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The Interplay of Leadership Behaviors and Employee Ambidexterity for Innovative Performance

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Abstract

Ambidexterity is a prominent topic in management research; however, previous studies have often been fragmented and lack a comprehensive framework (Andriopoulos & Lewis, 2009; Birkinshaw & Gibson, 2004). This study addresses the need for further research on the role of human resources and organizational factors in ambidexterity. We examine relevant findings across different research streams to contribute to the literature on HR and ambidexterity (Amniattalab & Ansari, 2016; Benitez et al., 2018). This research explores how exploration and exploitation contribute to ambidextrous firms and emphasizes the importance of balancing these approaches for organizational success (March, as cited in Andriopoulos & Lewis, 2009). Specifically, this study investigates how leaders' opening and closing behaviors influence employees' exploration and exploitation activities, and how this interaction fosters innovative performance (Boumgarden et al., 2012; Bican & Brem, 2020).

Keywords: Leadership Behaviors, Employee Ambidexterity, Innovative Performance

Introduction

Organizational ambidexterity theory and research have grown significantly in recent decades (Birkinshaw & Gibson, 2004; Andriopoulos & Lewis, 2009). A company's long-term success depends on its ability to both utilize its current strengths (exploitation) and explore new opportunities (exploration) (March, as cited in Andriopoulos & Lewis, 2009). Organizations face challenges in adapting to volatile and diverse environments due to increasing changes at both macro and micro levels. Therefore, firms must constantly adapt to external challenges and opportunities through innovation and structural changes (Arbussa et al., 2017; Battistella et al., 2017). Research suggests that ambidextrous organizations are more successful in dynamic environments (Amniattalab & Ansari, 2016; Boumgarden et al., 2012). Ambidexterity is considered a fundamental antecedent of creativity at various levels, requiring individuals to balance exploration and exploitation to be innovative (Benitez et al., 2018; Bican et al., 2017).



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Leadership has been linked to employee innovation and organizational success (Birkinshaw & Gibson, 2004). Leaders should encourage both exploration and exploitation among their staff to foster innovative performance (Arnold et al., 2015). The ambidexterity theory of leadership for innovation posits that leaders who exhibit both opening and closing behaviors stimulate individual and group exploration and exploitation, thereby supporting innovation (Boumgarden et al., 2012; Bican & Brem, 2020). Employee ambidextrousness involves the ability to engage in both explorative and exploitative work (Andriopoulos & Lewis, 2009). Ambidexterity is essential for balancing exploration and exploitation at an individual level and integrating them at a higher organizational level (Becker et al., 2012).

This study draws on March's foundational concepts of exploration and exploitation as strategic organizational choices (as discussed in Andriopoulos & Lewis, 2009) to understand the relationship between an organization and its workers. There is a lack of empirical research on the ambidexterity theory of leadership for innovation in southern Saudi Arabia. Despite broad awareness of individual ambidexterity, few studies examine it at the individual level (Benitez et al., 2018). This research aims to fill this gap by examining the relationship between ambidextrous leadership behaviors (opening and closing) and employees' ambidextrous behaviors (exploration and exploitation), and how these behaviors interact to influence employee innovative performance.

Problem Statement and Gap Analysis

Achieving ambidexterity is challenging due to the need to manage two conflicting alignments within a company (Andriopoulos & Lewis, 2009; Birkinshaw & Gibson, 2004). Cross-sectional data limits the ability to draw conclusions about the long-term impact of competitive advantages on exploitation, exploration, ambidexterity, and strategic agility (Becker et al., 2012; Arbussa et al., 2017). There is a need for analysis that illuminates the intertemporal dynamics of these constructs. Existing research demonstrates that employee performance is influenced by leading behavior and the connection between leaders' opening and closing behaviors (Boumgarden et al., 2012).

The core premise of the organizational ambidexterity theory of leadership for innovation is understudied, particularly in southern Saudi Arabia (Benitez et al., 2018). Despite growing awareness of individual ambidexterity, there is limited research on it (Bican et al., 2017). This study addresses the need to examine leadership behaviors, employee ambidextrous behaviors, and their effects on innovative performance. Furthermore, there is a gap in understanding the intertemporal dynamics of key concepts and how social relationships evolve in this context (Battistella et al., 2017; Arnold et al., 2015).

Research Objectives and Questions

The research objectives are:

- To examine how organizational characteristics (structure, culture, and social interactions) influence ambidexterity.
- To investigate how organizational structure enables ambidexterity through decision-making and structural isolation.



