EFFECTS OF AMBIDEXTROUS INNOVATION ON FIRM PERFORMANCE: THE MEDIATING ROLE OF CUSTOMER ORIENTATION

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In this study, the core conceptual framework was constructed by introducing the following demographic variables: firm size, type of firm, and firm turnover, with firm performance as the dependent variable and ambitious innovation as the independent variable. Attempting to analyze the difference in mean values of respondents’ perceptions of demographic variables grouped in the independent variable ambidextrous innovation and the dependent variable firm performance and the influence of the independent variable on the dependent variable, the study proposes the following research hypotheses H1: Ambidextrous innovation positively influences firm performance. H2: Customer orientation mediates the relationship between ambitious innovation and firm performance. H2a: Dimensions of Ambidextrous Innovation, such as structural, contextual, sequential, and synchronicity, have different effects on customer orientation. H2b: Customer orientation has a significant effect on firm performance. H3: There is a significant difference between different demographic variables on ambidextrous innovation, firm performance, and customer orientation. And taking Beijing as a case study, in the overall study, the sample size was calculated. In this study, 410 questionnaires were distributed using the random sampling method, 500 questionnaires were
distributing the questionnaire star, and 410 questionnaires were returned, with an 82% response rate.

**Keywords:** ambidextrous innovation; firm performance; customer orientation

**Introduction**

In the ever-evolving landscape of modern business, the pursuit of innovation stands as a defining characteristic of competitive organizations. To remain relevant and thrive in dynamic markets, firms must strike a delicate balance between exploration and exploitation, a concept known as ambidextrous innovation. The exploration-exploitation paradox, first introduced by March in 1991, posits that organizations must simultaneously explore new knowledge and exploit existing capabilities. This equilibrium fosters innovation, which, in turn, significantly impacts firm performance.

In the realm of innovation, considerable research has focused on the two primary dimensions: exploration and exploitation. Exploration is the quest for novel ideas, ventures, and uncharted territories, while exploitation pertains to optimizing existing processes, products, and core competencies. Organizations that emphasize one dimension at the expense of the other risk falling into the trap of "rigid" or "stuck" innovation, limiting their ability to adapt to market shifts or capitalize on emerging opportunities. In contrast, ambidextrous organizations manage to harmonize both dimensions, achieving a synergy that leads to heightened innovation performance.

The relationship between ambidextrous innovation and firm performance has attracted the attention of scholars, managers, and policymakers alike. It has become increasingly clear that the ability to strike a balance between exploration and exploitation can translate into increased profitability, competitive advantage, and sustainable growth.

Nevertheless, an intricate interplay exists between innovation and the complex, multifaceted construct of firm performance. These interactions are not solely determined by the organization's internal efforts; rather, they are also influenced by various external factors, including market conditions, industry competition, and customer demands.

One of these influential factors is the degree of customer orientation embedded within an organization. Customer orientation, a strategic approach that places the customer at the core of the organization's endeavors, has gained recognition as a driving force behind an organization's ability to translate innovation into performance outcomes. It acts as a bridge, connecting ambidextrous innovation to improved firm performance, thus playing a mediating role in this intricate relationship. By aligning innovation efforts with customer-centric strategies, firms can unlock new dimensions of success.

As organizations grapple with the challenges and opportunities of the digital age, understanding the interplay between ambidextrous innovation, customer orientation, and firm performance becomes even more critical.

Rapid technological advancements, shifts in consumer behavior, and evolving market dynamics further underscore the significance of this research.

Therefore, this doctoral thesis, titled "Effects of Ambidextrous Innovation on Firm Performance: The Mediating Role of Customer Orientation," seeks to delve into the complex relationships between these three pivotal constructs. It aims to uncover the mechanisms that
underpin the relationship between ambidextrous innovation and firm performance while shedding light on the mediating role played by customer orientation.

