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## THE ROLE OF INNOVATION AMBIDEXTERITY IN ENHANCING MSME PERFORMANCE: INSIGHTS FROM THE FASHION INDUSTRY



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### Abstract

This study examines the influence of leadership characteristics and intellectual resources on organizational performance through innovation ambidexterity mediation in MSMEs in the fashion industry in Bandung. In a competitive environment, MSMEs need to adopt explorative and exploitative innovations to achieve optimal performance. The results show that adaptive leadership and risk tolerance support Combined Innovation Ambidexterity (CIA), which has a positive impact on MSME performance, while Balanced Innovation Ambidexterity (BIA) is less relevant. Intellectual resources (human, structural, and relational) also play a significant role in driving MSME innovation and performance. This study recommends the development of adaptive leadership, increasing risk tolerance, and managing intellectual resources effectively to help MSMEs become more competitive through flexible innovation strategies. The CIA approach allows MSMEs to adapt to market changes and provides new contributions to the innovation ambidexterity literature.

**Keywords:** Leadership Characteristics, Intellectual Resources, Organizational Performance, Innovation Ambidexterity

## INTRODUCTION

The dynamic business environment in the 21<sup>st</sup> century requires companies to be agile and innovative to maintain competitive advantage and achieve superior performance (Fatah et al, 2022). Micro, Small, and Medium Enterprises (MSMEs) in Indonesia, including the fashion industry, are relevant subjects for further research in the context of this innovation. In addition to contributing significantly to Gross Domestic Product (GDP) and national labor absorption, the MSME industry faces major challenges, especially in competing with imported products and international brands that have superior resources (Kemenkop UKM, 2023).

According to the Coordinating Ministry for Economic Affairs (2023), MSMEs contribute around 61% of the national GDP and employ around 97% of the total workforce. However, the innovative capabilities of Indonesian MSMEs still need to be improved. The Global Innovation Index (2023) ranks Indonesia 61st out of 132 countries, indicating that innovation among local business actors is still limited, making it difficult for them to compete in the international market (OECD, 2021; World Bank, 2020). In the midst of these competitive challenges, innovation is a key element that must be implemented by MSMEs, especially to increase competitiveness against imported products and international brands (Syarifuddin et al, 2024). However, innovation activities do not just happen; internal company factors play a major role in the success of the innovation (Isbahi et al, 2022). This is where the importance of leadership characteristics and intellectual resources as a foundation that supports the innovation process in the Company.

Effective leadership can influence the direction and intensity of innovation activities in a company. Leadership characteristics such as risk tolerance and adaptability are crucial in managing innovation in a balanced manner, both explorative and exploitative (Lubatkin et al., 2006; Mom et al., 2007). With risk tolerance, a leader is able to support experimentation and encourage bolder innovation, while adaptability allows leaders to continuously adjust strategies to market and technological changes that occur (Wiklund & Shepherd, 2005; Burgelman, 2002). Therefore, effective leadership will be able to create an environment that supports sustainable innovation.

In addition to leadership, intellectual resources also play an important role in the success of innovation. These resources include intellectual assets such as employee knowledge and skills (human resources), internal systems and processes (structural resources), and relationships with external parties such as business partners and customers (relational resources) (Stewart, 1994; Galbraith, 1969). Strong intellectual resources give companies the ability to absorb new information, exploit the potential of existing knowledge, and build strategic partnerships that expand the reach of innovation. With a good intellectual resource foundation, companies are able to develop more efficient and effective innovations (Ali et al., 2021; Bourdieu, 1986).

The ability to manage both of these aspects—leadership and intellectual resources—becomes important in the context of innovation ambidexterity, namely the ability to explore innovations and exploit existing innovations simultaneously (Andriopoulos & Lewis, 2009; He & Wong, 2004). The main difference between BIA and CIA is in how the two activities are managed. BIA ensures that exploration and exploitation remain separate with dedicated resources, while CIA integrates the two into one cohesive innovation pipeline.

By adopting appropriate innovation ambidexterity, MSMEs, especially in the highly competitive and dynamic fashion industry, can be more flexible and adaptive in managing innovation despite having limited resources. Therefore, this study aims to explore the influence of leadership characteristics and intellectual resources on the performance of MSMEs, especially in the fashion sector in Indonesia, with innovation ambidexterity as a mediator that mediates the relationship. The results of this study are expected to provide strategic insights for MSMEs in adopting innovation to increase competitiveness in domestic and global markets.

