STRATEGIC ENTREPRENEURSHIP, LEAN-GREEN PRACTICES AND

PERFORMANCE OF MEDIUM HOTELS IN KENYAN CITIES

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DECLARATION

Declaration by the candidate

This thesis is my original work and has not been presented for Conferment of a degree in any other University or for any other award

Signed ——————————— Date ———————————

    Joseph Karimi Ngunga

Declaration by the supervisors

We confirm that the work reported in this thesis report was carried out by the candidate under our supervision and has been submitted with our approval as university supervisors

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DEDICATION

This work is dedicated to my children Tabby, Joy, Jacqueline, and Mercy, as a legacy in the hope of academic inspiration to uphold the spirit of studying and working hard reigns in them.

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ABBREVIATIONS AND ACRONYMS

AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
AU	African Union
AVE	Average Variance Extracted
CEO	Chief Executive Officer
DCT	Dynamic Capabilities Theory
EM	Entrepreneurial mindset
EMP	Entrepreneurship Mindset Profile
GFI	Goodness of Fit Index
IC	Intellectual Capital
ICR	Intellectual Capital Research
IHEI	International Hotels Environment Initiative
ILO	International Labour Office
IPCC	Intergovernmental Panel on Climate Change
EPA	Environmental Protection Agency (EPA
ISO	International Organization for Standardization
KIE	Kenya Industrial Estate
KNBS	Kenya National Beaurial of Statistics
KIPPRA	Kenya Institute of Public Policy Research
KMO	Kaiser-Meyer-Olkin
LGP	Lean-Green Practices

MIED   Ministry of Industrialization and Enterprise Development

NGO   Non-Governmental Organization

NRBV   Natural Resource-Based View

PERF   Performance

RBV   Resource Based View

RevPAR   Revenue Per Available Room

RMSEA   Root Mean Square Error of Approximation

SEM   Structural equation modeling

SPSS   Statistical Package for Social Sciences.

STE   Strategic Entrepreneurship

STI   Science, Technology and Innovation (STI)

SMEs   Small and Medium Enterprises

TRA   Tourism Regulatory Authority

UN   United Nations

UNEP   United Nations Environment Programme

WEF   World Economic Forum

ABSTRACT

Strategic entrepreneurship has been associated with adopting technologies, products, and administrative innovations which culminate in better firm performance. The current rapidly changing and highly competitive market has put companies under great pressure to adopt sustainable practices, in terms of keeping a healthy balance among economic, environmental, and social performances. Studies done in the hotel industry have not addressed the contribution of strategic entrepreneurship on performance and competitiveness. The general objective of this study was to determine the influence of strategic entrepreneurship on performance among medium hotel enterprises in Kenyan cities. Specifically, the study examined the influence of entrepreneurial mindset on performance, established the influence of innovations on performance, analyzed the influence of capital mobilization on performance, examined the effect of networks on performance, and established the moderating influence of lean-green practices on the relationship between strategic entrepreneurship and performance of medium hotel enterprises in Kenyan cities. The study was anchored on Schumpeterian Innovations Theory, Natural Resource Based-View Theory, and Dynamic Capabilities Theory. The study adopted the pragmatic research philosophy and employed a mixed-method research design. The study population was 534 managers of medium sized hotel enterprises in Mombasa, Kisumu, and Nairobi. The sample size was determined using the Yamane (1967) sampling formula, resulting in a sample of 229 respondents. A proportionate stratified sampling technique was applied to get a representative sample of each city. Primary data was collected using a semi-structured questionnaire. A pilot study was carried out in Nanyuki and Embu towns among medium hotel enterprises to test the reliability and accuracy of the research instruments. Construct validity was determined by calculating average variances extracted (AVEs) for each construct, then reliability using Cronbach's Alpha internal consistency index. The Statistical Package for Social Sciences (SPSS) was used as the main software for data analysis. The data was analyzed using descriptive and inferential statistics. Pearson's correlation and regression models were used to analyze quantitative data while qualitative data was analyzed using content analysis. The hypothesis testing used structural equation modeling. The hierarchical multiple moderated regression model was used to measure the strength of the relationship between strategic entrepreneurship , lean-green practices and performance of medium hotels in Kenyan cities. From the joint effect model the results established that strategic entrepreneurship had the most significant influence on performance of medium hotels in Kenyan cities (Regression coefficient .751, p = .000) followed by lean-green practices (Regression coefficient .417, p = .000), and positively and significantly moderate the relationship between strategic entrepreneurship and performance (Regression coefficient .937, p = .017) with R^2 change 1 percent additional variance. The study concluded that lean-green practices positively moderate the relationship between strategic entrepreneurship and performance of medium hotels. Based on the findings, the study recommends enhancement of designing, implementing, and utilizing strategic entrepreneurship with lean-green practices in medium hotels production matrix. The findings are beneficial to the management and stakeholders in the hotel industry and academia.

1.1.   Background of the Study

This chapter consists of six sections; the background to the study, the statement of the problem, the study objectives, the study hypotheses, the significance of the study, and the scope of the study.

1.1.1. Strategic Entrepreneurship

Strategic entrepreneurship is an effective management approach that can help business organizations identify and exploit opportunities for innovation and growth. By combining the principles of entrepreneurship and strategic management, businesses can create value and improve their performance. The adoption of strategic entrepreneurship has been shown to lead to better firm performance by promoting the adoption of new technologies, products, and administrative innovations. In today's rapidly changing and highly competitive market, businesses need to focus on adopting sustainable practices that balance economic, environmental, and social performance. By leveraging the principles of strategic entrepreneurship, business organizations can develop a holistic approach to achieving long-term success that benefits both the business and society as a whole.

For decades, entrepreneurs have tried to leverage internal and external forces to arrive at a convergence of advantage-seeking and opportunity-seeking behaviors driven by a desire for optimal performance (Audretsch, Kuratko & Link, 2016; Chai & Sa, 2016; Chenuos & Maru, 2015; Kiyabo & Isaga, 2019, Simsek, Heavey & Fox, 2017). This has led to the emergence of Strategic Entrepreneurship as a research field that has appealed to a substantial number of

scholars around the world. Strategic Entrepreneurship (STE) as a construct is derived from the logical intersection and integration of both entrepreneurship and strategic management disciplines where both fields try to answer many but related or the same research questions (Gancarczyk, 2018). Therefore, entrepreneurship and strategy are "two sides of the same coin", since both focus on value creation.

Strategic entrepreneurship has a considerable impact on firms' growth, competitive advantage, opportunity advantage, value, and wealth creation (Awing, Khalid & Selamat, 2015). Covin and Miles (1999) expressed strategic entrepreneurship in five forms namely; strategic renewal, sustained regeneration, domain redefinition, organizational rejuvenation, and business model reconstruction. The model of Ireland, Hitt and Sirmon (2003) proposed four dimensions (1) the entrepreneurial mindset, culture and leadership, (2) the strategic management of organizational resources, (3) application of creativity, and (4) development of innovation thereby inviting further inquiry.

These domains were later revised to include entrepreneurial mindset, entrepreneurial leadership and culture, strategic management of resources, and applying creativity to develop strategic entrepreneurship. Strategic entrepreneurship therefore is explored using the four key dimensions namely; an entrepreneurial mindset (encompassing insight, alertness, and flexibility to use appropriate resources), entrepreneurial culture and leadership (involving innovation and creativity), strategic management of resources (including financial, human, and social capital), and applying creativity to develop innovations (both radical and incremental) (Luke, Kearins & Louise, 2010). This study employed the four dimensions

namely entrepreneurial mindset, innovation, capital mobilization, and networks as variables of strategic entrepreneurship as postulated by Naumann (2017).

The Strategic Entrepreneurship concept capitalizes on firms' behavior aimed at transforming internal resources to realize a better future. Therefore Strategic Entrepreneurship is not synonymous with corporate entrepreneurship in that; It lies at the intersection between entrepreneurship and strategy, secondly, It can be applied to firms of all sizes, ages, and characteristics whether small, medium, or large regardless of being incumbent, and finally it corresponds to a broader array of entrepreneurial initiatives that do not necessarily involve new businesses being added to the firm (Gancarczyk, 2018).

Strategic entrepreneurship processes require firms to act entrepreneurial in orchestration of resources where besides protecting and exploiting existing resources, firm explores new and value-creating resources. This concept of resource orchestration as highlighted by (Ndofor, Sirmon & He, 2011) implies that effective strategic entrepreneurship requires organizational leaders to acquire, organize, and deploy resources uniquely for optimal advantage. As a process,Strategic Entrepreneurship tries to satisfy both the short-term goals and the longer-term strategic focus whose overall objective remains, an enhanced performance of the firm (Arokodare, 2018). Hsu and Wang (2012) consented that dynamic capabilities allow a business organization to transform current resources into new sources of value.

Strategic entrepreneurship model integrate strategic management and entrepreneurship and capitalizes on transforming their internal resources to achieve a better future with higher industrial standard (Hitt, Ireland & Hockinsson, 2011). Given the current trend toward a more sustainable and environmentally friendly economy, the overlap between

entrepreneurship and sustainability has become a key research area (Garcia et al., 2019). The Strategic Entrepreneurship perspective assumes that combining and balancing advantage-seeking and opportunity-seeking activities is essential for growth-oriented businesses (Ukenna, Makinde, Akinlabi & Asikhia, 2019), and is associated with superior business performance (Arokodare, 2020). Therefore, businesses like hotels that utilize strategic entrepreneurship can attract, satisfy, and retain customers and are more likely to survive than those that do not do so (Alipour, Safaeimanesh, & Soosan, 2019)

Strategic Entrepreneurship has considerable impact on firms' growth, competitive advantage, opportunity advantage, value and wealth creation (Awang, Khali & Selamat, 2015). Strategic entrepreneurship call for a process that guides decision-making aimed at identifying the best opportunities and exploiting them through strategic actions (Shane & Venkataraman, 2001). Kyrgidou and Hughes (2010) looked at strategic entrepreneurship as a process that facilitates the efforts of the firm to identify opportunities with the highest potential that lead to value creation through the entrepreneurial component and then exploits the opportunities through measured strategic actions.

Entrepreneurial mindset is the first dimension of strategic entrepreneurship involving an automated non-conscious perspective that leads to an individual willing to take action under uncertainty, make errors, learn from those failures, and direct that learning to specific goals to best solve entrepreneurial tasks within the process of venture creation (Lynch, 2019). The implication an entrepreneurial mindset is one of the essential features that entrepreneurs need to exhibit and achieve business growth (Rahman et al., 2017). The mindset provides the ability to develop relevant sustenance for competitiveness in the dynamic and uncertain

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business environment. According to Kalu and Peace (2017), entrepreneurial mindset is the key to a nation's economic development especially when viewed through stimulation of the SMEs.

The mindset coordinates knowledge in a different unique way aimed at resource allocation to obtain profit. It is therefore a behavior aimed at transforming internal resources to realize a better future. Business proprietors need to develop a creative mindset for innovation purposes to take advantage of the market and add value to society at large. Individuals with entrepreneurial mindset are often drawn to opportunities and can accept the realities of change in uncertain conditions. Strategic entrepreneurs must therefore identify and exploit those opportunities not identified by competitors. It is only after taking action to exploit these opportunities that will enable the entrepreneurs to be able to establish a competitive advantage. Strategic action is a requirement when introducing a new product in the market bearing in mind that the essence of entrepreneurship is newness as in new products, new markets, new resources, new customers, new combinations, and so on (Hitt et al., 2011).

Mulindabigwi and Kayitana (2018) in their study provided evidence that mindset as a variable was positive and significant suggesting that having a growth mindset increases the firm's sustainability. Another study of entrepreneurial mindset and entrepreneurial competence as determinants of SMEs performance using regression analysis by Asenge and Agwa (2018) concluded that there exists a positive significant effect of entrepreneurial mindset on SMEs performance. The mindset coordinates knowledge in different unique ways targeting allocation of resources to obtain profit. Therefore business proprietors need to

develop creative mindsets for innovation purposes to take advantage of the market and add value to the society at large (Faltin, 2007).

It is the duty of both entrepreneurs and entrepreneurial managers to create tomorrow's business which calls for firms to be entrepreneurial and innovative today. Innovations constitutes the second dimension of strategic entrepreneurship. Forsman (2010) defined "innovation as the generation and implementation of new or improved processes, products/ services, production methods or single actions aimed at increasing the competitiveness of an enterprise". Innovations begins with idea conceptualization by humans and later translated into inventions. Innovation is often considered the basis of strategic change through which firms can gain and sustain competitive advantage (Lin & Chen, 2007). It is one of the key practices confirming survival and competitiveness of firms in a competitive globalized market (Kiraka, Kobia & Katwalo, 2013). As an essential tool, innovation enables firms to achieve sustained profitability and growth, to access new markets, enhance market share and hence compete effectively (Nafula, 2017). Therefore innovation acts as the foundation of creation, and is quite critical for any firm to compete effectively in the 21st century (Hamel, 2000). Ability to innovate is thefore a single most important factor in enhancing and sustaining competitiveness (Tidd, 2009).

A firm can innovate through either autonomously or through induced strategic behavior (Djordjevic, 2013). Kouakou et al., (2019) opined that entrepreneurs have to develop the potential to convert innovation into a new, efficient and valuable goods and services through the exploitation of their distinct attributes and contribute to the economic development of the

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country. Research show that firms competing in global industries that invest more in innovation also achieve the highest returns (Gancarsky, 2018; Kouakou et al., 2019).

Firms can also gain access to other innovations or innovation capabilities through strategic alliances or to a larger extent through acquisitions. Since entrepreneurship is concerned with the discovery and exploitation of profitable opportunities brought either through existing products or by destroying the existing methods of production and replacing them with new ones, strategic entrepreneurship require entrepreneurial activity to create changes and also help the firms adapt to changes created by other competitors. Innovation has been hailed as a panacea to the success of enterprises in the ever-increasingly liberalized markets (Elberdin, 2017).

The shift toward knowledge-based societies is a widely discussed issue in Strategic Entrepreneurship (Hejazi, Ghanbari & Alipour, 2016). Before the shift toward knowledge-based economy, the main sources of value creation for firms were tangible assets such as property, plant, equipment, and raw materials (Carson et al., 2004). However, today competitive advantage and success are achieved by strategic management of capital, rather than allocation of physical and financial resources. A number of studies had confirmed that the efficiency of Intellectual Capital had a direct impact on firm performance (Nhon et al., 2020). The knowledge-based view of the firm asserts that management of knowledge assets can have a significant effect on firm performance. Although intellectual capital is not a tangible and an objective factor, it is often measured in order to compare the market value and development of a firm (Das & Teng, 2000). Ling and Huang (2012) observed that intellectual capital has emerged as a key factor for future success and long-term profitability

in the age of knowledge-based economy where tangible assets are slowly being replaced by intangible assets, it is emphasized as a strategic asset that can increase the profits, performance, and value creation in the modern economy (Hejaz et al., 2016) and therefore its measurement and reporting represents a major challenge for managers and researchers (Svanadze, 2015).

Organizational knowledge and intellectual capacity do not decrease in value after usage (Hejazi et al., 2016). And intellectual capital of an organization has been reported to be three to four times over the organization's book value (Yang & Lin, 2009). Therefore as business organizations enter into the knowledge era, they need to understand that they should use their three kinds of capital namely physical, financial, and intellectual capital to gain advantages over their competitors (Monzar et al., 2012). In the European Union countries, expert research has shown that the companies that use intellectual capital only partially receive an average of 14% of contingent gain while those that use intellectual capital more actively receive 39%, and the companies that consider intellectual capital to be the basis of their development receive 61% of contingent gain (Dyakona, 2015).

A study by Raza (2020) on SMEs in Khyber Pakhtunkhwa Province revealed that there is a positive relationship between a firm's intellectual capital and firm performance. The study results also revealed that engaging positively with suppliers increases the level of firm's performance. Another study by Lazzolino, Chiappetta and Chiappetta (2018) on Italian firms analyzed the dimension of the intellectual capital and revealed a positive influence of the internal relational capital (IRC) and external relational capital (ERC) on performance. The

research further suggested that an effort need to be devoted not only to improving relations with external stakeholders but also to developing intra-firm relations.

To outperform competitors persistently depends on how well a business can access unique information and resources not known by rivals. Networking constitutes the fourth dimension of analyzing strategic entrepreneurship, and as a strategy, it encompasses blending resources that physically interact with routines and joint projects (Baraldi, 2008). This requires associations at personal levels with linkages that are likely to overlap with national networks. Firms therefore have to toil on how to uniquely use this integration both locally and internationally to realize high performance. These linkages are operationalized as networking in this study falling under, network size, network intensity, and network diversity. The networks conform with Kenya's key policies and programs for a green economy which include investments in renewable energy, promotion of resource-efficient and clean production, pollution control and waste management, environmental planning and governance, and restoration of forest ecosystems, UNEP (2014).

Fernando, Jabbour and Wu (2019), study confirmed that transforming into a network type of organization where coordination, relationship building, partners' knowledge, and internal communication are important constituents of increasing business performance in the long run and help in achieving competitiveness. Firms therefore have to toil on how to uniquely use these integration's both locally and internationally to realize high performance. Tajeddini, Martin and Ali (2020) utilizing the data gathered from Japanese hospitality firms, clearly revealed that in uncertain, dynamic environments, a higher level of risk and entrepreneurial

orientation benefited business performance especially when aided by strong business and social networks.

Chuang, Hang and Huang (2015) study findings indicated that, when doing business in emerging economies, only a proper fit between organizational learning and networking can yield a higher degree, or extent of strategic performance. Strategic entrepreneurship therefore guide decision-making and managerial efforts to identify the best opportunities and exploit them through strategic actions. Medium hotels must therefore acquire resources and develop capabilities that will allow them to take the necessary action to adapt to the ever-changing environment. The most critical aspect rests on the ability of a firm to uniquely differentiate its goods or services from those of competitors in such a way that new value is created for customers rather than that of competitors.

To enjoy sustained competitive advantages, it calls concerned entrepreneurs to discover and exploit profitable opportunities brought either through existing products or by destroying the existing methods of production and replacing them with new ones. It is therefore the duty of both entrepreneurs and entrepreneurial managers to design and capture more of existing markets from less aggressive competitors while creating new ones (Djordjevic, 2013). Entrepreneurial firms must be risk-takers, proactive actors, and committed to innovations by creating opportunities.

1.1.2. Lean-green Practices Strategy.

Lean-green practices refers to the use of environmentally-friendly and resource-efficient methods in business operations. This includes practices such as reducing waste, conserving energy, and minimizing the use of non-renewable resources. In the context of this research, it

refers to how medium-sized hotels in Kenyan cities can use these practices to improve their performance. The tendency towards sustainability and green practices has gained recognition as a business strategy in the global tourism market (Yeh, Ma & Huan, 2016). From a theoretical perspective, many authors have highlighted the opportunities of implementing lean thinking in services in general, and the hotel industry in particular, and the potential benefits that it can bring (Verdecia, Diaz & Vega, 2022). Lean-green interface has proved to be a powerful tool for sustainable performance. This interface contributes to increasing lean efficiencies and reducing waste (Waqas et al., 2022). However, as pointed out by Vlachos and Bogdanovic (2013), there is still scarce evidence of lean application particularly in the hotel industry.

Lean methodology has its origin in the production system used at Toyota (Womack, 2014), focusing on waste reduction and value-added maximization, thus leading to a tremendous impact on the effectiveness of both production and service systems (Shurrab & Hussain, 2018). The lean strategy is flexible in cost reduction through process improvement culminating in the reduction or elimination of all wastes Carvalho, Duarte and Machado (2011) since the strategy is driven by the idea of doing more with less (Maia, Alves & Leão, 2017). Lean production is recognized for its persistent goal of banishing waste from the industrial shop floors and service providers (Abreu et al., 2017). However, it is an open question whether their impact on performance is significantly positive or negative (Abualfaraa et al., 2019). It is important to highlight that independently, both lean and green practices are not sufficient to address all environmental problems; in parallel alignment, these two approaches can more effectively achieve sustainable development objectives (Afum et al., 2021)

Given the current trend toward a more sustainable and environmentally friendly economy, the overlap between entrepreneurship and sustainability has become a key research area (Garcia et al., 2019). Lean companies have also been aligned with sustainable and green practices, with some studies claiming that lean organizations have stronger long-term financial performance and higher customer retention rates (Hassan & Pasha, 2022). Lean in hotel management has also generated a great deal of interest due the need of improved potential. For Firms to match such an environment, the internal capabilities of the organization must be supper, adaptive, and varied (Boohene, Gyimah & Osei, 2019).

According to Thekkoote (2022), lean manufacturing can be considered green manufacturing and green practices have been recognized as an important component of corporate sustainability strategy. Being green has been portrayed by Ahuja, Shawhney and Arif (2017) as practicing the 4Rs; reduce, reuse, recycle and recover. Amegbe, Owino and Nuwasiima, (2017), argued that going green can be a holistic business strategy that adds value to the firms and their stakeholders though the achievement of such a magnitude is somehow hinged on the firm's alliances with other entities that stimulate formulation and distribution of its goods or services (Muteshi & Kariuki, 2020).

Adopting green production methods automatically incorporates lean practices because of the need to obtain products and services that are environmentally friendly (Basuki, 2019). Lean-green interface was discussed as a possible mediating factor meant to improve the performance of companies of the future (Cherrafi et al., 2018). Lean-green practices as a commitment by firms call for the adoption of various ecologically sound practices such as saving water, saving energy, and reducing solid waste.

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Coddington (1990) claimed that firms with green products can strengthen their eco-friendly image to attract more customer attention and hence realize better performance. This call for the medium hotel industry today to align itself with lean-green practices because dynamic competition among firms encourages them to discover new ways of doing business and new ways of creating value for their customers (Koopman, Mitchel & Thierer, 2014). Following this line of thinking, hotels that attract, satisfy, and retain customers are more likely to survive than hotels that do not do so (Alipour, Safaeimanesh & Soosan, 2019). Embracing innovation, investing in employee development, and providing exceptional service is key to success (Bejarano, 2022). As the hotel industry continues to transform, those who stay ahead of the curve and overcome these challenges will emerge as leaders in providing memorable guest experiences.

To keep up with the growing demand and maintain reasonable profit margins, the hotel industry and service sector have been under pressure to utilize lean techniques to reduce costs and improve effectiveness (Suárez-Barraza, Smith, & Dahlgaard-Park, 2012). Travelers had shown preference to hotels whose sustainable practices are visible and genuine (Verma, Chandra, Kumar & 2019). This has led multiple organizations of tourism implementing various environmental policies to upgrade and harmonize their equipment and facilities aiming at capturing certain target markets that are demanding green practices and products (Saunders et al., 2019).

While many studies report the intentions to adopt and implement pro-environmental practice as a strategy, few studies identify how and why the hotel and hospitality industry is doing so (Grande, Madsen & Borch, 2011). Although the existing literature shows that Green

practices can help companies to become Leaner Verrier, Rose and Cailaud (2016), no study has explored the interaction of lean and green. This implies that combining lean and green practices may have an amplified impact not unearthed. A study carried out by Bergmiller and McCright (2009), identified a correlation between Green operations and Lean results. Dües, Tan and Lim, (2013) explored the bonds between Lean and Green practices and concluded that Lean is a catalyst for the implementation of Green in manufacturing companies and that Green may help in return to maintain best practices in Lean.

This argument therefore leads to a conclusion that there is an interface between the Lean and Green paradigms where Lean has to be driving forward and enhancing Green practices while at the same time, Green practices support the Lean. Camara (2018) argued that lean-green practices in service provision or manufacturing are complementary in that waste elimination will enhance a firm's ability to successfully implement green. This interactive interface between lean and green practices has remained a lacuna. No pragmatic integration could be found where lean and green value streams are integrated to map, measure, and improve operational and environmental performances (Choundhary, 2017). Only a handful of environmental experts and research have so far investigated the relationship between aspects of lean and green practices in the service industry such as hotel operations.

A comprehensive literature review by Agyabeng-Mensah et al., (2020) found that there is limited evidence about the relationship between lean management principles and environmental or social performance outcomes. Consequently, most of the research has been done in the manufacturing industry using the green supply chain and has only been done in developed economies. Less developed nations such as those in the African continent have not

been given significant research attention (Namagembe, 2019). In areas of economic growth lean-green integration as a strategic weapon lacks documented research and the present body of literature lacks empirical evidence on linkages between the firm's performance and lean-green practices (Thanki & Thakkar, 2019). The unavailability of a simple tool for integrating traditional value stream mapping with value stream mapping of the carbon footprint from the material, energy, transport, and recyclable wastes provide a strong rationale for developing a tool for evaluating the lean and green performance of SMEs simultaneously (Sartal et al., 2020).

More loan leads to more green and vice versa. Studies conducted by the International Hotels Environment Initiative (IHEI) revealed that 90% of hotel guests prefer to stay in a hotel that cares for the environment (Kularatne et al., 2019). In " Booking.com's sustainability report (2021)," it was found that 83% of global travelers value sustainability as something vital. While Alipour et al., (2019) study found that about 62.0% of travelers are concerned about environmental issues when deciding to stay at a hotel, whereas 87.0% of guests are aware of the importance of eco-friendly hotels, about 80.0% of guests consider themselves as Eco-conscious customers with about 30.0% of them showing willing to pay more for environmentally responsible hotels. In North America, 67% of hotels are branded, while 33% are not. Branding increases collective bargaining such that, hotels collectively become organized, and can easily reach out to the government for help, something that independent hotels will find very hard to achieve.

A study by Hussain, Al-Aomar and Melhem (2019) analyzed the impact of lean management practices in the United Arab Emirates. Measuring some green practices on a

three-performance model comprising economic, social, and environmental areas, the study revealed that the greatest impact of lean is on economic performance. Rai et al., (2021) studied small home-stay establishments in India and found that implementing lean produces better performance and profitability while those even unknowingly implement lean practices work better. Lee (2018) found the shortage of competent manpower as the main challenge.

A study in Bandung Indonesia revealed the potentiality of ecopreneurs to produce products, service techniques, and organization models that substantially reduce the environmental impact and improve life quality (Susongko & Anggadwita, 2016). A study by Han, Chua and Hyun (2020) in Taiwan on the mechanisms of hotel waste reduction and water conservation techniques for sustainable and green practices concluded that customer awareness of environmental concerns is the key attribute for the implementation of green practices.

Kang et al., (2012) carried an empirical research in the USA. The study was aimed at investigating the willingness of consumers to pay a premium for green services in luxury hotels. The study established that 37% of customers were willing to pay extra for eco-friendly causes. A study carried out on lean-green practices on the sustainable performance of hotel supply chains by Hussain Al-Aomar and Melhem (2019) established that Lean techniques have the highest impact on the economic performance of the hotel supply chain and the least impact on the environmental performance. From a theoretical perspective, many authors have highlighted the opportunities of implementing lean thinking in services in general, and the hotel industry in particular, and the potential benefits that it can bring (Verdecia, Diaz & Vega, 2022; Han et al., 2020).

Since the lean strategy is flexible in cost reduction through process improvement culminating in the reduction or elimination of all wastes (Carvalho, Duarte & Machado, 2011). Empirical research by Oriande et al., (2021) on sustainable and green practices to be considered by Nigerian and Ghanaian and medium-sized hotels focused on how to improve hotel efficiency and organizational behavior. The study revealed that customer and staff environmental awareness is the most crucial green practice needed. Fuentes-Medina et al., (2018) conducted exploratory research on critical performance indicators (CPIs) of and hotel industry. The study analyzed customer needs and established that the attributes of the value chain like staff training, customer perception, room service, and eco-friendly buildings need to be addressed properly. Ramphal and Nicolaides (2018) carried out a study on South African hotels. The study highlighted the major barrier to the application of lean was fragmented hotel departments where employees work in diversified groups without a coordinated lean management team approach.

Kariuki and Odock (2017) conducted a study to establish the relationship between green operations practices and the operation performance of hotels in the Kenyan coastal region. The study sought to determine the extent to which green operations practices have been adopted by hotels in the coastal region and to establish the relationship between green operations management practices and the operational performance of hotels. The study established that hotels had adopted a variety of green practices in the areas of energy consumption, water consumption, waste generation, reduction, and recycling as well as employee training and awareness creation. The study also established that there is a strong positive correlation between green operations practices and operational performance.

Omune et al., (2021) carried a descriptive research in Kenya focusing on the implementation of environmentally friendly practices by considering energy savings, waste management, and water conservation practices. Their study recommended for training and awareness programs for hotel employees in green and environmental practices. The study also recommended subsidization of inventories related to recycling and waste management as a panacea. Thus this study sought to establish how the integration of lean-green practices influences the relationship between strategic entrepreneurship and firm performance among medium hotels in Kenyan cities.

1.1.3 Challenges in Medium Hotels

Medium-sized hotels face a wide range of challenges in the current highly competitive market. These challenges include, but are not limited to, rising operating costs, fluctuating demand, intense competition from other hotels, and alternative lodging options. Additionally, medium-sized hotels often struggle to differentiate themselves from other industry players and to attract and retain customers. Furthermore, these hotels must navigate complex regulations and compliance requirements while keeping up with the latest technology trends. Addressing these challenges requires a strategic approach that includes identifying opportunities for innovation and growth, optimizing operations, and maximizing customer satisfaction. By overcoming these challenges, medium-sized hotels can improve their performance, increase their revenue, and remain competitive in today's dynamic hospitality industry (Landman, 2022).

Since the hotel industry tries to satisfy a wide range of customers' needs like accommodations, food, and beverages Ronra and Chaisawat (2016), the industry is

associated with the consumption of natural resources at a high rate as well as pollution and increased solid waste (Mbasera et al., 2016). Given the current trend of challenges of moving toward a more sustainable and environmentally friendly economy, strategic entrepreneurship is the only option left. Dignon (2023) identified the biggest challenges facing the hotel sector in 2023 is based on environmental considerations, where the businesses must not just be conscious of its environmental impact due to the financial implications of rising energy costs, but also of consumer expectations and behaviour too.

Today hotel consumers crave personalization and seek unique stays tailored to his/her preferences. Hoteliers must go beyond the basics and offer customized amenities and services. Patil (2023) has analyzed everything from personalized welcome gifts and room configurations to curated recommendations based on guests' interests and concluded that embracing technology and leveraging guest data can help hotels meet these expectations while maintaining the human touch that sets them apart.

Small operators don't have the same representation, influence, or contacts to make their voice heard; and in addition, small independent operators can run out of money. Banks retaliate by tightening standards for new credit lines, and at times recall revolving credits that were already issued due to market volatility. In addition, small independent hotels have a hard time negotiating more flexible terms with suppliers and vendors, something that branded hotels can do very easily due to the advantage of economies of large-scale operations. Pandemics had posed another challenge, out of the fear that employees can contract infections, business travel has reduced creating a new challenge like the COVID-19 pandemic. Some global businesses are encouraging virtual meetings and remote work, hence negatively impacting

the hotel business (12 Value Stocks, 2020). This situation therefore presents an opportunity for the hotel industry to re-think and draw their business model.