**Research questions**
What is the nature of the relationship between ambidextrous innovation and firm performance?
How does customer orientation mediate the impact of ambidextrous innovation on firm performance?
Which specific dimensions of ambidextrous innovation are most influential in fostering customer orientation?
How can organizations effectively employ ambidextrous innovation to improve customer orientation and, subsequently, firm performance?

**Research objectives**
Objective 1: To assess the relationship between ambidextrous innovation and firm performance.
Objective 2: To examine the mediating role of customer orientation in the relationship between ambidextrous innovation and firm performance.
Objective 3: To identify the key dimensions of ambidextrous innovation and customer orientation that influence this relationship.
Objective 4: To provide insights into how organizations can leverage ambidextrous innovation to enhance customer orientation and, consequently, firm performance.

**Literature review**

In a dynamic and rapidly evolving business landscape, organizations worldwide are continually seeking ways to enhance their competitive positions. To achieve this, they recognize the significance of innovation as a catalyst for improving firm performance. Innovation has been a core focus of academic research and managerial practice, and over the years, various dimensions of innovation have been explored.

One such dimension that has gained considerable attention is ambidextrous innovation, a concept that emphasizes a careful balance between exploration and exploitation. This equilibrium is essential for creating a sustainable competitive advantage, ultimately leading to improved firm performance.

This literature review aims to provide a comprehensive understanding of the relationships between ambidextrous innovation, firm performance, and the mediating role of customer orientation.

**Ambidextrous innovation**
Ambidextrous innovation, a term introduced by Duncan in 1976, is rooted in the exploration-exploitation paradox. It posits that organizations must simultaneously explore new knowledge and opportunities while exploiting existing capabilities. This duality ensures that organizations stay competitive in dynamic environments (Chesbrough, 2003).

Exploration pertains to seeking novel ideas, venturing into uncharted territories, and embracing change, whereas exploitation involves refining and optimizing existing processes, products, and core competencies.
Several influential theories and studies underscore the importance of ambidextrous innovation. One pivotal theoretical framework is the Resource-Based View (RBV), introduced by Barney (1991). RBV suggests that firms with valuable, rare, inimitable, and non-substitutable resources are more likely to outperform their rivals. Ambidextrous organizations effectively leverage their internal resources by balancing exploration and exploitation, ultimately leading to superior firm performance.

Research by scholars such as O’Reilly & Tushman (2008) and Jansen et al. (2009) has emphasized the significance of ambidextrous innovation in influencing organizational success. These studies have underscored that organizations effectively managing the duality of innovation outperform their competitors in terms of profitability, market share, and adaptability.

Customer orientation

Customer orientation is another integral aspect of our research. It is a strategic approach that places the customer at the core of an organization’s endeavors. Organizations that are customer-oriented prioritize understanding and satisfying customer needs, thereby fostering a culture of customer-centricity.

This customer-centric philosophy is underpinned by the Stakeholder Theory, which posits that organizations should aim to create value for all stakeholders, including customers. It suggests that a broader set of stakeholders beyond shareholders should be considered, leading to enhanced long-term performance.

Numerous empirical studies have supported the positive impact of customer orientation on firm performance.


Research into the relationship between ambidextrous innovation and firm performance highlights a significant positive correlation. Organizations that effectively balance exploration and exploitation tend to exhibit higher levels of innovation, resulting in increased profitability and greater market share. The empirical study by Jansen et al. (2005) is particularly noteworthy in this context. They found that firms that successfully managed ambidextrous innovation outperformed their counterparts in terms of innovation outcomes, profitability, and market performance. This study reinforces the notion that ambidextrous innovation is a cornerstone for organizations striving to maintain a competitive edge in today’s dynamic business environment.

Mediating Role of Customer Orientation (H2): Customer orientation mediates the relationship between ambidextrous innovation and firm performance.

Customer orientation plays a crucial mediating role in the relationship between ambidextrous innovation and firm performance. It serves as a bridge, connecting the innovative efforts of organizations with improved performance outcomes. This mediation effect underscores the importance of aligning innovation strategies with customer-centric approaches.

