The Role of Formal and Informal Control Mechanisms in Collaboration Strategies for Fostering Innovation

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Abstract

The primary objective of this article is to address the existing gap in the literature on open innovation. The authors are motivated to investigate the role of control mechanisms in facilitating the process of innovation creation. The current epidemic has resulted in substantial changes across various sectors, leading to a notable surge in the utilisation of open innovation among small and medium-sized enterprises (SMEs) and startups. The COVID-19 pandemic has heightened the importance of collaboration and innovation, prompting SMEs and startups to actively seek opportunities for synergy. By means of collaboration, these entities have the ability to combine their resources, knowledge, and expertise to develop innovative solutions that specifically target the challenges presented during a crisis. Furthermore, these synergies not only aid in navigating uncertainties but also contribute to effective market positioning, ensuring success during times of crisis where agility and resilience are crucial. The analysis of the data from 259 Indonesian SMEs was conducted using the Partial Least Squares (PLS) methodology. The study's findings indicate that collaboration between SMEs and startups serves as a catalyst for promoting innovation. The results also highlighted the importance of collaborative exploration in promoting radical innovation through output and behavioural control. Furthermore, it has been recognised that implementing a clear and uncomplicated organisational structure can facilitate the process of adapting to changes and fostering effective collaboration within businesses. The findings of this study are valuable for scholars, entrepreneurs, and small and medium-sized enterprise (SME) owners. They emphasise the importance of collaborative exploration as a significant approach that can potentially result in radical innovation.

Keyword: Open Innovation, Alliance Strategy, Control Mechanism; Innovation

1. Introduction

In 2003, Chesbrough introduced the open innovation paradigm, which

emphasises the importance of knowledge sharing and collaboration between parties as a means of promoting innovation within companies. The observed approach enables companies to access a wider range of expertise and resources, thereby enhancing their ability to navigate the rapidly changing business landscape of the fourth industrial revolution. It is crucial to recognise that the adoption of open innovation provides organisations with valuable insights into their customers, suppliers, and competitors. Additionally, it fosters the exploration of new ideas and perspectives within the organization (Chesbrough, 2003). As per the World Economic Forum, the fourth industrial revolution is currently underway, and it is expected to expose businesses to VUCA conditions (Volatility, Uncertainty, Complexity, and Ambiguity). In order to effectively navigate and excel in this era of transformation, it is highly advisable for organisations to proactively engage in collaborative efforts with external partners. The primary objective of this collaboration is to enhance the quality and functionality of both newly developed and already existing products (Ullah et al., 2023).

Considerable research has been devoted to studying the relationship between knowledge collaboration and innovation. There is a gap in the current literature regarding the adoption of open innovation practices by SMEs and their ability to effectively collaborate with external partners to leverage knowledge benefits. According to previous research, the partners involved in this study include enterprise groups, suppliers, customers, consultants, competitors, universities, and local and national governments (Audretsch et al., 2023). SMEs often encounter significant difficulties in effectively utilising external knowledge collaborations to derive value. The challenges primarily stem from the limited capacities of SMEs and startups, which are often attributed to their specialised focus on areas such as distribution, research, target markets, or technologies.

To promote the exchange of knowledge and establish networks at regional and international levels, it is advisable for SMEs and entrepreneurs to actively engage in external research and development collaborations. However, there are numerous challenges involved in extracting advantages from collaborations for these enterprises. One major obstacle to establishing and maintaining effective partnerships is the limited resources and expertise that organisations have in managing collaborations

(Audretsch et al., 2023). SMEs may face difficulties in aligning their objectives with those of external partners, leading to conflicts and misunderstandings. Furthermore, businesses may encounter challenges when attempting to integrate and apply knowledge gained from collaborations to their operations. This can ultimately hinder their ability to fully leverage external knowledge.