Navigating the challenges faced by the hotel industry requires resilience, adaptability, and a guest-centrism mindset. By understanding and addressing the changing consumer expectations, intense competition, workforce management, technological advancements, sustainability concerns, revenue management, regulatory compliance, infrastructure maintenance, marketing and branding, and crisis management, hotels can thrive in a rapidly evolving landscape. The outcome is going strategic entrepreneurship way where the former comprises a set of actions designed to achieve competitive advantages while the latter is actions that contribute to the identification and exploitation of gainful prospects.

By understanding and addressing the changing consumer expectations, intense competition, workforce management, technological advancements, sustainability concerns, revenue management, regulatory compliance, infrastructure maintenance, marketing and branding, and crisis management, hotels can thrive in a rapidly evolving landscape. This has created the necessity for adopting ecologically sound strategies due to dynamic competition among firms, calling hotels to discover new ways of doing business and new ways of creating value for their customers (Koopman, Mitchel & Thierer, 2014). While Africa is already an established adventure destination, governments are increasingly looking at the hotel business market by taking steps to enhance their MICE (meetings, incentives, conferences, and exhibitions) infrastructure to attract more business tourists (Hotel Outlook, 2023). Among the models are MICE, Eco-tourism, and sporting events, since they have significant potential for

development, but only if product offerings are better marketed beyond the sea, sun, and sand concept.

1.1.4. Hotel Industry in Kenya

Kenya's hotel industry is a vital component of the country's economy and tourism sector. The industry provides a wide range of accommodation and hospitality services to both domestic and international travelers. The industry is characterized by a high level of competition, with hotels vying for market share by offering quality services and amenities to attract and retain customers. Despite the challenges posed by the COVID-19 pandemic, the hotel industry in Kenya remains resilient and is expected to grow, driven by the country's rich cultural heritage, natural attractions, and favorable business environment.

The Central Bank of Kenya (CBK) conducted a survey in 2020 to assess the extent of recovery in the hotels sector, particularly accommodation and restaurant activities. The accommodation and restaurant services sector, according to the Economic Survey (2020), was a key contributor to performance. The sector recorded double digit growth rates of 10.3 percent in 2019 and 16.6 percent in 2018. In addition, the sector employed over 82,900 people and engaged over 9 million people together with trade services in 2019. However, activity in the sector contracted by 9.3 percent in the first quarter of 2020, Local guests continued to support accommodation and restaurant services in the sector during the COVID-19 period pandemic. Respondents indicated several concerns: that the COVID-19 restrictions were too stringent for the sector, the compliance costs to health protocols remained high, revenues were too low to meet expenses, and that there was need to consider some measures to support a faster recovery of the sector.

As a sub-sector in the tourism, hotel sector is envisioned to deliver 10 percent annual economic growth as projected in the Kenya Vision 2030, KIPPRA (2023). At a dis-aggregated level, the industry contributed over 10 percent to Gross County Products (GCP) for counties such as Kwale, Mombasa, and Nairobi in the year 2017, becoming a key industry in both the National and County governments. However, the hotel sector was heavily affected by the consequences of the COVID-19 pandemic requirements such as the new norm of social distancing, which reduced the hotel's holding capacity. These measures slowed down the operations of the hotels and forced them to work at reduced capacity, or worse still close (Lardieri, 2021).

Even though Kenya has one of the most dynamic economies in Africa, it is facing a number of pressing economic, environmental and social challenges (UNEP, 2014). In Kenya, the continuously changing consumer demands and markets make it more difficult to plan when the market is liable to change. From a policy perspective, less attention has been paid to technology commercialization and the need to subsidize the "public good" component of green entrepreneurship, (Farinelli et al., 2011). The COVID-19 pandemic found a lot of hotels either going out of business or experiencing a massive downturn in customers, the result of failure to adapt to the shift from international to local and national tourism also had its toll. The rising operational costs brought by inflation and energy price rises are also driving operational costs high and even employees are feeling the cost of living crunch, making them to mount pressure on hotels to increase salaries.

The management of hotels in Kenya has to further perfect this pursuit by focusing their attention on achieving to be star-rated hotels (TRA, 2019). For instance, the World Travel

Awards (WTA) voted Nairobi as Africa's leading business travel destination, while Kenya was named Africa's leading destination. In 2022, Kenya was also voted Africa's leading meeting, incentives, conferences, and exhibitions (MICE) destination in the 3rd Annual World MICE Awards and various other awards for hotels and facilities in the World Luxury Hotel Awards 2022 (Kamani, 2022).

1.1.5. Hotel Performance

The class, elegance, ambiance, and quality of services are the major distinguishing factors of the hotels today. Amid the rise in environmental awareness, the concept of green hotels has become popular in foreign countries and each country holds different evaluation standards for green hotels (Wu, 2021). As a strategy for achieving the sustainable performance, nowadays business organizations are focusing on the strategic integration. Under this considering lean–green integration, green and social management integration, green, agile and resilience practices integration are prominent among the current scholars. Therefore, the term organizational performance is defined as "a measure of organizational efforts to determine, implement and adapt organizational strategies successfully" (David, 2011).

The sustainable performance of a business is judged according to its economic, environmental and social performance (Lee & Saen, 2011). Sustainable performance measures inventory level where inventory implies the items that are kept in stock to process or for resale. Keeping a high level of inventory adds to cost of business due to inventory handling, holding, obsolescent Farias et al., (2019), and waste generated through all the processes in a business. Global Reporting Initiative (GRI), Composite Sustainable Development Index and Sustainability Balanced Score Card (SBSC) are several existing

sustainable performance measures (Kaplan & Norton, 1996). Where BSC is an open system which means that all stakeholder interests can be included.

Performance of a hotel can be described as the achievement of a particular activity compared with the pressure standards of completeness, efficiency, accuracy, and cost-effectiveness that simply implies the level at which a task is achieved (Haybe, 2015). The integration of lean-green practices benefits the organization to achieve business goals and environmental sustainability (Siegel et al., 2022). Traditional measures of performance look at the revenues or the profits made at the end of the year, or use key financial ratios (Wadongo, Odhuno, Kambona & Othuon, 2010).

Türüdüoğlu, Suner and Yıldırım (2014) conducted a study seeking determination of goals under four perspectives of balanced scorecards and linkages between the perspectives in form of a survey on luxury summer hotels in Turkey. The purpose of their study was to identify the goals of the balanced score card (BSC) and the strength of the correlation between the financial perspective, customer oriented measures, internal business process and learning and growth perspective. The study found that majority of the hotel decision-makers gave high priority to financial performance measures, followed by the customer perspective, with internal business process and learning and innovation following consecutively. However, when moderate highest priority was added to the highest priority, learning and growth perspective was found to have a strong effect on guests. It further revealed that different managers gave high priority and attention to specific measures.

Wangui (2013) observed that changes in performance among hotel practices should incorporate the changes in the business environment and environmental variables in the

Kenyan hotel industry. According to Nain (2018), the hotel industry is dealing with a vast set of major challenges such as economic influx (fluctuations in the economy), labour shortage and retaining quality personnel, rising technological demand, providing and maintaining absolute cleanliness, providing and maintaining excellent, and exceptional guest service standards, providing meaningful, and memorable personal experiences, sustainability, increasing competition, lack of latest, and sophisticated marketing techniques, difficulties in managing energy and resources, providing impeccable safety, security, and providing nutshell cyber security and data privacy and so on. This revelation came when there is sprouting techno hubs in Kenya and as a result the country is expected to host an increasing number of travelers by the year 2030 based on the government's Vision 2030 strategy.

To be competitive, organizations are aiming to achieve operational and environmental performance through the combined adoption of lean and green practices (Swarar, Hamzah & Shahzad, 2023). The implementation of lean-green practices might be helpful to firms due to minimized operational costs, improved production processes, reduced wastage, and promoting sustainability (Maware, Okwu & Adetunji, 2022). Although most of the scholars focus on the financial perspective of the firm performance when they are drawing relationships between a particular variable with the performance, some researchers were keen to measure the financial and non-financial performance of the firm by developing many variables and measures.

Past studies showed that lean practices are being adopted to enhance operational performance (Farias et al., 2019). (Kuo & Lin, 2020) revealed various operational performances achieved by organizations through the implementation of lean technology such as upstream,

downstream, and value stream, though they showed that organizations were reluctant to adopt lean practices. In consequence, the organizational performance was often measured with the financial preferable indicators such as return on investments, sales, profit per share (Morin, 1995). Then, gradually organizations' focus turned toward the sustainable business performance beyond the financial performance (Lee & Saen, 2011).

Green practice measures have been summarized to reflect; Efforts for reduction of water consumption in the business operations, Water pollution reduction, Usage of less energy to perform the same operations in the business organization, through eliminating waste, Usage of less material resources to perform the same operations in the business organization, and Reduction of quantity of greenhouse gasses released to the atmosphere through the business operations" Farias et al., (2019). Lean practices are summarized as an approach to produce only what the customer wants just when the customer wants it, Lot size reduction, a small lot size causes reduction in inventory level, variability in the system and ensures smooth production" (Wu et al., 2015).

Other measures are "continuous improvement, preventive maintenance performed while the equipment is still working so that it does not break down unexpectedly, and employee involvement to applying their ideas, expertise, and efforts towards problem solving and decision making" Kovilage (2018). As such hotels in developing economies must create effective competitive strategies for survival, since they exist in an environment where stakeholders are demanding more from every organization. While customer cooperation may contribute to positive performance through providing the information necessary for the Eco-design product-innovation process, it may also contribute to the reduction of the impact

caused by the inbound and outbound-logistics activities in the supply chain (Vachon & Klassen, 2008).

A study by Han, Chua and Hyun (2020) in Taiwan on the mechanisms of hotel waste reduction and water conservation techniques for sustainable and green practices concluded that customer awareness of environmental concerns is the key attribute for the implementation of green practices. Kang et al., (2012) carried an empirical research in the USA. The study was aimed at investigating the willingness of consumers to pay a premium for green services in luxury hotels. The study established that 37% of customers were willing to pay extra for eco-friendly causes. Fuentes-Medina et al., (2018) conducted exploratory research on critical performance indicators (CPIs) of the hotel industry. The study analyzed customer needs and established that the attributes of the value chain like staff training, customer perception, room service, and eco-friendly buildings need to be addressed properly.

Ramphal and Nicolaides (2018) carried out a study on South African hotels. The study highlighted the major barrier to the application of lean was fragmented hotel departments where employees work in diversified groups without a coordinated lean. From a theoretical perspective, many authors have highlighted the opportunities of implementing lean thinking in services in general, and the hotel industry in particular, and the potential benefits that it can bring (Verdecia, Díaz & Vega 2022).

Kenya's hotel sector was expected to remain vibrant supported by growth in international tourist arrivals and positive economic growth (Kenya Bureau of Statistics, 2014). The Government of Kenya (2013) National Tourism Strategy 2013-2018 ranked Tourism as the most important industry in Kenya after agriculture. A study by McClanahan, Mwaguni and

Muthiga (2005) had reported that the hotel sector as being responsible for 14% of GDP and 12% of total employment in the country and predicted to growth of 3.7% . Unfortunately, even though Kenya was being rated among the top innovation leaders in Africa, in 2017 it was ranked 80 out of 127 countries in the Global Innovation Index, and in 2019 it moved to position 56 among 190 countries on the World Bank Ease of doing business index (Kenya's SMEs Performance index, 2019). This showed the need to enhance strategic entrepreneurship with lean-green strategies to be able to minimize operational costs and enjoy sustainable competitive advantage. This comes against the backdrop of the hotel industry being identified as the most polluting in its endeavors to satisfy a wide range of customer needs such as accommodations, food, and beverages (Ronra & Chaisawat, 2016). Several gaps have not been addressed by previous researchers in the area of the hotel industry and sustainability.

1.2. Statement of the Problem

The integration of strategic entrepreneurship and lean-green practices has become an increasingly important issue in recent years, as businesses face the challenge of balancing innovation with environmental sustainability. In particular, there is a need to understand how the integration of entrepreneurial dimensions with strategic entrepreneurship dimensions can be improved by lean-green practices to achieve a higher financial, environmental, and social performance (Mazzei, 2018). Since hotel engagement is one of the oldest professions in the world relying heavily on consumption of natural resources, the industry release a lot of waste, leading to pollution.

In Kenya, the continuously changing consumer demands and markets make it more difficult to plan when the market is liable to change. From a policy perspective, less attention has

been paid to technology commercialization and the need to subsidize the "public good" component of green entrepreneurship, (Farinelli et al., 2011). The COVID-19 pandemic found a lot of hotels either going out of business or experiencing a massive downturn in customers, the result of failure to adapt to the shift from international to local and national tourism also had its toll. The rising operational costs brought by inflation and energy price rises are also driving operational costs high. The entrepreneurs in the hotel industry therefore have an option of trying strategic entrepreneurship interface with lean-green concepts.

As the Kenya Tourism Board (KTB) continues to implement initiatives to support the sector. Kenyan entrepreneurs in the medium hotel industry have to embark on strategic entrepreneurship necessitated by the Vision 2030 government's strategy of making the country globally competitive and prosperous with high-quality life by the year 2030 (Gok. 2013). Currently, the country is experiencing sprouting of techno hubs which are expected to make the country host an increasing number of travelers by the year 2030. This is coupled with the expectation of manufacturing to shift to Africa due to high costs in Europe and Asia, and therefore Kenya has to prepare to be at the forefront to capture this opportunity for growth (MIED, 2015). While implementing sustainability strategies in the hotel industry has been associated with positive results Rakicka (2016), a study in Kenya by Omune et al., (2021) revealed some areas operating below the expected minimum level.

The hotel industry incurs huge operating costs due to being open throughout the year every day. While there are several ways in which costs can be addressed, lean-green as a strategy has not been addressed yet it is significant in managing the costs (Abualfaraa et al., 2019). Caldera, Desha and Dawes (2018) lamented that although lean and green thinking have

gained popularity among large-sized enterprises, it is still unclear how to strategically implement these processes in SMEs. Accordingly Alipour et al., (2019) found about 62.0% of travelers are concerned about environmental issues when deciding to stay at a hotel, whereas 87.0% of guests are aware of the importance of eco-friendly hotel, with about 80.0% of guests considering themselves as eco-conscious customers with about 30.0% of them showing a willingness to pay more for environmentally responsible hotels. A study in Kenya by Omune et al., (2021) however revealed that the least implemented practices were using renewable energy sources by 31.42% and composting organic and food waste by 36.18%. While both strategic entrepreneurship and lean-green strategy are important for firms seeking to create and maintain a competitive advantage, there is limited research on how the integration of these approaches can lead to reduced operational costs and impact positively on performance.

1.3. Research Objectives

1.3.1. General Objective

The general objective of this study was to examine the influence of strategic entrepreneurship on the performance of medium hotel in Kenyan cities and assess how lean-green practices moderate this relationship.

1.3.2. Specific Objectives

i). To examine the influence of entrepreneurial mindset on the performance of medium hotels in Kenyan cities.

ii). To investigate the influence of innovations on the performance of medium hotels in Kenyan cities.

iii). To examine the influence of capital mobilization on the performance of medium hotels in Kenyan cities.

iv). To investigate the influence of networks on the performance of medium hotels in Kenyan cities.

vii). To establish the moderating influence of lean-green practices on the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities.

1.3.3. Research Hypothesis

i). **Ho$_1$**: There is no significant relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities.

ii). **Ho$_2$**: There is no significant relationship between innovations and the performance of medium hotels in Kenyan cities.

iii). **Ho$_3$**: There is no significant relationship between capital mobilization and the performance of medium hotels in Kenyan cities.

iv). **Ho$_4$**: There is no significant relationship between networking and the performance of medium hotels in Kenyan cities.

v). **Ho$_5$**: There is no significant moderating effect of lean-green practices on the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities.

1.4. Significance of the Study

This study is timely because medium hotels are an icon in the Kenyan economy contributing towards the absorption of the excess labour force. There is a need to boost the image of the

sector to attract tourists who genuinely reside in eco-labeled restaurants, and assist in resolving the unemployment issue which has become a perennial threat. The study is significant because it will lead to broadening the perspective of handling hotel performance by incorporating the concept of lean-green practices in the production matrix.

The majority of studies carried out by scholars on entrepreneurship and performance in Kenya are concerned with examining entrepreneurial orientation and challenges in the hotel industry. As the population growth rate keeps on soaring and the unemployment of youth is on the rise, there is a need to broaden the lean-green concept which is likely to create a unique market for organically prepared foodstuffs. This will not only lead to the creation of feed-forward employment but also will help to eliminate undesirable wastage.

The study provides information on the areas to single out regarding combining lean-green practices and strategic entrepreneurship based on a natural resource-based view as a strategic concept. The study also provides insight and a model that could enable those enterprises in the hotel industry to be more profitable and achieve sustainable goals simultaneously by incorporating lean-green practices strategically. The study outcomes may be applied to the lean-green framework as a guide towards greening the economy which may be relevant to many enterprises in the hotel industry in Kenya. The findings enhance understanding of the relationship between lean-green practices and the performance of medium hotels and hence guide evidence-based policy formulation. The findings will add to the literature on strategic entrepreneurship and lean-green practices. In particular, it will have implications for scholars, teachers of entrepreneurship, policymakers, and entrepreneurs in the hotel industry.

1.5. The Scope of the Study

This study focused on medium hotels operating in three Kenyan cities. Geographically the cities are dispersed across the country endowed with an international airport each, one at the coast, the other is capital city while the other is an inland port at the western part of the country and all had been in Kenya gazette since 2016. The study employed mixed method triangulation research design. Two aspects of strategic entrepreneurship namely entrepreneurial dimension and strategic management dimension on performance were the areas of interest since they are antecedents of strategic entrepreneurship. The study addressed strategic entrepreneurship indicators namely entrepreneurial mindset, innovations, capital mobilization, and networks as specific objectives while the influence of lean-green practices on the relationship between strategic entrepreneurship and firm performance was explored as the moderator.

1.6. Limitations of the Study

The study encountered a few limitations. One of them was collected opinions tabulated in a Likert scale, to address this limitation, factor analysis was used for dimension reduction of indicators. The medium hotels classification adopted was based on building capacity as provided by EAC (2009). Future research can expand into building design and architectural features. The study was also limited by focusing on medium hotels in Kenyan cities and not other countries, future research can focus on all cities in East African states.

1.7. Definition of Terms

Entrepreneurship: Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and

social risks, and receiving the resulting rewards of monetary and personal satisfaction adopted from (Buzza & Mosca, 2009).

Entrepreneur: The entrepreneur is the innovator who implements change within markets through the carrying out of new combinations adopted from (Schumpeter, 1934).

Firm performance: Firm performance is grouped into two: Financial Performance and Strategic Performance based on satisfying the stakeholders, financial performance covers three variables, namely, profitability, growth, and market value while strategic performance includes employee satisfaction, customer satisfaction, environmental performance, environmental audit performance.

Intellectual capital: Knowledge and other intangibles that produce or create value made up of three components namely human capital: the knowledge embedded in people; structural capital: the knowledge embedded in the organization and its systems; and relational capital: the knowledge embedded in customers and other relationships external to the organization.

Lean-green practices: Lean-green practices involve a commitment by firms to various ecologically sound practices such as saving water, saving energy, and reducing solid waste to aid in cost reduction.

Medium Hotels: Those hotels with at least ten (10) lettable accommodation units falling under one star to two star hotels.

Strategic entrepreneurship: Synergy derived from an interaction of opportunity seeking actions and advantage seeking actions driven by a desire for optimal performance.

Entrepreneurial Mindset: A behavior oriented towards creativity and searching for unique strategies aimed at capturing the best from the uncertainty in order to derive optimal benefits to the production unit.

Innovations: Activities performed differently by a production unit to create value and sustainable competitive advantages which are unique and hard to copy.

Capital mobilization: A management strategy of assigning resources strategically to areas conceived to bring desirable financial gain as well as unique methods of creating sustainable competitive advantage against those of competitors.

Networks: Matrix of relationships leading to both feedbacks and feedforward mechanisms culminating in information and technology sharing eventually placing the player at a higher gain.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter focuses on literature pertinent to the study of strategic entrepreneurship, lean-green practices, and the performance of medium hotels in Kenyan cities. The chapter further focuses on empirical review of literature related to variables, their critiques, and research gap. Finally, it captures' the researcher's conceptual framework and theories anchored to the study variables. summarizing the influence of lean-green practices on the relationships between strategic entrepreneurship and the performance of medium hotels in Kenyan cities. The study concludes by identifying the possible gaps that exist in the literature and justifies the need for the study.

2.2. Strategic Entrepreneurship

Strategic entrepreneurship is a business approach that involves combining entrepreneurial and strategic management principles to create and sustain competitive advantage. It involves identifying and exploiting opportunities for innovation and growth, while also taking into account the broader strategic goals and objectives of the organization. Strategic entrepreneurship is important because it enables firms to create new markets, products, and services, as well as to adapt to changes in the external environment. It requires a deep understanding of the industry and market dynamics, as well as the ability to think creatively and take calculated risks. Companies that successfully engage in strategic entrepreneurship are often able to create unique and valuable resources that are difficult for competitors to replicate, leading to long-term success and profitability.

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The problem of strategic entrepreneurship and lean-green performance has become increasingly important in recent years due to the growing need for businesses to be both innovative and environmentally sustainable. While strategic entrepreneurship can help firms identify and exploit opportunities for growth, it may not always align with environmental goals. On the other hand, lean-green performance focus on reducing waste and minimizing environmental impact, but may not always lead to innovative solutions or competitive advantage. Therefore, the challenge is to find ways to integrate strategic entrepreneurship and lean-green practices in a way that allows firms to create and sustain competitive advantage while also reducing their environmental footprint. This requires a deep understanding of the industry and market dynamics, as well as the ability to think creatively and take calculated risks.

The great challenge of mankind throughout all ages, has been to learn how to cope with risks and uncertainties (Lins, 2014). From the turbulent nature of the business environment experienced today, organizations need to integrate strategic function with entrepreneurial action. The outcome is strategic entrepreneurship where the former comprises a set of actions designed to achieve competitive advantages while the latter is actions that contribute to the identification and exploitation of gainful prospects. Strategic entrepreneurship origin can be traced from strategic management and entrepreneurship and capitalizes on firms' behavioral aspect that transforms internal resources to achieve a better future and higher industrial standard (Hitt et al., 2009). Hence strategic entrepreneurship guides decision-making and efforts to identify the best opportunities, and exploit them through strategic actions.

Due to the nature and characteristics of the hotel industry, it can be challenging to implement lean and green practices. The hospitality industry typically involves high levels of energy consumption, water usage, and waste generation, which can make it difficult to adopt environmentally-friendly and resource-efficient practices. Additionally, hotels often face unique operational challenges, such as fluctuating demand, high employee turnover, and varying guest needs. However, the adoption of lean and green practices has the potential to benefit hotels in many ways, including reducing costs, enhancing guest experiences, and improving their reputation. By identifying areas for improvement and implementing sustainable solutions, hotels can overcome these challenges and move towards a more sustainable and responsible future. Kyrigidou and Hughes (2010) looked at strategic entrepreneurship as a process that facilitates the efforts of the firm to identify opportunities with the highest potential directed to value creation through the entrepreneurial component while exploiting the opportunities through measured strategic actions. It is the duty of both entrepreneurs and entrepreneurial managers to design and capture more of the existing market from less aggressive and innovative competitors while creating new ones (Djordjevic, 2013). This requires firms to develop capabilities and acquire resources that allow them to adapt to the ever-changing environment.

Entrepreneurial opportunities present a condition for creating new goods or services capable of satisfying the needs of a market. These opportunities arise when entrepreneurs identify unmet needs or gaps in the market and develop innovative solutions to address them. By creating new goods or services, entrepreneurs can offer unique value propositions to customers and differentiate themselves from competitors. This can lead to increased demand, improved profitability, and a stronger market position. Furthermore, successful

entrepreneurship can have positive spillover effects on the economy, including job creation, increased productivity, and enhanced social welfare. Entrepreneurial opportunities can be found in a variety of industries and sectors, and can be pursued by individuals or groups with varying levels of experience and resources. Strategic entrepreneurs must therefore identify and exploit such opportunities not identified by competitors. This calls for an entrepreneurial mindset that entails a passionate pursuit of opportunities to exploit hence being able to establish a competitive advantage. Strategic action must be taken when introducing the new product in the market and protecting its position to boast of attaining a competitive advantage. The combination of these actions is what represents strategic entrepreneurship. Bearing in mind that entrepreneurship is all about newness as new products, new markets, new resources, new customers, and new combinations (Hitt et al., 2003).

In their research, Ireland, Hitt and Sirmon (2003) identified six domains that are central to strategic entrepreneurship. These domains include identifying opportunities, resource allocation, leveraging resources and capabilities, building and leveraging networks, creating organizational structure and processes, and managing risk and uncertainty. By effectively managing these domains, businesses can achieve a competitive advantage and create value for stakeholders. Strategic entrepreneurship involves taking a proactive approach to innovation and risk-taking, and integrating entrepreneurial thinking into strategic decision-making. By embracing strategic entrepreneurship, businesses can adapt to changing market conditions, capitalize on new opportunities, and achieve long-term success. This study used the four dimensions namely entrepreneurial mindset, innovation, capital mobilization, and networks as variables of strategic entrepreneurship as they were summarized by Naumann (2017).

2.2.1. Entrepreneurial Mindset and Performance of Medium Hotels

The entrepreneurial mindset highlights the positive impact of entrepreneurial thinking on the financial and operational outcomes of hotels. An entrepreneurial mindset involves a proactive approach to identifying opportunities, taking calculated risks, and pursuing innovation. In the context of medium-sized hotels, adopting an entrepreneurial mindset can lead to the development of unique value propositions, new products and services, and strong networks with customers and stakeholders. As a result, medium-sized hotels can enhance their competitiveness, reputation, and profitability. Furthermore, integrating entrepreneurial practices can create a work environment that fosters greater employee satisfaction and engagement, and results in improved customer experiences. In today's rapidly changing hospitality industry, medium-sized hotels that embrace entrepreneurial thinking are better positioned to achieve long-term success. Doepfer (2013) associated an entrepreneurial mindset with competencies that make entrepreneurs identify opportunities, strategize, and organize.

Establishing an entrepreneurial mindset is paramount to nourishing the firm competitiveness through economic entities and the socioeconomic lifestyle of the populace through value and job formation (Cooper, 2011). The mindset coordinates knowledge in a different unique ways aimed at resource allocation to obtain profit. It is therefore a behavior aimed at transforming internal resources to realize a better future. Business proprietors need to develop a creative mindset for innovation purpose to take advantage of the market and add value to society at large. Individuals with entrepreneurial mindset are often drawn to opportunities and innovation leading to value creation because they can accept the realities of change in

uncertain conditions. The entrepreneurial mindset is one of the essential features that entrepreneurs need to exhibit and achieve growth in business (Rahman et al., 2017).

According to Kalu and Peace (2017), EM is the key to a nation's economic development especially when viewed through stimulation of the SMEs. The large number of sound-minded entrepreneurs willing and able to confront business environmental challenges are compelled to achieve superior performance (Teece, 2019). In this regard, an entrepreneurial mindset is an automated non-conscious perspective that leads to an individual willing to take action under uncertainty, make errors, learn from those failures, and direct that learning to specific goals to best solve entrepreneurial tasks within the process of venture creation (Lynch, 2019).

An exploratory study of entrepreneurial mindset by Neneh (2012) revealed that acquiring an entrepreneurial mindset requires re-learning how to motivate oneself, take risks, and become creative and innovative. Entrepreneurial mindset is not only about passionately seeking new opportunities, but pursuing only the very best opportunities, focusing on execution while engaging everyone in their domain (McGrath & MacMillan, 2000). Enhancing EM and functioning with an entrepreneurial orientation prepares emerging leaders with knowledge, skills, and the ability to cope with ambiguity and face complexity in the organization (Victor, 2018). Mindset includes willingness and eagerness to identify new opportunities as well as exploit them thereby leading to a competitive advantage and subsequently achieving business success.

In this regard, SMEs proprietors need to develop creative mindsets for innovation purposes to take advantage of the market and add value to society at large (Faltin, 2007). Entrepreneurs

with entrepreneurial mindsets have the ability to assume risks and are often drawn to opportunities, innovation, and new value creation. As such entrepreneurial mindset has close links to innovation due to being characterized by persistent pursuit of opportunities, risk-taking, and status quo elimination. The mindset invokes the ability to develop relevant sustenance for competitiveness as a lifestyle given the dynamic and uncertain business environment implying that an entrepreneurial mindset is one of the essential features that an entrepreneur needs to exhibit and achieve business growth (Rahman et al., 2017).

Jemal (2020) investigated common dimensions of entrepreneurial mindset such as passion, risk acceptance, action orientation, and other behavioral attributes using regression analysis. The study concluded that there exists a significant relationship between entrepreneurial mindset and aspiration on small business performance. The study suggested that an entrepreneurial mindset can help owners to be more market-oriented for them to survive. Another study using ordinary least square regression analysis by Mulindabigwi and Kayitana (2018) revealed that an entrepreneurial mindset is positive and significant with annual sales. Hence, growth increases sustainability through creativity and risk assumption. The study concluded that entrepreneurial mindset as a variable was positive and significant suggesting that having an entrepreneurial mindset increases the firm's sustainability.

Arokodare et al., (2020) sought the moderating role of entrepreneurial mindset on the relationship between strategic entrepreneurship and superior firm performance. Based on an extensive literature review, the study showed that an entrepreneurial mindset enhances the relationship between strategic entrepreneurship and superior firm performance. Their study recommended that organizational managers should employ and adopt both strategic

entrepreneurship and entrepreneurial mindset measures in their business functions and direction to achieve superior performance. This study therefore conceptually associated EM with features like alertness, opportunity recognition, risk-taking propensity, entrepreneur belief and value as well as entrepreneur innovation which all enhance entrepreneur superior performance. This study failed to acknowledge that an entrepreneurial mindset is a component of strategic entrepreneurship and not vice versa. Conceptually, Naumann (2017) confirmed through meta-analysis that EM is an important element of the strategic entrepreneurship model leading to a gap that this study will try to address.

Jemal (2020); Asenge and Agwa (2018) adapted regression analysis to investigate common dimensions of entrepreneurial mindset and other behavioral attributes using but Naumann (2017) synthesizing literature review lacking a common method for generalizability. While, Arokodare et al. (2020) sought the moderating role of entrepreneurial mindset on the relationship between strategic entrepreneurship and superior firm performance, the contradicted entrepreneurial mindset as a component of strategic entrepreneurship and not vice versa.

2.2.2. Innovations and Performance of Medium Hotel

Hotels are among the most competitive businesses in the world but productivity in the hotel industry is significantly lower than in all other sectors of the economy due to industry being less likely to innovate than other service activities (Martin-Rio & Ciobanu, 2018 ;Park, & Wang, 2021)). Most entrepreneurial venture starts as small business aiming to make a profit and growth (Jemal, 2020). As a result, entrepreneurial ventures have to develop and deploy strategic flexibilities when the need arises. Kouakou et al., (2019) opined that

entrepreneurs develop the potential to convert innovation into new, efficient, and valuable goods and services through the exploitation of their distinct attributes and contribute to the economic development of the country. Therefore innovation is taken as the foundation of creation and quite critical for any firm to compete effectively in the current dynamic world. Innovations are sought by firms that are entrepreneurial and are often associated with competitive success. Hence innovation is a specific function of entrepreneurship whether it is an existing business or a new venture (Djordjevic, 2013).

