

Green Entrepreneurial Orientation and Performance of New Ventures

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ABSTRACT

Currently, China's economy is undergoing rapid development, and new ventures are also experiencing swift growth. Consequently, the contradiction between development and the environment is intensifying. Therefore, the growth of the green economy is emerging as one of the crucial factors for the development of new ventures. Particularly in East China, under the guidance of green entrepreneurship, new ventures can enhance their operational efficiency by analyzing the driving factors of green entrepreneurship orientation, investigating the influencing factors of new ventures within the existing green entrepreneurship orientation, and analyzing the development of green entrepreneurship orientation in existing new ventures. Moreover, this study aims to analyze the mediating role of green and entrepreneurial orientation between its driving factors and corporate goals. This study will adopt the deductive research method to explore and evaluate the relationship among the driving factors of green entrepreneurship, green entrepreneurial orientation, and enterprise performance. The research will be grounded in the absorptive capacity theory, the Triple - Bottom - Line (TBL) theory, the stakeholder theory, and the natural resource - based theory. By leveraging the absorptive capacity to construct a theoretical framework, this paper explores the driving factors of green entrepreneurial orientation and the relationship between green entrepreneurial orientation and enterprise performance. Employing the paradigm of green economics, through the research framework of three analogous dimensions of society, environment, and economy, this paper focuses on enterprise performance and examines the relationship between the green entrepreneurial orientation of new ventures, its driving factors, and enterprise performance. This approach integrates the core concept of the enterprise green strategy and the green absorptive capacity theory of enterprises.

KEYWORDS

New ventures; Enterprise performance; Green entrepreneurial orientation; Driving factors; Managers' environmental cognition

1. INTRODUCTION

As global issues related to energy, the environment, and climate change become increasingly prominent, the pursuit of green economic growth is emerging as a strategic opportunity for enterprises to meet environmental market demands. With the government's growing emphasis on environmental issues and its focus on enhancing the quality of life, eco-friendly products are gaining increasing favor among consumers. Consequently, green entrepreneurship has become a focal point of research.

As one of the emerging themes in green entrepreneurship, it has garnered extensive attention from both academia and entrepreneurs due to its ability to balance environmental and economic interests. Green entrepreneurship orientation embodies a green strategy and serves as a prerequisite for green entrepreneurship. Its objective is to achieve economic and environmental benefits by adopting environmentally friendly technologies, products, and services, as well as implementing environmental strategies throughout production and management processes. Forward-looking start-ups embrace green entrepreneurship as a strategy to improve the environment, enhance corporate image and reputation, thereby strengthening market competitiveness and improving company performance.

"Sustainable development" has also been advocated by governments, social organizations, and enterprises, setting it as a strategic goal for future economic and social development (Muo & Azeez, 2019). Sustainable development is described as a contemporary development approach aimed at achieving a balance among environmental, social, and economic performance objectives. Green entrepreneurship emphasizes adherence to the triple bottom line principle, aiming to create triple values of economic benefits, social welfare, and environmental improvement, which represents a vital pathway to achieving sustainable development (Hall et al., 2010)[2]. Therefore, an increasing number of relevant government departments, entrepreneurs, and scholars have begun to focus on and explore green entrepreneurship centered on sustainable development.