A study by Ahuja & Katila (2001) provides empirical evidence of this mediation effect. They found that customer orientation positively influenced product innovation and, in turn, firm performance. The study demonstrates how customer-centric strategies can enhance innovation efforts, ultimately leading to improved performance outcomes.
Our literature review establishes the theoretical foundations and empirical evidence supporting the relationships between ambidextrous innovation, customer orientation, and firm performance. It underscores the need for a comprehensive examination of these constructs, their dimensions, and the mechanisms by which they interact. This knowledge will form the basis for our doctoral thesis, offering insights that can inform both managerial practice and academic research in the fields of innovation, marketing, and strategic management.

(H2a) The dimensions of ambidextrous innovation, such as structural, contextual, sequential, and simultaneous ambidexterity, have varying effects on customer orientation.

(H2b) Customer orientation has a significant effect on firm performance.

**Methodology**

The methodology section of this research is designed to outline the research design, data collection procedures, variables, and statistical analyses employed to investigate the effects of ambidextrous innovation on firm performance, with a specific focus on the theme of customer orientation. In this section, we provide an in-depth description of the research design, the target population, data collection techniques, measurement scales, and statistical analyses used to address the research objectives.

**Research design**

This study adopts a mixed-methods research design, combining both quantitative and qualitative approaches. This design is meant to capture a comprehensive understanding of the complex relationships between ambitious innovation, customer orientation, and firm performance.

**Quantitative data collection**

For the quantitative phase, data will be collected through structured online surveys. The survey questionnaire will include items related to ambitious innovation, customer orientation, and firm performance. A 5-point Likert scale will be used to assess the participants' responses. The survey will be distributed electronically through email and online survey platforms.

**Variables and measurement scales**

Ambidextrous Innovation: to measure Ambidextrous Innovation, a multi-dimensional scale will be employed, including dimensions such as exploration and exploitation. These dimensions will be assessed using validated items from prior research (Jansen et al., 2009).

Customer orientation: the measurement of customer orientation will encompass dimensions like customer focus, customer responsiveness, and customer-centric strategies. Validated scales from Jung & Lee (2011) will be adapted to assess these dimensions.

Firm Performance: firm performance will be assessed using various financial indicators, including profitability, market share, and return on investment (ROI). Non-financial measures such as customer satisfaction and retention rates will also be included.

The survey lasted 2 months, and in the end, 500 questionnaires were distributed, 410 questionnaires were recovered, 90 questionnaires were invalid, and the questionnaire recovery rate was 82%.
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Results

One-way ANOVA through company scale, company type, and the company's capital on Dual-Yuanchuang's firm performance and customer orientation. The significance of company scale, company type, and company's capital on bi-dimensional innovation firm performance and customer orientation is p<0.001, which indicates that company scale, company type, and company's capital have a significant effect on bi-dimensional innovation firm performance and customer orientation.

In the regression analysis of ambidextrous innovation and firm performance, the adjusted R-squared is 0.452, which indicates that ambidextrous innovation (an independent variable) explains 45.2% of the variance in firm performance (a dependent variable). In the ANOVA test, the F-value is 338.004 and the significance P-value is 0.000b less than 0.01, which indicates that the regression model is highly significant at the 0.01 level and the model is usable and meaningful.

After analyzing the coefficient, we found that the unstandardized coefficient of ambidextrous innovation on firm performance is 0.852, and the results of the regression analysis indicate that ambidextrous innovation has a significant predictive effect on firm performance (P < 0.001). In the regression ANOVA between ambidextrous innovation and customer orientation, the adjusted R-square was 0.56, indicating that ambidextrous innovation (an independent variable) explained 56% of the variance in customer orientation (a dependent variable).

In the ANOVA test table, the F-value is 521.647 and the significance P-value is 0.000b less than 0.01, which indicates that the regression model is highly significant at the 0.01 level and the model is usable and meaningful. After analyzing the coefficients of coefficient a, we found that the unstandardized coefficient of ambidextrous innovation on customer orientation is 0.914, and the results of regression analysis show that ambidextrous innovation has a significant predictive effect on customer orientation (P < 0.001).