It is essential to implement a suitable management control system to ensure the success of collaborations. In the realm of inter-organizational relationships (IOR), a blend of formal and informal control mechanisms is essential (Langfield-Smith & Smith, 2003). Previous research has identified two types of control mechanisms: formal control, which consists of outcome and behavioural controls, and informal control, which encompasses shared norms, values, and trust-building (Dekker, 2004; Luo, 2002), and clan control (Ouchi, 1979). An effective management control system is characterised by its capacity to provide a structured framework for monitoring and evaluating the progress of collaboration. Furthermore, this integration allows SMEs to effectively set objectives, optimise resource allocation, and oversee the incorporation of external knowledge into their business processes.

Prior research has suggested that effective communication, mutual understanding, and shared objectives are crucial for successful inter-organisational collaborations. These findings highlight the importance of effective communication and mutual understanding between organisations, as they lead to more efficient collaborations. In light of this comprehension, the elements of organisational collaboration and effective communication assume significant importance in the context of VUCA conditions (volatility, uncertainty, complexity, and ambiguity), wherein adaptability and collaboration are imperative for achieving favourable outcomes. Therefore, organisations that place a higher emphasis on these factors are more inclined to attain successful inter-organizational collaborations, even when faced with difficult and uncertain circumstances.

As indicated by previous research, it is imperative to investigate novel methodologies for assessing Open Innovation in order to proficiently address potential risks and their corresponding implications. Anderson et al. (2014) have conducted an investigation on diverse Open Innovation contexts, encompassing intra-

organizational, organisational, and inter-organizational dimensions, which encompass networks, alliances, and ecosystems. Anderson et al. (2014) provided an elucidation of open practices across various levels and contexts, encompassing intra-organisational dimensions, organisational aspects, and inter-organisational facets. Both studies provided suggestions for future research in these domains to improve the overall comprehension of Open Innovation practices.

Open innovation, facilitated by collaboration between SMEs, government entities, and startups, is increasingly being adopted in the Indonesian food startup industry. Collaborative efforts are viewed as a potential solution for addressing the business challenges that have emerged during the COVID-19 era. The pandemic-induced lockdown measures resulted in a substantial decrease in growth within the food industry (Chesbrough, 2020). The Indonesian government implemented an initiative known as Food Startup Indonesia (FSI). This initiative was created to meet the culinary requirements of SMEs, acknowledging the significant role of the culinary sector in promoting the creative economy.

According to data from the Central Statistics Agency in 2016, the culinary sector made a substantial contribution to Indonesia's creative gross domestic product (GDP), representing 41.4% or IDR 381 trillion. The annual event known as FSI was first introduced in 2016 through a joint initiative by Bekraf and Foodlab. In 2020, the initiative's organisation was transferred to Kemenparekraf/Baparekraf, and its management was taken over by Ultra while still retaining its primary objective. This objective aims to enhance connections between participants in the culinary creative economy and sources of capital and financing, promoting rapid growth in the country's culinary creative economy. FSI has become the leading platform for enhancing capacity in the culinary creative economy in Indonesia over time.

The partnership between SMEs and startups is crucial to fostering innovation. Startups bring new perspectives and disruptive ideas, while SMEs contribute industry experience and established networks. SMEs can utilise their strengths to facilitate the development of ongoing innovation within their businesses. According to a previous study, startups are essential in facilitating the transition of SMEs into customer-centric networks. They also assist in the development of platforms instead of solely focusing on

products, optimising data as valuable assets, engaging in rapid experimentation, and adapting value propositions to accommodate changing market dynamics. This collaboration has the potential to stimulate innovation in multiple domains (Rogers, 2016). Additionally, it harnesses the entrepreneurial drive of startup companies, enabling SMEs to sustain a competitive advantage and promptly adjust to ever-changing market dynamics. In addition, the process of transformation, which is made possible by startups, SMEs the opportunity to gain entry into novel markets, technologies, and funding opportunities. This, in turn, opens up pathways for growth and expansion.

The scarcity of research in the area of inter-organizational collaboration between startups and SMEs has motivated the undertaking of this current study. The existence of this gap highlights the significance of thoroughly examining the benefits and obstacles linked to these partnerships. This study aims to enhance the success of collaborations between SMEs and startups by providing valuable information and strategies. This will be achieved through a comprehensive examination of the subject matter. The study also highlighted key factors that contribute to successful collaboration, including shared objectives, trust, and efficient communication. Acknowledging the significance of this exploration is crucial for assessing the growth and competitiveness of SMEs and startups within the business landscape. It also ensured to address the research questions posed by (Ogink et al., 2023) namely, "Does trust also influence the financial performance or the strategic impact of OI projects?" and "What methods of searching for new knowledge and technology are most effective for finding new OI partners?"