Since the implementation of the 13th Five-Year Plan, China has encouraged and promoted "mass entrepreneurship and innovation," while prioritizing green development and the construction of a resource-conserving and environment-friendly society. Since the 19th National Congress of the Communist Party of China, the strategic orientation has been to promote high-quality economic development. The Sixth Plenary Session of the 19th Central Committee of the Communist Party of China reiterated the commitment to ecological priority and green development, along with the improvement of incentive and evaluation mechanisms for scientific and technological innovation. Against this backdrop, "green entrepreneurship," which considers multiple objectives such as the economy, society, and the environment, aligns well with the synergy between green and innovative development and is poised to become a new driving force for China's sustainable economic development. Faced with the current wave of green entrepreneurship, how new ventures approach ecological innovation has become a critical issue affecting the healthy and sustainable development of green entrepreneurship. A new venture refers to an enterprise established by entrepreneurs who identify entrepreneurial opportunities and integrate resources, aiming for profit and growth through the provision of products and services, possessing legal personality, and being in the early stages of growth (Yu, 2009). Currently, academia primarily defines the scope of new ventures based on establishment time and the enterprise life cycle. From the perspective of establishment time, research by the Global Entrepreneurship Monitor (GEM) considers new ventures as those established within no more than 42 months. Baum et al. (2011) explored the growth process of new ventures using a sample of enterprises established within four years. Yu (2009) suggested that the establishment period of new ventures should not exceed 10 years. Although academic standards for the time limit of new ventures vary, scholars both domestically and abroad generally agree that new ventures are those established within no more than eight years (Senyard et al., 2014; Li et al., 2021). From the perspective of the enterprise life cycle, scholars have segmented the development process of enterprises and defined new ventures based on these segments.

This paper adopts the method of defining new ventures based on their establishment time, considering enterprises established within eight years as new ventures. In the context of green entrepreneurship decision-making, new ventures exhibit the following characteristics: First, new ventures are small in scale, highly organizationally flexible, and courageous in pursuing breakthroughs (Knight & Cavusgil, 2004), which to some extent facilitates the stimulation of ecological innovation potential. They also possess strong environmental adaptability and can undertake the high risks associated with certain green entrepreneurship activities (Wang, 2020). Second, the selection and implementation of

strategies and behaviors by new ventures are closely tied to their environment. The government, as the authority managing scarce resources, exerts a significant impact on the green entrepreneurial activities of new ventures through industrial support policies, industry regulations, and supervisory policies (Cui et al., 2016). Furthermore, the entrepreneurial behavior of new ventures is influenced by key market stakeholders, necessitating active relationship-building and integration into stakeholder networks (Yu & Mei, 2016). Additionally, the property rights system and market mechanisms in China's emerging industries are continually improving (Chen et al., 2019), with opportunistic behaviors frequently occurring in market activities, negatively impacting the green entrepreneurial activities of new ventures. Third, in the early stages of new venture development, entrepreneurs' environmental values significantly influence organizational decision-making and behavior, with founders' characteristics becoming ingrained in the new ventures (Wang & Li, 2017). Fourth, due to inherent characteristics such as being "new," "small," and "weak" (Li et al., 2013), new ventures often face initial resource constraints and high uncertainty in market competition. Therefore, they urgently need to construct and assemble a critical foundational resource—legitimacy—to overcome inherent disadvantages and survival threats, thereby achieving sustainable green entrepreneurship development goals.

According to Covin and Slevin (1991), new venture performance is a type of entrepreneurial performance referring to specific achievements related to new ventures at the organizational level. Thus, new venture performance pertains to a company's operating performance within a specific timeframe. The performance of start-up companies merely reflects the outcomes of their innovative behaviors (Huang, 2015) and cannot solely measure a company's success or failure based on performance. This is because, for companies in their infancy, current performance indicators may not directly reflect future development trends, while new companies possess significant growth potential. Given their emphasis on innovation activities and attempts to transform them into competitive advantages, new ventures create value through innovation (Gumusluoglu & Ilsev, 2009)[26]. Moliterno and Wiersema (2007) noted that new venture performance largely refers to their operational and entrepreneurial performance. Domestic scholars argue that new venture performance is achieved when entrepreneurs attain desired business objectives and various developmental outcomes through a series of entrepreneurial behaviors (Ma, 2008). Moreover, some scholars have integrated results and behaviors, defining new venture performance from a holistic perspective as an overall concept reflecting the realization of new venture goals and enterprise survival and development (Laskovaia et al., 2017; Lin et al., 2017). Enterprises aim to achieve both economic and environmental benefits (Yao & Zhu, 2016). As this study focuses on green entrepreneurship, the environmental impact of enterprises is crucial, with environmental performance being an important criterion in green entrepreneurship action research. Therefore, this study integrates behavioral, outcome, and environmental aspects, considering new venture performance as a holistic concept. This means new ventures consider both economic and environmental impacts during their development process, ultimately achieving economic and environmental benefits during enterprise growth.