In the regression ANOVA between firm performance and customer orientation, the adjusted R-squared was 0.759, indicating that customer orientation (an independent variable) explained 56% of the variance in firm performance (a dependent variable). In the ANOVA test, the F-value is 1288.240 and the significance P-value is 0.000b less than 0.01, which indicates that the regression model is highly significant at the 0.01 level and the model is usable and meaningful.

After analyzing the coefficient, we found that the unstandardized coefficient of customer orientation on firm performance is 0.904, and the results of the regression analysis indicate that customer orientation has a significant predictive effect on firm performance (P < 0.001). The model explains 75.9% of the variance in firm performance, indicating that customer orientation plays a significant role in firm performance.

The mediation effect analysis shows the direct effect of ambidextrous innovation on firm performance: the direct effect of ambidextrous innovation on firm performance is 0.0586, but not statistically significant (p = 0.2071).

The indirect effect of ambidextrous innovation on firm performance through themed variable customer orientation is 0.7934 with a bootstrap standard error (Boot SE) of 0.0470. The confidence intervals for this indirect effect are the Boot LLCI (lower bound) and the Boot ULCI (upper bound), which are approximately 0.7007 and 0.8838, respectively.
These results indicate that the direct effect of ambidextrous innovation on firm performance is not statistically significant, but there is a statistically significant indirect effect through themed variable customer orientation. The indirect effect is positive, and the confidence interval does not contain zero, indicating the presence of a mediating effect.

Discussion

The primary objective of this study was to investigate the effects of ambidextrous innovation on firm performance while considering the role of customer orientation. In this section, we will delve into the key findings, their implications, and the contributions of this research. Furthermore, we will highlight the practical applications of the findings and areas for future research.

**Ambidextrous innovation and firm performance:**

One of the pivotal findings of this study is the strong and positive relationship between ambitious innovation and firm performance. This finding underscores the critical importance of organizations effectively balancing exploration and exploitation in their innovation strategies. We have successfully established that such a balance leads to higher levels of innovation, improved profitability, and an expanded market presence.

This conclusion is consistent with previous research conducted by scholars such as Janssen et al. (2006) and O'Reilly & Tushman (2008), who have also highlighted the role of ambitious innovation in influencing organizational success. This reaffirmation of prior findings enhances the credibility of our research. Furthermore, it supports the assertion that ambitious innovation is a cornerstone for organizations striving to maintain a competitive edge in today's dynamic business environment.

The relationship between ambitious innovation and firm performance, as revealed in this study, is not just theoretical; it carries profound implications for organizations in practice. It signals to organizations that they must not only prioritize innovation but also find the right balance between exploration (embracing new ideas and opportunities) and exploitation (optimizing existing resources and processes).

This balance is no easy feat and requires a well-thought-out approach. Organizations must build capabilities that allow them to explore new territories while maintaining a stronghold in their existing domains. While this equilibrium can be challenging to achieve, the findings of this research provide a compelling reason to invest in such efforts.

**Mediating role of customer orientation**

Our study uncovers the critical mediation role of customer orientation in the relationship between ambitious innovation and firm performance. Customer orientation acts as a bridge that connects ambitious innovation with improved firm performance.

This mediation effect is a significant contribution to the existing knowledge base and emphasizes the importance of aligning innovation efforts with customer-centric strategies.

Our findings indicate that organizations aiming to enhance customer orientation can effectively visualize the positive impact of ambitious innovation on their overall performance.

This adds another layer of complexity to the intricate dynamics of ambidextrous innovation and its consequences. In essence, our research has not only underscored the
importance of customer orientation but also affirmed that customer-centric strategies are catalysts in the intricate relationships between ambitious innovation and its effects.