2. Literature Review

2.1 Open Innovation and Alliance Strategy

According to Ogink et al. (2023), the existing Open Innovation literature has identified four main mechanisms: Governance & policy, Interaction & dynamics, Knowledge, skills, and abilities, and practical learning. This study focuses on knowledge, skills, and abilities within the framework of the dynamic capability theory. Dynamic Capability Theory emphasises a firm's ability to identify and acquire new external

information and effectively utilise it for commercial purposes. The company's capability is influenced by its existing resources, relevant knowledge, and processes for scanning, selecting, and implementing external knowledge (Cohen & Levinthal, 1990).

Gulati and Singh (1998) define an alliance strategy as a collaborative effort between two or more companies involving the exchange or joint development of resources and capabilities with the aim of achieving mutually beneficial objectives. This strategy involves a cooperative arrangement among multiple companies to share resources, thereby improving their competitive performance and safeguarding their corporate identity (Robson et al., 2019). The alliance strategy involves firms combining resources, capabilities, and competencies to achieve different objectives. These objectives include accessing new markets, expanding product lines, acquiring new competencies, generating revenue for research and development, covering production costs, and funding marketing expenses (Robson et al., 2019). Previous research has indicated that collaborative arrangements are designed to generate value for stakeholders through the utilisation of competitive advantage and the creation of synergym (Pooe & Munyanyi, 2019; Schilke, 2014).

Matt (2012) classified companies into four quadrants based on their exploration and exploitation efforts. The quadrants consist of Conqueror, Zombie, Adventurer, and Miner, representing distinct approaches to decision-making and organisational performance. The Conqueror prioritises aggressive growth and market dominance by effectively balancing the utilisation of current resources with the pursuit of new opportunities and adaptation to the business environment. The Adventurer focuses on exploration while minimising exploitation and effectively managing calculated risks and uncertainties. In contrast, miners prioritise exploitation over exploration, focusing on maximising current resources and operational efficiency. The Zombie symbolises a company that is facing challenges in its efforts to succeed in both exploration and exploitation endeavours. These companies may face potential failure due to their inability to adapt to the changing business environment.

Lavie and Rosenkopf (2006) classified alliances into three distinct categories: function-based, structure-based, and attribute-based. The function-based category indicates that collaboration is driven by content and purpose, while the structure

dimension is determined by the position of each company in the broader network. The attribute dimension of an alliance involves decisions that will significantly affect the activities of the organisations involved in the long term.

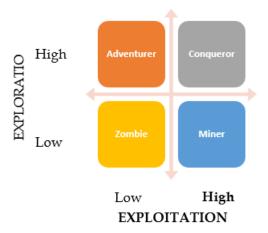


Figure 1: Matrix Exploration and Exploration by Stocker (2012)

Tabel 1. Domains of Exploration-Exploitation (Lavie & Rosenkopf, 2006)

Domain	Function	Structure	Attribute
Exploration	Forming a knowledge- generating R&D Alliance	Allying with a new e partner	Allying with a partner whose organizational attributes differ from those of a prior partner
Exploitation	Forming a knowledge- leveraging marketing/production alliance	Forming recurring alliances with a partner that has prior ties to the firm	Allying with a partner whose organizational attributes similar to those of a prior partner

The impact of innovation can vary depending on contingent factors that influence the relationship between exploration and exploitation. Guisado-González, González-Blanco, and Coca-Pérez (2019) found that participating in collaborations focused on exploitation negatively impacts a company's innovation performance, whereas prioritising exploration in collaborations has a positive effect on innovation outcomes.