## **REVIEW OF LITERATURE**

### **Resources-Based View**

Resource Based View (RBV) or Resource Based View emphasizes that performance is a manifestation of resources that form the strengths and weaknesses, as well as the limitations of the organization or company (Wernerfelt, 1984). The conceptual framework of RBV allows the identification of company resources that have the potential to be drivers of

company performance, by linking resource strengths, and capabilities, and determining actions to the achievement of sustainable competitive advantage that results in higher profits than competitors (Barney, 1991).

### **Leadership Characteristics**

Recent theoretical developments suggest that top managers' actions can encourage both explorative and exploitative innovation (Lubatkin et al., 2006; Mom et al., 2007). Andriopoulos and Lewis (2009) suggest that top managers can utilize a combination of integration and differentiation management approaches to help SMEs develop ambidextrous capabilities, by utilizing these mechanisms to maximize the exploitation of existing practices while continuing to explore new opportunities.

### **Intellectual Resources**

John Kenneth Galbraith is believed to be the originator of the concept of intellectual resources, which he defined as the totality of a firm's intellectual assets and drive to create value (Grajkowska, 2011; Bontis, 2001). He also attempted to use this concept to explain the difference between a firm's market value and its book value (Hsu & Fang, 2006). Stewart (1994) later developed this definition by adding that intellectual resources include any knowledge or capabilities that can provide a competitive advantage or make the true value of a firm exceed its book value.

### **The Development of Ambidexterity Theory**

In the world of organizations, the ability to innovate while maintaining efficient operations is key to long-term success. A major challenge facing organizations is how to balance two seemingly contradictory activities: exploration (the search for new ideas and innovations) and exploitation (the use and optimization of existing resources). This is known as ambidexterity (Tushman & O'Reilly, 1996).

### **Organizational Performance**

Organizational performance is a reflection of the Company's achievements or productivity (Snyder, et al., 2016). Organizational performance is an indicator that reveals the extent to which organizational goals have been achieved (Corsi, et al., 2019). Performance can also be explained as the results achieved in achieving a company's internal

and external goals (Gunday, et al., 2011). The concept of performance has been explained as a desired result that can be achieved through several measures.

## **RESEARCH METHOD**

The research method applied in this study is a quantitative approach. This approach focuses on testing theories or hypotheses by measuring research variables numerically and analyzing data through statistical procedures and systematic modeling. By applying a quantitative approach, it is expected to obtain more accurate measurement results related to the responses given by respondents. This numerical data can then be processed using statistical methods.

In addition, this study also uses a path analysis model because there is mediation that affects the relationship between independent variables and dependent variables. This study involves five variables, namely independent variables in the form of Leadership Characteristics and Intellectual Resources, mediating variables namely Balanced Innovation Ambidexterity (BIA) and Combined Innovation Ambidexterity (CIA), and dependent variables in the form of Organizational Performance.

This study uses a structural equation model (Structural Equation Modeling/SEM) as a data analysis technique. SEM was chosen because of its ability to test causal relationships between complex latent variables, both directly and indirectly (Hair et al., 2010). The analysis was conducted using a confirmatory factor analysis approach, namely building a research model based on relevant previous theories or research. This research model consists of exogenous latent variables, namely leadership characteristics and intellectual resources; mediating variables, namely innovation ambidexterity; and endogenous latent variables, namely MSME performance.

This study refers to Chang & Hughes (2012), Choi, Ha, and Kim (2022), and Jansen, et al., (2006), as the main references for the relationship between leadership characteristics (such as risk tolerance and adaptability) with innovation ambidexterity and its impact on organizational performance. Both studies highlight the importance of adaptive leadership in managing the balance of exploration and exploitation of innovation to achieve competitive advantage. Meanwhile, for the relationship between intellectual resources and innovation

ambidexterity and its contribution to MSME performance, this study refers to Taleb & Pheniqi (2023) and Zhang (2022), which emphasize the importance of the role of human, structural, and relational resources in supporting efficient and effective innovation in organizations.

With this research design, it is expected to explain in depth how the combination of leadership characteristics and intellectual resources can encourage innovation ambidexterity and its relevance in improving the performance of MSMEs in the competitive fashion sector.