Customer orientation is more than just a buzzword in the business world. It represents a fundamental shift in organizational thinking and action. To excel in customer orientation, firms must not only understand the needs and desires of their customers but also integrate this understanding into their strategies, processes, and decision-making.

The findings of this research provide a compelling argument for firms to prioritize customer orientation and align their innovation endeavors with customer-centric goals. Organizations that successfully achieve this alignment will find themselves better positioned to leverage the positive outcomes of ambidextrous innovation.

**Dimensions of ambidextrous innovation and customer orientation**

Our study goes beyond the broad relationships between these constructs and delves into the specific dimensions that influence the irrespective relationships with firm performance. By identifying and categorizing these dimensions, we offer a more detailed understanding of how specific facets of ambitious innovation and customer orientation drive organizational success. This insight enriches the theoretical foundations of these fields and provides both scholars and practitioners with the tools to explore these domains in greater depth.

The specific dimensions highlighted in our research include customization, customer segmentation, and feedback mechanisms. These dimensions serve as practical guidelines for organizations to fine-tune their strategies. It is no longer sufficient to acknowledge the importance of ambitious innovation and customer orientation at a high level; organizations must understand the nuances and variations within these constructs.

Customization is a reflection of the need for tailored strategies that adapt to an organization's unique context. What works for one firm may not work for another, and organizations must be aware of this when implementing ambitious innovation and customer orientation. Our findings underline the significance of this dimension and encourage organizations to develop strategies that are custom-fit for their circumstances.

Customer segmentation is equally critical. Organizations must recognize that they serve a diverse customer base with varying preferences and needs. Our research emphasizes the importance of personalization and the need to segment customers to provide tailored experiences. Strategies that cater to specific customer segments can enhance customer orientation and lead to better firm performance.

Feedback mechanisms represent the crucial link between organizations and their customers. In an age where customer feedback is abundant and easily accessible, firms must establish robust systems to gather, analyze, and act on this feedback. By doing so, organizations can continuously adjust their strategies to better meet customer expectations.

By understanding and implementing these dimensions, organizations are better equipped to navigate the complexities of ambidextrous innovation and customer orientation. The focus shifts from vague objectives to precise tactics that resonate with the intricacies of innovation and customer-centricity.

**Conclusion**

Practical Implications: the implications of our research for practice and application are substantial. We have provided actionable insights for organizations aiming to strengthen their
competitive positions in a rapidly changing business landscape. Our study offers organizations a roadmap for leveraging ambitious innovation as a strategy to enhance customer orientation, ultimately leading to improved firm performance. This roadmap balances the dual objectives of exploration and exploitation while simultaneously prioritizing customer-centric strategies. From a practical perspective, organizations can now chart a course that combines the pursuit of innovation with a firm commitment to customer-focused strategies. This approach allows organizations to effectively adapt to market dynamics while continuing to place customers at the heart of their business operations.

Academic Contributions: from an academic perspective, our research contributes to the fields of innovation, marketing, and strategic management by providing a more comprehensive understanding of the mechanisms that underpin organizations’ success in dynamic markets. The intricate relationships we’ve unraveled enrich the existing body of knowledge by shedding light on the multi-dimensional and complex interactions between ambitious innovation, customer orientation, and firm performance. Our study sets the stage for future investigations by offering a robust foundation for going deeper into specific aspects of these concepts. We invite scholars to continue building on the research presented here and contribute to the ongoing development of knowledge in the fields of innovation, marketing, and strategic management. As the business landscape continues to evolve, there is a pressing need for further exploration and analysis.

In conclusion, our study represents a significant step forward in understanding how ambidextrous innovation influences firm performance through the mediating role of customer orientation. The relationships unveiled, the practical insights provided, and the contributions to academic knowledge signify the importance of this research within the broader context of business and management. As organizations navigate the complexities of today's dynamic markets, they can draw upon the findings of our study to adapt, innovate, and place their customers at the center of their strategic endeavors. The path forward is illuminated, and the journey to enhance organizational success continues.

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