Innovations have been hailed for being a panacea to enterprises in the ever-increasingly liberalized markets (Elberdin, 2017). Innovative activities create value and competitive advantages for successful organizations; therefore, understanding the organization's overall innovativeness is the first and foremost to understanding the role of innovation on firm performance (Tuan et al., 2016). Innovation utilizes knowledge to create capacity which is a precondition for business survival (Gachanja, 2020). Innovations present how entrepreneurs either create new wealth-producing resources or endow existing resources with enhanced potential for creating wealth (Djordjevic, 2013). Innovative entrepreneurship therefore is all about dealing with uncertainty experienced in making decisions and implementing actions.

Firms competing in the global industries that invest more in innovations tend to achieve the highest returns (Nafula, 2017). Therefore pressure on all businesses to continually innovate may lead to developing and launching new products and services. Innovation spirit is thus an essential feature of high-performing firms (Nafula, 2017). There are three types of innovative activities namely inventions, innovation, and imitations. Invention results in creating or developing a new product or process, while innovation results in creating a commercial

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product from invention (in other words invention is technical but innovation is commercial). Imitation on the other hand is copying innovation of other firms and it always leads to product standardization since the imitated commodity very often lacks some features hence always offered at a lower price in the market (Djordjevic, 2013).

Innovation in a business model or strategy is both novel and useful Boyles (2022) and does not need to be breakthroughs in technology, but can be as simple as upgrades to a company's customer service or features added to an existing product. As an essential tool for firm strategies, innovation enables firms to achieve sustained profitability and growth, access new markets, enhance their market share, and hence compete effectively. Therefore innovation has become central to firm strategies and government policies in the pursuit of firm competitiveness (Nafula, 2017). The firm plays a central role in the innovation process and is hence considered as the driving force behind innovations. External institutions and their forward and backward linkages also have an influence on the innovation process and activities of firms (Lundvall, 2010).

Based on the object of change (Schumpeter, 1934) and the extent of change innovation can be radical or revolutionary leading to a completely new technological path. These radical innovations are either new to the market, industry, and country or the whole world Nafula (2017) leading to market transformation or complete transformation of the existing innovations. Among the innovation indicators identified are the number of registered patents, new products, and the number of new products and services developed. The Kenyan government has tried to harness Science, Technology, and Innovation (STI) in all aspects of social and economic development to foster wealth creation, national prosperity, and

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competitiveness (GOK, 2007). Many studies have observed that SMEs in the hotel industry have not been patenting their innovation due to the technicalities involved and resource limitations.

Martin, Rios and Ciobanu (2019) using data from 2010 and 2012 CIS, empirically examined different innovation strategies, analyzes their role in organizational performance, and thoroughly researched sectorial variation in innovation strategies between hospitality and other service subsectors. Comparative analysis suggests that hospitality is the least innovative service activity. The findings also show that in hotels sales turnover is positively related only to complex innovation strategies that emphasize both technological and non-technological innovation. The study concludes that the level of innovation varies from sector to sector and that innovation strategies can have different effects on performance depending on the sector.

Krubally, Singh, and Fanneh (2021) study aimed to investigate the impact of green innovation on Gambia hotels performance. The paper reviewed the literature on the adoption of green innovation for sustainability strategies of the tourism industry. Although there is a growing trend in the adoption of green innovation strategies, there is little or no evidence that the Gambia tourism industry has given any attention to the adoption of green innovations. The conclusion drawn was that green innovation has a positive causal effect on environmental sustainability. The paper proposed using the quantitative method of collecting data through a self-administered questionnaire following a proper reliability test of measurement items of the research constructs.

Iranmanesh et al., (2022) study aimed to review and synthesized the contributions of disruptive digital technologies to hotel performance. A sample of 3,914 articles was extracted from the Web of Science and Scopus databases. After screening by two content assessors, a total of 79 articles related to the applications and adverse impacts of digital technologies in the hotel industry were identified and reviewed. The study synthesized the literature on the contributions of various technologies to six hotel performance dimensions: financial, competitiveness, quality of service, resource utilization, flexibility, and innovation. The directions for future studies were suggested based on the identified gaps in existing studies. The study contributes to the literature by synthesizing and giving structure to what we know about the applications of disruptive digital technologies in the hotel sector.

In a holistic approach, regression analysis of innovations by Mukiri, Mukulu and Odhiambo (2019) revealed that innovation had a positive and significant effect on the performance of SMEs where practices such as new products, automating processes, market, unique products, and technology are adopted. Nafula (2017) conducted a study on the effect of innovations and firm competitiveness targeting manufacturing industries in Nairobi county in Kenya. From a sample of 284 owners/managers of the enterprises, descriptive and inferential statistics were used to develop multiple linear models which revealed a positive effect on competitiveness. The study also revealed that firm size had a significant moderating effect on innovation and competitiveness.

A study by Tuan et al., (2016) on the effects of innovation on firm performance in Hanoi – Vietnam used primary data. Nafula (2017) employed descriptive and inferential statistics to develop multiple linear models while Mukiri, Mukulu and Odhiambo (2019) adopted

regression analysis. Krubally et al., (2021) investigated the impact of green innovation on Gambia hotels performance through reviewing literature on the adoption of green innovations. There is no common method adopted to make a generalized view on innovations.

2.2.3. Capital Mobilization and Performance of Medium Hotels

Since the 1980s the world economy has shifted from an industrial to a knowledge-based economy where managers changed from leveraging on tangible assets such as properties, equipment, and raw materials as the major source of value creation (Guthrie et al., 2012). Tangible assets, organizational knowledge, and intellectual capital (IC) are recognized as the driving factors in competitive advantage and value creation (Tishler, 2004). This argument was supported by Hejazi, Ghanbari and Alipour (2016) who observed that intangible assets are not recorded in financial statements but constitute a high portion of the market value of the organization. As organizations enter into the knowledge era, they need to understand that they should use their three kinds of capital namely physical, financial, and intellectual capital to gain advantages over their competitors (Monzari et al., 2012). Intellectual capital (IC) has generated great interest among academicians and practitioners owing to its recognition as an intangible asset that is linked to superior performance and competitive advantage of a firm.

Organizational knowledge and IC have come to be recognized as the driving forces of competitive advantage and value creation because they do not decrease in value after usage (Hejazi et al., 2016). The specificity of intellectual capital is in the fact that its use leads to the creation of new intellectual products, carriers of added value, which are embodied in the new knowledge, skills, innovative consumer and production goods. Ling and Huang (2012) observed that IC has emerged as a key factor for future success and long-term profitability in

the age of knowledge-based economy where tangible assets are slowly being replaced by intangible assets. The main assumption in the IC model is that the value of a firm increases when its human, organizational, and structural capital improve, thus increasing the use and diffusion of knowledge in different activities of the firm (Leitner, 2005).

IC is a multi-dimensional concept that resides at the individual level, network, and organization. The intellectual capital of an organization has been reported to be three to four times over the organization's book value (Yang & Lin, 2009). Measuring intellectual capital allows for collecting and reporting all the information related to intangible assets that are not included in traditional financial statements (Hejazi et al., 2016). However, the concept of IC is still unknown to many because it is difficult to measure in explicit terms (Lytras & Pablos, 2009). Joia (2007) highlighted the multidimensional nature of intellectual capital, meaning that definitions are not always very clear and there are no boundaries of what people mean when they talk about IC. Intellectual capital is one of the most under-researched of the three critical resources besides the physical and financial capital of an organization.

All et., (2021) study on multidimensional view of intellectual capital impact on innovation performance based on these facts, the relationship amongst different antecedent factors such as culture and trust on intellectual capital components was analyzed. The results revealed a significant impact of culture and trust (antecedent factors) on various intellectual capital components. Furthermore, a strong connection between these antecedent factors and intellectual capital components was evidenced, confirming the study hypotheses. Interestingly, intellectual capital components were found to enhance significantly the innovation performance leading to better competitive advantages. In addition, it provided

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evidence on the impacts of inter-relationships amongst human, structural and relational capitals. Consequently, the study provides academicians and practitioners valuable insights into and guidance on how developing intellectual capital enhances competitive performance.

IC is also taken to mean the knowledge and other intangibles that produce or create value in the present as well as other intangibles that will create value in the future (Marti, 2007). IC consists of categories such as advertising (marketing), distributing, training (human resources), start-up, R&D, brands, copyrights, covenants not to compete, franchise, future interest, licenses, operating rights, patents, record masters, secret processes, and trademarks (Choong, 2008). IC therefore can be viewed as a set of knowledge assets acquired and controlled by the business for value creation (Alipour, 2012). It is a strategic asset that can increase the profitability through value creation. Intellectual capital is captured in three areas namely human capital implying the knowledge embedded in workers, structural capital, or the knowledge embedded in the organization and its systems and finally, relational capital implying knowledge embedded in customers and other relationships external to the organization.

Human capital has come to be known as the most important asset and resource for creativity and innovation (Chistaz et al., 2019). It is made up of competencies, attitudes, and intellectual agility, meaning the sum of employees' capacity to create both tangible and intangible assets using their ideas and knowledge (Hajezi et al., 2016). Crook et al., (2011) in their meta-analysis of the relationship between human capital and firm performance, found the two to be more strongly related, particularly when the human capital is firm-specific. This leads to higher productivity and income as well as market value.

The results of having higher human capital are increased organizational performance (Lim et al., 2010), sustaining the organization's competitive advantage Kim et al., (2010), and source of creativity and innovation Ramezan (2011). Slavković and Ognjanović (2018) sought to analyze the interdependence of human capital components and business performance of the hotels in Serbia. The research confirmed the influence of human capital on the non-financial performance of hotel companies. Ullah et al., (2022) study sought the impact of human capital skills on organizational performance in the hospitality industry. Data was collected from 356 managers working in small and middle-level hotels located in the four districts of Saudi Arabia. The results demonstrated that human capital capacity, human capital knowledge, and human capital skills have a significant positive relationship with organizational performance. Results also confirmed a moderation effect of innovative leadership between human capital knowledge and organizational performance. However, the moderation effect of innovative leadership between human capital capacity and human capital skills with organizational performance was not confirmed. The study concluded that human capital should focus on the economic value of what the employees can produce. This study sought to establish the change in performance brought about by incorporating lean-green practices on skills and knowledge of human capital among medium hotels.

The second component of IC is structural capital which relates to routine knowledge like databases, procedures, publications, and organizational culture. An enterprise with strong structural capital will create favorable conditions to utilize human capital and allow human capital to realize its fullest potential, to boost its innovation capital and customer capital (Liu 2010; Tretiakova, Shalneva and Lvov 2021).) As such structural capital of a firm translates to innovations and energy within a company's property and capitalizes on those innovations to

create wealth. Structural capital enables the creation of systems for acquiring knowledge (Crossan, Lane & White, 1999), and consequently, SMEs that accumulate, share, and effectively use intellectual capital and organizational knowledge can be more successful, (Hejazi et al., 2016).

Yousaf (2021) study whose main purpose was to investigate the impacts of intellectual capital (IC) on the firm's performance. Using a sample of 336 Czech firms, including 20 certified firms from the European Foundation for Quality Management (EFQM) Excellence Model from 2015 to 2019, the study employed pooled regression to test the hypotheses. The dummy variable and dummy interaction terms were used to study the relationship between components of IC of certified firms from the EFQM Model with firm performance. Most of the significant results of the IC components of the certified firms and non-certified firms positively impact firm performance. The findings revealed that the quality certificate from the EFQM Excellence Model has a positive effect on the firm's performance

Sainaghi and Baggio (2014) study sought the influence of structural social capital, testing six hypotheses using the Livigno Hotel in Italy using 84 cases. The results found that structural social capital had the strongest positive determinant of hotel performance, compared with weaker and generally not significant relations linking occupancy and control variables involving category, size, and location. Apart from the study revealing the multifaceted nature of structural and social capital, the study also found a correlation between structural social capital and performance during off-peak periods.

Finally, the last component of IC is relational capital also referred to as social capital which is institutional relationships and regulations which shape the quality and quantity of social

interactions in the society (Abadi, Ataei & Movahedi, 2017). This kind of capital includes relations with customers, suppliers, shareholders, rivals, the community, the official institutions, and society. It is the main determinant in the conversion of IC into market value, due to acting as a bridge and catalyst on the operations of IC. Relational capital includes both the current value and potential future value of the organizational relationships with customers.

Relational capital generally involves customer satisfaction, loyalty, negotiating capacity, company image, and interaction with suppliers' distribution channels and licensing agreements. It can be a foundation for capturing the future needs of customer services. Because it enhances the firm's quality of group work and the richness of information exchange among team members (Subramaniam & Youndt, 2005) as cited by Hejazi et al., 2016). Relational capital leads to novel opinions and creativity (Chitsaz et al., 2019). Thus relational capital is an investment with expected substantial returns.

A study by Raza (2020) on SMEs in Khyber Pakhtunkhwa Province revealed a positive relationship between a firm's Customer relational capital and Firm Performance. The results from the study established that engaging in a positive relationship with the suppliers increases the level of firm performance. Another by study by Lazzolino, Chiappetta and Chiappetta (2018) on Italian firms analyzing the dimension of the internal relational capital revealed a positive influence of the internal relational capital (IRC) and external relational capital (ERC) on performance. The research further suggested that an effort has to be devoted not only to improving relations with external stakeholders but also to developing intra firm relations.

Nho, Thong and Trung (2020) study of the effects of intellectual capital on information communication technology firm performance in Vietnam revealed the interrelationships between the dimensions of IC and its moderating role on the performance. The study involved a survey of 350 information communication technology (ICT) firm directors and managers, whose score was used to analyze the impacts of intellectual capital dimensions on performance, the indirect effects of organizational capital on performance via human and social capital, and the moderating role of environmental uncertainty. The findings indicated that all dimensions of intellectual capital have a direct impact on firm performance. In addition, the study found that human and social capital mediated significantly the relationship between performance and organizational capital, and environmental uncertainty moderated significantly the relationship between intellectual capital dimensions and performance.

Crook et al., (2011) used meta-analysis of human capital and firm performance; Sainaghi and Baggio (2014) tested hypothesis using a case study; Yousaf (2021) used a pooled regression to test the hypothesis. While Ullah et al., (2022) study on the moderation effect of innovative leadership between human capital capacity and human capital skills with organizational performance was not confirmed.

2.2.4. Networks and Performance of Medium Hotels

Every business aims to achieve superior firm performance in its respective industry, hence the need to develop and execute different strategies to attain superior business performance (Tehseen, 2018). According to Baraldi (2008), a network strategy comprises of physical and a blend of resources that interact with inter-organization routines and joint projects. The

network of an entrepreneur plays an important role in the search for new opportunities and the quest for resources (Efring & Hulsink, 2001). Through networking, there is knowledge exchange and learning processes that create relational rents that can breed further complementation (Weber et al., 2016 as cited by Bouncken et al., (2020). Network competence increases the ability to develop and use external networks via social interactions.

Researchers believe that developing network competence could assist entrepreneurs in accessing critical resources held by others to achieve superior firm performance (Canning and Szmigin, 2016). A firm's existing ties should lessen uncertainty (Oyedele & Firat, 2019). Research on integrations suggests that business network ties enable collaborative work and also allow the exchange of ideas, information, and knowledge among firms of such trade linkages (Fliaster & Spiess, 2008). There is evidence from the literature indicating that networking has a noteworthy effect on the corporate strategy and performance of establishments in Africa (Muteshi & Kariuki, 2020). Main et al., (2016) study on networking concluded that network structure, governance, and content have a positive and significant effect on firm performance. The inability of SMEs' owners to establish good relationships with relevant parties results in a lack of access to financial resources as well as required knowledge and information Kheng and Minai (2016) leading to poor performance.

Literature related to traditional network theory shows that firms that have an abundance of resources are more attractive as alliance partners than those with inadequate resources. Also, strategic alliances with higher levels of complementation or resource compatibility should have more positive effects on firm performance than other alliances (Oyedele et al., 2019). From the networks, information can be supplied and credibility increased leading to

exchange relationships between suppliers and customers. The personal networks of an entrepreneur constitute the most significant strategic resource of the firm. In the case of innovative ventures, networks are vital in aiding firms in gaining improved performance and gaining legitimacy (Johannisson, 2000).

Knowledge transfer efficiency is likely to be improved when firms become familiar with their partners during repeated interactions. Therefore development of strong ties mobilizes knowledge and reduces direct operational expenses but increases indirect dealings costs when contrasted to weaker ties (Fliaster & Spiess, 2008). Networks and alliances influence almost every aspect of new venture creation (Cooper, 2002). Network ties can be used to develop other ties, such as when a would-be entrepreneur asks others for suggestions about whom to approach or whether a commitment should be made to a particular supplier or professional adviser (Johannisson, 2000). Repeated partnership has an impact on alliance and firm performance (Zhang et al., 2021).

Firms can use strategic alliances to increase their competitive advantages, reduce operating risks, improve corporate efficiency, gain markets, increase product competitiveness and attractiveness, increase customer value, and enhance brand equity (Chiang et al., 2020). It is also argued that access to resources is one of the main roles of a network since a limited amount of resources is a major bottleneck for entrepreneurial ventures. Studies have found the ability to network has a positive impact on firms' financial performance. From several surveys Jemala, Sujaniva and Novakova (2019) revealed that companies entering into alliances repeatedly do it with companies with whom they have already worked together and

have built common trust that reduces the cost of setting up and functioning of the alliance and also leading to greater individual company performance in alliances.

A study of six technology-intensive firms in China reported that higher-growth firms tended to have more total contacts in their networks and interacted more frequently and with more resource exchange with those contacts (Zhao & Aram, 1995). Baum et al., (2000) examined the performance of Canadian biotech start-ups and considered how characteristics of alliance partners impacted start-up performance. They found that many alliances increased initial venture growth; however, industry association membership and government laboratory alliances were associated with lower rates of growth.

A longitudinal database study by (Watson, 2007) found a significant positive relationship between formal networks and firms' survival and growth, but not with return on equity. Another study by (Watson, 2012) indicated that various formal as well as informal networks were positively related to the survival of firms whereas only formal networks were found to be related to firms' growth. Tehseen, Hassan and Ramaya (2018) conducted a study on network competence and firm performance to establish the mediating role of entrepreneurial innovativeness in the relationship between network competence and firm performance including financial performance, non-financial performance, and business growth among Malaysian and Chinese entrepreneurs of wholesale businesses. Data was collected from 150 Malaysian Chinese wholesalers from the states of Selangor and Kuala Lumpur. The findings revealed that network competence has a positive impact on all four types of firms' performances. The results also revealed a positive as well as significant mediating influence

of entrepreneurial innovativeness in the relationship between network competence and performance.

Muteshi and Kariuki (2020) conducted a study on corporate strategy networking and firm performance in Africa. The study was based on the argument that the modern global business environment has experienced a paradigm shift from Multipolarity to Multilateralism, hence forcing companies in Africa to pay more attention to emerging networks in an endeavor to architect strategies for improved performance. The study linked networking with performance but with scantly researched proof of the connections between strategy, partnerships, and triumph in organizational performance. The study concluded that networking is vital for ensuring the effective implementation of corporate strategy for higher performance.

Katambo (2016) study on the effect of networking on the performance of small and medium-sized audit firms in Nairobi sought to evaluate the effects of networking on the performance of small and medium-sized audit firms. The study established a positive significant relationship between network diversity, network size, and network platforms on business performance. The study concluded that networking affects the business performance of small and medium-sized audit practitioners. Additionally, the study emphasized that network diversity, network size, and network platform impact business performance positively. The study recommends the need for government and other stakeholders to improve the networking skills of small and medium audit firms to improve their performance.

To develop competitiveness in a globalized economy and the emergence of trading blocs worldwide; African entrepreneurs must implement corporate strategies that foster their

domestic and multinational networks for performance improvement (Mutesi & Kariuki 2020).

Networking is a critical factor that determines a firm's performance, though there is scanty information on how networking affects strategy and performance connections (Giudici, 2013). This study pursued this gap to ascertain the influence of networks in medium hotels performance.

2.3. Lean-green Practices and Performance of Medium Hotels

Going green can be a holistic business strategy that adds value to the firms and their stakeholders (Amegbe, Owino & Nuwasiima, 2017). Lean-green practices refers to the use of environmentally-friendly and resource-efficient methods in business operations and its impact on the financial and operational outcomes of medium-sized hotels. Lean has received attention from academics and practitioners alike as a competitive advantage source in both developing and developed economies (Shrurrab & Hussain, 2018). The lean strategy is flexible in cost reduction through process improvement culminating in the reduction or elimination of all wastes (Carvalho, Duarte & Machado, 2011). Lean practices as a commitment by firms call for the adoption of various ecologically sound practices such as saving water, saving energy, and reducing solid waste. Unlike governmental regulations that impose external requirements on firms, a hotel manager's decision to implement either lean or green activities arises from within the firm and constitutes a voluntary, self-regulatory structure (de Grosbois, 2012). Lean methods are driven by the idea of "doing more with less" (Maia, Alves & Leão, 2017). It implies using the least amount of effort, energy, equipment, time, facility space, materials, and capital while giving customers exactly what they want (Womack & Jones, 2007).

Going lean-green way includes reducing waste, conserving energy, and minimizing the use of non-renewable resources. The adoption of lean-green practices can positively impact the financial and operational outcomes of medium-sized hotels, leading to improved revenue, occupancy rates, and customer satisfaction. By prioritizing sustainable practices, medium-sized hotels can improve their operational efficiency while also contributing to a healthier environment. The origin of lean methodology can be traced back to the Toyota Production System, developed in Japan in the 1940s. The system was designed to improve manufacturing efficiency by minimizing waste and optimizing production processes. Lean methodology emphasizes the continuous improvement of processes and the elimination of waste in all forms, including overproduction, defects, excess motion, excess inventory, overprocessing, waiting, and unused talent.

The principles of lean methodology have since been applied to a variety of industries and sectors, including healthcare, education, and government, with the goal of improving efficiency, reducing costs, and enhancing customer satisfaction. It focus on waste reduction and value-added maximization lead to a tremendous impact on the effectiveness of both production and service systems (Shurrab & Hussain, 2018). Lean in hotel management has generated a great deal of interest given the improvement potential.

To keep up with the growing demand and maintain reasonable profit margins, the hotel industry and service sector have been under pressure to utilize lean techniques to reduce cost and improve effectiveness (Suárez-Barraza, Smith, & Dahlgaard-Park, 2012). However, as it was pointed out by Vlachos and Bogdanovic (2013), there was no evidence of lean application particularly in the hotel industry. A comprehensive literature review found that

there is limited evidence about the relationship between lean management principles and environmental or social performance outcomes (Agyabeng-Mensah et al., 2020).

Green practices have been recognized as an important component of corporate sustainability strategy, but it is an open question whether their impact on performance is significantly positive or negative (Abualfaraa et al., 2019). In recognition of environmental degradation, governments, along with the green movement within the hotel and tourism industry and travelers, have become increasingly aware of the need for more effective measures to protect the environment although, few studies have investigated ecological initiatives within the hotel industry.

Lean companies have also been aligned with sustainable and green practices, with some studies claiming that lean organizations have stronger long-term financial performance and higher customer retention rates. According to Thekkoote (2022), lean manufacturing can be considered as green manufacturing. Lean-green synergy was discussed as a possible mediating factor to improve the performance of companies of the future (Cherrafi et al., 2018). It is important to highlight that independently, both lean and green practices are not sufficient to address all environmental problems; in parallel alignment, these two approaches can more effectively achieve sustainable development objectives (Afum, Agyabeng-Mensah, & Baah, 2021). Lean-green synergy has proved to be a powerful tool for sustainable performance (Waqas et al., 2022). This synergy contributes to increasing lean efficiencies and reducing waste.

Faced with resource constraints today, most managers aim to generate profits in an environmentally friendly way with minimal costs. Interestingly, literature shows that green strategies can help companies to become leaner. This means that by adopting environmentally-friendly and resource-efficient practices, companies can simultaneously improve their operational efficiency and reduce their environmental impact. By reducing waste, conserving energy, and minimizing the use of non-renewable resources, companies can improve their bottom line by reducing costs, improving productivity, and enhancing customer satisfaction. Furthermore, green practices can also help companies comply with regulations and meet the expectations of environmentally conscious consumers. The integration of green practices into lean methodologies can lead to a more sustainable and responsible approach to business operations, benefitting both the company and the environment. The lean concept signifies a system that utilizes fewer inputs to create the same output as those created by a traditional mass production system and at the same time increases varieties for the end customer coupled with the reduction or elimination of non–value activities throughout a product value stream.

It is common to find companies concerned with waste reduction without taking into consideration all the benefits that a lean-green approach could bring (Abreu, Alves & Moreira, 2017). Lean practices and green practices when combined can give a competitive edge by presenting customers with eco-friendly products, produced at a relatively low cost (Inman & Green, 2018). The Environmental Protection Agency EPA (2007) listed six benefits that an organization can enjoy if it coordinates lean and green initiatives: cost reduction, a shorter length of the process flow and reduction of lead times, reduction of risk

of non-compliance with laws and regulations, meeting customer expectations, improving environmental quality, and improving morale and employee engagement.

Carvalho, Duarte and Cruz (2009) elevated this connection onto a new level and described Lean and Green practices as a synergistic joining environmental and operations management. There are some synergies among these concepts Wu et al., (2015) where the goals for achieving leanness act as catalysts for implementing green practices. Therefore in a synergy, all partners have to influence each other positively, increasing the benefits of the relationship. Despite the synergy derived through combining lean and green practices being mentioned in published articles, only a few examples are available to explain how managers can integrate Green methodologies into current Lean practices. Most of the research has been done in manufacturing using the green supply chain and is only carried out in developed economies. Less developed nations such as those in Africa have not been given significant research attention (Namagembe, 2017).

Consequently, only a handful of environmental experts and researchers have so far investigated the relationship between aspects of lean and green practices in the service industry such as medium hotels. Despite the profound importance of SMEs in economic growth, lean–green integration as a strategic weapon lacks documented research and the present body of literature lacks empirical evidence on linkages between the firm's performance and lean and green practices (Thanki & Thakkar, 2019).

Alipour, Safaeimanesh and Soosan (2019) investigated sustainable practices in the hotel industry from the employees' perspective in one of the Mediterranean islands, Cyprus north. The study found that going green and practicing sustainability in the hotel sector has come about because of green-conscious customers who are willing to pay higher prices for green products/services. From the employees, it was revealed that employees are a legitimate and credible source of information about sustainability practices. The study also confirmed that going green can become a means of branding hotels that are making efforts to implement a genuine sustainability practice. The study also concluded that the majority of employees validated the sustainability practices as genuine.

A study by Chukwuka (2017) on the effect of green business practices on the organizational performance of selected manufacturing firms in Nigeria found that green business initiative in the organization has the potential to affect many areas of an organization, as well as organizational and employee productivity. The study concluded that the green business practice in the organization has led to an increase in productivity. In addition, the result revealed that the antecedent factors like individual attitudes and behaviors towards green business practices, directly affected productivity.

Kariuki and Odock (2017) conducted a study to establish the relationship between green operations practices and the operation performance of hotels in the Kenyan coastal region. The study sought to determine the extent to which green operations practices have been adopted by hotels in the coastal region and to establish the relationship between green operations management practices and the operational performance of hotels. Using a cross-

sectional census survey design the study established that the hotels adopt a variety of green practices in the areas of energy consumption, water consumption, waste generation, reduction and recycling, and employee training and awareness creation. The study also established that there is a strong positive correlation between green operations practices and operational performance. Hotels view green operations practices as very important hence adoption of green operations practices by hotels has a positive effect on operational performance.

Prakash et al., (2022) conducted a study on adopting green and sustainable practices in the hotel industry operations- an analysis of critical performance indicators for improved environmental quality. Findings in this research, were CPIs of HCMI are considered and aim to formulate five major CPIs of HCMI, namely air pollution, energy efficiency, water conservation, noise pollution and waste management. The study identified the need for better control and sustainable growth in the Indian hotel industry with minimum carbon emissions coupled with the green approach adoption.

Merli et al., (2019) study investigated the impact of hotel green attributes on guest's perceptions. First, it revealed the existence of a direct significant relationship between hotel green attributes and customer satisfaction, loyalty and loyalty toward green hotels. Specifically the research revealed a significant relation between hotel environmental practices and guest satisfaction, confirming that environmental friendly actions enhance visitor satisfaction Presenting results of a survey carried out through a questionnaire targeted to guests of an Italian hotel awarded with the Legambiente Turismo eco-label, it hypothesizes that hotel environmental practices positively influence guest overall satisfaction and loyalty.

Moreover, findings suggest that the staying at green hotel lead guests to develop a specific loyalty toward the whole range of eco-friendly hotels. Therefore, guests are more willing to return to a green hotel and to recommend it through positive word of mouth. The study also confirms previous scholars' findings indicating customer satisfaction as having a (partial) mediator role between hotel service attributes and customer loyalty. Finally, the results suggest that hotel practitioners should make further efforts to communicate to guests their commitment toward sustainability, especially when the hotel is awarded with a third party certified eco-label.

In contrast, Mbasera et al., (2016) study revealed that in Africa, most hotels lack adequate green management policies, and a few engage in eco-friendly practices while other hotels do not have any clue about implementing green initiatives and how to mitigate on environmental challenges emanating from hotel operations. This has created a necessity for adopting ecologically sound strategies due to dynamic competition among firms. To align with these expectations, players in the hotel sector need to address new approaches directed to conducting business, calling for hotels to discover new ways of doing business and new ways of creating value for their customers (Koopman, Mitchel & Thierer, 2014).

Although lean and green thinking has gained popularity among large-sized enterprises, it is still unclear how to strategically implement these processes in SMEs (Caldera, Desha & Dawes, 2018). Despite the revelation that the reasons for going green in the hotel industry are due to consumers' demands, no research has investigated the synergistic effect of lean-green

practices on performance. Empirical data that comprehensively describes and organizes these practices are lacking in the hotel industry literature.

2.4. Hotel Performance

Hotel performance has been the important research area since 1990s encompassing financial and operational outcomes of a hotel which, include revenue, profitability, occupancy rates, customer satisfaction, and employee satisfaction. Achieving success in the hospitality industry requires effective resource management, exceptional service delivery, and a competitive edge. By improving hotel performance, businesses can boost profits, enhance guest experiences, and establish a strong reputation within the industry. Performance determinants had been a main stream research area (Sainaghi, 2010) where internal factors controlled by management have been largely employed to hotel performance determinants. The external factors are mostly macroeconomic in nature such as competitive market structure (Lee & Jang, 2007), tourism destination (Baggio & Sainaghi, 2011), tourism demand (Chen, 2006), and real estate factors (DeRoos et al., 2014). These external macroeconomic variables have been demonstrated to have a significant relationship with hotel performance (Dong, 2023).