## **RESULTS AND DISCUSSION**

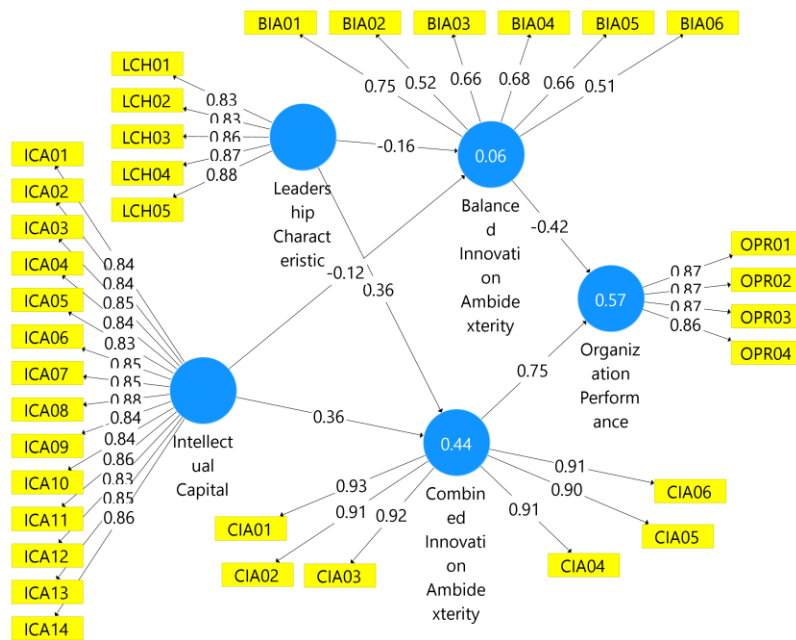
The research subjects from 212 MSMEs in the Fashion Industry were successfully collected. Based on the analysis of the collected data, the initial research model was obtained according to Figure 1. where each variable for Balanced Innovation Ambidexterity (BIA) and Combined Innovation Ambidexterity (CIA) has 6 indicators. However, the final model was adjusted as shown in Figure 2. because BIA02 and BIA06 have a loading factor  $<0.60$  so they are invalid and must be eliminated (Hair, et al., 2010; Kline, 2011).

The indicators that were removed included BIA02, which consisted of the explorative item “Our company creates new products and/or services” and the exploitative item “Our company routinely makes small adjustments to existing products and/or services.” In addition, BIA06, which consisted of the explorative item “Our company routinely uses new distribution channels to sell products and/or services” and the exploitative item “Our company expands or provides more services to existing customers,” was also removed. This removal was done to ensure that the subsequent analysis is based on valid indicators that can represent the variables more accurately.

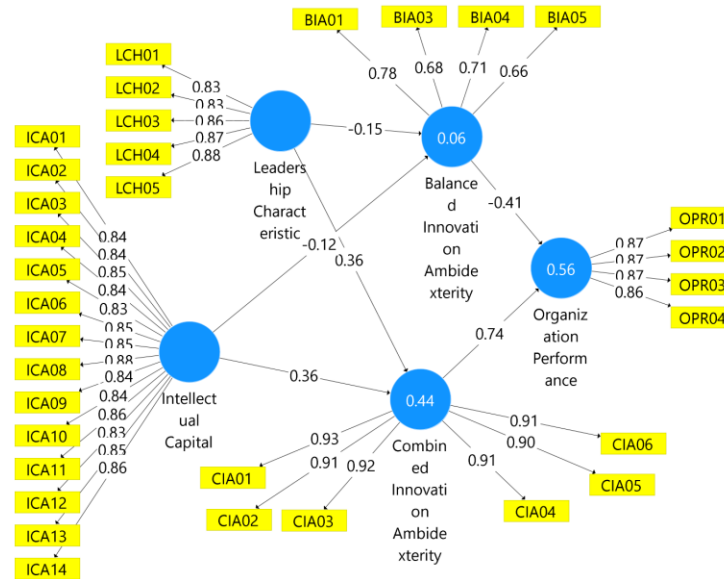
The removal of indicators BIA02 and BIA06 does not significantly affect the assessment of the variables, because the BIA variables can still be described well through other valid indicators. Other indicators that meet the validity criteria are still able to cover the dimensions of innovation exploration and exploitation which are the core of measuring the BIA variables, so that there is no substantial reduction in the meaning or representation of the variables in the research model. This ensures that the final model remains adequate to support the analysis and interpretation of the research results.

The results of reliability and construct validity show that the measuring instrument used in this study is reliable and valid with Cronbach's Alpha values  $> 0.6$ ; CR  $> 0.7$ ; and AVE  $> 0.5$ . Furthermore, analysis for the path coefficient is carried out to determine the strength and direction of the direct relationship between the independent and dependent variables first without mediating variables.

The relationship between leadership characteristics and Balanced Innovation Ambidexterity (BIA) shows a T-statistic of 2.228 and a P-value of 0.026, which is significant at the 5% level. However, the effect is negative, indicating that leadership characteristics such as adaptability and risk-taking tend to hinder the balance of explorative and exploitative innovation. On the other hand, the relationship between leadership characteristics and Combined Innovation Ambidexterity (CIA) has a T-statistic of 4.064 and a P-value of 0.000, which is highly significant. These results indicate that these leadership characteristics positively encourage the combination of explorative and exploitative innovation in organizations.