Based on the aforementioned analysis and definitions of ecological innovation, the connotation of new ventures, and the connotation of green entrepreneurship, green entrepreneurship represents a strategic decision, whereas ecological innovation constitutes specific entrepreneurial practices and actions. Ecological innovation from the perspective of green entrepreneurship embodies entrepreneurial behavior under the premise of green entrepreneurial decision-making and strategic guidance. Therefore, this paper posits that ecological innovation in new ventures from the perspective of green entrepreneurship involves the development or adoption of eco-friendly new products, services, technologies, processes, and management methods by new ventures under the premise of green entrepreneurial decision-making. From the perspective of green entrepreneurship, ecological innovation in new ventures not only retains the aforementioned characteristics but also exhibits the following features:

(1) From the perspective of green entrepreneurship, the push/pull effect of external environmental policies on the ecological innovation of new ventures is significant. The externality of green entrepreneurship underscores the necessity of government support. Governments worldwide have successively introduced policies to support the development of green entrepreneurship. Both practice and academia have demonstrated that government support exerts a strong influence on green entrepreneurship, capable of promoting or restricting national green entrepreneurial activities (Cui et al., 2016). In other words, from the perspective of green entrepreneurship, the ecological innovation of new ventures is largely driven by government policies.

(2) Based on the innovation "push-pull model" and considering the context of green entrepreneurship, the role of government support in promoting the ecological innovation of new ventures is more pronounced during the R&D stage. As pioneers or new entrants in emerging industries, new ventures' green entrepreneurial activities face threats from resource constraints and market uncertainties. Moreover, the strategic positioning of green entrepreneurship imposes higher requirements on the ecological innovation of new ventures (Li, 2013). The entrepreneurial team cautiously decides whether to engage in green entrepreneurship based on their awareness of costs and future benefits. In the context of green entrepreneurship, new ventures' aspirations for enhanced market competitiveness and sustainable development are reflected in their expected benefits from ecological innovation, which include not only economic gains but also the pursuit of sustainable development. Besides economic benefits, ecological innovation brings intangible benefits such as enhanced legitimacy, environmental performance, and social performance, which are crucial for the healthy and sustainable development of new ventures (Li, 2020). When green entrepreneurs are confident about expected returns, they proactively engage in ecological innovation. From the perspective of green entrepreneurship, the ecological innovation of new ventures represents a behavior driven by entrepreneurs' genuine motivations.

