadership exhibit a weaker, yet significant correlation with each other (r = 0.164), indicating that although they are related, they contribute distinctly to employee dynamics. Both types of leadership behaviors also correlate positively with IWB (opening leadership: r = 0.422; closing leadership: r = 0.408), reinforcing the idea that effective leadership is crucial for fostering innovation in the workplace. Overall, the analysis underscores the importance of supportive leadership in enhancing employee performance and promoting a culture of innovation

Table 2: Descriptive and correlation analysis

n=378	Mean	Std. Deviation	Employee performance	Opening leadership	Closing leadership	IWB
Employee performance	3.53	0.43	1			
Opening leadership	3.55	0.66	.550**	1		
Closing leadership	3.66	0.69	.612**	.164**	1	
IWB	2.71	0.51	.508**	.422**	.408**	1

** Correlation is significant at the 0.01 level (2-tailed).

Hypothesis Testing

The results of the hypothesis testing, as outlined in Table 3, provide substantial evidence regarding the relationships between opening leadership behavior (OLB), employee performance (EP), and innovative work behavior (IWB). Hypothesis 1 (H1), which posits that opening leadership behavior significantly affects employee performance, is supported by the findings. The direct effect of OLB on EP, represented by C' (β = 0.146, p = 0.011), indicates a statistically

significant positive influence, suggesting that effective opening leadership enhances employee performance.

In Model 1, the analysis reveals that OLB has a strong positive effect on IWB (a = 0.797, p = 0.000). This finding supports the premise that leaders who engage in opening behaviors are likely to foster innovative work practices among their employees, thereby enhancing productivity and creativity.

Model 2 further substantiates Hypothesis 3 (H3), which proposes that IWB mediates the relationship between opening leadership behavior and employee performance. The indirect effect calculated as the product of the opening leadership's effect on IWB (a) and the effect of IWB on employee performance (b1) is significant (effect = 0.2287, BootSE = 0.0357, BootLLCI = 0.1678, BootULCI = 0.3072). This result indicates a meaningful mediation, wherein IWB plays a critical role in translating the benefits of opening leadership behavior into enhanced employee performance. Notably, this mediation is partial and non-zero, as evidenced by the remaining direct effect (C' = 0.1463) of OLB on EP after accounting for IWB.

Moreover, the total effect of OLB on EP, calculated at 0.3741 (p = 0.0000), confirms that there is an overall significant relationship when considering both direct and indirect pathways. The high R-squared values (0.5833 for IWB and 0.4175 for EP) and significant F-statistics (F = 214.186 and F = 72.862) further endorse the robustness of the models. Additionally, employee tenure does not appear to significantly impact either dependent variable, as indicated by the non-significant p-values in both models. Collectively, these findings affirm the hypotheses, illustrating that opening leadership behavior not only directly enhances employee performance but also does so via the mediation of innovative work behavior, highlighting the importance of both direct and mediated pathways in organizational effectiveness.

Table 3: Hayes Model 4 results

	Model 1 (IWB)			**Model 2 (EP)**		
	β	**se**	**p**	**B**	**se**	**p**
Constant	0.847	0.312	0.000	2.124	0.113	0.000
OLB	a=0.797	0.066	0.000	C’=0.146	0.045	0.011
IWB	-	-	-	b1=.287	0.043	0.000
Employee tenure	-0.011	0.041	0.797	-0.114	0.031	0.002
R	0.7638			0.8461		
R-sq	0.5833			0.4175		
F	214.186			72.862		
F prob	0.000			0.000		

Table 3…

Total effect of X on Y:					
Effect	**se**	**t**	**p**	**ULCI**	**LLCI**
0.3741	0.0309	12.1413	0.0000	0.3143	0.4359
Direct effect of X on Y:					
Effect	**Se**	**t**	**p**	**LLCI**	**ULCI**
0.1463	0.0445	3.2882	0.0011	0.0588	0.2339
Indirect effect(s) of X on Y:					
	Effect	BootSE	BootLLCI	BootULCI	
Mediation (a1×b1)	0.2287	0.0357	0.1678	0.3072	

Note: OLB= opening leadership behavior, EM= employee performance.
IWB= innovative work behaviour

The results presented the results presented in Table 4 provide insights into the hypotheses concerning the effects of closed leadership behavior (CLB) on employee performance (EP) and the mediating role of innovative work behavior (IWB). The analysis shows that closed leadership behavior has a significant positive effect on employee performance, as indicated by the direct effect coefficient (C' = 0.524, p = 0.011). This suggests that when leaders exhibit closed behavior, they positively influence the performance of their employees. Furthermore, the total effect of CLB on EP is substantial (β= 0.9633, p < 0.0001), indicating that closed leadership behavior strongly contributes to employee performance outcomes. The direct effect (β=0.5238, p = 0.0000) remains significant after controlling for IWB, reinforcing the notion that CLB plays a crucial role in determining employee performance levels. Thus, Hypothesis 2 (H2) is supported.