Lavie and Rosenkopf (2006) proposed a framework consisting of three dimensions that provide a comprehensive understanding of different types of alliances and their strategic implications. The function-based dimension of an alliance focuses on the specific objectives and tasks that the alliance aims to achieve, such as collaborating on research or jointly marketing products. The structure-based dimension considers the position and role of each company within a broader network of alliances, acknowledging that alliances are interconnected nodes in a larger

ecosystem. The attribute-based dimension emphasises the enduring impact of alliances on participating organisations, encompassing elements such as shared values, culture, and reputation. These factors have the potential to shape future alliance activities and decisions.

In essence, these three dimensions form a comprehensive framework for comprehending the intricacies and fluidity of collaborations. By examining the structure, network, and attributes, various researchers and practitioners can draw valuable insights into the motivations, strategies, and results of these collaborative partnerships. This framework facilitates the evaluation of potential benefits and risks of collaborations for organisations. Organisations that embrace this comprehensive framework are more likely to make informed decisions regarding their participation in alliances. This is because the framework offers a holistic perspective on alliances, going beyond individual company assessments and considering the broader context in which these partnerships operate.

2.2 Control Mechanism

According to Simons (1994), a management control system is a set of formal routines and procedures that managers use to maintain or modify patterns in organisational activities. Merchant et al (2007) proposed a new framework for management control systems, characterised as a comprehensive package. The definition consists of two essential components: "what to control" and "how to control". In this context, "what to control" refers to the control information produced by the management control system, while "how to control" pertains to the information flow utilised in executing control activities. Previous research has shown that the communication between top management and lower management plays a crucial role in the strategic utilisation of financial and non-financial performance measures (Agostino & Arnaboldi, 2012).

This study utilised financial and non-financial performances as control variables. Using these metrics in this way offers a comprehensive comprehension of an organization's exploration and exploitation activities. Financial performance metrics, such as revenue growth, profitability, and return on investment, provide

valuable insights into a company's ability to take advantage of current opportunities. On the other hand, non-financial performance indicators, such as innovation, customer satisfaction, and employee engagement, reveal the organization's ability to explore new opportunities.

Dekker (2004) developed a model for managing inter-organisational relationships based on organisational theory and transaction cost economics. This study identified two control challenges that emerge in inter-organisational collaborations for companies. The challenges encompass the management of appropriation issues and task coordination. To effectively tackle this control dilemma, Dekker (2004) emphasised the significance of trust and its association with informal processes based on trust. The control mechanisms were classified into three types: Output Control, Behaviour Control, and Social Control (Dekker, 2004):

- 1. Output Control
 - a. Ex-ante Mechanism
 - Goal Setting
 - Incentive/Reward Structures
 - b. Ex-post Mechanism
 - Performance Monitoring and Rewarding
- 2. Behaviour Control
 - a. Ex-ante Mechanism
 - Structural Specification: Planning, Procedures, Rules and Regulations
 - b. Ex-post Mechanism
 - Behaviour Monitoring and Rewarding
- 3. Social Control
 - a. Ex-ante Mechanism
 - Partner Selection
 - Trust: Interaction, Reputation, and Social Networks
 - b. Ex-post Mechanism
 - Trust Building: Risk Taking, Joint Decision Making and Problem Solving,
 Partner Development

In their study, Anderson et al. (2015) examined the practise of backtesting using

three control frameworks: Merchant and Van der Stede (2007), Merchant and Van der Stede (2007); Simons (1994) and the combination of decision right, performance measurement, and reward/punishment (Jensen & Heckling, 1995). The aforementioned frameworks functioned as control descriptors within the realm of interfirm collaboration. The study findings indicate that, in the majority of instances, these frameworks possess a wide applicability in comprehending the strategies implemented by companies to manage risks associated with strategic collaboration. Furthermore, Dekker suggests that the management control frameworks created by Simons, Merchant, and Van der Stede can be effectively employed in the context of alliance strategy.