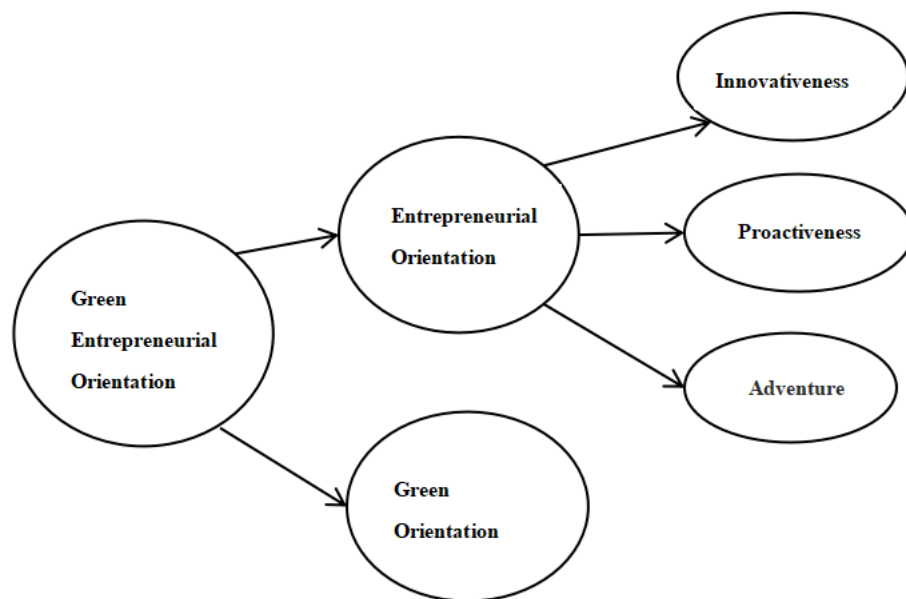


Figure 1. Dimension Division of Combined Green Entrepreneurship Orientation

Source: Criado-Gomis A, Iniesta-Bonillo M A, Cervera-Taulet. Sustainable entrepreneurial orientation within an intrapreneurial context: effects on business performance [J]. International entrepreneurship and management journal, 2018, 14(2): 295-308.

Enterprise performance refers to the assessment of an enterprise's operational efficiency and performance level by measuring its achievements in attaining its goals. It can be evaluated from multiple aspects, including economic, financial, customer - related, process - based, learning and development, and employee - related aspects, so as to identify the enterprise's development trend and future development direction (Koen, 2009). Sustainable entrepreneurial performance denotes the

outcomes achieved by an enterprise in the pursuit of sustainable development and refers to the enterprise's ability to achieve sustainable growth and sustainable benefits (Lasco, 2012). The performance of sustainable start - up enterprises takes into account the social, environmental, and economic benefits brought about by the enterprise's business activities, rather than merely financial benefits. Evidently, entrepreneurship not only requires perseverance but also the achievement of sustained performance. Therefore, the concept of enterprise performance mentioned in this paper encompasses economic, social, and environmental benefits and is equivalent to the concept of sustainable entrepreneurial enterprise performance. Enterprises are organizations that focus on performance enhancement (dematos Pedro et al., 2020). Generally, the performance of new ventures is evaluated through three dimensions: finance, growth, and economy (wedlin, 2006).



Figure 2. Three Dimensions of Sustainable Development

Source: Adapted from IUCN (2004)

In contrast, Cato (2008) employs the green economics paradigm to depict sustainable development via a three - circle model featuring three analogous dimensions of society, environment, and economy, as illustrated in Figure 2.2. The economic dimension of sustainable development constitutes the innermost layer of the model, exerting a core influence on sustainable development. Cato (2008) further posited that the economy and society are subsets of the environment. Consequently, the driving force of the economy is centered around social relations, and the entire society is interconnected with the surrounding natural environment. This model facilitates an understanding of the significance of the green economy from different perspectives of sustainability. The core objective of this research is to investigate the impact of green entrepreneurial orientation and its driving factors on the performance of new ventures.

2. LITERATURE REVIEW

Currently, with the introduction of the dual - carbon strategy and the intelligent manufacturing strategy, enterprises are confronted with significant pressure, challenges, and potential opportunities in the entrepreneurial economy under environmental constraints. The green entrepreneurship orientation has garnered extensive attention from domestic and foreign scholars. The green entrepreneurship orientation integrates the theories of entrepreneurship orientation and green entrepreneurship and continues to evolve and develop. Therefore, a systematic interpretation of the concept of green entrepreneurship orientation should be based on the definitions of entrepreneurship orientation and green entrepreneurship.