The results further indicate that innovative work behavior significantly mediates the relationship between closed leadership behavior and employee performance, as seen in Model 1, where the effect of CLB on IWB is highly significant (a = 0.775, p < 0.0001). The indirect effect calculated from the mediation (a1 × b1) is also significant (β=0.4395, BootLLCI = 0.3091, BootULCI = 0.5793), indicating that IWB serves as a meaningful conduit through which CLB affects EP. Importantly, this mediation is partial and non-zero, as evidenced by the remaining direct effect (C' = 0.5238) of CLB on EP after accounting for IWB. This underscores that while closed leadership can enhance employee performance directly, it also fosters innovative behaviors among employees that further drive performance improvements. Therefore, Hypothesis 4 (H4) is also supported.

Findings also showed that Model 1 revealed R-squared of 0.475, indicating that 47.5% of the variance in IWB is explained by the model, and Model 2 showing an R-squared of 0.652, indicating that 65.2% of the variance in EP is accounted for. These values suggest a strong fit for the models in explaining the relationships under investigation. The significance of the F-statistics (F = 149.091 for IWB and F = 205.452 for EP) further validates the robustness of the

models. Employee tenure does not significantly impact either IWB or EP, suggesting that experience may not play a critical role in this specific context.

Table 4: Hayes Model 4 results

	Model 1 (IWB)			Model 2 (EP)		
	B	**se**	**p**	**β**	**se**	**p**
Constant	0.824	0.162	0.000	-0.654	0.162	0.000
CLB	a=0.775	0.045	0.000	C'=0.524	0.060	0.011
IWB	-	-	-	b1=0.567	0.053	0.000
Employee tenure	0.029	0.034	0.396	-0.061	0.033	0.066
R	0.689			0.808		
R-sq	0.475			0.652		
F	149.091			205.452		
F prob	0.000			0.000		
Total effect of X on Y						
Effect	**Se**	**t**	**p**	**ULCI**	**LLCI**	
0.9633	0.0500	19.2558	0.0000	0.8649	1.0618	
Direct effect of X on Y						
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**	
0.5238	0.0595	8.8029	0.0011	0.4068	0.6409	
Indirect effect(s) of X on Y:						
	Effect	BootSE	BootLLCI	BootULCI		
Mediation (a1×b1)	0.4395	0.0702	0.3091	0.5793		

Note: OLB= closing leadership behavior, EM= employee performance.
IWB= innovative work behaviou

DISCUSSION OF FINDINGS

The findings indicate that opening leadership behavior significantly influences innovative work behavior. This conclusion is consistent with the research conducted by Rosing et al. (2011), which characterizes opening leadership as a style that promotes experimentation and autonomy, encouraging employees to explore new ideas and approaches. Al-Eida (2020) reinforces this perspective by highlighting that leaders who engage in opening behaviors create environments conducive to creativity and productivity. Under such leadership, employees are motivated to think independently and approach their tasks with innovation, thus fostering a proactive work culture (Mohammed & Mohammed, 2021). This proactive culture is vital for organizations seeking to maintain competitiveness in rapidly evolving markets (Zacher & Rosing, 2015). Therefore, the evidence strongly supports the assertion that opening leadership behavior is a key driver of innovative work behavior within organizations, aligning with the view that exploration and flexibility are essential for fostering innovation (Alghamdi, 2018).

In regard to closed leadership behavior, the analysis demonstrates a positive impact on employee performance. This finding corroborates the perspective of Zacher and Rosing (2015), who argue that closed leadership can enhance performance outcomes through structured environments and well-defined expectations. Alghamdi (2018) further elaborates that while closed leadership may not stimulate innovation as effectively as opening leadership, it successfully promotes efficiency and consistency in task execution, as noted by Jiang et al. (2023). The focus on stability and predictable outcomes associated with closed leadership helps employees clarify their roles, thereby reducing uncertainty and enabling them to concentrate on achieving organizational objectives (Havermans et al., 2015). By reinforcing structured procedures, closed leadership empowers organizations to optimize existing capabilities and ensures the reliable execution of tasks (Luhgiatno & Santoso, 2021). Consequently, the findings highlight the advantageous effects of closed leadership on improving employee performance, particularly in contexts where adherence to established protocols is critical for success (Messmann & Mulder, 2012).