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- To explore the role of culture in creating a shared objective that encourages exploitation and the role of social ties in facilitating interactions.
- To analyze the influence of exploration orientation on the competitive advantage of an enterprise.

The research questions are

- Do organizational characteristics (structure, culture, and social interactions) influence ambidexterity?
- Does organizational structure enable ambidexterity through decision-making and structural isolation?
- Does culture create a joint objective that encourages exploitation, and do social ties facilitate interactions?
- Does exploration orientation influence the competitive advantage of an enterprise?

Significance of the Research

This study contributes to a deeper understanding of how leadership behaviors and employee actions promote organizational ambidexterity and drive innovation. It focuses on how organizational traits, structures, cultures, and social interactions influence ambidexterity (Birkinshaw & Gibson, 2004; Andriopoulos & Lewis, 2009). The research addresses a clear gap in the literature: the limited empirical exploration of the ambidexterity theory of leadership for innovation, particularly in southern Saudi Arabia (Benitez et al., 2018). Additionally, there is a scarcity of studies focusing on ambidexterity at the individual employee level (Bican et al., 2017). By addressing these research gaps, this study aims to contribute not only to the theoretical body of literature but also to offer practical insights for firms aiming to foster innovation through strategic human resource and leadership practices.

Literature Review

This study presents a systematic review of the literature on organizational ambidexterity, with a focus on the role of human resources—an area of growing interest in both strategic management and organizational science (Andriopoulos & Lewis, 2009; Birkinshaw & Gibson, 2004). The concept of ambidextrous organizations was first introduced by Tushman and O'Reilly III in 1996, highlighting the importance of simultaneously pursuing exploration and exploitation strategies.

The literature review followed a rigorous and systematic methodology. Using the EBSCOhost Business Source database, 2,879 peer-reviewed journal articles published after March 1991 were initially identified. After eliminating duplicates and irrelevant studies, the sample was reduced to 156 relevant articles. A detailed manual screening further refined the sample to 137 papers. In addition, nine articles focusing on strategic agility and its impact on organizational performance were included to explore this emergent area.

The ambidexterity literature encompasses a range of perspectives, including structural and contextual ambidexterity (Birkinshaw & Gibson, 2004), as well as variations such as harmonic, partitional, cyclical, and reciprocal ambidexterity (Boumgarden et al., 2012). Antecedents of ambidexterity include strategic



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foresight (Amniattalab & Ansari, 2016), organizational learning (Barney, 1991), IT infrastructure (Benitez et al., 2018), and organizational culture (Bican & Brem, 2020). Despite the promise of ambidexterity, the inherent tension between exploration and exploitation generates strategic, operational, and psychological conflicts within organizations (Andriopoulos & Lewis, 2009).

Exploration enhances a firm's ability to discover novel solutions, enter new markets, and achieve radical innovation by acquiring and creating new knowledge (Bican et al., 2017). Although exploration is inherently risky and resource-intensive, successful outcomes can yield sustainable competitive advantages (Barney, 1991). Conversely, exploitation focuses on refining existing technologies and improving operational efficiency through incremental innovation (Arnold et al., 2015). It contributes to performance by maximizing productivity and ensuring the reliability of processes and products.

Findings on the relationship between ambidexterity and organizational performance are mixed. Some studies indicate a positive relationship (Amniattalab & Ansari, 2016; Battistella et al., 2017), while others highlight the need for context-specific implementation (Becker et al., 2012). This inconsistency reflects the challenges firms face in simultaneously managing exploration and exploitation—commonly referred to as the "ambidexterity paradox" (Boumgarden et al., 2012).

Organizations that emphasize only one approach risk falling into either the exploration trap—continuously searching without exploiting—or the exploitation trap—becoming overly reliant on existing competencies (Andriopoulos & Lewis, 2009). To mitigate these risks, researchers have advocated for strategic agility, defined as the firm's capacity to respond flexibly to environmental change (Arbussa et al., 2017; Bican & Brem, 2020). Strategic agility enables firms to dynamically balance exploration and exploitation in response to external demands.

Conceptual Framework

This study proposes a conceptual framework that explores how leadership behaviors influence employee innovation through ambidextrous behaviors. Specifically, it posits that:

- **Leader opening behaviors** (e.g., encouraging experimentation, autonomy, and idea generation) positively influence **employee exploration behaviors**.
- **Leader closing behaviors** (e.g., setting deadlines, providing structure, and monitoring performance) positively influence **employee exploitation behaviors**.
- Both **exploration** and **exploitation** behaviors positively impact **employee innovative performance**, either through radical or incremental innovation.