**Figure 1.**  
**Early Model**



**Figure 2.**  
**Final Model**

The relationship between intellectual resources and BIA has a T-statistic of 2.057 and a P-value of 0.040, indicating a negative effect on innovation balance. In contrast, the relationship with CIA has a T-statistic of 4.242 and a P-value of 0.000, indicating that high intellectual resources contribute significantly to an organization's ability to manage a combination of explorative and exploitative innovation.

On organizational performance, BIA has a significant negative effect with a T-statistic of 6.706 and a P-value of 0.000, indicating that the balance of explorative and exploitative innovation tends to decrease performance. In contrast, CIA has a large positive effect with a T-statistic of 15.656 and a P-value of 0.000, emphasizing that the combination of innovations simultaneously contributes significantly to improving organizational performance.

**Table 1.**  
**Results of Reliability and Construct Validity Analysis**

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	Information
Balanced Innovation Ambidexterity	0.676	0.694	0,800	0.501	Reliable and Valid

Combined Innovation Ambidexterity	0.960	0.961	0.968	0.833	Reliable and Valid
Intellectual Capital	0.970	0.970	0.973	0.720	Reliable and Valid
Leadership Characteristic	0.907	0.914	0.931	0.729	Reliable and Valid
Organization Performance	0.890	0.893	0.923	0.751	Reliable and Valid

Research analysis with the introduction of mediating variables was also carried out using path coefficient analysis for Specific Indirect Effects.

The indirect effect analysis shows that leadership characteristics through BIA have a weak but marginally significant effect (T-statistic 1.967, P-value 0.050), while through CIA, the effect is positive and significant (T-statistic 3.827, P-value 0.000). Intellectual resources also have a significant effect on organizational performance through BIA (T-statistic 2.014, P-value 0.045) and CIA (T-statistic 4.122, P-value 0.000). These results underline the key role of the CIA as the main driver of improving organizational performance compared to BIA.

**Table 2.**  
**Results of Path Coefficients-Direct Effect Analysis**

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Leadership Characteristic -> Balanced Innovation Ambidexterity	-0.155	-0.154	0.070	2,228	0.026
Leadership Characteristic -> Combined Innovation Ambidexterity	0.365	0.367	0.090	4,064	0,000
Intellectual Capital -> Balanced Innovation Ambidexterity	-0.122	-0.128	0.059	2,057	0.040
Intellectual Capital -> Combined Innovation Ambidexterity	0.362	0.367	0.085	4,242	0,000

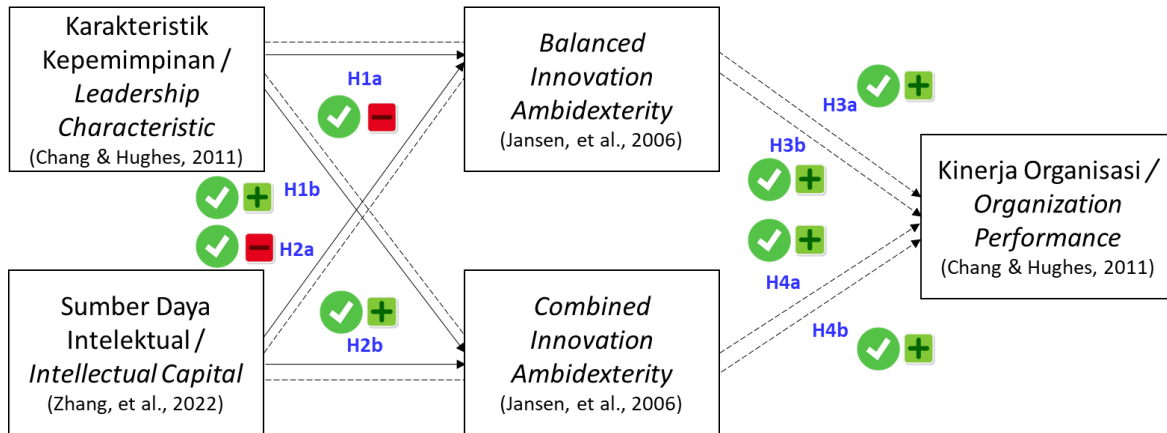
Balanced Innovation Ambidexterity -> Organization Performance	-0.406	-0.401	0.061	6,706	0,000
Combined Innovation Ambidexterity -> Organization Performance	0.740	0.737	0.047	15,656	0,000