2.1. Entrepreneurship Orientation

Entrepreneurship orientation originated from the research and contemplation of scholars in the field of corporate strategy and decision - making in the 1980s. The research primarily centered on the entrepreneurial spirit and entrepreneurs, depicting the inclination of entrepreneurial entities to acquire competitive advantages for enterprises (Miller, 1983), and emphasizing the portrayal of the entrepreneurial spirit. Covin and Slevin (1991) further elevated the corporate spirit to the

organizational level, highlighting entrepreneurial - oriented behaviors such as entrepreneurship, decisive action, and forward - thinking decision - making. In the 1990s, the connotation of the entrepreneurial spirit became more diverse. There are numerous research findings at the individual and organizational levels. At different levels, the concepts of entrepreneurship, corporate entrepreneurship, entrepreneurial attitude, and entrepreneurial strategic decision - making have been put forward successively. Lumpkin and Dess (1996) explicitly proposed the concept of entrepreneurial orientation in the context of the unity of entrepreneurial spirit. It is also indicated that entrepreneurial orientation encompasses four dimensions: innovation, proactiveness, risk - taking, autonomy, and competitiveness. Innovation pertains to the inclination to attempt the application of novel ideas to stimulate the emergence of new products, services, and technologies; proactiveness refers to the tendency to closely monitor user needs and actively seek opportunities to gain a competitive edge; risk - taking denotes the propensity to actively enter new and unknown domains and invest substantial resources in new business activities within highly uncertain environments; autonomy represents the subjective initiative of organizational members, teams, or individuals to generate new ideas and implement them; competitiveness refers to the tendency of an organization to outperform its competitors in the process of competing with other organizations (Lumpkin and Dess, 2001). In comparison with other forms of entrepreneurial spirit, entrepreneurial management places greater emphasis on management and cultivation (Aloulou and Fayolle, 2005).

2.2. Green Entrepreneurship

Prior to the 1960s, only a limited number of scholars focused on the relationship between enterprises and the environment beyond economic interests. Nevertheless, with the In light of the emergence of ecological and environmental problems and their severe consequences, environmental issues have garnered the attention of governments, society, and enterprise managers. The awareness of investigating the impact of enterprise decisions and activities on the environment is referred to as the greening of management (Hart SL, 1997). In the 1970s, Quinn (1971) posited that "ecological activities" can create new profit markets for businesses. This ideology gained prominence in the 1980s, with a growing body of research on environmental entrepreneurship, ecological entrepreneurship, and sustainable entrepreneurship related to green entrepreneurship. In the 1990s, research on enterprise management shifted towards a more micro - level corporate green strategy, leading to the emergence of the concept of green entrepreneurship. This concept has its roots in entrepreneurial theory and has been extensively studied by scholars in the context of the industrialization process. Although the definition of the green concept has not yet been standardized, it does not impede its unique commercial applications in the economic, social, and environmental domains. Since the late 1990s, research on green entrepreneurship has been continuously enriched and has extended from theoretical research to practical application, with remarkable integration and application effects in the field of entrepreneurship. There is no consensus on the nomenclature and concept of green entrepreneurship, with names such as environmental entrepreneurship, ecological entrepreneurship, green en Entrepreneurship, and sustainable entrepreneurship are terms in use. Nevertheless, these terminologies and concepts still exhibit numerous similarities. Existing scholars generally contend that green entrepreneurship plays a pivotal role in the sustainable development of the economy and society. The value of green entrepreneurship resides not merely in the prompt response based on opportunities but also in the emphasis on the pre - identification and utilization of opportunities, and the focus on the kind of coupling effects of economy, society, and environment that will be generated. Although existing scholars have diverse research objectives, methodologies, and contexts, they all stress that green entrepreneurship must give attention to the harmonious development of the ecological environment while pursuing profits.