Core Concepts and Direct Relationships

- **Organizational Ambidexterity:** Directly enhances long-term competitiveness and adaptability by integrating exploration and exploitation (Birkinshaw & Gibson, 2004).



- **Exploration:** Drives innovation and long-term strategic advantage by enabling firms to capitalize on emerging opportunities (Bican et al., 2017).
- **Exploitation:** Improves short-term efficiency and operational excellence, enhancing organizational performance (Arnold et al., 2015).
- **Strategic Agility:** Enables rapid adaptation to changes in the external environment, enhancing competitive advantage (Battistella et al., 2017).

Indirect Relationships

- **Organizational Ambidexterity:** Indirectly supports innovation and performance by promoting a responsive culture.
- **Exploration:** Indirectly improves organizational performance by introducing unique offerings and increasing adaptability.
- **Exploitation:** Indirectly contributes to sustained advantage by developing efficient routines and operational stability.
- **Strategic Agility:** Facilitates ambidexterity by enabling firms to flexibly balance innovation and efficiency in response to external pressures (Bican & Brem, 2020).

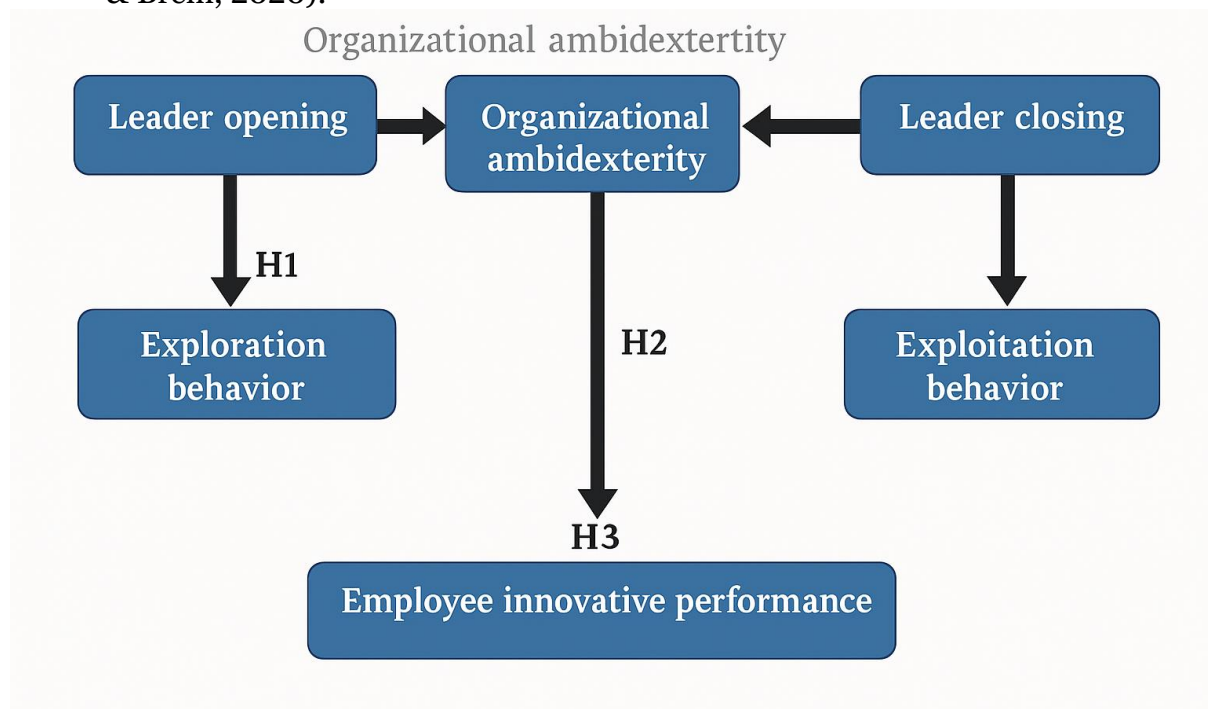


Figure 1: Conceptual Framework

Methodology

This study targeted individuals across various organizations who held responsibilities in strategic functions, opportunity identification, organizational culture, and crisis management. A total sample of 80 participants from diverse organizations was selected. To ensure accessibility and ease of response, a straightforward and user-friendly questionnaire was disseminated via Google Classroom.

Quantitative data were analyzed using IBM SPSS Statistics software. The analysis involved descriptive statistics, demographic profiling, reliability testing, and regression analyses. The questionnaire employed a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to measure participant agreement with various statements related to leadership, behavior, and performance.