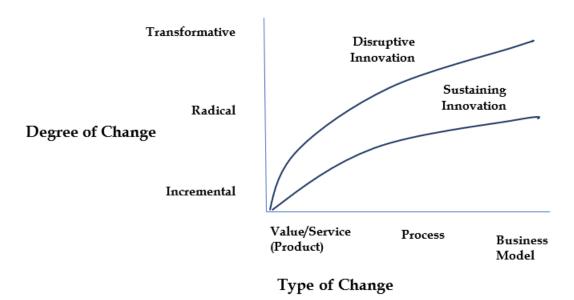
2.3 Innovation Capability

The concept of innovation capability refers to the ability of a company to generate and maintain a competitive advantage (Lawson & Samson, 2001). This particular aspect has been discovered to offer companies the capability to efficiently introduce new products and adopt innovative systems. According to Rajapathirana and Hui (2018), there are four main capacities that can adequately describe the concept of innovation capability. These capacities include the ability to develop new products that align with market demands, the ability to utilise appropriate process technologies in the development of new products, the ability to adopt and incorporate new products and processing technologies to meet future needs, and the ability to be responsive to technological initiatives and unexpected opportunities presented by competitors.

Effective management of dual innovation is imperative for companies. In this regard, several classifications of innovation have been made in previous studies such as "ideated and commercialized; internally & externally focused; radical and incremental, and closed and open innovation" (Anderson et al., 2014). Sheng & Chien defined radical innovation as "the acquisition of new knowledge and the development of novel products for new customers or emerging markets." In contrast, Norman and Verganti perceive this concept as a paradigm shift, encompassing specific actions that were previously not pursued by the company (Norman & Verganti, 2014).

Both radical and incremental innovation have garnered increased attention

from scholars interested in organisational learning and dynamic capabilities. The following Figure illustrates the distinction between the two categories of innovation, which is influenced by the magnitude and nature of the alteration.



Sheng and Chien (2016) define incremental innovation as the act of improving existing products and enhancing the existing knowledge within a company. Norman and Verganti (2014) define incremental innovation as the process of making improvements within the existing framework of a specific solution, with the aim of enhancing the company's current activities. This concept primarily emphasises the fulfilment of current customer or market demands. Benner and Tushman (2003); Montaguti, Kuester, and Robertson (2002); Jansen, Van Den Bosch, and Volberda (2006). Previous research has indicated that successful incremental innovation projects require the capacity to effectively reintegrate and leverage existing knowledge resources (Jung, 2015; Sawatani, 2022; Subramaniam & Youndt, 2005).

3. Research Method

3.1 Alliance Strategy, Innovation Capability, and Control Mechanism

This study conducted an examination of the practices of discovery and exploitation within the innovation process, aligning with prior research. It is crucial to acknowledge that the inclusion of both exploration and exploitation practices is essential within the innovation phase (Ferreira, Coelho, & Moutinho, 2020). Prior research has

demonstrated that these practices serve multiple functions within the innovation process and exert influence on various outcomes. As indicated in prior research, the process of exploration holds notable importance in fostering unique and innovative outcomes, whereas exploitation tends to yield advantages such as cost savings, enhanced productivity, efficiency, and consistency (Kachouie, Mavondo, & Sands, 2018; Molina-Castillo, Jimenez-Jimenez, & Munuera-Aleman, 2011; Zhang & Wu, 2017).

The variable of collaboration strategy in this study encompasses two dimensions, specifically exploration and exploitation alliances. The variable pertaining to "What to control" was evaluated through a comprehensive analysis of both financial and non-financial indicators. On the other hand, the variable concerning "how to control" was determined by employing Dekker's framework, which encompasses outcome, behavioural, and social control aspects. Furthermore, the variable of innovation capability encompassed both radical and incremental innovations.

This study aims to investigate the role of career development as a link between the dependent and independent variables, building on existing research, identified gaps, and theories proposed by previous experts. The research hypotheses proposed are as follows:

H1: Eksploitatif Alliance (KA) influences incremental innovation (INC) with a control mechanism serving as the mediating variable.

H2: Eksploratif Alliance (KA) influences radical innovation (INC) when mediated by a control mechanism.

H3: Eksploratif Alliance (EA) influences radical innovation (RAD) with a control mechanism serving as the mediator.

H4: Eksploratif Alliance (EA) influences incremental innovation (RAD) when mediated by a control mechanism.