**Table 3.**  
**Results of Path Coefficients Analysis - Specific Indirect Effect**

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Leadership Characteristic -> Balanced Innovation Ambidexterity -> Organization Performance	0.063	0.063	0.032	1,967	0.050
Intellectual Capital -> Balanced Innovation Ambidexterity -> Organization Performance	0.049	0.051	0.025	2,014	0.045
Leadership Characteristic -> Combined Innovation Ambidexterity -> Organization Performance	0.270	0.271	0.070	3,827	0,000
Intellectual Capital -> Combined Innovation Ambidexterity -> Organization Performance	0.268	0.270	0.065	4,122	0,000

### Discussion

The results of the analysis show several important findings related to the relationship between leadership characteristics, intellectual resources, BIA, CIA and organizational performance in the context of MSMEs in the Fashion Industry in Bandung City. These findings provide insight into how forms of innovation ambidexterity can affect organizational performance.



**Figure 3.**  
**Research Results Based on Model**

### Leadership Character, Innovation Ambidexterity, and Organizational Performance

H1a: Leadership characteristics directly support the formation of Balanced Innovation Ambidexterity (BIA) activities.

The results of the analysis for hypothesis H1a show that leadership characteristics, including risk tolerance and adaptability, have a significant negative effect on BIA. This indicates that a risk-taking and adaptive leadership style can actually hinder a company's efforts to achieve a balance between exploratory and exploitative innovation.

In the results of the loading factors analysis, the most dominant leadership characteristics emerged from the statements "Our company's leaders dare to take financial risks" and "Our company's leaders encourage innovative marketing strategies, even though they are aware of the possibility of failure." The high loading factors in these two aspects indicate that leadership in fashion SMEs tends to focus on bold and innovative actions, even though they have the possibility of failure.

The Balanced Innovation Ambidexterity (BIA) theory emphasizes that a balance between explorative innovation (seeking new knowledge) and exploitative innovation (using existing knowledge) is needed to maintain firm stability (He & Wong, 2004; Choi, et al., 2022). In the context of the fashion industry, leadership characteristics that include risk tolerance and adaptability become very relevant. Leaders in fashion SMEs are often faced with rapidly changing market dynamics and fluctuating fashion trends. High risk tolerance can encourage leaders to explore radical innovations, but if they focus too much on

exploration, this can neglect important aspects of exploitation, such as managing and developing existing products (Jansen et al., 2006; March, 1991).

In the fashion industry, SMEs often face rapidly changing market dynamics, so leaders may be more motivated to continuously innovate in terms of new products and the latest trends. However, due to limited human resources and budget, efforts to explore and exploit simultaneously become increasingly challenging. In small businesses with an average of 5-9 employees, the capacity for balanced innovation is limited due to the heavy workload on employees and limited budget allocation for both types of innovation.

In addition, to support BIA, companies need to allocate a large enough budget to maintain stability on both sides of innovation. However, in SMEs with limited budgets, efforts to balance exploration (for example, introducing new collections or following trends) and exploitation (maintaining the efficiency and quality of existing products) are often unsustainable. With the leadership characteristics of risk-taking tolerance and adaptability, leaders are more likely to direct their limited budget to explore new things, rather than maintaining the exploitative aspects that require stability.

Thus, although leaders with these characteristics can accelerate responses to changing trends, they often have difficulty in maintaining an innovation balance that supports the long-term sustainability of the company. This is consistent with the finding that risk-tolerant and adaptive leadership characteristics have a negative effect on BIA, because the encouragement of exploration often reduces the focus on exploitation, which is actually equally important in achieving innovation balance. Therefore, hypothesis H1a is accepted.

H1b: Leadership characteristics directly support the formation of Combined Innovation Ambidexterity (CIA) activities.

In contrast, the analysis for hypothesis H1b shows that leadership characteristics have a positive and significant influence on CIA. This suggests that effective leadership, characterized by risk tolerance and adaptability, is able to encourage organizations to integrate exploration and exploitation simultaneously.

In CIA theory, innovation does not need to emphasize an absolute balance between exploration and exploitation. Instead, CIA emphasizes flexibility, allowing firms to quickly switch or pursue both depending on market needs (He & Wong, 2004; Jansen et al., 2006;

Choi, et al., 2022). This approach is relevant for SMEs in dynamic industries such as fashion, where demand patterns and trends are always changing.

Furthermore, research by Lumpkin & Dess (1996) supports that tolerance for risk in leadership allows companies to make innovative decisions despite uncertainty. Kohli & Jaworski (1990) also found that tolerance for failure allows employees to be more proactive in proposing new ideas, which ultimately increases organizational creativity and innovation. Research by Jaworski & Kohli (1993) shows that adaptability supported by market knowledge strengthens flexibility in innovation, both explorative and exploitative. Thus, leaders with risk-taking tolerance and adaptability characteristics are very relevant to support CIA, because both form a flexible and innovative environment.