The success of a hotel often depends on its ability to effectively manage resources, provide quality service, and differentiate itself from competitors. Improving hotel performance can lead to increased profits, better customer experiences, and a stronger reputation in the industry. The benefits that hotels achieve by applying environmentally sustainable business strategy has been a subject of research (CBRE, 2023). This is due to the fact that the hotel sector represents an essential stakeholder of the tourism industry and, and is associated with

polluting the environment. Since the environmental sustainability is increasingly being considered as one of the most important functions of the hotel business, its communication and marketing will attracts a larger number of guests (Duric & Topler, 2021). Some of the key indicators of hotel environmental sustainability are energy and waste reduction measures in order to establish efficiency and competitive advantage.

Higher environmental awareness, the intersection between business and environmental issues (Segarra-Oña et al., 2012) and some other changes, such as digitalisation in the last twenty years, have shown that there is a need for improvement of effectiveness and efficacy of hotels (Pereira, Silva & Dias, 2021). In the extremely competitive market, sustainability is an advantage (Casado et al., 2019), and the success of a hotel is dependent upon a safe and attractive environment (Chen & Chen, 2012). Tourists and hotel guests have a positive attitude towards green hotel practices, which are often termed "green hospitality" in the literature (Fuentes-Moraleda et al., 2019). In addition, the inclusion of sustainable practices in hotel strategies represents one of the key competitive business development mechanisms (Zhang, Joglekar & Verma, 2012). Many studies have highlighted the positive impact of environmental sustainable business on a company's sustainable image (Mercade, Molina & Garay 2019; Wagner et al., 2002) and on its financial performance.

In addition to better financial performance, add better competitiveness, corporate image, more effective marketing, increasing brand value, greater trust from tourists, which affect the improvement of all performance and business performance of the hotels significantly helps

better promotion and greater capacity utilization (Fukey & Issac, 2014), which, altogether, contribute to hotels and reaching a leading position in the industry.

Environmental performance refer to the financial and operational outcomes of a hotel in relation to its impact on the environment. This includes measures such as reducing waste, conserving energy, minimizing the use of non-renewable resources, and implementing sustainable practices. The success of a hotel's environmental performance can have a positive impact on the environment, improve its reputation, and attract environmentally conscious guests. By prioritizing sustainable practices and making a conscious effort to reduce its environmental footprint, a hotel can improve its overall performance while also contributing to a healthier planet. The most important benefits of environmentally sustainable hotel business are based on reducing operational costs and cost control efficiency as well as additional revenue through lowered costs, greater long-term financial stability, greater consumer satisfaction, greater brand reputation and creating a better image, long-term ability to stay in business and being profitable, reducing negative impacts and preserving the environment (Abdou, Hassan & El Dief, 2020; Hongxiu et al., 2020). Some authors have focused on analyzing the environmental performance of hotel energy efficiency, their indicators and reducing carbon four oxide emissions (Heinimann & Maeda, 2021).

Woodworth and Mandelbaum (2010) reviewed hotel revenues, expenses, and profit for the hotel industry from the 1930s to 2009 and documented various events during each decade to explain the cyclical performance of the hotel industry. Their study analyzed compound annual rates of change in each decade. Other researchs in the hotel sector had focused on the

importance of hotel market performance measures. Several researchers emphasize the importance of revenue per available room (RevPAR) as a financial performance indicator and is also used as a measure of the competitiveness of a hotel investment (eZee, 2021). Therefore this concept is particularly important for market performance analysis, since it combines changes in occupancy and average daily rates (ADR). RevPAR captures the interaction of ADR and occupancy at different phases of the hotels life cycle and market economic cycles. However very few hotel performance studies have used cross correlation to examine relationships between macro-economic variables and hotel market performance at the industry level.

Hongxiu et al., (2020) study explored the asymmetric effects of hotel attributes on customer satisfaction by extracting 412,784 consumer-generated reviews from Trip Advisor across different cities in China. The study found that guests' expectations of hotel performance differ with respect to their origins (domestic and international guests) and the star ratings of the hotels being reviewed, thereby moderating the asymmetric impact of hotel attributes on customer satisfaction. Building on the three-factor theory, this study aimed to unravel how the role of hotel attributes such as basic, excitement and performance factors could differ in accordance with different hotel star ratings and distinct customer segments.

Kurdi, Salih and Turki (2020) study on the impact of employee satisfaction on customer satisfaction concluded that for companies, both employee and customer retention are seen as being essential for competitive business advantage. This study aimed mainly to investigate the influence of employee satisfaction on customer satisfaction. In order to investigate

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employee satisfaction properly, there was a need to investigate employee satisfaction through studying a set of employee satisfaction antecedents and consequences, which were employee loyalty, job satisfaction, management communication, employee commitment, employee retention and rewarding employees. Customer retention will not be evident until high degrees of employee satisfaction are achieved. And recommended that as customers are interacting with employees on a regular basis, this interaction should be studied carefully because such customer-employee interaction is influenced by a set of direct and indirect drivers.

Today the hotel's business performance is influenced largely by quality management systems and standards in addressing key environmental issues. The book "Green to Gold" highlighted the ways in which they are used in the direction of achieving positive business performance and creating a competitive advantage. Esty and Winston (2009) point out that the gold that hotels and other companies achieve through the application of environmental standards consists of higher revenues, lower operational costs, and often lower interest rates by banks for the introduction of environmental management systems and other environmental measures and programs. This contradicts some research which had revealed that many hotels do not have reports on environmentally sustainable business, meaning that they do not apply enough, or do not apply environmental business in their hotels at all, and even not aware of the importance of environmental performance which can contribute greatly to reduced costs, as well as reducing the negative impact on the environment. An analysis of five indicators related to the perception of energy efficiency in hotels in Europe found that most of these hotels do not have Environmental Reports (Cingoski & Petrevska, 2018).

Large hotels have embraced both financial and non-financial performance measures to aid in managing their businesses effectively (Wangui, 2013). Unlike financial performance measures, these measures provide businesses with feed-forward information that is future-oriented and thus more relevant for planning purposes (Guilding, 2014). In addition, these measures provide a closer link to long-term organizational strategies. While financial performance measures generally focus on annual or short-term performance against accounting yardsticks, these measures can result in counter productive behavior whereby managers pursue short-term goals at the expense of more critical long-term goals.

Non-financial indicators can capture critical non-financial and industry-specific performance indicators. In the hotel industry, these could include: bed occupancy levels, customer satisfaction surveys completed by customers, guest evaluations of employees' helpfulness, guest evaluations of design, facility renovations and maintenance. Others are: number of repeat customers, number of complaints, and guest evaluation of extra benefits gained such as relaxation, exercise, and refreshments. Such non-financial measures are the real drivers of value within modern businesses that make their future performance predictable (Bongani, 2013; eZee, 2022).

Although the use of non-financial performance measures by SMEs has been extensively researched over the years in the developed countries, little has been done in Africa. The few studies that have investigated the use of these measures, have focused mostly on large organizations. Therefore, there is a dearth of research on non-financial measures employed by the medium hotels. Damir Magaš Zrinka Zadel (2020) explored the influence of rising

"Air ,bed and breakfast" supply on main hotel accommodation sector performance indicators: room revenues (RevPAR), average daily rates (ADR) and occupancy rates (OCC) in Croatia. In order to quantify the extent of Airbnb influence on the hotel accommodation sector performance indicators in Croatia, a cross-section regression approach was undertaken. The data on key hotel performance indicators were obtained from Smith Travel Research (STR) while Airbnb data was obtained from Airdna, a third-party data provider. The findings indicated a statistically significant positive influence of rising Airbnb supply on main hotel sector performance indicators except occupancy. Decision-makers need to pay attention to evaluations of attitude, behaviour, and expertise of employees, guest evaluations of design facilities, renovations and maintenance, as well as guest evaluations of benefits gained from such relaxation, exercise, and refreshment. Thus, it is likely the cause that a number of customers do not return again.

2.5. Research Gap

Although adopting lean-green practices may lead to the consumption of fewer resources as well as lead to low costs few studies have fused lean and green paradigms with strategic entrepreneurship to investigate their influence on performance. Scholars have tried to capture lean and green practices and their effects on performance separately Merli et al., (2019) investigated the impact of green attributes on guest's perceptions using impact analysis; Prakash et al., (2022) studied adoption of green and sustainable practices in the hotel industry operations through an analysis of critical performance indicators; Kariuki and Odock (2017) examination green management practices literature and what determines such practices in hotels; Mbasera et al., (2016) study revealed that in Africa, most hotels lack

adequate green management policies, and a few engage in eco-friendly practices; Verdecia et al., (2022) sought the implementation of lean thinking in the services and hotel industry; Hussain et al., (2019) analyzed the impact of lean management practices in the United Arab Emirates; Rai et al., (2021) studied implemention of lean in small homstay establishments in India; Han et al., (2020) analyzed the mechanisms of the hotel waste reduction and water conservation techniques. No study has sought to establish the combined synergy of lean-green practices on the performance of medium hotels.

Most of the studies have been done outside Africa, Fuentes-Medina et al., (2018) explored critical performance indicators (CPIs) of the hotel industry in Spain; Han et al., (2020) analyzed the mechanisms of the hotel waste reduction and water conservation techniques in Taiwan; Kang et al., (2012) investigate the willingness of consumers to pay a premium for green services in luxury hotels in US; Rai et al., (2021) studied small homstay establishments in India; Alipour et al., (2019) studied employees' perspective in one of the Mediterranean islands, Cyprus north; Damir Magaš Zrinka Zadel (2020) explored the performance indicators in Croatia; Cingoski & Petrevska, (2018) analyzed energy efficiency in hotels in Europe; Hongxiu et al., (2020) study explored hotel attributes on customer satisfaction in China; Kularatne et al., (2019) study on guests preference to stay in a hotel that cares for the environment was done in US. While there is existing literature on the benefits of lean-green practices in various industries, there is no research specifically focused on the hospitality industry in Kenya.

A variety of methodologies have been adopted while addressing the same thing Kurdi et al., (2020) applied hypotheses testing to analyze employee satisfaction and customer satisfaction;

Damiret al., (2020) explored the influence of rising "Air, bed and breakfast" using across sectional regression approach; Prakash et al,. (2022) analyzed of critical performance indicators for improved environmental quality using specific impact analysis; Mulindabigwi and Kayitana (2018) used ordinary least square regression; Naumann (2017); Nilashi and Tseng (2022) adopted meta-analysis method; Yousaf (2021) adopted pooled regression to test the hypotheses; Krubally et al., (2021) used regression analysis on reviewed literature on adoption of green innovation for sustainability strategies; Mukiri, Mukulu and Odhiambo (2019) used regression analysis on innovations; Watson (2007) used longitudinal database study. There is no general methodology adopted for data analysis further lacking generaizability. No study has addressed building a structural model combining lean-green practices as a strategy that can address performance.

2.6. Conceptual Framework

The study introduced the concept of strategic entrepreneurship as an aggregate of entrepreneurial dimension and strategic management dimensions. As a process, STE tries to satisfy both the short-term goals and the longer-term strategic focus whose overall objective remains, an enhanced performance of the firm (Arokodare, 2018). The entrepreneurial managers utilize strategies to improve competitiveness. Lean-green practices as a unique strategy involve the synergy between lean production (Todorov, Jovanoski & Minovski, 2019) and green commitments (Prakash et al., 2021). Caldera, Desha and Dawes (2018) lamented that although lean and green thinking have gained popularity among large-sized enterprises, it is still unclear how to strategically implement these processes in SMEs. The

impact of hotel green attributes on guest's perceptions revealed a direct significant relationship between hotel green attributes and customer satisfaction, loyalty and loyalty toward green hotels Merli et al., (2019). When combined with lean which is all about separating the value in the system, while reducing or eliminating the wastes that don't add value to the process or product (Wormack, 2014) the impact is reduced costs. The relationship between STE, LGP, and Performance can be illustrated through a conceptual framework. The conceptual framework is an improvement of the strategic entrepreneurship model as propounded by Luke et al., (2011).

Addressing lean-green as the moderator helped to re-introduce sustainability concept as variable of sustainability initiatives. Strategic entrepreneurship dimensions were captured through entrepreneurial dimensions involving mindset, innovations,capital mobilization and networking (Naumann, 2017). The lean-green practices were addressed using; Waste Reduction Strategies (Womack, 2014), Lead Time Reduction strategies (Todorov et al,.2019), Iterative customer feedback approaches (Fuentes-Medina, 2018) and Continuous improvement strategy (Oriande et al., 2021). Asadi (2020) study concluded that innovative green practices can explain 55% of variance in environmental performance leading to 50% economic growth. The model showing how the lean-green practices influences the strength and direction of the relationship between strategic entrepreneurship and performance of medium hotels reveals the gap which this study sought to fill.

Strategic Entrepreneurship　　　　Lean-green Practices　Hotel Performance

Entrepreneurial mind-set

-Entrepreneurial strategies

Capturing uncertainty benefits

Innovations

-Applying creativity

-Lean innovations

Capital mobilization - Intellectual capital

-Financial capital

Internal networks

-Access to information and technology

-Access to markets

-Waste Reduction Strategies

-Lead Time Reduction

-Iterative customer feedback approach

- Continuous improvement strategy

-Enhanced market value

-Customer satisfaction

-New venture creation.

-Enhanced corporate image

Independent variable　　　　**Moderating variable**　　　　**Dependent variable**

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Figure 2.1: Conceptual Framework

2.7. Theoretical Background

Many theories have tried to postulate a framework through which researchers can view the world of entrepreneurship. The natural resource-based theory, dynamic capabilities theory, and Schumpeter innovations theory will be employed as the underpinning theories to investigate the influence of lean-green practices on the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities.

2.7.1. Schumpeter's (1934) Theory of Innovations

Schumpeter (1934) defined entrepreneurs as extraordinary persons who promote new combinations or innovations to reform or revolutionize the pattern of production. This theory postulates that the transformation of the economy comes through an innovation that brings forth creative destruction hence, improved performance. Innovations theory looks at how new ideas, products, and services are created and brought to market. It involves understanding the process of innovation, the factors that influence it, and the ways in which it can be managed and supported this call for entrepreneurial mindset.

Innovation is a critical ingredient for progress, evolution and success. It can drive prosperity and allow to overcome what often seem like insurmountable challenge. While creativity is an integral of innovation, it involves the strategic implementation of new ideas in a way that solves a problem or improves our lives. Together, innovations theory and entrepreneurial mindset provide a framework for understanding how new businesses and products are created and how they can be successful in the market. By combining these two concepts, entrepreneurs can develop a comprehensive approach to innovation that takes into account both the technical and social aspects of the process (Lesser, 2022).

Entrepreneurial mindset refers to the attitudes, skills, and behaviors that are associated with successful entrepreneurship. It involves a willingness to take risks, a focus on opportunity rather than limitation, and the ability to think creatively and adapt to changing circumstances. The theory views the characteristics of entrepreneurs as innovation, foresight, and creativity. The current methods of conducting business in the world are calling for innovations and creativity because most of them rely on outdated applications of old, polluting, and inefficient technology (McEwen, 2013).

Since the entrepreneur moves the economic systems out of the static equilibrium by creating new products or production methods thereby rendering others obsolete. Innovation is therefore acknowledged as one of the critical firm capabilities that affect a firm's sustained competitive advantage and superior performance (Albaladejo & Romjin, 2000).

The introduction of best practices in the 21st century disturbed the already-established equilibrium by incorporating sustainability into the equation. This essentially is about replacing existing products, processes, and services with variants that are more aligned to a "do better" approach in sustainable terms (Seebode, Jeanrenaud & Bessant, 2012). Innovation allows firms to use current resources to create new resources, products, processes, and systems as well as devise new ways of using new resources to gain a competitive advantage (Teece et al., 1997). This leads to business resilience or the ability of a business to renew itself after a crisis (Milestad, Hann & Oelreich, 2016). The theory is relevant to the study due to giving weight to new combinations and hence entrepreneurial mindset and Innovativeness as independent variables of entrepreneurial dimensions were pegged on this theory. The Schumpeterian Innovations Theory, developed by economist Joseph Schumpeter,

emphasizes the role of innovation in entrepreneurship and economic growth. This theory suggests that entrepreneurs play a key role in introducing new products, services, and processes to the market, which in turn creates economic growth and development. The theory also emphasizes the importance of technological change and its impact on market dynamics.

In the context of the study mentioned in the text, the Schumpeterian Innovations Theory can help test the relationship between entrepreneurial mindset and innovations. Specifically, the theory suggests that entrepreneurs with an innovative mindset are more likely to introduce new products and services to the market, which can lead to better performance and competitiveness for their firms. By examining the influence of innovations on performance, the study can test the hypothesis that entrepreneurial mindset is positively associated with innovations, which in turn leads to better firm performance. This can help to establish the importance of entrepreneurship in driving innovation and economic growth in the hotel industry, and can inform policies and strategies aimed at promoting entrepreneurship and innovation in the sector.

Despite innovations being viewed as a channel of creating competitive advantage and hence bringing economic growth and development, the theory fails to address the inputs required in the innovation process and also the organization's capacity to innovate. Secondly, the theory does not explore the environment where innovations take place since external factors like infrastructure, government policies, capital outlays, and stakeholder networks are not addressed. Finally, the theory does not address the importance of the break-even point which is believed to be critical when addressing the survival of the firm and projects.

2.7.2. Natural Resource-Based View Theory

Natural Resource View was postulated by Hart (1995) based on the resource-based view (RBV) when the constraints imposed on a firm by the natural environment were added. Natural Resource-Based View (NRBV) theory is an extension of the Resource-Based View (RBV) theory that emphasizes the importance of natural resources in a company's competitive advantage. NRBV suggests that a company can achieve a sustainable competitive advantage by leveraging its unique natural resources, such as land, water, minerals, and biodiversity, to create superior value for its stakeholders.

When NRBV theory is combined with the goal of sustainable performance, it suggests that a company can achieve a competitive advantage by leveraging its unique natural resources to create sustainable value for all stakeholders. Sustainable performance is achieved by balancing economic, social, and environmental considerations in decision-making. This approach involves identifying and developing natural resources that are valuable, rare, difficult to imitate, and non-substitutable. By doing so, a business can create a sustainable competitive advantage that is difficult for competitors to replicate.

For example, hotels can leverage their unique natural resources, such as scenic views, proximity to natural attractions, and access to water bodies, to create sustainable value for their guests. By promoting eco-tourism and offering sustainable practices such as energy-efficient lighting, water conservation, and sustainable food sourcing, hotels can attract environmentally conscious guests who are willing to pay a premium for eco-friendly services.Therefore NRBV theory offers a useful lens for evaluating SMEs in a sustainable

business context Caldera (2018) and it is capable of justifying incorporation of lean and green relationships (Galeazzo, Furlan & Vinelli, 2014).

In addition, NRBV advocates that firms with sustainable economic activities will soon have a competitive advantage over the other firms (Hart, 1995). This competitive advantage is supposed to emanate from inter-connected strategies (i.e. strategic capabilities) namely pollution prevention, product stewardship, sustainable development, and regenerative development. This strategic capability lowers the cost of end-of-pipe treatments and improves operational efficiency (Nikolaou, Tsagarakis & Tasopoulou, 2017). As such the strategy reduces costs through minimizing inputs, simplifying the processes, and reducing the costs of compliance. Camara (2018) argued that lean-green practices in service provision or manufacturing are complementary in that waste elimination will enhance a firm's ability to successfully implement green practices. More lean leads to more green and vice versa.

 Overall, the combination of NRBV theory and sustainable performance provides a comprehensive framework for companies to develop a competitive advantage that is sustainable over the long term while also promoting the well-being of all stakeholders. The RBV was modified after it was accused of not explaining how resources are deployed to achieve sustainable competitive advantage and also due to oversimplifying organizational reality by assuming that a linear relationship exists between firm resources, competitive advantage, and performance. Consequently, Hart (1995) incorporated natural environment opportunities into RBV to become a Natural Resource Based View NRBV.

The Natural Resource-Based View (NRBV) Theory can help to explain how medium hotel enterprises in Kenyan cities can leverage their natural resources to achieve better

performance and competitiveness. On the other hand, Lean-Green Practices (LGP) are a set of practices that help firms to reduce waste, improve efficiency, and minimize their environmental impact. In the context of the study, LGP can help to moderate the relationship between strategic entrepreneurship and performance of medium hotel enterprises in Kenyan cities. Specifically, LGP can help to enhance the effects of strategic entrepreneurship on performance by helping firms to reduce costs, improve productivity, and enhance their environmental sustainability.

Therefore, the objective of examining the moderating influence of LGP on the relationship between strategic entrepreneurship and performance was to test the hypothesis that LGP can enhance the effects of strategic entrepreneurship on performance. This can help to identify the key factors that contribute to the success of medium hotel enterprises in Kenyan cities and inform policies and strategies aimed at promoting sustainable practices and entrepreneurship in the sector. This makes the theory relevant in this study by directing the competitive advantage created by lean-green practices to be analyzed as a moderator variable of the relationship between strategic entrepreneurship and performance.

2.7.3. Dynamic Capabilities Theory

The Dynamic Capabilities Theory was developed by Teece, Pisano, and Shuen (1997) after an article titled "Industrial and Corporate Change". The emergency of this theory was necessitated by the shortcomings of the resource-based theory in addressing dynamic economies. Several classes of factors were used to explain the firm's dynamic capability and the sources of competitive advantage and among them; processes, positions, and paths which can be considered as the main variables of the theory. DCT brings together the concepts of

networking, uncertainty, and knowledge to strategically explain why firms exist in highly competitive markets (Teece, 2019).

DCT dwells on the firm's capacity to renew physical resources and skills at a high pace and achieve congruence with a changing business environment. The theory recognizes the ability of a firm to integrate, build, and reconfigure both internal and external competencies to quickly address a changing environment. Therefore DCT capitalizes on strategic routines through which companies achieve new configurations of resources (Amitt & Zott, 2001). Hence dynamic capabilities are higher-level capabilities that provide opportunities for the collection and exchange of knowledge, the continuous updating of the operative process, the interaction with the environment, and evaluations of decision-making (Camara, 2018).

This theory explains how firms achieve and sustain competitiveness based on the processes that take place within a firm to match the dynamics in a volatile environment. The approach emphasizes the capacity of a firm to renew competence as well as to integrate and reconfigure resources to match and create market change through innovation (Teece et al, 1997). Knowledge development, sharing routines, and the capability to integrate external resources, Dyer and Singh (1998) constitute resources that are difficult to replicate and thus may generate a competitive advantage. The Dynamic Capabilities Theory (DCT) suggests that firms that are able to build and leverage their capabilities over time are more likely to achieve sustained competitive advantage. In the context of the study mentioned in the text, the DCT can help to explain how medium hotel enterprises in Kenyan cities can build and leverage their capabilities to achieve better performance and competitiveness.

Capital mobilization and networks are two important factors that can contribute to the development of dynamic capabilities in firms. Capital mobilization refers to the ability of firms to raise and deploy financial physical and intellectual capital to support their growth and expansion, while networks refer to the ability of firms to build and leverage social and business relationships to access resources, knowledge, and opportunities.Therefore, the objectives of examining the influence of capital mobilization and networks on performance and to identify the key capabilities that contribute to the success of medium hotel enterprises in Kenyan cities was in order. Firms must be able to demonstrate timely responsiveness to market dynamics and effectively coordinate as well as redeploy internal and external competencies to achieve an overall unique performance. This led to competencies qualifying as the basis of competitiveness, enabling a firm to offer new values to customers thereby developing a sustainable competitive advantage.

The Dynamic Capabilities Theory (DCT) suggests that firms that are able to build and leverage their capabilities over time are more likely to achieve sustained competitive advantage. In the context of the study mentioned in the text, the DCT can help to explain how medium hotel enterprises in Kenyan cities can build and leverage their capabilities to achieve better performance and competitiveness.

2.8. Summary of Literature Review

Strategic entrepreneurship integrates the fields of strategy and entrepreneurship to consider firms' simultaneous engagement in opportunity and advantage seeking behaviors to create wealth. Strategic entrepreneurship has also been seen as consequential innovations within existing firms that involve the combination/integration of opportunity and advantage seeking

behaviors. This make firm to be seen as a bundle of resources and capabilities responsible for sustained competitive advantage. There is a consensus in considering the intangible nature of the resources and capabilities particularly important to sustained superior firm performance. This study incorporated innovations theory, natural resource based view theory, and dynamic capabilities theories to justify incorporation of entrepreneurial mindset, innovations, capital mobilization and networking as constructs of strategic entrepreneurship. Lean and green practices were qualified by resource based view as rare and unique capability capable of influencing positively the effect of strategic entrepreneurship application on performance of medium hotels.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter expounds on information of dealing with research methodology the researcher applied in the study. Research methodology involves an appropriate research philosophy as well as research design adopted, study population, sample size and sampling techniques employed. It also captures the research instruments and data collection methods used. In short it involves a set of assumptions that reflect how a researcher views reality and how this reality is articulated through research (Gichuhi, 2017). This chapter describes the methodology that was applied to address the study objectives, target population, sample and sample size, instruments used and their validity accompanied by reliability, measuring and scaling techniques of moderating variable and concludes by data analysis, processing and hypothesis testing. Specifically, the chapter discusses the research paradigm, research design, study area, population, sample size and sampling techniques, pilot study, data collection instruments, data collection procedure, measurement and scaling technique, data analysis and processing, and statistical model and ethics.

3.2. Research Philosophy

This study was driven by objective of searching empirical data through observation to be implied scientifically to medium hotels. Scientific research philosophy involves the choice of research philosophy which can be either positivism or qualitative. Positivsm employs quantitative data collection methods while qualitative methods utilizes thematic analysis. The hybrid of the two methods gives rise to pragmatic thought though grounded on seeking the

most effective technique to address the challenge in hand. This paradigm is frequently linked to mixed methods (Mogan, 2014). Employing formulation of the problem, data collection, processing and analysis (Zukauskas, Vveinhardt & Andriukaitene, 2018). Methodological choice should be philosophically grounded to allow the researcher visualize and analyze a social phenomenon (Holden & Lynch, 2004). There are four philosophical trends namely; positivism observing objectiveness, interpretivism serving researchers themes, pragmatism dealing with facts and realist based on assumptions which are necessary.

This study adopted pragmatism philosophical paradigm because is relied on the formulation and testing of hypothesis moreover, the strength of the study becomes greater than adopting either positivism or interpretivism mono-paradigmatic orientation. Philosophical assumption also helped the researcher on how to study, and how to interpret the results. Since positivism is pro-quantitative methods and deductive reasoning while interpretivism is for qualitative approaches and inductive reasoning, pragmatism embraces the two extremes and provides a flexible and more reflexive approach to research design (Feilzer, 2010) and allows reasoning that moves back and forth between deduction and induction (Kaushik & Walsh, 2019). Pragmatism philosophy is a methodological orientation that has its own worldview, vocabulary and techniques (Tashakkori & Teddlie, 2003). The pragmatist considers the consequences of different actions and the potential benefits of one action over another (Biesta, 2010). It is also concerned with the application of a method that works based on the need to provide a solution to a problem, Patton (1990). In adopting this stance, the researcher was able to apply a mixed research design.

3.3. Research Design

There are many approaches towards a research problem. A research design is therefore a strategy Sekaran (2004) and a scheme that is used to generate answers to research problems. Quantitative approach is meant for data which can be expressed in numbers or figures while qualitative approach involves thematic statements. Mixed method research design therefore is a research approach that involves using both quantitative and qualitative research methods in a single study. The researcher chose mixed method design because using both quantitative and qualitative research methods can provide a more complete understanding of the research question. Secondly using multiple sources of data can help to increase the validity and reliability of research findings and by triangulating data from different sources, the researcher was able to cross-check findings to ensure that they were accurate and reliable.

The quantitative approach produces numbers that can be manipulated with various statistical methods. By contrast, the qualitative approach usually produces descriptions or typologies, along with expressions from subjects reflecting how they view the social world. Qualitative content analysis pays attention to unique themes that illustrate the range of the meanings of the phenomenon rather than the statistical significance of the occurrence of particular texts or concepts. Content analysis emphasizes an integrated view of speech/texts and their specific contexts and allows researchers to understand social reality in a subjective but scientific manner.

Researchers suggest that there is no definite right or wrong approach for any one research task (Bryman & Bell, 2011; Yin, 2009). What is important is for the researcher to adopt an approach that would best provide him or her with answers to the research questions and/or

issues under investigation (Gerson & Horowitz, 2002). Mixed methods research promotes a greater understanding of stakeholder perspectives on the nature of the intervention, and hence suitable for cross-validating and confirming findings from a single study (Almeida, 2018). The mixed method allowed the researcher to compensate for the weaknesses of one single approach with the strength of the other.

3.4. Study Area.

This study focused on medium hotels in Kenyan cities because city status is associated with endowment of special facilities like the international air ports used in linking hotels to global tourism market. There were only three gazetted cities by 2016 which included the capital and largest city of Nairobi, the second largest and the oldest coastal city of Mombasa, and the third largest inland port city of Kisumu (Republic of Kenya, 2016).

3.5. Study Population

The study population was all the medium hotel categories classified by the East African Community criteria for classification of Hotels and Restaurants comprising of those whose accommodation capacity ranges from 10 lettable accommodation units (East African Community, 2009) also rated as one or two star hotels. From the Tourism Regulatory Authority (TRA) Classification and Grading (2021), a total of 543 hotels were picked for the study. Mugenda and Mugenda (2012) defined a population as an entire group of individuals, cases, or objects with some common observable characteristics.

3.5.1. Sampling technique

Sample size must be estimated before a study is conducted because the number of subjects to be recruited for a study will definitely have a bearing on the availability of vital resources such as manpower, time and financial allocation for the study. Proper sampling methods are important for eliminating bias in the sample selection process. To arrive at an appropriate sample the researcher used a proportionate stratified random sampling technique. This helped to reduce sampling error and facilitated achieving the most representation of the population (Creswell, 2014). The city was used as a parameter for stratification to select the hotels to be included in each stratum. With ideal stratification, each stratum is deemed to be homogeneous internally and heterogeneously with other strata (Cooper & Schindler, 2003).

3.5.2. Sample Size

A researcher needs to estimate the variance of scaled and categorical variables. Israel (1992) noted the difficulty of obtaining a good estimate of population variance which has increased the popularity of sample size based on proportion. Yamane (1967) formula which is a simplified formula for proportion has become popular with researchers for these reasons, the formula is an approximation of known sample size formulas such as Krejcie and Morgan (1970) and Cochran (1977) formulas for proportion at 95% confidence level and population proportion of 0.5. Yamane formula in its present state is, therefore the best applicable when the confidence coefficient is 95% with a population proportion of 0.5 (Adam, 2020).

To arrive at an appropriate sample the researcher used a stratified random sampling technique to reduces sampling error and achieve the most representation of the population (Creswell, 2014). Hair et al., (2010) recommended that, as a rule for applying factor analysis,

the sample size has to be at least five times the number of variables to be analyzed. The sample size for this study was therefore determined using the formula for estimating sample sizes provided by Yamane (1967).

$$n = N/1+N(e)^2$$

Where n = Sample size N = Population size e = Level of Precision

Hence $229 = 534 /1+ 534(.05)^2$

Therefore, the number of medium hotels which constituted the sample size was arrived at was 229 hotels. The hotel names of each hotel in a city were assigned numbers which were fed in excel software and the random number generator was used to pick them. The results were 40 hotels generated for Nairobi, 149 for Mombasa and 40 for Kisumu city respectively. The study targeted hotel managers of the selected hotels as the respondents who were therefore issued with a questionnaire to fill.