4. Data and Analysis

Table 2 presents a detailed overview of the study's demographic characteristics. According to the data, the majority of participants were male (64%), with the remaining 36% being female. Additionally, it is worth noting that 83% of the participants were younger than 35 years old, with the remaining 17% falling into the

35 or older age group. In the realm of business, 26% of respondents reported being engaged in business operations for a period of three to four years, while 20% reported a business duration of one to two years. Additionally, it should be noted that 18% of the participants had a business tenure of two years or more, whereas 17% had a business tenure of less than one year.

Variable	Categories	Frequency	Percentage
Gender	Male	167	64%
	Female	92	36%
Age	18-25 Years	115	45%
	25-30 Years	57	22%
	31-35 Years	43	17%
	36-40 Years	25	10%
	< 40 Years	17	7%
The Length of Business Operation	0-1 Years	45	17%
-	1 To 2 Years	53	20%
	2 To 3 Years	46	18%
	3 To 4 Years	68	26%
	More Than 4 Years	47	18%

Table 2: Demographic Profile

The initial phase of PLS analysis involves examining the measurement model, as depicted in Figure 2. Currently, the reliability and validity of the model are being assessed using various measures.

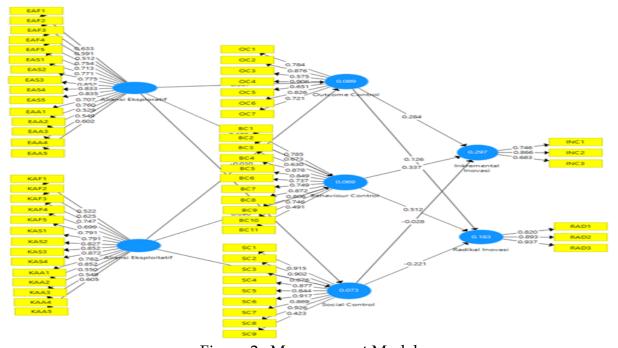


Figure 2. Measurement Model

The parameters used in testing the measurement model (outer model) are as follows:

a) Convergent Validity

In the context of reflective indicators in PLS, the evaluation of convergent validity is dependent on the loading factors of the indicators utilised to measure the construct. Anderson et al. (2014) recommend that for convergent validity, the outer loading should exceed 0.7 and the average variance extracted (AVE) should be 0.50 or higher. In this particular context, a value greater than 0.50 signifies that the construct accounts for a minimum of 50% of the variability observed in each item. The convergent validity of all constructs in this study was found to be valid according to the established standard (Anderson et al., 2014).

The results indicated that certain indicators had loading factor values below 0.700, suggesting the need to eliminate them and retest the convergent loading factor algorithm. After removing and re-estimating the indicators, the final evaluation confirmed the validity of all indicators/items, as they exhibited loading factors greater than 0.7.

Table 3: Measurement Model

Variable	AVE	Cronbach's Alpha	Composite Reliability
Exploratory Alliance (AER)	0.650	0.932	0.943
Exploitation Alliance (AEL)	0.725	0.945	0.954
Outcome Control	0.701	0.891	0.921
Behaviour Control	0.674	0.931	0.943
Social Control	0.816	0.968	0.973
Incremental Innovation	1.000	1.000	1.000
Radical Innovation	0.769	0.876	0.908

Source: Data Processing Results, 2023

The results of the reliability tests, as shown in Table 4, indicate that both Cronbach's alpha and composite reliability values were above the threshold of 0.7. This suggests that the frameworks used were suitable for conducting reliability testing. A measurement model evaluation was conducted in the previous phase:

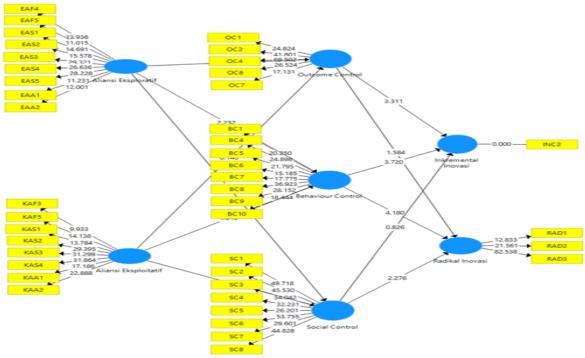


Figure 2. Structural Model

The parameters used in testing the measurement model are as follows:

a. R-square

R² was employed to measure the degree of variability in predictor changes in relation to the dependent variable, while the path coefficient value indicated the level of significance in hypothesis testing. When the value of R² exceeds 0.67 for endogenous latent variables in the structural model, it indicates a significant impact of exogenous variables on endogenous variables, in accordance with established standards. If the result is between 0.33 and 0.67, the influence is considered moderate. If it falls between 0.19 and 0.33, it is classified as weak. The obtained R² values were derived from the results of data processing.

Table 4: R-square

	R-Square
Outcome Control	0.073
Behaviour Control	0.063
Social Control	0.051
Incremental Innovation	0.335
Radical Innovation	0.202

Source: Data Processing Results, 2023

Table 7 displays the R² results, indicating that the highest R-square value (0.335) was observed for incremental innovation, categorising it as moderate. These findings indicate that a significant proportion (33.5%) of the variability in incremental innovation can be accounted for by factors related to outcome, behavioural, and social control. Conversely, the R² value for social control was the lowest at 0.051, indicating a weak relationship. The findings suggest that both explorative alliances and exploitative alliances contribute 5.1% to the explanation of variance in social control.

b. Model Fit

This study utilised two assessment models, namely the standardised root means square residual (SRMR) and the normed fit index (NFI), to evaluate the fitness of the models. A model is deemed to have a satisfactory fit if its standardised root mean square residual (SRMR) value is less than 1. The normed fit index (NFI) is an additional measure of suitability that involves the calculation of the Chi-square value and its comparison to a benchmark for assessing Goodness of Fit. To deem the goodness-of-fit acceptable, the Chi-square measurement value should exceed 0.9 (Chi2 > 0.9) based on this index. The data processing yielded the following results: The concept of goodness of fit (GOF) refers to the degree to which observed data aligns with the expected values based on a particular statistical model:

Table 5: GOF (SRMR)

		Saturated Model
SRM	R	0.083
	D + D	1 D 1, 2022

Source: Data Processing Results, 2023

The SRMR index value obtained from Table 8 was 0.083, indicating that it is less than 1. This suggests that the research model demonstrated a strong fit. The study employed the PLS bootstrapping technique to conduct model calculations and evaluate the hypotheses. The statistical t-value for each relationship or path was determined through these calculations. Hypothesis testing was subsequently conducted at a significance level of 5%. A hypothesis is deemed acceptable if its t-statistic value exceeds the t-table value, in accordance with established standards. Table 9 displays the outcomes of hypothesis testing in this study.

Table 6: Path Coeficient (Direct Effect)

Struktur Path	OS	t-Stat	P-Values	Results
Exploratory Alliance -> Outcome Control	0.276	3.343	0.000	Accepted
Exploratory Alliance -> Behaviour Control	0.201	2.232	0.013	Accepted
Exploratory Alliance -> Social Control	0.164	1.809	0.036	Accepted
Exploratory Alliance -> Outcome Control	-0.011	0.146	0.442	Rejected
Exploitation Alliance -> Behaviour Control	0.069	1.010	0.156	Rejected
Exploitation Alliance -> Social Control	0.082	1.034	0.151	Rejected
Outcome Control -> Incremental Inovasi	0.236	3.311	0.000	Accepted
Outcome Control -> Radikal Inovasi	0.114	1.584	0.057	Rejected
Behaviour Control -> Incremental Innovation	0.462	3.720	0.000	Rejected
Behaviour Control -> Radical Innovation	0.588	4.180	0.000	Accepted
Social Control -> Incremental Innovation	-0.090	0.826	0.204	Rejected
Social Control -> Radical Innovation	-0.286	2.276	0.012	Rejected

Source: Data Processing Results, 2023

Subsequently, the indirect effect hypothesis was examined by analysing the processed data, leading to the acquisition of the following outcomes:

Table 7: Path Coefficient (Indirect Effect)