In fashion SMEs, leadership with risk tolerance and adaptability plays a vital role in capturing market opportunities. Fashion SMEs need flexibility in innovation in order to respond quickly to new and dynamic trends. In this industry, dependence on trends requires SMEs to continue to innovate with both new products and modifications to old products to suit rapidly changing market preferences.

Furthermore, MSMEs with limited employees have limitations in terms of time, energy, and budget. However, with leadership characteristics that encourage CIA, MSMEs can quickly adjust their focus between exploration and exploitation without having to balance the two types of innovation strictly. For example, adaptive leaders can identify when to add an innovative product line (exploration) or when to focus on improving popular products (exploitation). This flexibility helps MSMEs stay relevant in a dynamic market with limited resource optimization.

With leadership that is able to integrate exploration and exploitation simultaneously, MSMEs are better prepared to respond to new trends with fresh products or services, while maintaining the customer base of existing products. In addition, the adaptability of leaders helps them quickly switch strategies between exploration and exploitation when needed, increasing the competitiveness and agility of MSMEs in the competitive fashion industry. Thus, hypothesis H1b is accepted, because adaptive and risk-tolerant leadership characteristics support the success of CIA, allowing MSMEs to respond to market needs and opportunities effectively.

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## **Intellectual Resources, Innovation Ambidexterity, and Organizational Performance**

H2a: Intellectual resources directly support the formation of Balanced Innovation Ambidexterity (BIA) activities.

In the intellectual resource analysis, the three indicators with the highest loading factors are: “Our company has a strong innovation culture,” “Our company maintains good relationships with employees,” and “Our company maintains good relationships with partners.” These three indicators reflect the main pillars of high intellectual resources in fashion industry MSMEs. A strong innovation culture provides a foundation that supports the development of new ideas, which is an important aspect in facing the dynamics of the fashion industry. Good relationships with employees play an important role in increasing their loyalty and involvement in implementing innovation strategies. Meanwhile, good relationships with partners allow MSMEs to expand access to external markets and resources, which are increasingly important in adapting to rapidly changing trends.

However, although high intellectual resource capacity provides a strategic foundation, the results of the analysis show that the higher the capacity, the lower the tendency of the company to achieve BIA. Hypothesis H2a, which tests the relationship between intellectual resources and BIA, shows a significant negative effect, with a path coefficient of -0.122. This means that high intellectual capacity tends to direct companies to focus more on one type of innovation (explorative or exploitative), instead of balancing the two.

This study is supported by March's theory (1991) which states that maintaining a balance between exploration and exploitation is a major challenge, especially under resource constraints that force companies to choose between two priorities that are often competing with each other. Gibson and Birkinshaw (2004) also assert that ambidexterity involves tension between exploration and exploitation, which makes many companies, including SMEs in dynamic industries such as fashion, have difficulty maintaining an optimal balance. In the context of the fashion industry, the tension between exploration and exploitation is even more pronounced because the demands to adapt quickly to new trends often conflict with efforts to explore more fundamental innovations.

In practice, many MSMEs have difficulty maintaining this balance, and often experience delays in responding to market trends due to limited employee numbers and resources. High intellectual resources, although supportive of innovation, also have the potential to create biases that encourage companies to prefer one side of innovation. As O'Reilly & Tushman (2004) argues, strong resources in one aspect can cause companies to focus too much on exploration or exploitation alone, which can reduce organizational performance if balance is not achieved.

Based on this analysis, hypothesis H2a is accepted. High intellectual resource capacity in fashion industry SMEs tends to create an imbalance in innovation, where companies focus more on only one type of innovation. In industries that require a fast response such as fashion, the BIA approach may be less effective, and high intellectual capacity does not always support a balance between exploration and exploitation.

H2b: Intellectual resources directly support the formation of Combined Innovation Ambidexterity (CIA) activities.

In hypothesis H2b, the results of the analysis show that intellectual resources have a positive and significant effect on CIA. This indicates that strong intellectual resources not only encourage the company's ability to explore and exploit simultaneously but also increase the organization's flexibility in adapting to market changes.

The theory of Cao et al. (2009) states that companies with strong internal and external resources are more able to achieve synergy between exploration and exploitation, which creates opportunities to strengthen both types of innovation in total. This is supported by the findings of Choi et al. (2022), which show that strong intellectual resources, especially in market knowledge and relational networks, can strengthen the ability to integrate exploratory and exploitative innovation. Sufficient intellectual resources enable MSMEs to remain innovative and responsive to the market even with limited resources.