Table 3.1: Sampling Frame

	City	Number of medium /Hotels	Sample size
1	Nairobi	93	40
2.	Mombasa	347	149
3.	Kisumu	94	40
	TOTAL	534	229

To ascertain the validity and reliability of questionnaire a pilot survey was conducted in Nanyuki and Embu towns. The medium hotels in these towns were chosen because they are on the slopes of Mt Kenya and are key destinations to tourists planning mountain climbing.

Piloting helps to establish the accuracy and appropriateness of the research design as well as research instruments aimed at improving the internal validity of the research instrument before embarking on the actual data collection. The questionnaire content, wording, sequence, and instructions were pilot-tested to identify and eliminate any problem that may exist in the questionnaire design and also evaluate the time required to complete the questionnaire for it to be considered appropriate for its purpose. Cooper and Schindler (2010) indicated that a pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for the selection of a probability sample. The rule of thumb is that 10% of the sample should constitute the pilot test Cooper and Schindler (2011) which translates to 23 hotels that were not included in the study. The piloting was done among the medium hotels in Nanyuki and Embu towns. The respondents were asked to complete a questionnaire to indicate any ambiguity or difficulty in responding to the questions and to offer any suggestions they thought appropriate. The data was subjected to exploratory factor analysis to determine the variable loading.

3.5.2. Sampling Adequacy

To assess the appropriateness of factor analysis in measurement scale development of the questionnaire items KMO test was conducted. The KMO measures the proportional variance in the construct that could be caused by their underlying factors. The KMO value ranges from 0 to 1 where a high KMO value is desired. The value of zero indicates that the sum of partial correlations is large relative to sum of correlations, a sign of diffusion in the patterns of correlations. The study has KMO value of 0.817 Table 3.8. which tends to be close to 1 indicating that the patterns of correlations were relatively compact and therefore factor analysis should yield distinct and reliable factors. The index also meant that more than 81

percent of variance in the measured variables is common variance. Therefore the sample was considered adequate since the value of KMO was greater than 0.5 threshold.

In SPSS the inter correlation can be checked by using Bartlett's test of sphericity, which "tests the null hypothesis that the original correlation matrix is an identity matrix" (Field, 2000). This test must be significant: when the correlation matrix is an identity matrix, meaning that there was no correlation between the variables. The bartlett's test value from the data was statistically significance (chi-square 6729.466, with a degree of freedom 1128, and p= .000) an indication that there was sufficient relationship among the variables worth investigation. Table 3.2. shows the results of KMO and Bartlett 's test of Sphericity of this study.

Table 3.2:KMO and Bartlett's Test

Tests	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.817
Bartlett's Test of Sphericity Approx. Chi-Square	6729.466
Df	1128
Sig.	.000

3.5.3. Exploratory Factor Analysis

The constructs were then subjected to an exploratory factor analysis Appendix iii to determine how many factors were to be retained. 40 construct were retained following some rules of thumb suggested by (Field, 2000):1. Retain only those factors with an eigenvalue larger than 1 (Guttman-Kaiser rule), 2. Keep the factors which, in total, account for about 70-80% of the variance, 3. Make a scree-plot keep all factors before the breaking point or elbow.

Structural equation modeling (SEM) was then performed to provide the construct of the linkages between Lean-green practices, Strategic entrepreneurship and performance .

3.6 Data collection Instruments

According to Axinn and Pearce (2006), there are four data collection methods: questionnaire, interviews, observations and focus group discussions. In this study data was collected using a hard copy questionnaire and a hard copy observation schedule. The questionnaire was to help the scholar to be objective and more precise during data collection. The questionnaire was designed in a simple and respondent-friendly manner in four sections as guided by the research objectives. A five-point Likert-scale ranging from "strongly agree" to "strongly disagree" (5 = 'Strongly Agree', 4 = 'Agree', 3 = 'Neutral', 2 = 'Disagree' and 1 = 'Strongly Disagree') was used to reflect the level of agreement of the respondents.

Likert-scales are widely used in most studies in business and other related courses in social science literature (Zikmund, 2010). To prevent response bias the wording in some questions were reversed. Response bias occurs when the respondent answers in a similar way due to lack of attention or boredom (Churchill, Brown & Shutter, 2010). Word reversing for some questions can prevent the respondent from the tendency of mechanically marking on the items on the right end of the scale. Hence by combining negatively and positively worded questions the respondent was expected to be alert. The negatively worded statements were then reversed before data analysis as directed (Kusumadhawani, 2014). To elicit the cooperation of the respondents, the nature and purpose of the study was explained to the respondents and confidentiality assured.

3.6.1. Data collection Procedure

Data was collected by use of a questionnaire which was self-administered to the hotel managers and an observation check list which was field by the researcher. There were cases of follow ups of the participants, since the method was reported to be an effective method of increasing response and return rate (Cooper & Schindler, 2006). The researcher dropped the questionnaire and picked after one week. Kwamboka and Muturi (2015) used a self administered data collection procedure to collect data from women entrepreneurs in Kenya.

3.7. Data Instruments Validation

Validity and reliability are measures undertaken to ensure that the instruments used are accurate and consistent (Bryman & Bell, 2011, Biggam, 2011). Issues of measurement error should be addressed correctly (Kusumawadhani, 2014) to ensure validity and reliabilty.

3.7.1. Validity

Patton (2002) defined validity as the best available approximation of the truth or falsity of a given inference, proposition, or conclusion. Validity indicates the degree of evidence and theory that supports the interpretation of test scores as the intended use of the test. Validity is meant to check whether the questionnaire is measuring the concept it purports to measure and not something else (Hair, Black & Babin, 2010). The factor analysis results were used to determine the average variance extracted to test the convergent validity of the constructs. Criterion validity was assessed through factor analysis to reduce or summarize a large

number of variables into factors or components based on the correlation between those variables (Appendix iii). Construct validity proves the extent to which a set of measured items reflect the constructs the items are meant to measure (Hair et al., 2010). The correlation matrix revealed a determinant greater than 0.00001 hence the correlation matrix met the threshold of an identity matrix (Samuels, 2016).

Construct validity is made up of convergent and divergent validity. Convergent validity of Performance, Strategic entrepreneurship (STE) and Lean-green practices (LGP) was tested by way of applying factor analysis. The convergent validity tests whether the items that are meant to be related are related. This was determined by calculating average variances extracted (AVEs) for each construct. The results showed that the lowest construct had an AVE of 0.723 while the highest had an AVE of 0.841 therefore all the constructs achieved convergent validity and were above the threshold mark of 0.5 of convergent validity. The AVEs are displayed in Table 3.2.

Table 3.3:Average Variance Extracts

Construct	AVE
Mindset	0.756
Innovations	0.841
Capital Mobilization	0.736
Network	0.723
Green Practices	0.770
Lean Practices	0.766
Firm Performance	0.736

Divergent validity or discriminant validity refers to the degree to which the measurement constructs should not be very highly correlated with each other or are distinct. Discriminant

validity was assessed to ensure that items measuring different constructs were not related. This was important because it showed whether the test accurately targeted the construct of interest or if it assessed separate but unintentionally related constructs. The requirement is that constructs should have their own distinct identity and there should be no overlapping. Testing for discriminant validity can be done using one of the following methods: O-sorting, chi-square difference test, and the average variance extracted analysis (Zait, 2014). This study tested for discriminant validity using the chi-square difference test because the method allowed the researcher to compare two models, one in which the constructs were correlated and one in which they were not. The difference test result was significant ($p=0 < 0,05$) which meant that the two constructs presented discriminant validity. This is indicated in Table 3.3.

Table3. 4: Chi-squares Differences

Model 1	Model 2
Chi-square $= 1849.428$ Degrees of freedom $=663$ Probability level $= 0.000$ $$\frac{\chi_1 - \chi_2 = 472.835}{df_1 - df_2 = 21} = 22.52$$	Chi-square $= 1376.593$ Degrees of freedom $=642$ Probability level $= 0.000$

The content validity was addressed by constructing a measuring scale in line with the literature and pre-testing the research instruments during piloting. The data in the questionnaire was compared with the observation schedule to arrive at criterion-related validity. The lean observational indicators were adopted from the Lean Manufacturing and Environment checklist by Rodrigues, Alves and Silva (2020) while green indicators were

extracted from the green impacts checklist employed by Verrier, Caillaud and Rose (2015). The observation checklist was used to predict whether responses were concurring thereby confirming the validity of the questionnaire which was the main instrument for data collection.

3.7.2. Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Abbot & McKinney, 2013); Saunders, Wong and Saunders (2009). Reliability uses a coefficient that shows the degree of regularity or consistency of the measurement results of a test. Reliability estimates the degree to which a measurement is free from random or unstable error (Miriti, 2018). Therefore, the reliability is not related to the test, but rather to the level of errors in the results of a test in the form of a score. A reliable measurement is supposed to demonstrate consistency and stability in measuring the same concept in different situations. The test for reliability measures the consistency of correlation analysis to avoid Type 1 and Type 11 errors (Osborne, Christensen & Gunter, 2001).

To assess the reliability, this study used Cronbach's α to assess the internal consistency. Zikmund et al., (2010) stated that Cronbach's coefficient α is an appropriate measure of variance attributed to subjects and variance attributed to the interaction between subjects and items. The higher the internal consistency coefficient, the more Cronbach's alpha coefficient is closer to 1 (Sekaran, 2004). Although there is no commonly agreed minimum level of acceptance, a test score of 0.7 is prescribed as the benchmark for items to be included in the study (Cronbach & Richard, 2004; Zikmund et al., 2010). The threshold for individual coefficients should be greater than 0.5, while the composite coefficient should be above 0.7, and Cronbach's alpha should be more than 0.7. The values in Table 3.4. show the reliability

statistics for the 40 items or variables was 0.878 above 0.7. This was sufficient confirmation of the reliability of the data collection tool for all the variables. All the variables met reliability thresholds, and therefore data collection instrument was reliable.

Table 3.5: Cronbachs' Alpha for Reliability Test

Variable	Cronbachs'Alpha	Number of Items	Decision
i) Networks & alliances	.942	6	Reliable
ii)Capital mobilization	.907	6	Reliable
iii) Innovations	.929	4	Reliable
iv) Mindset	.828	6	Reliable
v) Green practices	.848	4	Reliable
vi) Lean practices	.903	6	Reliable
vii) Performance	.908	8	Reliable

3.7. 3. Data Analysis and Presentation

After the questionnaire administration, raw data was systematically organized to facilitate analysis. Initially, data cleaning was done using Microsoft Excel software to check for errors during data entry. Descriptive statistics were employed to analyze demographic information concerning respondents. Descriptive statistics in the form of percentages, means and measure of dispersion allows data presentation in a more meaningful way and makes it simpler to interpret (Cooper & Schindler, 2011). The data was analyzed using Statistical Package of Social Sciences (SPSS) software and presented in frequency tables, bar charts, graphs, and pie charts. Categorical data was obtained through a Likert scale which was transformed into quantitative data while qualitative was coded in the observation checklist.

3.7.4. Measurement and Scaling Technique

The close-ended questions were presented in a 5-point Likert scale to measure the objectives. Likert scale was designed to examine how strongly respondents agreed or disagreed with a statement. Kothari, (2009) explained that 5-Likert scales are more reliable and can provide more information, hence a 5- Likert scale ranging from "Strongly disagree" to "Strongly agree" was adopted. Alipour et al. (2019) study of sustainability in the hotel industry adopted a 5-Likert scale. The Likert scale is best suited when the value sought is a belief or opinion, and the effect or value sought cannot be given with a brief precision or is considered sensitive (Miriti, 2018).

Table 3.6: Measurement of Variables

Objective	Variable	Type	Data analysis	Operational definition of variables	measurement
i) To examine the extent to which entrepreneurial mind-set influences firm performance of medium hotels in Kenyan cities.	Entrepreneurial mind-set	Independent variable	Descriptive Inferential Statistics	-Entrepreneurial strategies -Capturing uncertainty benefits	Indirect indicators used to measure the latent construct
ii) To establish the influence of innovations on firm performance of medium hotels in Kenyan cities.	Innovations	Independent variable	Descriptive Inferential Statistics	-Applying creativity -Lean innovations	Indirect indicators used to measure the latent construct
iii) To analyze the effect of capital	Capital mobilization	Independent variable	Descriptive Inferential	-Intellectual capital	Indirect indicator

				Statistics	-Financial capital	s used to measure the latent construct
mobilization on firm performance of medium hotels in Kenyan cities.						
iv) To examine the extent to which internal networks influence firm performance of medium hotels in Kenyan cities.	Networks	Independent variable	Descriptive Inferential Statistics		-Access to information(other firms)

-Access to technology(processes and systems)

-Access to markets | Indirect indicators used to measure the latent construct |
| v)   To establish the influence of lean-green practices on the relationship between strategic entrepreneurship and performance of medium hotels in Kenyan cities. | Lean-green practices | Moderating variable | Descriptive

Inferential Statistics | | -Waste Reduction Strategies -Lead Time Reduction - Iterative customer feedback approach - Continuous improvement strategy | Indirect indicators used to measure the latent construct |
| Objective i,ii,iii and iv | Performance of medium hotels in Kenyan cities | Dependent variable | Descriptive Inferential Statistics | | -Market value and profits.

-Customer satisfaction

-New ventures.

-Enhanced the corporate image, | Indirect indicators used to measure the latent construct |

Source: Author 2023

3.8 Tests for Structural Equation Modeling Assumptions

Structural equation modeling (SEM) is a multivariate data analysis method for analyzing complex relationships among constructs and indicators. SEM allows more general measurement model than traditional factor analytic structures and enables the researcher to specify structural relationship among the latent variables (Bollen, 1992).

3.8.1 Normality test

In parametric tests one has to assume normal distribution of the variables (Tanton, 2011). The data was explored to determine normality in distribution. After collecting data, it was subjected to data cleaning to identify the missing values to enable it meet assumptions of normality and hence be appropriate for further tests. A normal residual curve on residuals was used to test the normality of the data.
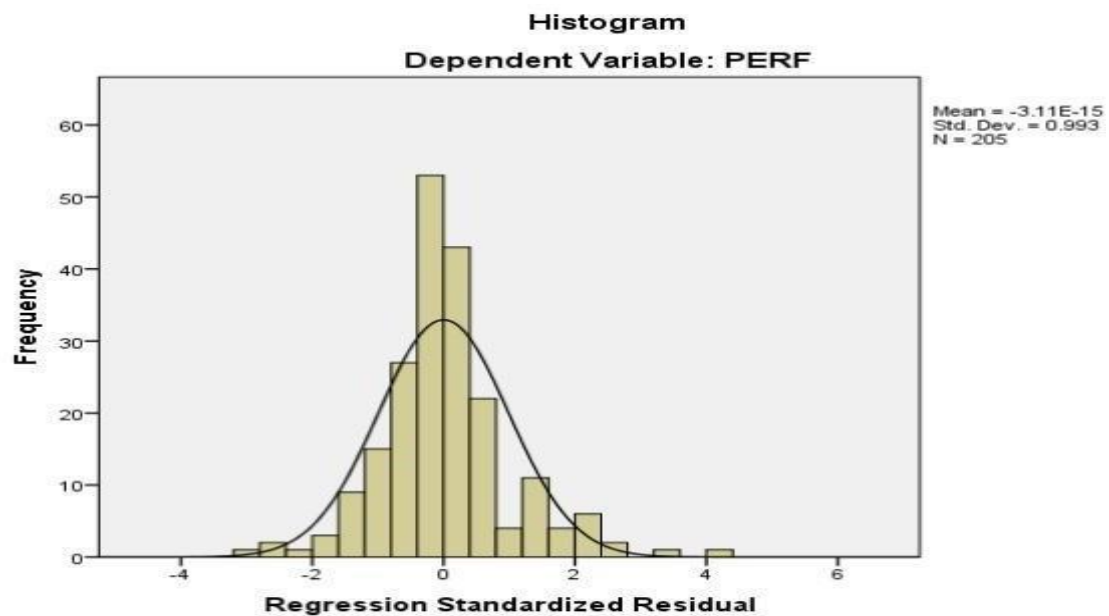
Figure3.1:: Histogram showing the distribution of standardized residuals

The Figure 3.1 shows that there were minimum deviations from normality and the overall distribution appears normal, the distribution is symmetrical and does not look seriously peaked or flat. This implies that the data collected was homogeneous and it is consistent with the central limit theorem which states that as the sample size gets larger, the less the assumption of normality matters (Field, 2010). Kiumbe (2018) employed the normal curve from standardized residuals to confirm normality. Elliots and Woodward (2006) has ascertained that for large sample size (40 and above), central theorem can be assumed, and as such the use of parametric procedures can be still be justified. The assumption of normal distribution helps to predict dependent variable scores.

3.7.3. Linearity Test

In parametric tests, there is an assumption that the independent and dependent variables have a linear relationship. The study adopted the ANOVA test of linearity. The rule of the thumb is; If the F significance value for the non-linear component is below the critical value (ex., < 0.05), then there is significant non-linearity. In other words, if the value is greater than 0.05 ($P>0.05$) then the relationship between the dependent and independent variable is linear but if the value is significant, ie less than 0.05 ($P< 0.05$) then the relationship is non-linear (Hair et al., 2012). The ANOVA test statistics of the inverses of both dependent and independent variables were significant and hence linearity was confirmed as indicated in Table 3.7.

Table 3.7:ANOVA Test of Linearity

		Sum of Squares	df	Mean Square	F	Sig
	(Combined)	21.406	11	1.946	20.330	.000
Between Groups Linearity DfPERF*dfLGP		20.042	1	20.042	209.378	.000
Deviation from Linearity		1.364	10	.36	1.425	.172
Within Groups			18.475	193	.096	
Total			39.881	204		
	(Combined)	26.321	51	.516	5.823	.000
Between Groups Linearity DfPERF*dfSTE		21.215	1	21.215	239.375	.000
Deviation from Linearity		5.107	50	.102	1.152	.254
Within Groups			13.560	153	.089	
Total			39.881	204		

3.7.4. Homoscedasticity Test

Homoscedasticity was tested using the regression standardized residuals plot. The assumption of homoscedasticity is that dependent variable exhibits equal variance across the range of values for an independent variable (Hair et al., 1998). Heteroscedasticity is present when dependent variable exhibits non-random pattern and hence homoscedasticity was confirmed from the randomness of standardized residuals plot as indicated in Figure 3.2.
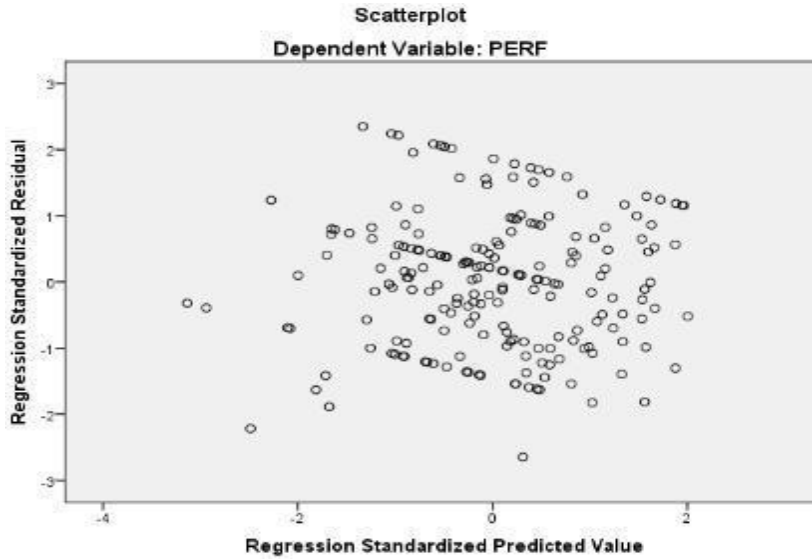
Figure 3.2: Regression standardized residuals plot

3.7.5. Test for Multi-Collinearity

This study tested the analysis variables for multi-collinearity using the multi-collinearity statistics of Tolerance and Variance Inflation factors (VIF). Multi-collinearity exists when there is a strong correlation between 2 or more independent variables. Presence of multi-collinearity reduces the predictive power of individual variables. VIF values of greater than 10 indicate multi-collinearity and Tolerance values of below 0.1 indicate serious multi-collinearity problems. The highest VIF was 2.092 and the lowest 1.404 all the variable had a VIF less than 3, while highest tolerance level was .712 and the lowest .478 and all the variables had a torelance value above .2 cut off limit. Therefore for all the independent variables there was no multi-collinearity issue as shown in Table 3.8.

Table 3.8:Test for Multi-Collinearity

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.160	.226		.708	.480		
Innovations.	.023	.040	.031	.653	.15	.712	1.404
Entr; Mindset	.215	.057	.219	3.749	.000	.478	2.092
Capital Mobilization	.138	.054	.148	2.547	.012	.481	2.078
Networks & alliances	.173	.048	.175	3.610	.000	.690	1.449
Green practices	.253	.052	.262	4.845	.000	.555	1.801
Lean-Green Practices	.169	.045	.219	3.757	.000	.479	2.086

a. Dependent Variable: Performance

After conducting the required tests to ascertain conformity with factor analysis data analysis was subjected to the linear and multiple regression analysis to establish the relations between independent and dependent variables. Factor analysis was employed to identify the constructs to be regressed against the dependent variable (Cooper & Schindler, 2003). To measure the influence of lean-green practices influence on the relationship between Strategic entrepreneurship and performance of medium hotels, a moderated multiple regression was used to measure the extent to which lean-green practices influences the relationship between the Strategic entrepreneurship and performance of medium hotels.

Hierarchical Multiple Moderated Regression (MMR) models was employed since the dependent variable (firm performance) is continuous, as recommended by Lucky (2012) using step-by-step method (Field, 2009). The method was found suitable because it allows the slope of one or more independent variables to vary across the moderator variable. To

estimate the interaction effect using moderated multiple regression utilizes creation of Ordinary Least Square (OLS) model and moderated multiple regression model equation. The relationship among the variables was expressed in form of:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 \times X_2.$$

Which can be rearranged and regroup the terms to obtain;

$$Y = (\beta_0 + \beta_2 X_2) + (\beta_1 + \beta_3 X_2)X_1$$

Where Y = Firm performance

$(\beta_0 + \beta_2 X_2)$ = The intercept

$(\beta_1 + \beta_3 X_2)X_1$ = Regression slope

X_1 = Strategic Entrepreneurship

X_2 = Lean-green practices

$\beta_0 + \beta_2$ respectively was to estimate the intercept and the slope of Strategic Entrepreneurship on Firm performance while $\beta_1 + \beta_3$ described how the intercept and the slope was to differ after incorporating lean-green practices.

Strategic entrepreneurship was assessed through application of entrepreneurial mindset, innovations, capital mobilization and networks. Firm performance was ascertained in terms of increase in Market value and profits, Customer satisfaction, New ventures, Enhanced corporate image and Enhanced competitive advantages. Their relationship can be expressed using the following equation.

$Y = \beta_0 + \beta_1 X + \varepsilon$

Where Y = Firm performance

β_0 = Autonomous factors

β_1 = Regression coefficient showing change in value of PERF from a unit change in STE

X = Strategic Entrepreneurship

ε = stochastic error term

The lean-green practices were measured in terms of waste reduction techniques, lead time reduction, use of iterative customer feedback approach and experimentation approach. Firm performance was ascertained in terms of increase in Market value and profits, Customer satisfaction, New ventures, Enhanced corporate image and Enhanced competitive advantages. Their relationship can be expressed using the following equation

$Y = \beta_0 + \beta_2 X_2 + \varepsilon$

Where Y = Firm performance

β_0 = Autonomous factors

β_2 = Regression coefficient showing change in value of PERF from a unit change in LGP

X_2 = Lean-green practices

ε = stochastic error term

The goodness of fit test were carried out by use of Root Mean Square Error of Approximation (RMSEA) in AMOS version 22 statistical software because it is sensitive to the number of parameters being estimated and insensitive to the sample size. A value 0.08 or less (RMSEA) value was an indicator of a close fit of the model (Albright & Park, 2009). Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) were also computed to validate the goodness of fit. Other tests conducted to ensure the data was appropriate for factor analysis include: Bartlett's test of sphericity; and Kaiser-Meyer-Olkin measure of sampling adequacy.

3.8. Ethical Issues

The researcher sought authority from Karatina University to proceed to the field to collect data. Informed consent was sought to ensure that respondent was aware of the facts influential to their decision to participate in the research. There was a memorandum and an introduction letter to assure participants that their responses would be treated with strict confidence and that their identity was never to be made public. The researcher maintained high standards of ethics to avoid issues involving privacy interference, deception or misrepresentation, abuse of perceived rights to confidentiality, and "coloring" research results (Bouma, 1996). Privacy issues were also protected by maintaining the participant's assured anonymity. Therefore, critical attention was given to ethical considerations to ensure that the study conformed to ethical principles and values governing research involving humans to protect the respondents. Another critical consideration was how the data and information gathered from the research would be shared and stored (Creswell, 2009). As a

result, the participants were told the purpose of the research and the breadth and nature of the

inquiry.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETITION

4.1. Introduction

In order to provide a thorough contextualization of the study findings, it is essential to first outline the demographic characteristics of the respondents. The information helps to establish a deeper understanding of the sample population, and is instrumental in determining how broadly the study's conclusions can be applied. The chapter presents the findings of the study Strategic Entrepreneurship, Lean-green practices and the performance of medium hotels in Kenyan cities the first section presents the response rate of the respondents. The second section presents demographic information highlighting the key characteristics of respondents. Section three presents the findings and hypotheses tests meant to determine the influence of lean-green practices on the relationship between strategic entrepreneurship and performance among medium hotels in Kenyan cities.

4.2. Response Rate

The researcher distributed 229 questionnaires to the respondents in senior management out of which 205 questionnaires were properly filled when returned. Data analysis was based on the 205 questionnaires representing a response rate of 87.5%. Sekaran (2004) argues that any response rate above 75% is classified as best and appropriate for any study. Likewise, Babbie (2010); and Mugenda and Mugenda (2012) considered a response rate of 50% to be adequate for analysis and reporting, whereas 60% as good while 70% and above deemed very good. These recommendations asserts that any response rate of 50.% is adequate for analysis and

reporting and a rate of 60% is good while a response rate of 70% and over is excellent. The response rate for this study was 87.5 % which was above the recommended threshold.

4.3. Demographic Statistics of the Respondents

In the introductory part, the questionnaire inquired responses related to demographic characteristics. The characteristics of the sample are as follows:

4.3.1. Gender Distribution

The information concerning the gender distribution of the respondents was sought and hence the participants were asked to state their gender. The study found that 68.3% of the respondents were males while 31.7 % were females.
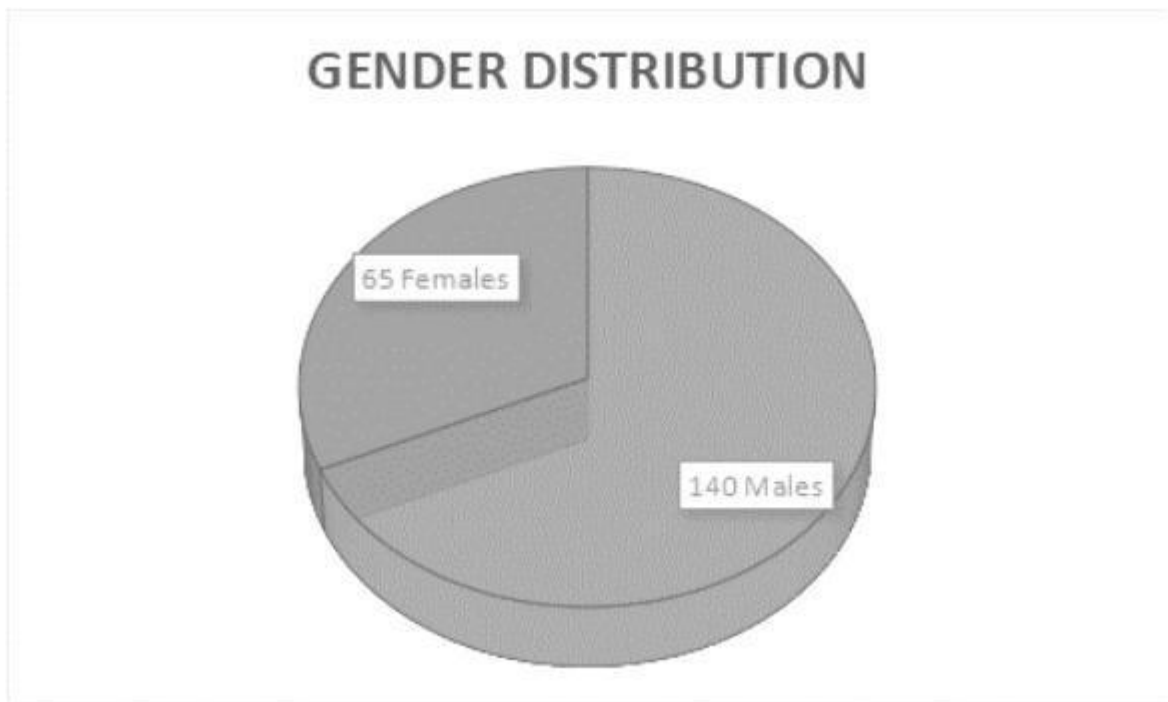
Figure 4.1: Gender Distribution

The results indicated that the majority of managerial positions are still dominated by males as shown in Figure 4.1. This concurs with Abdou and Hassan (2020), whose study revealed the majority of management positions being held by males. Marinakou (2014) had earlier revealed few women in hotel management and leadership revealed positions. The findings imply that this distribution was below the provision per the Kenyan Constitution 2010 which advocates for one-third representation of women. Foss, Woll and Moilanen (2013) also found that there were more males in management positions and females in customer care, accounting, and internal services. Even though the hotel sector is dominated by women employees with an average of 55.5% of the workforce, they are mainly found in positions that are stereo-typically ascribed to their gender, such as directors of sales, housekeeping, and marketing (Marinakou, 2014).