Path Structure	OS	t-Stat	P-Values	Results
exploratory alliance -> Outcome Control -> Incremental Innovation	0.065	2.315	0.011	Accepted
exploratory alliance -> Outcome Control -> Radical Innovation	0.031	1.361	0.087	Rejected
exploratory alliance -> Outcome Control -> Radical Innovation	0.031	1.361	0.087	Rejected
exploratory alliance -> Behaviour Control -> Incremental Innovation	0.093	1.685	0.046	Accepted
exploratory alliance -> Social Control -> Incremental Innovation	-0.015	0.688	0.246	Rejected
exploratory alliance -> Behaviour Control -> Radical Innovation	0.118	1.824	0.034	Accepted
exploratory alliance -> Social Control -> Radical Innovation	-0.047	1.295	0.098	Rejected
exploitation alliance -> Behaviour Control -> Incremental Innovation	0.032	0.906	0.183	Rejected
exploitation alliance -> Behaviour Control -> Radical Innovation	0.040	0.925	0.178	Rejected
exploitation alliance -> Outcome Control -> Inkremental Inovasi	-0.002	0.144	0.443	Rejected
exploitation alliance -> Social Control -> Inkremental Inovasi	-0.007	0.402	0.344	Rejected
exploitation alliance -> Outcome Control -> Radikal Inovasi	-0.001	0.134	0.447	Rejected
exploitation alliance -> Social Control -> Radikal Inovasi	-0.024	0.804	0.211	Rejected

Table 10 demonstrates that the indirect effect hypothesis supports the notion that the exploratory alliance has an impact on incremental innovation through outcome and behavioural control.

5. Discussion & Conclusion

This study investigates how management control systems contribute to

promoting innovation in strategic alliances within the sub-culinary creative industry in Indonesia, specifically in the post-COVID-19 era. The study examined strategies implemented during and after the COVID-19 pandemic. In the context of the COVID-19 pandemic, companies have been compelled to prioritise exploration activities over exploitation (Rojas-Córdova et al., 2023). However, this adaptability was mainly a temporary reaction to the evolving circumstances. Previous research has indicated that organisations with simple structures, such as MSMEs, find it easier to prioritise exploration activities over exploitation activities. This study concludes that a simple organisational structure improves an organisation's ability to adapt to and embrace change. Simplicity within an organisation was discovered to enhance agility, innovation, and adaptability (Rojas-Córdova et al., 2023).

Based on the aforementioned research findings, it is clear that incremental innovation can be achieved in the creative industries of Indonesia through exploration alliances, facilitated by effective control mechanisms. This study emphasised the significance of outcome and behavioural control in facilitating incremental innovation. Furthermore, the study suggests that the implementation of these control mechanisms not only enhances creativity but also fosters trust and collaboration among members of the alliance. The study employed control mechanisms such as progress reports, performance assessments, and transparent communication channels. The implementation of these measures enabled firms in the creative sector of Indonesia to effectively navigate the volatile market, resulting in ongoing and sustainable incremental innovation. Policymakers and industry leaders should recognise the importance of implementing effective control mechanisms to promote and maintain innovation in the creative sector.

Behavioural control has been shown to facilitate radical innovation by enabling employees and partners to freely explore new ideas and take calculated risks in the context of collaborative efforts. This control mechanism establishes guidelines and boundaries to align with the organisation's objectives. The study's findings suggest that it is possible to strike a balance between promoting innovative thinking and maintaining accountability. Strategies such as regular check-ins and performance evaluations can accomplish this. These approaches facilitate the framework and

support required for radical innovation to flourish in an organisation. Additionally, the findings suggest that cultivating a culture characterised by open communication and collaboration is crucial for establishing a conducive environment that fosters the development of innovative ideas. Promoting cross-functional teams and fostering employee engagement in idea sharing can greatly benefit the organisation.

The study demonstrated that Food startup Indonesia (FSI), a collaborative platform, facilitates SMEs in gaining new knowledge and improving their marketing capabilities. The strategies employed in this sector play a crucial role in enabling SMEs to maintain their competitiveness in a dynamic market environment. Moreover, these measures provide a collaborative environment for both parties to engage in joint efforts towards innovation and the creation of novel products.

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