He and Wong (2004) also emphasized that the CIA provides flexibility to adapt to rapidly changing market demands, an approach that is particularly suited to the fashion industry. In this industry, where trends change rapidly, the ability to integrate exploration for new ideas and exploitation for maximum utilization of existing products becomes a crucial competitive advantage.

In this case, the CIA approach is more adaptive and effective in environments that require rapid response, such as the fashion industry. With strong intellectual resources, SMEs can optimize two innovation strategies simultaneously without being caught in the tension between the two. They can be more flexible and responsive to changing trends, reducing the risk of imbalance and improving overall organizational performance.

Based on the results of the analysis and literature support, hypothesis H2b is accepted. Strong intellectual resources in fashion industry SMEs enhance the company's ability to combine explorative and exploitative innovation, creating synergies that enable adaptation to rapid industry changes and optimize innovation opportunities.

### **The Mediating Role of Innovation Ambidexterity on Organizational Performance**

H3a: Balanced Innovation Ambidexterity (BIA) mediates the effect of Leadership Characteristics on Organizational Performance.

H3b: Balanced Innovation Ambidexterity (BIA) mediates the effect of Intellectual Resources on Organizational Performance.

The results of the analysis show the results of the specific indirect effect analysis of leadership characteristics and intellectual resources with T Statistics 1.967 and 2.014 with p-values 0.050 and 0.045 respectively. Although these results are significant, the impact is relatively small, indicating that BIA has a mediating role, but is not strong enough to affect overall organizational performance. This indicates that although leadership characteristics and intellectual resources can affect BIA, the influence is not very significant on organizational performance. This mediation effect is partial because the variable still has a direct influence even though BIA is introduced as a mediator.

First, MSMEs often face resource constraints, both financial and human, which limit their ability to engage in balanced innovation between exploration and exploitation (Kemenkop UKM, 2023). In many cases, they prefer to focus on exploitation to maintain operations and profitability. Second, the competitive and rapidly changing market dynamics in the fashion industry force MSMEs to react quickly to trends, reducing the space for long-term exploration required in BIA (Zeng, et al., 2023). In addition, the organizational culture in MSMEs tends to be more conservative, and resistance to change can hinder the implementation of BIA strategies. Inadequate policy support and limited access to networks

and knowledge can also hinder them from adopting a balanced innovation strategy (Anderson & Ullah, 2014).

In addition, BIA combines explorative and exploitative innovation strategies in a balanced way. However, in the context of MSMEs, structural challenges, resource constraints, and focus on short-term business continuity can often significantly hinder the positive impact of BIA on their performance (Mazzarol, 2003). In addition, performance measurements that generally focus on financial or productivity aspects may not fully reflect the real benefits of BIA, such as increased flexibility, long-term adaptability, or customer satisfaction. This results in a gap between theoretical expectations regarding the impact of BIA and the reality experienced by MSMEs in the field (Van Gils, 2005).

These factors underscore the complexities that SMEs face in implementing BIA effectively, as they may tend to experience challenges in translating exploratory and exploitative innovation outcomes into direct performance improvements. Furthermore, the nature of smaller organizations tends to be conservative and control-oriented, which may make it difficult to take the risks necessary to achieve optimal innovation outcomes (Anderson & Ullah, 2014). Taking all these elements into account, the unique complexities and challenges in the SME context may explain why BIA shows a low impact on organizational performance.

H4a: Combined Innovation Ambidexterity (CIA) mediates the effect of Leadership Characteristics on Organizational Performance.

H4b: Combined Innovation Ambidexterity (CIA) mediates the effect of Intellectual Resources on Organizational Performance.

Hypotheses H4a and H4b indicate that the CIA has a significant mediating role in the relationship between leadership characteristics and intellectual resources on the performance of MSME organizations in the fashion industry. The results of the specific indirect effect analysis show T Statistics of 3.827 for leadership characteristics and 4.122 for intellectual resources, with a p-value of 0.000. This finding indicates that the CIA plays an important role in strengthening the impact of both variables on organizational performance. This mediation effect is partial because the direct influence of leadership characteristics and intellectual resources on performance remains even though the CIA is introduced as a

mediator. These results also indicate that the CIA has a greater influence than BIA) especially in helping MSMEs face rapidly changing market dynamics.