Moreover, the results indicate that innovative work behavior serves as a mediator in the relationship between opening leadership behavior and employee performance. This conclusion aligns with research by Oluwafemi et al. (2022), which posits that ambidextrous leadership striking a balance between exploration and exploitation facilitates innovative behaviors that, in turn, enhance performance outcomes. Berisha et al. (2020) note that employees who exhibit higher levels of innovative behavior tend to excel in their roles, reinforcing the assertion that innovative work behavior acts as a catalyst for improved performance (Babu et al., 2024). Additionally, the literature reveals that innovative work behavior not only amplifies the benefits of opening leadership but also connects different leadership styles to improved workplace outcomes (Jia et al., 2022). This mediation underscores the significance of fostering creativity and innovation to achieve organizational success, thus affirming the critical role of innovative work behavior as a mediator in enhancing the benefits of opening leadership.

Lastly, the findings further validate that innovative work behavior significantly mediates the relationship between closed leadership behavior and employee performance. This aligns with the findings of Gerlach et al. (2021), which assert that closed leadership can still encourage innovative behaviors when managed effectively. Hafeez et al. (2022) emphasize that although closed leadership primarily focuses on efficiency and structure, it can also promote an environment where incremental innovations are welcomed, reflecting the nuanced dynamics of ambidexterity theory. This suggests that closed leadership, while emphasizing control and consistency, can also foster a setting where creativity is integrated into established processes (Alghamdi, 2018). This balance becomes especially important in scenarios where operational

efficiency is vital but innovation is also necessary for long-term sustainability (Mascareño et al., 2021). Therefore, the results illustrate that innovative work behavior enhances the impact of closed leadership on performance, confirming that structured leadership approaches can effectively align with creative endeavors.

CONCLUDING REMARKS

Conclusion

The study highlights the significant relationship between leadership behaviors and employee performance within the context of hospitals in Kenya. The findings demonstrate that both opening leadership behavior and closed leadership behavior play crucial roles in influencing innovative work behavior and ultimately improving employee performance. Opening leadership fosters a proactive and creative atmosphere that enhances innovation, while closed leadership ensures efficiency and consistency in task execution. Notably, innovative work behavior serves as a critical mediator in these relationships, emphasizing the importance of nurturing creativity and adaptability among healthcare staff to drive organizational success. These insights offer valuable directions for improving leadership strategies in the healthcare sector, particularly in developing countries such as Kenya.

Practical Implications

The results of this study suggest several practical implications for healthcare administrators and leaders working in hospitals. First, promoting an opening leadership style that encourages experimentation and autonomy can significantly enhance innovative work behaviors among healthcare professionals. Leaders should create environments that support creative thinking and offer opportunities for staff to propose new ideas, thereby fostering a culture of innovation that responds effectively to the complexities of healthcare delivery. Additionally, training programs should be implemented to equip leaders with the skills necessary to balance both opening and closed leadership approaches, allowing them to adapt to various situations in the fast-paced hospital environment. Finally, recognizing and rewarding innovative behaviors can further motivate employees to engage in creative problem-solving and continuous improvement, ultimately leading to better patient care and organizational efficiency.

Policy Implications

From a policy perspective, the findings underscore the necessity for healthcare policymakers in Kenya to establish frameworks that promote effective leadership practices within hospitals. Policymakers should consider integrating leadership development programs

into the broader healthcare system that emphasizes the value of both opening and closed leadership styles. These programs can be tailored to address the unique challenges faced in the healthcare sector, ensuring that leaders are well-prepared to foster innovation while maintaining operational efficiency. Moreover, healthcare policies should encourage collaboration and knowledge sharing among healthcare institutions to create a supportive network that enhances leadership capabilities across the sector. Finally, policies aimed at creating a conducive environment for innovative work behaviors, such as funding for research and development or initiatives that promote employee engagement, can significantly improve overall healthcare service delivery in Kenya. By implementing these policies, healthcare systems will be better positioned to adapt to changing healthcare demands and improve patient outcomes.

Future studies

This study provides valuable insights into the relationship between leadership behaviors and employee performance in hospitals; however, it has limitations that suggest directions for further research. Firstly, the current study incorporated only two dimensions of ambidextrous leadership opening and closing behaviors. Future studies should expand this framework to include additional dimensions such as flexibility and versatility in leadership, as these aspects may also significantly influence innovative work behavior and overall employee performance. Secondly, this research focused on higher-level hospitals (levels 4, 5, and 6), which limits the generalizability of the findings to smaller hospitals (levels 1, 2, and 3). Future studies should examine these smaller healthcare facilities to explore how leadership behaviors function across different levels of hospital complexity and scale, thereby broadening the understanding of effective leadership in diverse settings. Lastly, the current study employed a quantitative approach, which, while beneficial for measuring relationships and establishing patterns, may not fully capture the rich context surrounding leadership and employee experiences. Future research should consider incorporating qualitative methods, such as interviews and focus groups, to gather more detailed insights into the perspectives of healthcare professionals regarding leadership behaviors. By addressing these limitations, future studies can provide a more comprehensive understanding of how leadership influences innovation and performance within the healthcare sector.

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