2.3. Green Entrepreneurship and Sustainable Entrepreneurship

In the process of promoting sustainable social development, entrepreneurship serves as an important approach to address environmental issues (Sheng Nan and Wang Chongming, 2008), and green entrepreneurship is a key driving force. The primary reason is that green entrepreneurship, as a sub - category of entrepreneurship, closely links entrepreneurship with sustainable development, aiming for the harmonious development of society, economy, and environment (Schaltegger, 2002). The sustainable goal is to develop the contemporary economy while guaranteeing the resource requirements of future generations and meeting the current human needs (Gast et al., 2017). This necessitates finding a balance between ecology, eThe text seems to have a typo at the beginning, it might be "Environment" instead of "nvironment". Here is the academic - style rewrite:

The concepts of ecological entrepreneurship, environmental entrepreneurship, social entrepreneurship, sustainable entrepreneurship, and ecological sustainable entrepreneurship all center around the entrepreneurial process. These concepts are closely related to environmental protection, social well - being, and economic sustainability and development.

Ecological entrepreneurship, environmental entrepreneurship, and sustainable entrepreneurship not only concentrate on the entrepreneurial process but also aim to achieve economic goals through entrepreneurship, along with bringing about environmental improvement and social change. The distinctions among the above - mentioned concepts involve environmental entrepreneurship, ecological entrepreneurship, and green entrepreneurship.

Social entrepreneurship creates social value by tackling social issues and is affected by the internal environment of the enterprise. It exhibits certain social, innovative, and market - oriented features. In comparison with business entrepreneurship, social entrepreneurship emphasizes the means - end relationship from the economic sphere to the social sphere and focuses on social problems that the market economy has failed to resolve (Halдар, 2019).

Sustainable entrepreneurship, conversely, emphasizes social value, economic value, and environmental benefits. It addresses both contemporary and future development issues and has long - term, policy - dependent, and ethical characteristics. Compared with green entrepreneurship, it is more closely aligned with the concept of ecological entrepreneurship. Owing to the limited nature of natural resources, ecosystems are prone to degradation. Human activities often lead to environmental disruption. The impetus for sustainable development stems from the synergy among the economy, society, and the environment. The principles of environmental sustainable management ought to be implemented, with an emphasis on environmental sustainability and ethical concerns during the economic development process. One cannot simply engage in "indiscriminate exploitation" and undermine the survival and development space of future generations (Santillo, 2007). Recognizing the significance and value of green, environmental, ecological, and sustainable elements in the entrepreneurial process, this article centers on the coordinated development of the economy, society, and the environment, takes into account the ecological harmony of human, technological, and environmental factors, and underscores the sustainability of the environment. Therefore, this study regards "green entrepreneurship," "environmental entrepreneurship," "ecological entrepreneurship," "sustainable entrepreneurship," and "ecological sustainable entrepreneurship" as synonymous concepts. And further from both narrow and broad dimensions

2.4. Green Entrepreneurship Orientation is a Prerequisite for Green Entrepreneurship

Ma Li and Ma Meishuang (2018) indicated that based on the theories of entrepreneurial orientation and green entrepreneurship, the greening of entrepreneurial orientation has given rise to the emergence of green entrepreneurial orientation. Nevertheless, the research on green entrepreneurial orientation commenced relatively late. Dixon and Clifford (2007) posited that green entrepreneurship

orientation represents a proclivity towards entrepreneurial endeavors that strike a balance among economic, social, and environmental objectives. Jiang (2017) contended that green entrepreneurship denotes a tendency to pursue opportunities for green activities to augment economic and social benefits. Chen Shengjie (2009) indicated that green entrepreneurship tends to closely integrate organizational goals with social responsibility, foster the development of environmental protection within the strategic decision - making process, and establish a competitive edge for enterprises. Li Huajing (2015) opined that green entrepreneurship pertains to the approaches, styles, and characteristics of enterprises in identifying and leveraging entrepreneurial opportunities associated with environmental issues.