4.3.2. Manager's Level of Education

The study sought the respondents' highest level of education attained and therefore asked the respondents to indicate their highest qualification in terms of education. The study found that 46.3% were middle college graduates, 50.2% held university graduate degrees and above, while only 3.4% had other qualifications, A-level and certificate training.
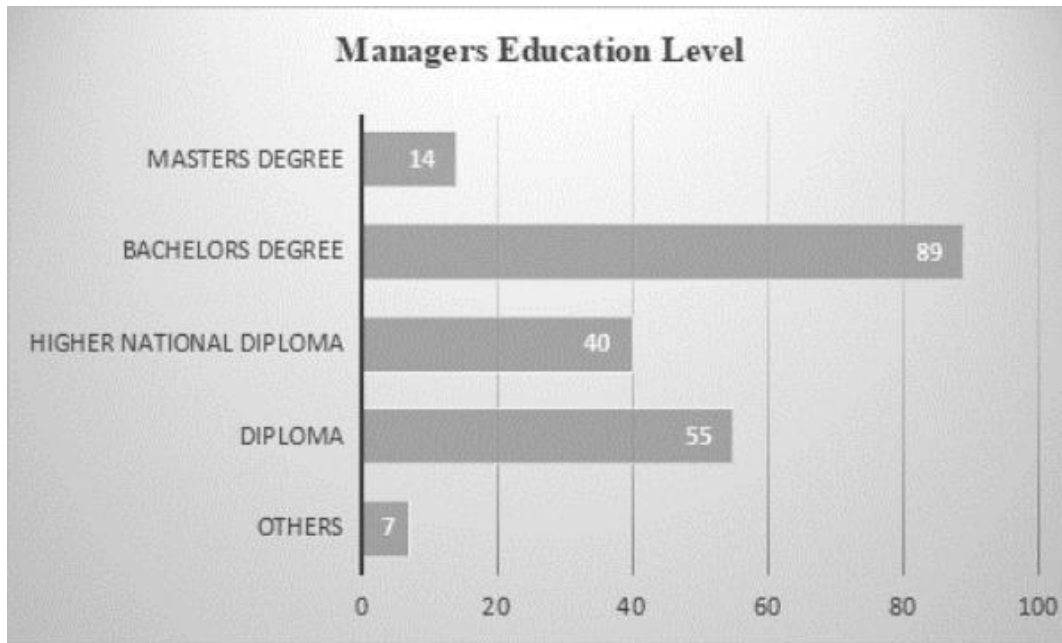
Figure 4.2 : Respondents Educational Background

The result shows that most respondents had academic qualifications from a diploma and above and therefore could understand the importance of strategic entrepreneurship in the hotel industry. It also indicated that the majority of the respondents were able to interpret key information in the questionnaire and give reliable information. This concurs with Wanjiru (2018) study that associated education achievement with better understanding. The respondents with technical knowledge can assist in gathering reliable and accurate data on the problem under investigation.

4.3.3. Work Experience

The study sought to establish the number of years that each respondent had served at the managerial level. The respondents were asked to indicate the category in which they fall with regard to the number of years worked. The study revealed that those with less than five years of work experience were 35%, 6-10 years 44%, 11-15 years 16%, 16-20 years 2%, and over

21   years   3%   as   shown   in   Figure   4.3.
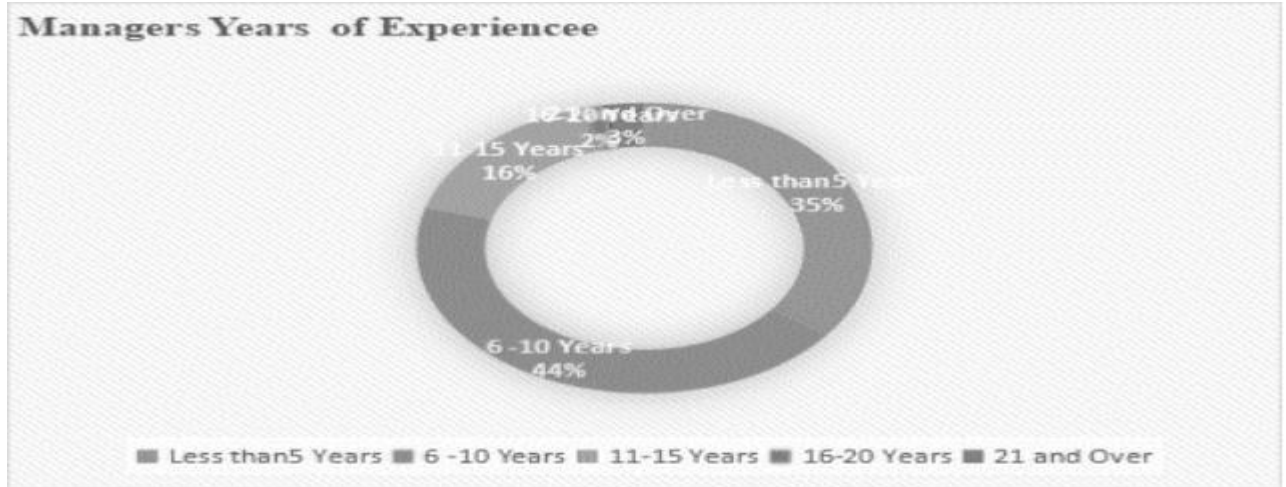
Figure 4. 3: Managers Years of Experience

The findings show that the majority 64.9 % had work experience of over 5 years and therefore had served long enough to acquire substantial experience and were in a capacity to give credible information. Experienced employees can improve the efficiency of the processes in the line of duty within an establishment. This is in line with Njogu (2017) whose study on the effect of employees' work experience on performance within the hotel industry, revealed that 67.5 % of the respondents had work experience of above 4 years, and considered that work experience as adequate to investigate the impacts of work experience on employees. IBM (2014) found that employees with longer work experience were able to adapt faster to new processes and structures than those who have no prior work experience. A more experienced team of workers is capable of providing reliable data.

4.3.4. Hotel Age

The study sought to establish the years each hotel had been operating. The respondents had to tick the indicated category in which the numbers of years of the hotel has been operation fall. From the results majority of hotels 71.2% had been operational for more than 5 years.
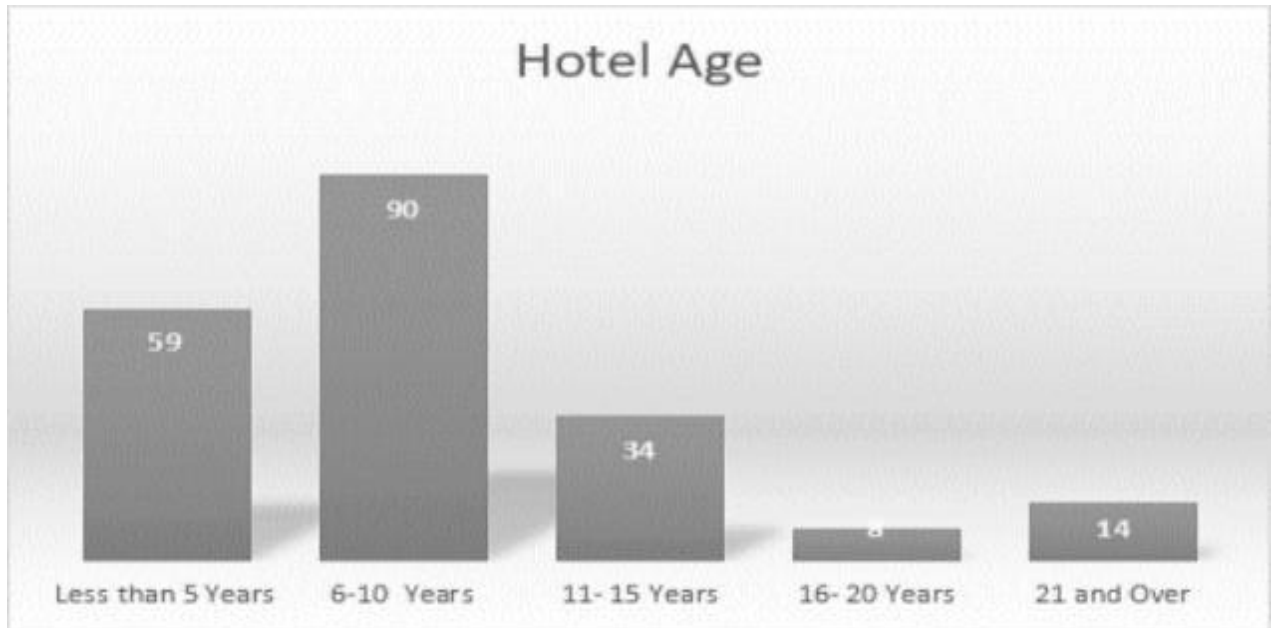
Figure 4.4: Hotel Age

This study found out that sampled hotels were old enough to try some researched practices and therefore provide reliable information across the hotel industry. Age is significant in matters concerning adopting sustainable practices. Maskivker and Ignasi (2016) observed that, in the case of green practices within the hotel industry, they are based on knowledge created and managed by traditional hotel structures. It also implied that majority of the hotels had survived the Covid 19 pandemic which Sahoo, Awuor and Panigrahi (2020) study

revealed that it impacted hotels differently with bigger hotels suffering far more than smaller hotels.

4.4. Descriptives of the Study Variables

4.4.1. Lean-green Practices

Embracing lean-green practices can help businesses thrive both financially and

environmentally.

Table 4.1 :Frequency and Mean Values for the Lean-green Practices in Medium Hotels

Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std D
	N	%	N	%	N	%	N	%	N	%		
Continuous Improvement	4	2.0	6	2.9	19	9.3	109	53.2	67	32.7	4.12	.838
Biodegradable Facilities	4	2.0	14	6.8	23	11.2	108	53.7	56	27.3	3.97	.915
Scrap Elimination	3	1.5	7	3.4	22	10.7	97	47.3	76	37.1	4.15	.853
Economical Resource use	4	2.0	6	2.9	22	10.7	94	45.9	79	38.5	4.16	.874
Integrating Eco-friendly Materials	4	2.0	6	2.9	19	9.3	111	54.1	65	31.7	4.11	.833
Lean Startups	3	1.5	6	2.9	18	8.8	98	47.8	80	39.0	4.20	.831
Average mean score											**4.285**	**.8573**

The findings revealed that the highest indicator of lean-green practices was operating on

Lean Startups with a (Mean 4.20 std dev.831), and the least was the use of biodegradable

facilities (mean 3.94, std dev .915). Continuous improvement (mean 4.12, std dev .838),

biodegradable facilities (mean 3.97, std dev .915), Processes of scrap elimination (mean 4.15,

std dev .853),, economical resource use to boost image (mean 4.16, std dev .874), integrating

eco-friendly material (mean 4.11, std dev .833), lean startups (mean 4.20, std dev .831), All

the measures showed an average mean above the average value of 4.285 and a standard

deviation of .8573. By implementing sustainable practices, firms can reduce their impact on

the environment, while simultaneously boosting operational efficiency, improving cost-

effectiveness, and enhancing their brand reputation. In this way, lean-green practices can be seen as a win-win solution that benefits both the bottom line and the planet. There are many ways to implement lean-green practices, such as switching to renewable energy sources, reducing waste, and adopting sustainable procurement strategies. By taking these steps, businesses can demonstrate their commitment to environmental sustainability and set themselves up for long-term success

The participants were asked to indicate their level of agreement or disagreement on practices meant to capture how lean-green practices are implemented in their hotel's daily operations. The results are tabulated in Table 4.1. This depicted strong agreement on the statements that measured each construct. Table 4.1 had these results. Lean-green practices were introduced as an intervening variable influencing the direction and strength of strategic entrepreneurship on performance in the fifth objective.

4.4.2. Strategy of Dealing with Competition

The strategy of dealing with competitors can have a significant impact on the performance of a business.

Figure 4.5:Strategies of Dealing with Competition

The study established that product quality strategy had the highest percentage of 63.4 % while price war a strategy that doesn't involve any lean-green initiatives had the least score of 47.8%. A well-crafted strategy can help a business gain a competitive advantage, differentiate itself from the competition, and ultimately improve its performance. There are several strategies that businesses can use to deal with competitors, such as cost leadership, differentiation, niche focus, and innovation. Each of these strategies has its advantages and disadvantages, and the choice of strategy will depend on the specific needs and goals of the

business. However, regardless of the strategy chosen, it is essential to monitor and analyze the performance of the business regularly to ensure that the strategy is working effectively. This study sought to establish the most preferred methods of dealing with competitors to ascertain the hotel's theme of eco-friendliness in business strategies. The results are tabulated in the figure 4.5.

This confirmed existence of some green commitments in the hotels business strategies. Developing a sound strategy for dealing with competitors can positively impact a business's performance. An effective strategy can help a business gain a competitive advantage, differentiate itself from the competitors, and ultimately enhance its performance. In this regard, businesses can employ various strategies such as cost leadership, product differentiation, on time delivery, and adopting innovations, each with its unique strengths and weaknesses. Nonetheless, the choice of strategy should align with the specific needs and goals of the business. Besides, it's crucial to assess the business's performance regularly and adjust the strategy accordingly to ensure continued effectiveness.This concurred with Borisenko (2018) who observed that pro-environmental responses achieved relatively high scores. Dealing with competitors is a tricky strategy where some may institute ruthless methods while other may be cautious and aware of the environment they are operating in and hence go for super techniques enabling them to be ahead. The strategies for dealing with competition results are as indicated in Figure 4.5.

4.4.3. Lead Time Reduction Strategies

Lead time reduction has been identified as a key theme for improving hotel performance. By reducing the time it takes to deliver products and services to guests, hotels can increase operational efficiency and effectiveness, resulting in higher levels of guest satisfaction and loyalty.

Table 4.2 :Lead Time Reduction Dimensions

	Percentage			Mean	Standard
	Often	Quite Often	Very Often		Deviation
Involving lean suppliers	49.3	32.2	18.5	1.63	.766
Welcoming employee's suggestions	53.7	29.8	16.6	1.63	.754
Rewarding super ideas	33.7	44.4	22.0	1.88	.738
Self-directed work teams	54.1	27.3	18.5	1.64	.777
Create multi-skilled work force	51.7	35.1	13.2	1.61	.709
Average mean score				**1.678**	**.7488**

The study sought to establish the frequency of applying popular green strategies to save on time. As shown in Table 4.2. Involving lean suppliers "often" dominated the initial dimension with 49.3% , this implied least lean considerations are put in place when awarding tenders. Quite often had 32.2 % and very often 18.5% respectively. In matters concerning welcoming employees suggestions "often" had 53.7%, quite often 29.8% and very often 16.6% this collaborated the presence and use of suggestion box as witnessed by the presence of the facility in the observation schedule. Involving employee ideas had been associated with super performance due to each having a unique contribution (Zhenjing et al., 2022). Rewarding super ideas very often had 22%, quite often 44.4 % and often had 33.7 %. Sometimes the noble ideas may go wrong but figuratively the motive behind may be genius which if modified can do marvelous on lean-green performance (Ahmad, Abdulla & Talib,

2020). Concerning self directed teams "often" had 54.1%, quite often 27.3% and very often 18.5% showing an inclination towards autonomy in operations which concurred with Mohammed et al., (2022). Finally creating multi-skilled work force "very often" had the least score of 13.2 % while "quite often" had 35.1% and "often" 51.7%. Which showed slow speed of advancing technological advancement and this concurred with Pham et al., (2020). Additionally, reducing lead times can help hotels respond more quickly to changes in the market, such as shifts in consumer preferences or changes in the competitive landscape. As such, lead time reduction is a critical area of focus for hotel managers seeking to improve their overall performance.

The results showed some efforts towards adopting strategies leveraged on lean-green practices aimed at perfecting sustainable production. By streamlining processes and reducing the time it takes to deliver products and services to guests, hotels can enhance their operational efficiency and effectiveness, leading to greater levels of customer satisfaction and loyalty. This, in turn, can result in higher revenue and profitability for the hotel. Moreover, improving lead times can help hotels stay agile and responsive to changes in the market, enabling them to adapt quickly to shifting consumer preferences and competitive pressures. As such, focusing on lead time reduction can be a key driver of success for hotel managers seeking to enhance their overall performance. In matters of lean practices, the study adopted Green benefits of lean implementation on construction projects by Ahuja et al., (2017). .

4.4.4. Observations Schedule Report

To confirm the adoption of sustainable practices in medium hotels in Kenyan cities, an observation schedule was used to monitor the implementation of lean-green practices. The

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schedule was a useful tool to identify areas of strength and opportunities for improvement. By tracking the adoption of sustainable practices, such as waste reduction, energy conservation, and water management, the hotels can continuously enhance their overall performance. The feedback provided through the observation schedule was used to recognize the efforts of the hotel management and staff in implementing sustainable practices collaborated in the questionnaire. The study collected observational data based on physical evidence of lean-green practices of each of the hotels studied. Figure 4.6 reveals the lantent indicators observed during the collection of the questionnaire and used verify other claims.

Figure 4.6: Observation schedule of Lean-green Practices Application

Concerning water conservation, the study found that 73.6 % of the hotels had check-up and maintenance schedules in the toilets while 86.1 % had tiled wash-rooms. These findings are consistent with previous research of Han et al., (2018), who concluded that using low-flow

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toilets and shower heads, installing water-efficient devices and appliances, and implementing linen and towel reuse programs were the most popular means by which hotels have attempted to reduce water consumption. Abdou et al., (2020) study findings reveal that, overall, usage of low-flow toilets and shower heads, using Light Emitting Diodes (LED), separating hotel wastes by using clearly labeled containers and coloured bins for collecting recyclables and implementing advanced technologies to track energy consumption was the most adopted green practices. These practices are associated with water conservation and wastage avoidance. This fact was observed by Coddington (1990) who claimed that firms with their green products can strengthen their eco-friendly image to attract more customer attention.

In matters concerning recycling, 67.3 % of the medium hotels were found to tap and conserve rainwater contrary to Mugure (2021) whose study established that 75% of the large establishments have no rainwater harvesting system in Mombasa. Also, Chan et al., (2016) observed that Collecting rainwater and using it for garden irrigation or flushing toilets" was the least adopted practice in hotels. 64.8 % of the hotels had labeled recycle bins which was in line with Han, et al., (2018) study which listed how hotel operators began adopting various practices that aim at reducing hotel waste as follows: separating hotel wastes by using clearly labeled containers and coloured bins for collecting recyclables, purchasing products containing recycled content, collecting organic kitchen wastes separately for soil composting, purchasing food items and cleaning chemicals in bulk to cut on energy wastage associated with piecemeal transportation, putting in place donation program (donating food leftovers and linens to charity) and grinding the remaining guest soaps to use as laundry detergent.

The study also found that 86.8% of medium hotels had evidence of using rechargeable appliances which is ideal for the hotel industry since today's travelers increasingly rely on smart-phones and tablets for information, booking, and storing tickets. In the same light, the study found that 92.2 % of studied medium hotels get vegetables from the local community, and this was also in agreement with Mugure (2021) study that established that 75% of large hotels procure green products that local farmers and fishermen produce for hotels in the Mombasa region.

The study revealed that 97 % of medium hotels had reusing utensils practice in place with 23.4 % of them implementing the use of reusable savvies. 86.5 % were found to use refillable soap dispensers while 39 % had furniture made from recycled materials. The study also established that 76 % of the medium hotels had a suggestion box in use, which was in line with Ahuja et al., (2017) Pareto's HRM indicator of employee involvement through suggestions. This was in agreement with Zengeni and Muzambi (2013) on 100 informants in Harare, Zimbabwe, which revealed that employees' environmental awareness plays an important role in the green revolution.

4.5. Descriptive Analysis of the Study Variables

Inferential statistics served as a valuable analytical tool for testing hypotheses   refuting effects of strategic entrepreneurship indicators on the performance of medium hotels in Kenyan cities. The strategic entrepreneurship indicators were entrepreneurial mindset, innovations, capital mobilization, and networks. By leveraging descriptive statistics, hotel management can gain a comprehensive understanding of the relationship between these strategic entrepreneurship indicators and the hotel's performance. This information can be

used to identify areas of strength and opportunities for improvement, and develop targeted strategies and action plans to enhance the hotel's overall performance. Descriptive statistics can also help to benchmark the hotel's performance against industry standards and competitors, providing valuable insights into the hotel's position in the market. In conclusion, descriptive statistics can be an effective tool for medium hotels in Kenyan cities to assess and optimize their strategic entrepreneurship practices, leading to greater success and competitiveness in the hospitality industry.

4.5.1. Entrepreneurial Mindset and Performance of Medium Hotels in Kenyan cities

An entrepreneurial mindset can significantly impact the performance of medium hotels in Kenyan cities. Entrepreneurial mindset refers to a set of attitudes, beliefs, and behaviors characterized by innovation, risk-taking, pro-activeness, and a focus on opportunity. During the conceptualization of dimensions of strategic entrepreneurship, the entrepreneurial mindset was captured as one of the dimensions of analyzing the strategic entrepreneurship concept (Naumann, 2017).

Table 4.3: Frequency and mean values for the entrepreneurial mind set in medium hotels:

Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std D
	N	%	N	%	N	%	N	%	N	%		
Condoning errors from ideas well	2	1.0	1	.5	6	2.9	100	48.8	96	46.8	4.40	.669
Encouraging spontaneous thoughts	1	.5	1	.5	14	6.8	90	43.9	99	48.3	4.39	.682
Exploiting unique rare decisions	3	1.5	2	1.0	10	4.9	93	45.4	97	47.3	4.36	.752
Budget for innovation	3	1.5	1	5	10	4.9	88	42.9	103	50.2	4.40	.738
Limitless risks aimed at success	3	1.5	2	1.0	15	7.3	89	43.4	96	46.8	4.33	.778
Exploiting unique rare decisions	5	2.4	1	.5	8	3.9	92	44.9	99	48.3	4.36	.796
Average mean score											**4.373**	**.7358**

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The constructs adopted to explore this dimension are condoning errors from ideas well thought (mean 4.40, std dev .669), encouraging spontaneous thoughts (mean 4.39, std dev .682) and having a passion for pursuing weak ideas with potential (mean 4.36, std dev .752), having budget for innovations (mean 4.40, std dev .738), limitless risks aimed at success (mean 4.33, std dev .778), and exploiting unique rare decisions (mean 4.36, std dev .796) showing opportunity for growth. By fostering an entrepreneurial mindset among their staff and management, hotels can create a culture of innovation and continuous improvement, leading to enhanced performance and competitiveness. This mindset can inspire the development of new products and services, the adoption of new technologies, the exploration of new markets, and the identification of new business opportunities. By embracing an entrepreneurial mindset, hotels can also improve customer satisfaction and loyalty, as they are better equipped to anticipate and meet customer needs and preferences. In conclusion, an entrepreneurial mindset can serve as a powerful driver of performance for medium hotels in Kenyan cities, enabling them to thrive in a highly competitive hospitality industry.

Table 4.3 indicates the mean score that sought to find out if the hotel actively employs mindset, a mean of 4.373 and standard deviation of .7358 was recorded implying a higher inclination of mindset toward creativity. Entrepreneurial mindset directs creativity to responsiveness to market signals (Hughes & Morgan, 2007). It involves the identification and evaluation of new opportunities as well as monitoring market trends (Kropp, Lindsay & Shoham, 2008).

4.5.2. Innovations and Performance of Medium Hotels in Kenyan Cities

Innovations can significantly impact the performance of medium hotels in Kenyan cities. The term 'innovations' refers to the adoption of new technologies, products, and administrative practices that can enhance a hotel's efficiency, quality of service, and overall performance. The questionnaire requested the participants to indicate their strength of agreement or disagreement with the statement seeking to evaluate the application of innovations and those specific to lean-green innovations.

Table 4.4: Frequency and Mean Values of the Innovations in Medium Hotels

Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std D
	N	%	N	%	N	%	N	%	N	%		
Multiplier effect processes	0	0.0	2	1.0	11	5.4	104	50.7	88	42.9	4.36	.630
Newness and brand identity	0	0.0	4	2.0	18	8.8	94	45.9	89	43.4	4.31	.713
Upgrading	3	1.5	3	1.5	10	4.9	104	50.7	85	41.5	4.29	.755
Budget for creativity	0	0.0	2	1.0	5	2.4	104	50.7	94	45.9	4.41	.593
Six months positive results	0	0.0	3	1.5	28	13.7	88	42.9	86	42.0	4.25	.744
Spontaneous thought	2	1.0	11	5.4	31	15.1	100	48.8	61	29.8	4.01	.869
Reduction in resource use	0	0.0	1	.5	10	4.9	100	48.8	94	45.9	4.40	.607
Lean-green strategy	0	0.0	1	.5	8	3.9	105	51.2	91	44.4	4.40	.590
Average mean score											**4.304**	**.6878**

The responses depict a positive trend towards all innovation indicators; Processes leading to multiplier effects had a (mean 4.36, std dev .630), Newness and brand identity (mean 4.31, std dev .713), Upgrading (mean 4.29, std dev .755), budget for emergency for creative

emergencies (mean 4.41, std dev .593), Six months positive results(mean4.25, std dev .744), Spontaneous thought (mean4.01, std dev .869), Reduction in resource use (mean4.40, std dev .607), and Lean-green strategy (mean 4.40, std dev .590). By embracing innovative practices, hotels can improve their competitiveness, customer satisfaction, and employee productivity. Innovations can take the form of new services or amenities, such as high-speed internet or eco-friendly facilities, or new operational processes, such as automated check-in or waste reduction programs. By implementing these innovations, hotels can differentiate themselves from their competitors and attract more customers. Table 4.4 indicates the innovativeness rating where the mean score (Mean 4.304, std dev .6878) reflects the hotel's propensity to engage in innovation. Innovation is an important aspect associated with renewing products and services in the market to remain competitive. In conclusion, innovations can be a powerful driver of performance for medium hotels in Kenyan cities, enabling them to stay relevant and competitive in the dynamic and ever-evolving hospitality industry (Kiiru, 2023).

4.5.3. Capital Mobilization and Performance of Medium Hotels in Kenyan cities

Capital mobilization refers to a hotel's ability to access and allocate financial, physical and intellectual capital efficiently and effectively. By mobilizing capital, hotels can invest in new equipment, facilities, and services, which can enhance their competitiveness and customer satisfaction.

Table 4.5: Frequency and mean values for the capital mobilization in medium hotels

Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std D
	N	%	N	%	N	%	N	%	N	%		
Human capital	0	0.0	1	.5	5	2.4	95	46.3	104	50.7	4.47	.574
Structural capital	0	0.0	1	.5	10	4.9	95	46.3	99	48.3	4.42	.611
Social capital	0	0.0	1	.5	8	3.9	96	46.8	100	48.8	4.44	.596
Meeting regulatory requirements	0	0.0	2	1.0	4	2.0	94	45.9	105	51.2	4.47	590
Improving employees rewards	0	0.0	1	.5	9	4.4	98	47.8	97	47.3	4.42	.602
Increasing rate of returns	0	0.0	1	.5	7	3.4	92	44.9	105	51.2	4.47	.590
Average mean score											**4.448**	**.5938**

The intellectual capital was navigated by exploring human capital (mean 4.47, std dev .574), structural capital (mean 4.42, std dev .611), and social capital (mean 4.44, std dev .596) while financial capital was explored through its impact on meeting regulatory requirements (mean 4.47, std dev .590), improving employees rewards (mean 4.42, std dev .602) and increasing rate of returns (mean 4.47, std dev .590). Mobilizing capital can lead to increased revenue, profitability, and market share. Capital mobilization can also enable hotels to attract and retain skilled employees, improve their operational processes, and manage financial risks. Overall, effective capital mobilization is a key driver of performance for medium hotels in Kenyan cities, enabling them to achieve sustainable growth and success in the highly competitive hospitality industry. The study sought the dimension of mobilizing intellectual capital and financial capital.

The average mean score was 4.448 with a standard deviation of .5938 which shows high implementation of selected capital indicators. Zehra (2018); Trabuls (2018) studies found that resource mobilization among informal entrepreneurs comprises a mix of social and human capital mobilization, a combination which improves the synergistic effects, where

financial capital and resources are an important antecedent of new venture performance, hence resource mobilization is not competitive but rather collaborative.

4.5.4. Networking and Performance of Medium Hotels in Kenyan Cities

Networks' refers to the relationships that hotels establish with other organizations, such as suppliers, customers, and business partners. By building and maintaining strong networks, hotels can gain access to new markets, customers,information, technology, and general resources, which can enhance their performance and competitiveness.

Table 4.6 :Frequency and mean values for the networks in medium hotels.

Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	Std D
	N	%	N	%	N	%	N	%	N	%		
Identification of value stream	1	.5	8	3.9	22	10.7	83	40.5	91	44.4	4.24	.834
Avoidance of defect risks	0	0.0	6	2.9	21	10.2	83	40.5	95	46.3	4.30	.771
Internet use improves image	1	.5	6	2.9	20	9.8	87	42.4	91	44.4	4.27	.79
Feedback aids product development	1	.5	4	2.0	19	9.3	85	41.5	96	46.8	4.32	.763
Recognition improves booking	0	0.0	6	2.9	19	9.3	97	47.3	83	40.5	4.25	.744
Relations with key partner	0	0.0	4	2.0	25	12.2	77	37.6	99	48.3	4.32	.732
Average mean score											**4.283**	**.773**

The study sought the dimension of networking through access to information where identification of value stream had (mean 4.24, std dev .834), avoidance of defect risks (mean 4.30, std dev .771), technology where internet use improves image of quality (mean 4.27, std dev .794), feedback aids product development (mean 4.32, std dev .763) and markets where recognition improves booking (mean 4.25, std dev .744) and relations with key partner and share enhancement (mean 4.32, std dev .732). Networking can also offer opportunities for collaboration, knowledge sharing, and innovation, enabling hotels to be updated with the

latest trends and practices in the industry. Furthermore, networks can help hotels to manage risks and respond to challenges effectively, by providing access to the resources and expertise of their network partners.

The average mean score was 4.283 with a standard deviation of 0.773. This shows the contribution of networks in new strategy development and also the accommodation of unique lean-green initiatives. Tajeddini, Martin and Ali (2020) found that in uncertain, dynamic environments, a higher level of risk and entrepreneurial orientation benefited business performance especially when coupled with strong business and social networks. In conclusion, networks can be a powerful driver of performance for medium hotels in Kenyan cities, enabling them to achieve sustainable growth and success in the dynamic and ever-evolving hospitality industry.

4.5.6. Aggregate Performance Medium Hotels in Kenyan cities

The overall aggregate of strategic entrepreneurship indicators had a significant positive impact on the performance of medium hotels in Kenyan cities. This is because strategic entrepreneurship involves the adoption of innovative practices, such as new products, technologies, and administrative processes, which help firms to achieve a competitive advantage and improve their overall performance.

Table4.7: Frequency and mean values for the performance in medium hotels

Item	Strongly Disagree N %	Disagree N %	Neutral N %	Agree N %	Strongly Agree N %	Mean	Std Dev
Increase in rate investment	0 0.0	1 .5	5 2.4	104 50.7	95 46.3	4.43	.570
Increase in asset value	0 0.0	2 1.0	7 3.4	105 51.2	91 44.4	4.39	.605
Sourcing from green suppliers	0 0.0	2 1.0	7 3.4	97 47.3	99 48.3	4.43	.611
Increase in booking rate	0 0.0	2 1.0	5 2.4	106 51.7	92 44.9	4.40	.592
Continuous improvement & networking	0 0.0	1 .5	3 1.5	95 46.3	106 51.7	4.49	.557
Internet use &new markets access	0 0.0	4 2.0	7 3.4	118 57.6	76 37.1	4.30	.630
Improvement in image & recognition	0 0.0	1 .5	5 2.4	98 47.8	101 49.3	4.46	.573
Costs not limiting lean-green	0 0.0	1 .5	6 2.9	131 63.9	67 32.7	4.29	.542
Average mean score						**4.345**	**.585**

The performance was determined by market value and profits, customer satisfaction, new ventures, and enhanced image. Increase in investment return (mean 4.43, std dev .570), increase in asset value (mean 4.39, std dev .605), sourcing from green suppliers (mean 4.43, std dev .611), increase in rate of booking (mean 4.40, std dev .592), continuous improvement and networking (mean 4.49, std dev .557), internet use and new markets (mean 4.30, std dev .630), improved image and recognition (mean 4.46, std dev .573), and costs not inhibiting adopting lean-green (mean 4.29, std dev .572).