The advantages of CIA in the context of the fashion industry are supported by several main factors. First, the fashion industry's focus on rapid innovation and response to trends makes the combination of exploration and exploitation more relevant. Unlike the electronics industry which tends to be stable, the fashion industry requires the ability to take advantage of new opportunities (exploration) while maintaining existing products (exploitation). This factor supports the relevance of CIA because the combination of both innovations allows MSMEs to adapt effectively to rapidly changing market dynamics. Second, production flexibility in the fashion industry provides MSMEs with the freedom to innovate simultaneously, unlike the electronics industry which relies more on process stability and automation. Rapidly changing trends in fashion require companies to remain innovative, and the CIA strategy provides a more appropriate approach to achieving competitive advantage. Third, in the context of MSMEs in Indonesia, high design and production flexibility allows companies to more easily integrate exploration and exploitation. The rapidly growing Indonesian market also encourages product diversification, making CIA a more effective strategy to meet dynamic market demands.

Previous studies by Choi et al. (2022) and He & Wong (2004) support this finding. Choi et al. noted that industry and country contexts influence the relevance of ambidexterity strategies, where dynamic industries such as fashion require CIA strategies more than BIA. He & Wong (2004) showed that the synergy between exploration and exploitation has a positive impact on organizational performance through the Fit to Moderate approach, where companies with high scores on both innovation strategies are able to achieve optimal results. In this study, CIA provides strong synergy in improving the performance of fashion MSMEs, especially through increasing sales growth rates.

In conclusion, the CIA not only strengthens the relationship between leadership characteristics and intellectual resources on organizational performance but also proves to be more relevant for MSMEs in the fashion sector. With the ability to face rapid market changes, CIA becomes an ideal innovation strategy for MSMEs to remain competitive in a highly dynamic industry.

## CONCLUSION

Leadership characteristics such as adaptability and risk-taking tolerance have been shown to support the management of Combined Innovation Ambidexterity (CIA) in MSMEs in the fashion industry. The results of the study indicate that adaptive leadership, which is able to react quickly to changes in market trends and demands, provides MSMEs with the flexibility needed to innovate simultaneously between exploration and exploitation. In addition, risk tolerance plays an important role in encouraging bold decision-making in developing new products, enabling innovation exploration that can increase market differentiation.

In contrast, the Balanced Innovation Ambidexterity (BIA) approach shows a negative impact, where efforts to maintain a tight balance between exploration and exploitation actually hinder the agility needed in the highly dynamic fashion market. These findings suggest that in the context of fashion SMEs, more flexible and risk-taking leadership is more beneficial in supporting innovation ambidexterity management that focuses on innovation exploration and rapid implementation of innovation results.

The results of the study show that intellectual resources play a very important role in supporting CIA management in fashion industry MSMEs. MSMEs that successfully manage CIA can combine explorative and exploitative innovation simultaneously, which allows them to innovate flexibly and quickly. This success does not only depend on technical capabilities or product innovation alone, but also on the ability to utilize existing intellectual resources optimally, both through the knowledge possessed by the internal team and external networks established with partners and customers.

With effectively managed intellectual resources, SMEs can optimize both types of innovation—exploration to find new opportunities and exploitation to optimize existing products—along with the need to adapt and compete in a rapidly changing market. This provides a greater competitive advantage compared to BIA which tends to be more rigid and requires a more structured division between the two types of innovation. Therefore, efficient management of intellectual resources will strengthen SMEs' ability to implement CIA more optimally and improve their organizational performance.

The findings of this study indicate that CIA is more effective than BIA in optimizing innovation management in fashion SMEs. The CIA approach allows SMEs to explore new ideas and exploit existing products at the same time. In the fashion industry, where trends and customer preferences can change rapidly, the flexibility offered by CIA is crucial to maintaining competitiveness.

MSMEs often have limited resources, both financial and human. The CIA approach allows them to utilize all available resources to innovate without sacrificing the quality of existing products. On the other hand, BIA, which demands a tight balance between exploration and exploitation, tends to be more difficult to implement in the context of MSMEs with limited resources, because it requires a large allocation for each type of innovation.

CIA provides competitive advantages for MSMEs by optimizing limited resources through simultaneous innovation, whereas BIA is more difficult to implement because it requires a separate division between exploration and exploitation, which can limit the speed and flexibility of innovation.

This study shows that the CIA has a more positive impact on the performance of MSMEs in the fashion industry compared to BIA. CIA, which combines explorative and exploitative innovation simultaneously, allows MSMEs to adapt more quickly to changing trends and market needs, and develop relevant products. This approach is more appropriate for the context of MSMEs with limited resources because it offers flexibility in managing innovation to meet dynamic market demands.

In contrast, BIA, which focuses on achieving a balance between exploration and exploitation, tends to hinder the ability of MSMEs to innovate quickly and responsively. These findings suggest that MSMEs that prioritize CIA will be better able to improve customer satisfaction, and business performance, and achieve more optimal potential. Therefore, to improve organizational competitiveness and performance in the competitive fashion market, MSMEs should focus on the CIA approach as a more effective innovation strategy.

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