Evidently, although scholars' definitions of the concept of green entrepreneurship orientation are not entirely congruent, the diverse definitions have enriched the concept and connotation of green entrepreneurship orientation and broadened the research perspective. Nevertheless, there exist measurement challenges and uncertain causal relationships stemming from conceptual ambiguity, which impede the development and practical application of green entrepreneurship theory. Moreover, the concept of green entrepreneurship is defined by considering green entrepreneurship orientation, environmental entrepreneurship orientation, ecological entrepreneurship orientation, Moreover, it treats green ecological entrepreneurship orientation as a concept synonymous with others, highlighting the entrepreneurial inclination to pursue the integration of economic, social, and environmental benefits during the entrepreneurial process. It is defined as the green innovation inclination of enterprises to confront economic, social, and environmental objectives, recognize and utilize ecological development opportunities, attain the corporate vision, and facilitate the development of the environmental protection industry.

3. DISCUSSION

Regarding the characteristics and sources of existing entrepreneurship, stakeholders of newly established startups possess superior attributes and more comprehensive frameworks. New startups demonstrate comparable characteristics and behaviors to mature companies during their operational processes. The distinctive entrepreneurial behavior of new startups can be safeguarded by stakeholder theory to guarantee their sustainable development (Liu et al., 2023). Moreover, stakeholder theory is not solely applicable to the corporate domain but can also be employed in multiple other industries. Zhu (2022) posits that the governance of new startups is highly congruent with the perspectives of stakeholders. The integration of stakeholder theory and entrepreneurship theory offers mutual support for the research on new ventures, particularly in terms of the entrepreneurial behavior structure. This is because the green entrepreneurship orientation is founded on different organizational structures, each representing specific interests and demands. Similar to other stakeholder organizations, startups should undergo reform and innovation based on their entrepreneurial requirements, altering the current business model dominated solely by investors. By attracting diverse stakeholders into the startup, a shared governance model where stakeholders participate in decision - making should be established (Wang, 2022).

The stakeholder organization of a new venture is accountable for the development and operation of the enterprise. Li (2022) indicated that disparities in interests and perspectives among stakeholders in new ventures may give rise to conflicts between entrepreneurship and development. This type of conflict will impede the development of new startups and result in resource wastage (Huang, 2021). Therefore, the entrepreneurial managers of new startups should effectively coordinate various interest conflicts and adopt diverse strategies to balance these interests (Liu, 2020).

The development of a new venture, commencing from the initial basic entrepreneurship, through gradual development and accumulation, gradually attains green entrepreneurship. In the process of green entrepreneurship, apart from considering economic and social responsibilities, green environmental protection is also incorporated. During the operational process, enterprises not only

need to balance the relationship among the three but also need to take into account the sustainable development of the new venture. This has led to significant alterations in the green - oriented strategic decision - making process of the new venture, forming a new dynamic of green entrepreneurship. The government's management focus on new startups has shifted downwards, with a greater emphasis on micro - governance while strengthening macroeconomic regulation (Liu, 2020).

4. CONCLUSION

This study carried out an empirical review to investigate the green entrepreneurship orientation in diverse industries such as finance, hotel - tourism, and manufacturing, along with the correlation between its driving factors and corporate performance. Existing research findings primarily concentrate on the relationship between the characteristics of green orientation and corporate performance. The green and entrepreneurial orientation serves as a mediator between its driving factors and performance.

The main theoretical underpinnings for the research on the correlation between green entrepreneurship orientation and corporate performance encompass the TBL theory. Additionally, the structure - behavior - performance (SCP) paradigm in industrial economics is employed to analyze the relationship between green entrepreneurship orientation and corporate performance. Some scholars utilize the theory of high - level echelons as a framework to explore the relationship among entrepreneurial managers' environmental cognition, green entrepreneurship orientation, and corporate performance.

This study applies the paradigm of green economics to examine the relationship between the green entrepreneurial orientation and driving factors of new ventures and their performance. It does so through a research framework that integrates the core theories of enterprise development and the green absorptive capacity theory of managers' environmental cognition, utilizing three analogous dimensions of society, environment, and economy.

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