By adopting a strategic entrepreneurial mindset, medium hotels can identify and exploit new opportunities, improve their resource allocation, and enhance their customer value proposition. In addition, strategic entrepreneurship can help medium hotels to achieve a balance between economic, environmental, and social performance, which is critical for long-term sustainability. Therefore, medium hotels that embrace strategic entrepreneurship are likely to experience higher levels of performance and competitiveness compared to those that do not.

The average mean score was 4.345 with a standard deviation of 0.585. This shows the contribution of using a lean-green strategy interface in conjunction with strategic entrepreneurship contribute towards general performance. This concurs with Rauch et al., (2016) study which concluded that lean management holds additional potential for the tourism and hospitality sector in the future and advised the adoption of lean special requirements of the hotel sector.

4.6. The Relationship Between Strategic Entrepreneurship and Performance of Medium Hotels.

The overall measure of the parameters was tested for reliability to determine the individual parameter scale of stability in providing similar outcomes in repeated trials. This was arrived at by regressing the parameters of Strategic Entrepreneurship with Performance and then the aggregate value of Strategic Entrepreneurship with Performance. The relative strength of each parameter was determined in terms of R square value.

The R square for each of the variables was above 0.35 indicating that each one among them had some contribution towards performance. This further implied that the construct Strategic Entrepreneurship was properly constituted with regard to its relationship with performance. Regression analysis was done to determine the significance of each of the parameters and all the parameters exhibited significant p-value less than 0.05. The arrangement of parameters in terms of their strength starting with the least to the highest is indicated in Table 4.8.

Table 4.8: The relative strength of STE parameters on PERF.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
i) Networks	.610	.373	.370	.37427
ii) Capital mobilization	.698	.487	.485	.33835
iii) Innovations	.733	.357	.535	.32139
iv) Mindset	.775	.601	.599	.29835

The contribution of each parameter towards the performance was also tested for its significance. All the parameters depicted significant contributions towards the performance with a (p-value < 0.000). This means that the firm performance latent observable variables were present in the four constructs. The latent value of Strategic Entrepreneurship that was derived from the aggregation of the parameters observed can confidently be linked to Performance. The results are in the Table 4.9.

Table 4.9:The significance level of each Parameter of STE regression on PER

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Constant	2.503	.175		14.338	.000
Innov	.446	.041	.610	10.982	.000
Constant	1.398	.217		6.435	.000
CapMob	674	.049	.698	13.980	.000
Constant	1.59	.16		9.526	.000
Mindset	.649	.037	.775	17.499	.000
Constant	1.745	.174		10.014	.000

Networks	.601	.039	.733	15.357	.000

The association of Strategic Entrepreneurship and Performance was confirmed by conducting a bi-variate correlation on their values. The result was a positive value of 0.881 with a (p-value < 0.000) that was significant implying that there existed a strong positive association between Strategic Entrepreneurship and Performance of Medium hotels in Kenyan cities. Strategic Entrepreneurship and Performance move in the same direction and therefore they are actually correlated. It also implied that as the Strategic Entrepreneurship increases so does the Performance and vice versa among the medium hotels. The table 4.10. show that there is a significant correlation between the parameters of Strategic Entrepreneurship and Performance.

Table 4.10: Correlation between Strategic Entrepreneurship and Performance of Medium Hotels.

		STE	Performance
STE	Pearson Correlation	1	.881[**]
	Sig. (2-tailed)		.000
	N	205	205
PERF	Pearson Correlation	1	.881[**]
	Sig. (2-tailed)		.000
	N	205	205

4.7. Regression Analysis and Hypothesis testing

The specific objectives were analyzed further to test the null hypothesis by regressing each variable with performance of medium hotels. The second step was to develop the model of fit

and generate the regression equation showing the relationships between each variable and then the aggregate model and the final equation of fifth objective together with its null hypothesis testing.

4.7.1. Relationship between Entrepreneurial Mindset and Performance of Medium Hotels in Kenyan Cities.

The first objective of this study was to establish the relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. This objective sought to test the null hypothesis**;**

Ho$_1$: *There is no significant, relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities.*

The goodness of fit indices indicates that the hypothesized Structural Sub Model 1 provided a good fit between the data and the model. The likelihood Chi-square ($\chi2$=120.293; df= 65 p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.920, incremental CFI was 0.971, TLI was 0.960 and parsimony RMSEA was 0.075 indicating good absolute fitness of the model as shown in Table 4.11.

Table 4.11:Fit indices with Entrepreneurial Mindset as the Predictor

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	χ^2	df	p-value								
Statistic	120.293	56	0.000	.920	.871	.020	.971	.960	.948	0.075	2.159
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

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A path coefficient was generated, and as shown in the path coefficients in Table 4.12, there is a significant relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. The standardized path coefficients of entrepreneurial mindset on performance (β= 0.326, CR 6.765). In the model, the four items measuring the performance of medium hotels were found to be significant indicators. The CR of the coefficient of entrepreneurial mindset was found to be 6.675 that was greater than 1.96 the standard normal distribution critical ratio at 0.05 level of significance.

This means that when the entrepreneurial mindset goes up by 1, the performance of medium hotels goes up by .326. This concurs with Ajor & Joy (2020) study after using correlation analysis that revealed a positive significant relationship between the mindset and organizational sustainability. Also, the findings of Jemal (2020), revealed that an entrepreneurial mindset affects positively and significantly the performance of SMEs including small and medium hotels. This implies that an entrepreneurial mindset is one of the essential features that entrepreneurs need to exhibit in order to achieve business growth. Hussain et al., (2015) recommended that SMEs to adopt the entrepreneurial orientation mindset to attain sustainable competitive advantage and superior performance.

Table 4.12: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PER	<---	MIDST	.326	.048	6.765	***	par_12
EnStr2	<---	MIDST	1.000				
EnStr3	<---	MIDST	.837	.050	16.861	***	par_1
Uncert1	<---	MIDST	.897	.051	17.562	***	par_2
MvP1	<---	PER	1.082	.090	12.045	***	par_3
CuSat2	<---	PER	.784	.079	9.860	***	par_4
NCret1	<---	PER	1.000				
ECI2	<---	PER	.989	.081	12.174	***	par_5
MvP2	<---	PER	1.133	.083	13.621	***	par_6
ECI1	<---	PER	1.080	.087	12.421	***	par_7
NCret2	<---	PER	1.007	.081	12.474	***	par_8
CuSat1	<---	PER	1.011	.079	12.797	***	par_9
Uncert3	<---	MIDST	.838	.045	18.802	***	par_10
EnStr1	<---	MIDST	.960	.042	22.885	***	par_11

*** p value is significant at 0.000

The study also conducted an analysis of variance between strategic entrepreneurship parameters and firm performance to test the hypotheses. The first null hypothesis stated that there is no positive, significant relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. The analysis of variance result (F= 23.710, p-value < 0.05) showed a significant influence between entrepreneurial mindset and firm performance as indicated in the analysis of variance Table 4.13. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed.

Table 4.13:Analysis of Variance between Entrepreneurial Mind-set and Performance of Medium Hotels in Kenyan Cites

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	26.854	7	3.836	23.710	.000
Within Groups	31.875	197	.162		
Total	58.730	204			

4.7.2. Moderation of Lean-green Practices on the Relationship between Entrepreneurial Mindset and Performance of Medium Hotels in Kenyan Cities.

The moderation of lean-green practices on the relationship between entrepreneurial mindset and firm performance was explored. The goodness of fit indices indicated a good fit between the data and the model. The likelihood Chi-square ($\chi2$=207.309; df= 140, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.907, incremental CFI was 0.981, TLI was 0.997 and parsimony RMSEA was 0.049 indicating good fitness of the model. The model of fit results are indicated in the Table 4.14.

Table 4.14:Fit Indices with Lean-Green Practices as the Moderator

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	χ^2	df	p-value								
Statistic	207.309	140	0.000	.907	.874	.023	.981	.997	.945	0.049	1.481
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

The study employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the influence of lean-green practices on the relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. This hierarchical multiple moderated

regression is a three-stepwise regression where the moderating variable is introduced in step two and the interaction variable between the independent and the moderator in step three. In step one; entrepreneurial mindset was regressed as the only predictor of the performance of medium hotels in Kenyan cities. In step two the moderating variable, lean-green practices was introduced, and finally, in step three, the interaction term between entrepreneurial mindset and lean-green practices was introduced.

The results are presented in Table 4.15. The results show that model 1 has an R-square of 0.599, which shows that 59.9% of the variation in the performance of medium hotels in Kenyan cities is explained by the variation of entrepreneurial mindset in the model. Based on the ANOVA F statistic, the model is generally significant with a p-value of 0.000 which is less than 0.05. The findings concurred with those of a study of entrepreneurial mindset and entrepreneurial competence as determinants of SMEs, using regression analysis by Asenge et al., (2018) which concluded that there is a positive significant effect of entrepreneurial mindset on SMEs performance. The findings also concur with Kimathi (2020) whose study found that an entrepreneurial mindset influences the performance of small and medium enterprises in Kenya.

After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.174. The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 which is less than 0.05. The change in R-square shows a significant 17.4 % increase in variation of performance of medium hotels explained by predictors in the model due to addition of lean-green practices to the model. The introduction of the interaction variable, the product of Entrepreneurial Mindset (EM) and

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Lean-Green Practices (LGP) exhibited a very slight significant change in R-square of 0.02 %
which had a p-value of 0.000 in the ANOVA table. This shows that considering
entrepreneurial mindset (EM) as the only independent variable in the model, Lean-green
practices moderates the relationship between entrepreneurial mindset and the performance of
medium hotels in Kenyan cities.

Table 4.15:Model Summary for MMR with Entrepreneurial Mindset as Predictor

Model	R	R Square	Adjusted R Square	Std. Error	Change Statistics				
					R-square Change	F Change	df1	df2	Sig
1	.775[a]	.601	.599	.29835	.601	306.211	1	203	.000
2	.880[b]	.775	.773	.22461	.174	156.182	1	202	.000
3	.882[c]	.777	.774	.22413	.002	1.867	1	201	.176

a. Predictors: (Constant), Entrepreneurial Mindset

b. Predictors: (Constant), Entrepreneurial Mindset, Lean-Green practices

c. Predictors: (Constant), Entrepreneurial Mindset, Lean-Green practices, LGP interaction
Mindset

Table 4.16. shows the model coefficients of models 1, 2, and 3, of the performed stepwise
regression model. In model 1 entrepreneurial mindset has a significant influence on the
performance of medium hotels in Kenyan cities (β=.775, t=17.499, p< .05). The coefficient
of the Entrepreneurial Mindset has a t-statistic of 17.499 and a p-value of 0.000 which is less

than 0.05 implying significance at the 0.05 level of significance. The equation generated from model 1 becomes;

$\hat{Y}$ = 1.559 + 0.775X1 ....**Equation 4.1.0.**

Model 2, shows that by adding Lean-Green practices to the model, it experienced a significant effect. The coefficient of Lean-Green practices is significant at 0.05 level of (β = .527, t = 12.497, p < .05) showing that Lean-Green practices have a significant influence on the performance of medium hotels in the Kenyan cities. The equation generated from model 2 becomes;

$\hat{Y}$ = 0.843 + 0.453X1 + .527Z ....**Equation 4.1.1.**

Accordingly model 3, after introducing the interaction term, the model did not yield any significant improvement. This means that the interaction term had no significant influence on the performance of medium hotels in the Kenyan cities (β = -.042, t = -1.367, p > .05). The p-value of the interaction term according to this model was found to be 0.173 implying none significance. Therefore there is no significant equation to be generated from model 3.

Table 4.16:Coefficients for MMR with Entrepreneurial Mindset as Predictor

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
(Constant)	1.559	.164		9.525	.000
1 Entrepreneurial mindset	.649	.037	.775	17.499	.000
(constant)	.843	.136		6.208	.000
2 Entrepreneurial Mindset	.379	.035	.453	10.745	.000
Lean-Green Practices	.432	.035	.527	12.497	.000
(Constant)	.125	543		.230	.818
3 Entrepreneurial mindset	.553	.132	.660	4.200	.000
Lean-Green Practices	.609	.134	.743	4.538	.000
X1Z (Interaction term 1)	-.042	.031	-.383	-1.367	.173

4.7.3. Relationship between Innovations and Performance of Medium Hotels in the Kenyan Cities.

The second objective of this study was to establish the relationship between innovations and the performance of medium hotels in Kenyan cities. The objective sought to test the null hypothesis;

Ho2: *There is no significant relationship between innovations and the performance of medium hotels in Kenyan cities.*

The goodness of fit indices indicate that the hypothesized Structural Sub Model 2 provided a good fit between the data and the model as indicated by Table 4.20. The likelihood Chi-square ($\chi 2$=19.499; df= 19, p= 0.425) was not significant while the other fit measures showed

that the model perfectly fitted the observed data. The absolute measure GFI was 0.977, incremental CFI was 1.000, TLI was 1.000 and parsimony RMSEA was 0.011 indicating good absolute fitness of the model.

Table 4.17:Fit Indices with Innovations as the Predictor

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	χ^2	df	p-value								
Statistic	19.499	19	.425	.977	.956	.011	1.000	1.000	.987	0.011	1.026
Cut-off				≥0.9	≥ 0.8	≤0.03	≥0.9	≥0.8	≥0.9	≤0.08	≤ 3.0

A path coefficient was generated, and as shown in the standardized path coefficients in Table 4.18, there is a significant relationship between innovations and performance of medium hotels in the Kenyan cities. The standardized path coefficients of innovations on performance results were (β= .389, CR 6.928). In the model the four items measuring performance of medium hotels were found to be significant indicators. The CR of the model was found to be 6.928 which was greater than 1.96 the standard normal distribution critical ratio at 0.05 level of significance. This means that when the innovations goes up by 1, the performance of medium hotels goes up by .389.

The findings therefore indicate that innovations significantly influence performance of medium hotels positively. The findings concurred with those of Kitigin (2017) which found that innovativeness as a dimension of entrepreneurial intensity had strong positive correlation with the performance of SMEs. Nyambura (2019) found that process innovation had significant positive relationship with competitiveness of hotels in Nairobi County. Also Hu et al., (2020) concluded that innovation types have palpable and statistically significant

liaison with performance of hotel firms in Ghana. While Kimathi et al., (2019) revealed that innovation had positive and significant effect on performance of SMEs. The results are presented in Table 4.18.

Table 4.18:Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
perf	<---	innv	.389	.056	6.928	***	par_7
APC4	<---	innv	1.000				
APC3	<---	innv	.937	.061	15.479	***	par_1
APC2	<---	innv	1.057	.046	23.224	***	par_2
APC1	<---	innv	.851	.046	18.626	***	par_3
NCret1	<---	perf	1.000				
ECI1	<---	perf	.976	.048	20.206	***	par_4
CuSat1	<---	perf	.970	.050	19.512	***	par_5
MvP1	<---	perf	1.015	.048	20.937	***	par_6

The study conducted an analysis of variance between innovations parameters and the performance of medium hotels to test the second hypothesis. The null hypothesis stated that there is no significant positive relationship between innovations and the performance of medium hotels in Kenyan cities. The analysis of variance result (F = 9.916, p-value 0.000, < 0.05) showed a significant influence between innovations and firm performance as indicated in the analysis of variance Table 4.19. The findings are in agreement with Othman, Ghazali, & Cheng (2005) who asserted that a firm's innovativeness is said to be a critical precedent for competitive advantage. Also, Mburu and Gichira (2017) study concluded that entrepreneurial factors commitment and innovation had a significant and positive influence on performance. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed.

Table 4.19: Analysis of Variance between Innovations and Hotel Performance

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	13.570	6	2.262	9.916	.000
Within Groups	45.160	198	.228		
Total	58.730	204			

4.7.4. Moderation of Lean-Green Practices on the Relationship between Innovations and Performance of Medium Hotels in Kenyan Cities.

The moderation of lean-green practices on the relationship between innovations and the performance of medium hotels was explored. The goodness of fit indices showed a good fit between the data and the model as indicated in Table 4.20. The likelihood Chi-square ($\chi2$=148.563; df= 77, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.918, incremental CFI was 0.967, TLI was 0.955, and parsimony RMSEA was 0.067 indicating good fitness of the model. The model of fit results are indicated in the 4.20 below.

Table 4.20: Fit indices with Lean-Green Practices as the Moderator

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	$\chi2$	df	p-value								
Statistic	148.563	77	0.000	.918	.872	.024	.967	.955	.934	0.067	1.929
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

The study employed Stepwise Multiple Moderated Regression (MMR) analysis to test the influence of lean-green practices on the relationship between innovations and performance of medium hotels in the Kenyan cities. This hierarchical multiple moderated regression is a three stepwise regression where the moderating variable was introduced in step two, and the

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interaction variable between the independent and the moderator was introduced in step three. In step one; innovations was regressed as the only predictor of performance of medium hotels in Kenyan cities. In step two, the moderating variable lean-green practices was introduced, and finally in step three, the interaction term a product of innovations and lean-green practices was introduced.

The results are presented in the Table 4.21. The results shows that model 1 has an R-square of 0.370, which shows that 37 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of innovations in the model. Based on the ANOVA F statistic, the model is generally significant with a p-value of 0.000 which is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.341 (from 0.370 to 0.711). The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 which is less than 0.05. The change in R-square shows a significant 34.1 % increase in variation of performance of medium hotels was explained by predictors in the model due addition of LGP to the model. The introduction of the interaction variable, a product of innovations and Lean-Green Practices (LGP) exhibited a very slight significant change in R-square of 0.1 % which had a p-value of 0.000 in the ANOVA table. This shows that considering innovations as the only independent variable in the in the model, interaction term slightly moderates the relationship between innovations and performance of medium hotels in Kenyan cities. Fernando et al., (2019) study found that eco-innovations unlock better sustainable performance.

Table 4.21: Model Summary for MMR with Innovations as Predictor

Model	R	R Square	Adjusted R Square	Std. Error	Change Statistics				
					R-square change	F Change	df1	df2	Sig
1	.610[a]	.373	.370	.37427	.373	120.595	1	203	.000
2	.845[b]	.713	.711	.25361	.341	240.095	1	202	.000
3	.845[c]	.714	.710	.25397	.001	.435	1	201	.511

a. Predictors: (Constant), Innov
b. Predictors: (Constant), Innov, Lean-Green practices
c. Predictors: (Constant), Innov, Lean-Green practices, X2Z

Table 4.22. shows the model coefficients of models 1, 2, and 3, of the performed stepwise regression model. In model 1 innovations have a significant influence on the performance of medium hotels in Kenyan cities (β=.610, t=10.982, p< .05). The coefficient of Innovations has a t-statistic of 10.982 and a p-value of 0.000 which is less than 0.05 implying significance at the 0.05 level of significance. The equation generated from model 1 becomes;

$$\hat{Y} = 2.503 + 0.610X2 \dots\dots\dots\text{Equation 4.1.2.}$$

Model 2, shows that by adding Lean-Green to the model, it experienced a significant change. The coefficient of Lean-Green is significant at 0.05 level (β = .664, t = 15.495, p < .05) showing that Lean-Green practices have a significant influence the performance of medium hotels in Kenyan cities. The equation generated from model 2 becomes;

$$\hat{Y} = 0.215 + 0.294X2 + .664Z \dots\dots\dots\text{Equation 4.1.3.}$$

In model 3, introducing the interaction term to the model did not yield any significant improvement. This means that the interaction term had no significant influence on the performance of medium hotels in the Kenyan cities (β = -.021, t = .649, p > .05). The p-value of the interaction term according to this model was found to be 0.511 implying non-significance. Therefore there is no significant model to be generated from model 3.

Table 4.22: Coefficients for MMR with Innovations as Predictor

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
(Constant)	2.503	.175	14.338		.000
1 Innovations	.446	.041	.610	10.982	.000
(Constant)	1.097	.149		7.361	.000
2 Innovations	.215	.031	.294	6.856	.000
Lean-Green Practices	.544	.035	.664	15.495	.000
(Constant)	1.426	.520		2.741	.818
3 Innovations	.130	.132	.178	.986	.000
Lean-Green Practices	.462	.129	.564	3.592	.000
X2Z (Interaction term 2)	-.021	.031	.187	.659	.511

Dependent Variable: Performance

4.7.5: Relationship between Capital Mobilization and Performance of Medium Hotels in Kenyan Cities.

The third objective of this study was to establish the relationship between capital mobilization and performance of medium hotels in Kenyan cities. The objective sought to test the null hypothesis;

Ho₃: *There is no significant relationship between capital mobilization and performance of medium hotels in the Kenyan cities.*

The goodness of fit indices indicates that the hypothesized Structural Sub Model 3 provided a good fit between the data and the model. The likelihood Chi-square ($\chi2=31.776$; df= 17, p= 0.016) was not significant while the other fit measures showed that the model perfectly fitted the observed data. The absolute measure GFI was 0.965, incremental CFI was .989, TLI was .981 and parsimony RMSEA was 0.065 indicating good fitness of the model as depicted in Table 4.23.

Table 4.23: Fit Indices with Capital Mobilization as the Predictor

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	$\chi2$	df	p-value								
Statistic	31.776	17	0.016	.965	.926	.014	.989	.981	.976	0.065	1.869
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

A path coefficient was generated, and as shown in the standardized path coefficients in Table 4.24, there is a significant relationship between capital mobilization and the performance of medium hotels in Kenyan cities. The standardized path coefficients of capital mobilization on performance results were (β=0.704, CR 7.733). The CR of the coefficient of capital mobilization was found to be 7.733 which was greater than 1.96 the standard normal distribution critical ratio at 0.05 level of significance. This meant that when the capital mobilization goes up by 1, the performance of medium hotels goes up by 77.33 %. The findings therefore indicate that capital mobilization significantly influences the performance of medium hotels positively.

The findings concured with Albertini and Berger-Remy (2019); Sydler et al., (2014) whose studies found that all three factors of IC, i.e., human capital, R&D (structural capital), and relational capital, play significant roles in the value creation of firms. Wang, Cai and Xiang (2018) also demonstrated that the three components of intellectual capital, namely human capital, structural capital, and relational capital, are positively related to innovative speed and quality, which in turn facilitate operational and financial performance of a firm. The results of regression weights are presented in Table 4.24.

Table 4.24: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
perf	<---	F1	.704	.091	7.733	***	par_4
ECI1	<---	perf	.973	.048	20.291	***	par_1
CuSat1	<---	perf	.965	.049	19.826	***	par_2
IC3	<---	F1	1.102	.105	10.495	***	par_3
NCret1	<---	perf	.995	.048	20.743	***	par_5
MvP1	<---	perf	1.000				
FC1	<---	F1	1.000				
IC2	<---	F1	.915	.088	10.419	***	par_6
FC3	<---	F1	1.200	.111	10.805	***	par_7

The study further conducted an analysis of variance between capital mobilization and the performance of medium hotels to test the hypotheses. The third null hypothesis stated that there is no significant positive relationship between capital mobilization and the performance of medium hotels in Kenyan cities. The analysis of variance result (F= 19.107, p-value < 0.05) showed a significant influence between capital mobilization and the performance of medium hotels. The findings concur with Cabrillo, Nesic and Mitrovic (2014) who established that a high knowledge level is a greater contributor to human capital that promotes innovation

performance. Zehra (2018) study found that resource mobilization among informal entrepreneurs comprises a mix of social and human capital mobilization, a combination which improves the synergistic effects, where financial capital and resources are an important antecedent of new venture performance, hence resource mobilization is not competitive but rather collaborative. The ANOVA results are indicated in the analysis of variance in Table 4.25. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed.

Table 4.25: Analysis of Variance between Capital Mobilization and Firm Performance

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	19.049	5	3.810	19.107	.000
Within Groups	39.681	199	.199		
Total	58.730	204			

4.7.6. Moderation of Lean-green Practices on the Relationship between Capital Mobilization and Performance of Medium Hotels in Kenyan Cities

The moderation of lean-green practices on the relationship between capital mobilization and firm performance was explored. The goodness of fit indices indicated a good fit between the data and the model. The likelihood Chi-square (χ^2=193.74; df= 103, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.905, incremental CFI was 0.965, TLI was 0.953, and parsimony RMSEA was 0.066 indicating good fitness of the model. The model of fit results is indicated in the 4.26.

Table 4.26: Fit indices with Lean-Green Practices as the Moderator

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	γ^2	df	p-value								
Statistic	193.748	103	0.000	.905	.859	.024	.965	.953	.928	0.066	1.881
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

The study employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the influence of lean-green practices on the relationship between capital mobilization and the performance of medium hotels in Kenyan cities. This hierarchical multiple moderated regression is a three-stepwise regression where the moderating variable is introduced in step two and the interaction variable between the independent and the moderator in step three. In step one; capital mobilization was regressed as the only predictor of the performance of medium hotels in Kenyan cities. In step two the moderating variable, lean-green practices was introduced, and finally, in step three, the interaction term a product of capital mobilization and lean-green practices was introduced. The results are presented in Table 4.27. The results show that model 1 has an R-square of 0.487, which shows that 48.7 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of capital mobilization in the model. Based on the ANOVA F statistic, the model is generally significant with a p-value of 0.000 that is less than 0.05.

After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.269 (from 0.485 to 0.754). The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 that is less than 0.05. The change in R-square shows a significant 26.9 % increase in the variation of performance of medium hotels was explained by predictors in the model due addition of LGP

to the model. The introduction of the interaction variable has a very slight significant change in R-square of 0.1 % which had a p-value of 0.000 in the ANOVA table. This shows that considering capital mobilization as the only independent variable in the model, lean-green practices slightly moderate the relationship between capital mobilization and performance of medium hotels in Kenyan cities.

Table 4.27: Model Summary for MMR with Innovations as Predictor

Model	R	R Square	Adjusted R Square	Std. Error	Change Statistics				
				R-square Change	F Change	df1	df2	Sig	
1	.698[a]	.487	.485	.33835	.487	192.933	1	203	.000
2	.870[b]	.756	.754	.23377	.269	223.280	1	202	.000
3	.870[c]	.758	.754	.23384	.001	.877	1	201	.350

a. Predictors: (Constant), CapMob

b. Predictors: (Constant), CapMob, Lean-Green practices

c. Predictors: (Constant), CapMob, Lean-Green practices, X3Z

Table 4.31.shows the model coefficients of models 1, 2, and 3, of the performed stepwise regression model. In model 1 capital mobilization has a significant influence on the performance of medium hotels in Kenyan cities (β=.698, t=13.890, p< .05). The coefficient of capital mobilization has a t-statistic of 13.890 and a p-value of 0.000, which is less than 0.05 implying significant at the 0.05 level of significance. The equation generated from model 1 becomes;

$\hat{Y}$ = 1.398 + 0.698X3 ....**Equation 4.1.4.**

Model 2, shows that by adding Lean-Green to the model has a significant effect. The coefficient of Lean-Green is significant at 0.05 level of (β = .605, t = 14.943, p < .05) showing that Lean-Green practices have a significant influence on the performance of medium hotels in Kenyan cities. The equation generated from model 2 becomes;

$$\hat{Y} = 0.560 + 0.387X3 + .605Z \dots\dots\dots\dots\dots\text{Equation 4.1.5.}$$

According to model 3, introducing the interaction term to the model never yielded any significant improvement. It means that the interaction term had no significant influence on the performance of medium hotels in the Kenyan cities (β = -.330, t = -.936, p > .05). The p-value of the interaction term according to this model 0.350 implying not significant. Therefore, there was no significant model generated from model 3.

Table 4.28: Coefficients for MMR with Innovations as Predictor

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
(Constant)	1.398	.217		6.455	.000
1 Internal Capital Mobilization	.674	.049	.698	13.890	.000
(constant)	.560	.160		3.495	.001
2. Internal Capital Mobilization	.373	.035	.387	9.544	.000
Lean-Green Practices	.496	.033	.605	14.943	.000
(Constant)	-.138	.762		-.181	.857
3 Internal Capital Mobilization	.538	.180	.557	2.988	.003
Lean-Green Practices	.665	.183	.811	3.627	.000
X3Z (Interaction term 3)	-.039	.042	-.330	-.936	.350

Dependent Variable: PERFOR

4.7.7. Relationship between Networks and Performance of Medium Hotels in Kenyan Cities

The fourth objective of this study was to establish the relationship between networks, and performance of medium hotels in Kenyan cities. The objective sought to test;

Ho₄: There is no significant relationship between networks and the performance of medium hotels in Kenyan cities.

The goodness of fit indices indicates that the hypothesized Structural Sub Model 4 provided a good fit between the data and the model. The likelihood Chi-square ($\chi2=51.457$; df= 23, p= 0.001) was significant while the other fit measures showed that the model fitted the observed data. The absolute measure GFI was 0.948, incremental CFI was .982, TLI was .973 and parsimony RMSEA was 0.078 indicating good absolute fitness of the model. The results are indicated in Table 4.29. Relationship between networks and Performance of medium Hotels in the Kenyan Cities.

Table 4.29:Fit indices of Networks as the Predictor

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	$\chi2$	df	p-value								
Statistic	51.457	23	.001	.948	.898	.013	.982	.973	.969	0.078	2.237
Cut-off				≥0.9	≥ 0.8	≤0.03	≥0.9	≥0.8	≥0.9	≤0.08	≤ 3.0

A path coefficient was generated, and as shown in the standardized path coefficients in Table 4.30, there is a significant relationship between networks and the performance of medium hotels in Kenyan cities. The standardized path coefficients of networks on

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performance results were (β=.615, CR 11.002). The CR of the coefficient of l networks was found to be 11.002 which was greater than 1.96 the standard normal distribution critical ratio at 0.05 level of significance. This means that when the networks go up by 1, the performance of medium hotels goes up by 0.615 or 61.5 %. The findings therefore indicate that networks significantly influence the performance of medium hotels positively. Tajeddini, Martin &Ali, (2020) utilizing the data gathered from Japanese hospitality firms, clearly identified that in uncertain, dynamic environments, a higher level of risk and entrepreneurial orientation benefited business performance especially when coupled with strong business and social networks.

Chuang, Hang, & Huang (2015) study's findings indicated that, when doing business in emerging economies such as China, only a proper fit between organizational learning and guanxi networking can yield a higher degree, or extent of strategic performance. Fernando, Jabbour and War (2019) study confirmed that transforming into a network type of organization where coordination, relationship building, partners' knowledge, and internal communication are important constituents of increasing business performance in the long run and helps in sustainability and competitiveness. The results of regression weight are presented in Table 4.33.