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To strengthen the theoretical framework, a Systematic Literature Review (SLR) was conducted. Using keywords such as “systematic literature assessment,” “ambidextrous organization,” “exploration,” and “exploitation,” the review focused on articles published in the past 10 years and indexed in the Scopus database. The initial pool of 80 research articles was narrowed to 54 after screening titles, abstracts, and full texts for relevance. These articles were categorized into sub-themes focusing on exploration and exploitation behaviors within organizational contexts.

Primary data collection occurred within public higher education institutions in the Albaha province. Participants received a cover letter explaining the study’s purpose and assuring confidentiality and anonymity. To enhance cultural relevance and clarity, the survey was translated from English to Arabic and then back-translated by multilingual academic professionals. The questionnaire was distributed via institutional deans, and participants were given one week to respond.

Measures

Ambidextrous Management Behaviors were assessed using a six-item scale, measuring both opening (starting) and closing (ending) leadership behaviors. Cronbach’s alpha values were .85 for opening behaviors and .74 for closing behaviors, indicating acceptable to strong internal consistency.

Ambidextrous Worker Behavior was evaluated using two validated scales: a five-item scale for **exploratory behavior** ($\alpha = .85$) and a six-item scale for **exploitative behavior** ($\alpha = .83$). These items measured the extent to which employees engaged in innovative or routine-enhancing behaviors in their roles.

Innovative Performance was assessed using a four-item scale ($\alpha = .84$) asking respondents to self-report their levels of revolutionary or creative output at work.

To validate the constructs, an Exploratory Factor Analysis (EFA) with Varimax rotation confirmed that opening and closing leadership behaviors represented distinct dimensions. This finding supports the structural integrity of the ambidextrous leadership model.

Results

The demographic profile of respondents included key characteristics such as gender, age, and occupation, visualized through charts and tables. Descriptive statistics confirmed normal distribution of the data, as indicated by skewness and kurtosis values within acceptable ranges. Cronbach’s alpha for the overall instrument was .742, reflecting good internal consistency across items. Correlation analysis showed significant positive relationships among the main constructs. **Multiple regression analysis** revealed that **Equity** and **Diversity** significantly influenced Human Resource Management (HRM) practices, while **Opportunity** did not show a statistically significant effect. The regression model explained 24.7% of the variance in HRM ($R^2 = 0.247$). One-sample t-tests indicated that all variables were significantly different from zero, reinforcing their relevance to the study. Hierarchical regression and **simple slope testing** were used to analyze the interaction effects of leadership behaviors on employee performance. Confirmatory Factor Analysis (CFA) further supported the construct validity of the ambidexterity framework.



Discussion

The findings provide empirical support for the ambidexterity theory of leadership for innovation. Specifically, leader **opening behaviors**—which encourage experimentation and idea generation—were positively associated with employee **exploratory behaviors**. Similarly, leader **closing behaviors**—which provide structure and oversight—were associated with **exploitative behaviors**. The interaction between opening and closing behaviors significantly predicted employee **innovative performance**, confirming that innovation is most effective when leaders combine both approaches. This aligns with prior research suggesting that innovation requires both creative freedom and structured execution (Rosing et al., 2011). When either behavior is emphasized in isolation, innovative outcomes decline. Thus, leadership adaptability and balance are crucial for fostering innovation. Furthermore, the findings support the idea that both **individual factors** (e.g., motivation, self-confidence) and **contextual factors** (e.g., autonomy, support systems) influence ambidextrous behavior and outcomes. Leaders who master the dual capacity to inspire creativity and enforce discipline can cultivate a workplace environment conducive to sustainable innovation.

Conclusion

This study concludes that ambidextrous leadership—manifested through both opening and closing behaviors—positively impacts employees' exploratory and exploitative activities. The absence of either behavior diminishes innovative output, underscoring the importance of leadership flexibility in dynamic environments. Organizations should foster a culture that promotes both ideation and implementation. HR professionals can support this by emphasizing autonomy, motivation, and employee development. Training programs aimed at cultivating ambidextrous leadership competencies can significantly enhance organizational innovation capacity. A systems-thinking approach is essential to understand how leadership, HRM, and organizational culture interact to sustain ambidexterity. As firms face growing uncertainty and market disruption, the ability to balance exploration with exploitation becomes a critical strategic asset. Future research should further explore how HR practices influence individual ambidexterity and examine these dynamics across various sectors and organizational levels.

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