Table 4.30:: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Perf	<---	NtAll	.615	.056	11.002	***	par_6
Am1	<---	NtAll	.867	.062	13.875	***	par_1
Am2	<---	NtAll	.928	.074	12.488	***	par_2
AcTc1	<---	NtAll	1.000				
MvP1	<---	Perf	1.034	.051	20.250	***	par_3
CuSat1	<---	Perf	.995	.051	19.417	***	par_4
NCret1	<---	Perf	1.031	.050	20.498	***	par_5
ECI1	<---	Perf	1.000				
AcInf2	<---	NtAll	1.032	.063	16.457	***	par_7
AcInf1	<---	NtAll	.782	.066	11.793	***	par_8

The study further conducted analysis of variance between networks and performance of medium hotels to test the hypotheses. The fourth null hypothesis stated that there is no significant positive relationship between networks and the performance of medium hotels in Kenyan cities. The analysis of variance result (F= 23.620, p-value < 0.05) showed a significant influence between networks and the performance of medium hotels. These findings concur with Mathuki, Ogutu & Pokhariyal, (2019) study indications that strategic alliances had a strong statistically significant influence on the performance of firms in Kenya. Also, Kamau (2020) study on strategic alliance practices and organization performance established that strategic alliance practices have an influence on the overall organization performance. The findings are as indicated in analysis of variance in Table 4.31. The null hypothesis was therefore rejected and the alternative hypothesis confirmed.

Table 4.31:Analysis of Variance between Networks and Performance of Medium Hotels

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	32.246	10	3.225	23.620	.000
Within Groups	26.484	194	.137		
Total	58.730	204			

4.7.8. Moderation of Lean-green practices on the Relationship between Networks and Performance of Medium Hotels in Kenyan Cities

The influence of lean-green practices on the relationship between networks and performance of medium hotels in Kenyan cities was explored. The goodness of fit indices indicates a good fit between the data and the model. Likelihood Chi-square ($\chi2$=180.921; df= 135, p= 0.025) was significant, while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.916, incremental CFI was 0.983, TLI was 0.979, and parsimony RMSEA was 0.041 indicating good fitness of the model. The model of fit results are indicated in Table 4.32.

Table 32: Fit indices with Lean-Green Practices as the Moderator

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	χ^2	df	p-value								
Statistic	180.921	135	0.025	.916	.882	.021	.983	.979	.938	0.041	1.340
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

The study employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the moderating effect of lean-green practices on the relation between networks and performance of medium hotels in the Kenyan cities. This hierarchical multiple moderated regression is a three stepwise regression where the moderating variable is introduced in step

two and the interaction variable between the independent and the moderator in step three. In step one; networks was regressed as the only predictor of performance of medium hotels in Kenyan cities. In step two, the moderating variable, lean-green practices was introduced, and finally, in step three, the interaction term, a product of networks and lean-green practices was introduced.

The results are presented in Table 4.33. The results show that sub model has an R-square of 0.537, that means 53.7 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of networks in the model. Based on the ANOVA F statistic, the model was generally significant with a p-value of 0.000 that is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.216 (from 0.537 to 0.753). The change in R-square was significant with a p-value of 0.000 that is less than 0.05. The change in R-square shows a significant 21.6 % increase in variation of performance of medium hotels explained by predictors in the model due addition of lean-green practices to the model. The introduction of the interaction variable has a very slight significant change in R-square of 0.2 % that had a p-value of 0.000 in ANOVA table. This shows that considering networks as the only independent variable in the model, lean-green practices slightly moderates the relationship between strategic entrepreneurship and performance of medium hotels in Kenyan cities.

Table 4.33: Model Summary for MMR with Networks , as Predictor

Model	R	R Square	Adjusted R Square	Std. Error	Change statistics				
				R-square change	F Change	df1	df2	Sig	
1	.733[a]	.537	.535	.32139	.537	235.843	1	203	.000
2	.868[b]	.753	.751	.23542	.216	176.307	1	202	.000
3	.869[c]	.755	.752	.23496	.002	1.800	1	201	.181

a. Predictors: (Constant), Net
b. Predictors: (Constant), Net, Lean-Green practices
c. Predictors: (Constant), Net, Lean-Green practices, XxZ

Table 4.34. shows the coefficients of model 1, 2, and 3, of the performed stepwise regression model. In model 1 internal networks had a significant influence on performance of medium hotels in Kenyan cities (β=.733, t=15.357, p< .05). The coefficient of networks had a t-statistic of 15.357 and a p-value of 0.000 that is less than 0.05 implying significance at 0.05 level of significance. The equation generated from model 1 becomes;

$$\hat{Y} = 1.745 + 0.733X4 \text{...Equation 4.1.6.}$$

Model 2, shows that by adding Lean-Green to the model it experienced a significant effect. The coefficient of Lean-Green is significant at 0.05 level (β = .571, t = 13.278, p < .05) showing that Lean-Green practices has a significant influence on performance of medium hotels in the Kenyan cities. The equation generated from model 2 becomes;

$$\hat{Y} = 0.893 + 0.571X4 + .401Z \text{...Equation 4.1.7.}$$

According to model 3, introduction of interaction term to the model did not yield any significant improvement. This meant that the interaction term had no significant influence on the coefficients of the model (β = -.440, t = -1.342, p > .05). The p-value of the interaction

term according to this model was found to be 0.181 implying none significance. Therefore there was no model to be generated.

Table 4.34: Coefficients for MMR with Networks as Predictor

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
(Constant)	1.745	.174		10.014	.000
1 Internal Networks	.601	.039	.733	15.357	.000
(constant)	.893	.143		6.255	.000
2. Internal Networks	.329	.035	.401	9.326	.000
Lean-Green Practices	.468	.035	.571	13.278	.000
(Constant)	.064	.634		.102	.919
3 Interna Networks	1.532	.155	.649	3.421	.001
Lean-Green Practices	.667	.153	.815	4.365	.000
X4Z (Interaction term 4)	-.048	.036	-.440	-1.342	.181

Dependent Variable: PERFOR$_a$

4.7.9. Influence of Lean-green Practices on the Relationship between Strategic Entrepreneurship and Performance of Medium Hotels in Kenyan Cities.

The fifth objective of this study was to establish the influence of lean-green practices on the relationship between strategic entrepreneurship and performance of medium hotels in Kenyan cities. The objective sought to test the null hypothesis;

Ho$_5$: *There is no significant influence of lean-green practices on the relationship between strategic entrepreneurship and performance of medium hotels in the Kenyan cities.*

The goodness of fit indices indicates that the hypothesized Structural Model provided a good fit between the data and the model. The likelihood Chi-square (262.122; df= 173 p= 0.000)

was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.901, incremental CFI was 0.974, TLI was0.966 and parsimony RMSEA was 0.050 indicating good fitness of the model as indicated by Table 4.38.

Table 4.35: Fit indices with lean-green Practices as the Predictor

Model	Chi-square			GFI	AGFI	RMR	CFI	TLI	NFI	RMSEA	CMN/DF
	χ^2	df	p-value								
Statistic	262.122	173	0.000	.901	.856	.019	.974	.966	.929	0.05	1.515
Cut-off				≥0.9	≥0.8	≤0.03	≥ 0.9	≥0.9	≥0.8	≤0.08	≤ 3.0

 The study employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the influence of lean-green practices on the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities. This hierarchical multiple moderated regression is a three-stepwise regression where the moderating variable is introduced in step two and the interaction variable between the independent and the moderator in step three. In step one; strategic entrepreneurship was regressed as the only predictor of the performance of medium hotels in Kenyan cities. In step two the moderating variable, lean-green practices was introduced and finally in step three, the interaction term, a product of strategic entrepreneurship and lean-green practices was introduced. The results are presented in Table 4.36.

The results show that model 1 has an R-square of 0.564, which shows that 56.4% of the variation in the performance of medium hotels in Kenyan cities is explained by the variation of strategic entrepreneurship in the model. This is in line with a study by Alipour, Safaeimanesh and Soosan (2019) revealed that as going green is becoming a means of

branding, hotels are making efforts to implement a genuine sustainability practice. Their conclusion was green practices are beneficial for hotels as they want to develop a brand, as well as tap into the green customers market.

Based on the ANOVA F statistic, the model was generally significant with a p-value of 0.000 which is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.094 (from 0.561 to 0.654). The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 which is less than 0.05. The change in R-square shows a significant 9.4 % increase in the variation of performance of medium hotels was explained by predictors in the model due addition of lean-green practices to the model. This is in line with Hussain, et al. (2019) established that Lean techniques and Green techniques are complementary to each other and both had a substantial impact on sustainable performance. This was verified by the results of Vadivel et al., (2021) whose work on the impact of Lean Service Practices, Lean Workplace, Environment Practices, and Lean social Practices on operational performance revealed a positive and significant impact.

The introduction of the interaction term, a product of Strategic entrepreneurship (STE) and Lean-Green Practices (LGP) exhibited a significant change in R-square of 1 % that had a p-value of 0.017 in the ANOVA table. This shows that considering strategic entrepreneurship (STE) as the only independent variable in the model, Lean-Green Practices (LGP) moderate the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities.

The null hypothesis was therefore rejected and the alternative hypothesis was confirmed. This was in agreement with the study of Rauch, Damian Matt & Holzner (2016) that concluded that lean management holds additional potential for the tourism and hospitality sector in the future and advised on the adoption of lean special requirements of the hotel sector. Also, Rahman and Reynolds (2016) study revealed that the most important reason for going green is customers who are often touted as central stakeholders in driving hotels to be environmentally friendly. Kariuki and Odock (2017) investigated the extent of green practices that have been implemented, and the connection between green operations practices and hotel operational performance. Their findings revealed that hotels adopt various green practices concerned with, energy, waste generation, water, recycling, and reduction while employee awareness and training are core.

Table 4.36: Model Summary for MMR with Lean-green Practices as Moderator

Model	R	R Square	Adjusted	Std. Error	Change statistic				
					R-square change	F Change	df1	df2	Sig
1	.751ᵃ	.564	.561	.35531	.564	262.203	1	203	.000
2	.811ᵇ	.658	.654	.31552	.094	55.435	1	202	.000
3	.817ᶜ	.667	.662	.31181	.010	5.825	1	201	.017

a. Predictors: (Constant), STE
b. Predictors: (Constant), STE, LG
c. Predictors: (Constant), STE, LG, INT

Table 4.37. shows the model coefficients of models 1, 2, and 3, of the performed stepwise regression model. In model 1 Strategic Entrepreneurship has a significant influence on the performance of medium hotels in Kenyan cities (β=.751, t=16.193, p< .05). The coefficient of strategic entrepreneurship has a t-statistic of 16.193 and a p-value of 0.000 which is less

than 0.05 implying significant at the 0.05 level of significance. The equation generated from model 1 becomes;

$$\hat{Y} = 0.519 + 0.751 \text{ X} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 4.1.8.}$$

Model 2, shows that by adding Lean-Green to the model has a significant effect. The coefficient of Lean-Green is significant at 0.05 level, (β = .417, t = 7.445, p < .05) showing that Lean-Green practices have a significant influence on the performance of medium hotels in Kenyan cities. The equation generated from model 2 becomes;

$$\hat{Y} = 0.269 + 0.465 \text{ X} + .419 \text{ Z} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 4.1.9.}$$

In model 3, after introducing the interaction term (XZ) to the model, a significant improvement was realized. This means that the interaction term (a product of strategic entrepreneurship and lean-green practices) had a significant influence on the performance of medium hotels in Kenyan cities (β = .937, t = 2.414, p < .05). The p-value of the interaction term according to this model was found to be 0.017 implying significant. Therefore, there was a significant model to be generated from model 3.

$$\hat{Y} = 2.444 + 0.033X + -.163Z + .937XZ \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 4.2.0.}$$

The adoption of Lean-green practices therefore significantly contributes to greater performance of medium hotels.

Table 4.37: Coefficients for MMR with Strategic Entrepreneurship as the Moderator

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	Std. Error	Beta		
(Constant)	.519	.244		2.122	.035
1 Strategic Entrepreneurship	.900	.056	.751	16.193	.000
(constant)	.269	.220		1.227	.221
2 Strategic Entrepreneurship	.557	.068	.465	8.255	.000
Lean-Green Practices	.398	.053	.419	7.445	.000
(Constant)	2.444	.927		2.637	.009
3 Strategic Entrepreneurship	.039	.225	.033	.174	.862
Lean-Green Practices	-.154	.235	-.163	-.658	.511
INT (Interaction - Term)	.130	.054	.937	2.414	.017

Dependent Variable: Performance

4.7.10. Assessment of the Magnitude of Moderating Effect

The magnitude of lean-green practices was quantified to determine the nature of the moderation effect; i.e. whether small, medium, or large. Effect size formula that was propounded by Cohen (1988) was used.

The formula states that $f^2 = \dfrac{R^2 \ Inclusive - R^2 \ Exclusive}{1 - R^2 \ Inclusive}$

Where the guiding conditions are that if f^2 is 0.02, the effect is small, if f^2 is 0.15, the effect is

medium and if f^2 is 0.35 the effect is large.

The computed effect size was 0.658 -0 .564 =0.114 = 0.33

                            1 - 0.658   0.345

The magnitude of lean-green practices was 0.33 which lies between 0.15 and 0.35 but more closer to 0.35 than 0.15.

The magnitude of lean-green practices was 0.33 which lies between 0.15 and 0.35 but more closer to 0.35 than 0.15. The implication of lean-green practices therefore can be described as having a large moderation effect between strategic entrepreneurship and the performance of medium hotels in Kenyan cities. Gachanja (2020) used Cohens' formula to confirm moderation between the innovation ecosystem on knowledge entrepreneurship and the innovation performance of manufacturing firms in Kenya. This is another form of tranquilizing the analysis of lean-green influence.

The graphical presentation in Figure 4.7. indicate that the lines are not parallel thus at some point there will be an interaction. Likewise, the moderator line is not horizontal to the y-axis confirming the main effects of STE and LGP. The implication is that as the level of lean-green practices increases, the level of strategic entrepreneurship increases, and both bring an

increase to the performance of medium hotels. This led the study to conclude that medium

hotels are in dire need of embracing lean-green practices to improve performance.

Figure 4.7:The Moderation of Lean-Green Practices on Relationship between Strategic

Entrepreneurship and performance of Medium Hotels

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMEDATIONS

5.1. Introduction

The chapter discusses the summary of the findings based on the proposed objectives and makes conclusions thereafter. Recommendations for policy implications are discussed and areas for further research are then suggested.

5.2.1. Background information on the respondents

The response rate for this study was 85.7% whereas Sekaran (2004) recommended that any response rate above 75% should be classified as best and appropriate for any study. The result shows that 68.3% of the respondents were males while 31.7 % were females. The findings imply that this distribution was fairly below the provisions as per the Kenyan Constitution 2010, though the findings concur with Foss, Woll and Moilanen (2013) study which found more males employed in management and operations while females take mostly accounting, customer care, and internal services. Barta, Kleiner and Neumann (2012), contend that gender diversity and inclusion create a wider talent pool since different genders are talented differently. It was established that the management in the medium hotel industry was well educated with the majority having a higher diploma and above. Hence medium hotel sector in Kenyan cities values educated leadership. This is consistent with Cabrillo, Nesic and Mitrovic (2014) who found that high knowledge levels are great contributors to human capital that promote innovation performance. This was also in line with Joppe (2010) who noted that during the research process, respondents with technical knowledge assist in

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gathering reliable and accurate data on the problem under investigation. Hotel entrepreneurs in Kenya therefore value leadership that is well-informed and educated for knowledge creation.

The study sought to establish the number of years that each respondent had served at the managerial level. The findings show that the majority 64.9 % had work experience of over 5 years. IBM (2014) found that employees with longer work experience were able to adapt faster to new processes and structures than those who had no prior work experience. This occurred with a study by Wairimu (2017) on the effect of employees' work experience on performance within the hotel industry, which found 67.5 % of the respondents with work experience of above 4 years, and considered that work experience as adequate to investigate the impacts of work experience on employees. The majority of the medium hotel establishments were found to be less than ten years of age. This is important because they were established in the era of actualizing Vision 2030 and were expected to adhere to sustainable practices. It also implied that most of the hotels had survived the COVID-19 pandemic. The findings concurred with those of (Sahoo, Awuor & Panigrahi, 2021) who found that the coronavirus pandemic in Kenya impacted hotels differently with bigger hotels suffering far more than smaller hotels.

The study also collected observational data based on physical evidence of lean-green practices of each of the hotels studied. The study found that 73.6 % of the hotels had checkup and maintenance schedules in the toilets while 86.1 % had tiled washrooms. These findings concurred with those of (Han et al., 2018), a study that concluded that using low-flow toilets and shower heads, installing water-efficient devices and appliances, and implementing linen and towel reuse programs were the most popular means by which hotels attempted to reduce

water consumption. In matters concerning recycling, 67.3 % of the medium hotels were found to tap and conserve rainwater. This contrasted Chan et al., (2016) study which revealed that collecting rainwater and using it for garden irrigation or flushing toilets was the least adopted practice in hotels. 64.8 % of the hotels had labeled recycle bins and this was in line with (Han *et al.*, 2018) who concluded that hotel operators began adopting various practices that aim at reducing hotel waste such as using clearly labeled containers and colored bins for collecting recyclables.

The study found that 86.8% of medium hotels had evidence of using rechargeable appliances which is ideal for today's travelers who increasingly rely on smartphones and tablets for information, booking, and storing tickets. In the same light, the study found that 92.2 % of studied medium hotels get vegetables from the local community, and this concurred with Mugure's (2021) study that established that 75% of hotels use SMEs in procuring green products that local farmers and fishermen produce for hotels in the Mombasa. The study also established that 76 % of the medium hotels had a suggestion box in use, which was in line with Pareto's HRM indicator of employee involvement through suggestions. The findings are supported by a study conducted by Zengeni and Muzambi (2013) on 100 informants in Harare, Zimbabwe, which revealed that employees' environmental awareness plays an important role in a green revolution.

The study sought to establish the most preferred methods of dealing with competition to ascertain the hotel's level of eco-friendliness. Dealing with competitors is a tricky strategy where some may institute ruthless methods while other may be cautious and aware of the environment they are operating in and hence go for super techniques enabling them to be ahead. The study established that product quality strategy had the highest percentage of 63.4

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while price war which doesn't involve a lot of lean-green initiatives had the lowest score of 47.8%. This concurred with Borisenko (2018) who observed that pro-environmental responses achieved relatively high scores.

The study also sought to establish the popular green strategies adopted to save time. Involving lean suppliers dominated the initial dimension with 49.3% in matters concerning welcoming employees' suggestions had 53.7%, and rewarding super ideas quite often with 44.4 % score, and using self-directed teams often had 54.1% while creating a multi-skilled workforce very often had the least score of 13.2 % while quite often had 35.1% and often 51.7%. The results indicated that there is an effort towards adopting strategies aimed at perfecting production.

5.2.2. Relationship between Entrepreneurial Mind-set and Performance of Medium Hotels in Kenyan Cities.

The first objective of this study was to establish the relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. To find out if the hotel actively employs mindset, a mean of 4.373 and standard deviation of .7358 was recorded implying a higher inclination of mindset toward creativity. Entrepreneurial mindset directs creativity to responsiveness to market signals (Hughes & Morgan, 2007).   The goodness of fit indices indicates that the hypothesized structural Model provided a good fit between the data and the model. The likelihood Chi-square ($\chi 2$=120.293; df= 65 p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.920, incremental CFI was 0.971, TLI was 0.960 and parsimony RMSEA was 0.075 indicating good absolute fitness of the model.

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The influence of an entrepreneurial mindset on the performance of medium hotels in Kenyan cities was determined through inferential statistics. The standardized path coefficients of entrepreneurial mindset on performance was (β= 0.326, CR 6.765). This implied that the four items measuring the performance of medium hotels were found to be significant indicators. To test the hypothesis, the beta coefficient was computed and a t-test was used to test the relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities at a 5% significance level. The null hypothesis was rejected because the calculated beta (0.755, with p = 0.000) was statistically significant, therefore the findings confirmed the existence of a significant relationship between entrepreneurial mindset and performance of medium hotels in Kenyan cities. This concurred with Ajor & Joy's (2020) study which revealed a positive significant relationship between the mindset and organizational sustainability. Also, the findings of Jemal (2020), revealed that an entrepreneurial mindset affects positively and significantly the performance of SMEs including small and medium hotels.

The study also analyzed the variance between strategic entrepreneurship parameters and firm performance to test the hypotheses. The null hypothesis stated that there was no positive, significant relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. The analysis of variance result (F= 23.710, p-value < 0.05) showed a significant influence between entrepreneurial mindset and firm performance. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed.

The moderation effect of lean-green practices on the relationship between entrepreneurial mindset and firm performance was explored. The goodness of fit indices of the hypothesized model indicated a good fit between the data and the model. The likelihood Chi-square

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($\chi2$=207.309; df= 140, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.907, incremental CFI was 0.981, TLI was 0.997 and parsimony RMSEA was 0.049 indicating good fitness of the model. The study employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the moderating effect of lean-green practices on the relationship between entrepreneurial mindset and performance, although the moderation was significant, no structural statistical equation was generated.

5.2.3. Relationship between Innovations and Performance of Medium Hotels in Kenyan Cities.

The second objective of this study was to establish the relationship between innovations and the performance of medium hotels in Kenyan cities. Innovativeness rating had the mean score (Mean 4.304, std dev .6878) reflecting a high propensity to engage in innovation. Innovation is important to renewing products and services in the market to remain competitive. The hypothesized goodness of fit model indices indicated a good fit between the data and the model. The likelihood Chi-square ($\chi2$=19.499; df= 19, p= 0.425) was not significant while the other fit measures showed that the model perfectly fitted the observed data. The absolute measure GFI was 0.977, incremental CFI was 1.000, TLI was 1.000 and parsimony RMSEA was 0.011 indicating good absolute fitness of the model. The standardized path coefficients of innovations on performance (β= .389, CR 6.928). This meant that the four items measuring the performance of medium hotels were found to be significant indicators. The findings concurred with those of Nyambura (2019) which found that process innovation had a significant positive relationship with the competitiveness of

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hotels in Nairobi County. Also Hu et al., (2020) concluded that innovation types have palpable and statistically significant liaison with the performance of hotel firms in Ghana.

The moderating effect of lean-green practices on the relationship between innovations and the performance of medium hotels was explored. The goodness of fit indices indicated a good fit between the data and the model. The likelihood Chi-square ($\chi2$=148.563; df= 77, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.918, incremental CFI was 0.967, TLI was 0.955 and parsimony RMSEA was 0.067 indicating good fitness of the model. The study employed Stepwise Multiple Moderated Regression (MMR) analysis to test the moderating effect of lean-green practices on the relationship between innovations and performance of medium hotels in Kenyan cities.

The results showed an R-square of 0.370, which meant that 37 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of innovations in the model. To test the hypothesis, the beta coefficient was computed and a t-test was used to test the relationship between innovations and performance of medium hotels in Kenyan cities at a 5% significance level. The null hypothesis was rejected because the calculated beta (0.610, with p = 0.000) was statistically significant, therefore confirming a significant relationship existed between innovations and the performance. Fernando, *et al.* (2019) study found that eco-innovations unlock better sustainable performance.

5.2.4. Relationship between Capital Mobilization and Performance of Medium Hotels in Kenyan Cities.

The third objective of this study was to establish the relationship between internal capital mobilization and the performance of medium hotels in Kenyan cities. The average mean score was 4.448 with a standard deviation of .5938 which was above average reflecting a high implementation of selected capital indicators. Zehra (2018) study found that resource mobilization among informal entrepreneurs comprises a mix of social and human capital mobilization, a combination which improves the synergistic effects, where financial capital and resources are an important antecedent of new venture performance, hence resource mobilization is not competitive but rather collaborative.

The goodness of fit model indices indicated a good fit of hypothesized model between the data and the model. The likelihood Chi-square ($\chi2=31.776$; df= 17, p= 0.016) was significant while the other fit measures showed that the model perfectly fitted the observed data. The absolute measure GFI was 0.965, incremental CFI was .989, TLI was .981 and parsimony RMSEA was 0.065 indicating good fitness of the model. The standardized path coefficients of internal capital mobilization on the performance of medium hotels was ($\beta=0.704$, CR 7.733). This meant that when the internal capital mobilization goes up by 1, the performance of medium hotels goes up by .704. The findings therefore indicate that internal capital mobilization significantly influenced the performance of medium hotels positively. The findings concurred with Sydler, Haefliger, & Pruksa, (2014) who found that all three factors of IC play significant roles in the value creation of firms. Wang et al., (2018) also demonstrated that the three components of intellectual capital, namely human capital,

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structural capital, and relational capital, are positively related to innovation speed and quality, which in turn facilitate the operational and financial performance of a firm.

The analysis of variance result (F= 34.134, p-value < 0.05) showed a significant influence between internal capital mobilization and the performance of medium hotels. The findings concur with Cabrillo, Nesic and Mitrovic (2014) who established that a high knowledge level is a greater contributor to human capital that promotes innovation performance. The null hypothesis was rejected because the calculated beta (0.698, with p = 0.000) was statistically significant, and therefore confirmed a significant relationship between capital mobilization and the performance of medium hotels in Kenyan cities.

The moderating effect of lean-green practices on the relationship between internal capital mobilization and firm performance was explored. The hypothesized goodness of fit indices indicates a good fit between the data and the model. The likelihood Chi-square (χ2=193.74; df= 103, p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.905, incremental CFI was 0.965, TLI was 0.953 and parsimony RMSEA was 0.066 indicating good fitness of the model. The study then, employed Hierarchical Multiple Moderated Regression (MMR) analysis to test the moderating effect of lean-green practices on the relationship between internal capital mobilization and performance.

The results show that model had an R-square of 0.487, which showed that 48.7 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of capital mobilization in the model. Based on the ANOVA F statistic, the model was generally significant with a p-value of 0.000 which is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-

square of 0.269. The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 which is less than 0.05.

5.2.5. Relationship between Networks and Performance of Medium Hotels in Kenyan Cities.

The fourth objective was to establish the relationship between networks alliances, and performance of medium hotels in Kenyan cities. The average mean score was 4.283 with a standard deviation of 0.773. was far above the average, showing a strong contribution of networks in new strategy development and also the accommodation of unique lean-green initiatives. Tajeddini et al., (2020) found that in uncertain, dynamic environments, a higher level of risk and entrepreneurial orientation benefited business performance especially when coupled with strong business and social networks.

The hypothesized goodness of fit indices indicated that the hypothesized structural sub model provided a good fit between the data and the model. The likelihood Chi-square ($\chi2$=51.457; df= 23, p= 0.001) was significant while the other fit measures showed that the model fitted the observed data. The absolute measure GFI was 0.948, incremental CFI was .982, TLI was .973 and parsimony RMSEA was 0.078 indicated good absolute fitness of the model. The standardized path coefficients of innovations on entrepreneurial performance was (β=.615, CR 11.002).

To test the hypothesis, the beta coefficient was computed and a t-test was used to test the relationship between networks and the performance of medium hotels in Kenyan cities at a 5% significance level. The null hypothesis was rejected because the calculated beta (0.733, with p = 0.000) was statistically significant, therefore confirming a significant relationship existed between networks and the performance of medium hotels in Kenyan cities. Chuang,

Hang and Huang's (2015) study's findings indicated that, when doing business in emerging economies such as China, only a proper fit between organizational learning and guanxi networking can yield a higher degree, or extent of strategic performance.

The analysis of variance result (F= 34.134, p-value < 0.05) showed a significant influence between networks and alliances and the performance of medium hotels. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed. These findings concurred with Mathuki, Ogutu and Pokhariyal (2019) which confirmed that strategic alliances had a strong statistically significant influence on the performance of firms in Kenya. Also Kamau (2020) study on strategic alliance practices and organization performance established that strategic alliance practices influenced the overall organization performance.

The moderating effect of lean-green practices on the relationship between internal networks and alliances and the performance of medium hotels in Kenyan cities was explored. The goodness of fit indices indicated a good fit between the data and the model. The likelihood Chi-square ($\chi2$=180.921; df= 135, p= 0.025) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.916, incremental CFI was 0.983, TLI was 0.979 and parsimony RMSEA was 0.041 indicating good fitness of the model.

The path analysis results show that the model has an R-square of 0.537, which shows that 53.7 % of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of networks in the model. Based on the ANOVA F statistic, the model was generally significant with a p-value of 0.000 which is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-

square of 0.216. The change in R-square was significant as shown by the significant change in F with a p-value of 0.000 which is less than 0.05.

5.2.6. Influence of Lean-Green Practices on the Relationship between Strategic Entrepreneurship and Performance of Medium Hotels in Kenyan Cities.

The moderating effect of lean-green practices on the relationship between strategic entrepreneurship and performance was explored. The average mean score was 4.345 with a standard deviation of 0.585 confirming the contribution of using a lean-green strategy interface in conjunction with strategic entrepreneurship towards general performance. This concurs with Rauch, Damian and Holzner's (2016) study which concluded that lean management holds additional potential for the tourism and hospitality sector in the future and advised the adoption of lean special requirements of the hotel sector.

The overall measure of the parameters was tested for reliability to determine the individual parameter scale of stability in providing similar outcomes in repeated trials. This was arrived at by regressing the parameters of STE with PERF and then the aggregate value of STE with PERF. The relative strength of each parameter was determined in terms of R square value. The R square for each of the variables was above 0.35 indicating that each one among them had some contribution to PERF. This further implied that the construct STE was properly constituted with regard to its relationship with PERF.

This association of STE and PERF was confirmed by conducting a bivariate correlation on their values. The result was a positive value of 0.881 with a (p-value < 0.000) that was significant implying that there existed a strong positive association between Strategic Entrepreneurship and Performance of Medium hotels in Kenyan cities. The goodness of fit indices indicated that the hypothesized model provided a good fit between the data and the

model. The likelihood Chi-square (262.122; df= 173 p= 0.000) was significant while the other fit measures showed that the model adequately fitted the observed data. The absolute measure GFI was 0.901, incremental CFI was 0.974, TLI was0.966 and parsimony RMSEA was 0.050 indicating good fitness of the model

The study conducted Hierarchical Multiple Moderated Regression (MMR) analysis to test the moderating effect of lean-green practices on the relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities. The results show that model had an R-square of 0.564, which shows that 56.4% of the variation in the performance of medium hotels in Kenyan cities was explained by the variation of strategic entrepreneurship in the model. This concurred with a study by (Alipour, Safaeimanesh & Soosan, 2019) which revealed that going green is becoming a means of branding hotels making the attract eco-tourists. From the stepwise regression analysis, the null hypothesis was rejected because the calculated R square change (0.010, p = 0.017) was statistically significant, therefore confirming a significant moderation of lean-green practices on the relationship between strategic entrepreneurship and performance of medium hotels in Kenyan cities.

Based on the ANOVA F statistic, the model was generally significant with a p-value of 0.000 which is less than 0.05. After introducing the moderating variable Lean-Green Practices (LGP) the model experienced a change in R-square of 0.094. The change in R-square shows a significant 9.4 % increase in variation of performance of medium hotels explained by predictors in the model due addition of LGP to the model. This is in line with Hussain, Al-Aomar & Melhem (2019) who established that Lean techniques and Green techniques are complementary to each other and both have a substantial impact on sustainable performance.

The introduction of the interaction term, a product of Strategic entrepreneurship (STE) and Lean-Green Practices (LGP) exhibited a significant change in R-square of 1 % that had a p-value of 0.017 in the ANOVA table. This shows that considering strategic entrepreneurship (STE) as the only independent variable in the model, Lean-Green Practices (LGP) moderate the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities. The null hypothesis was therefore rejected and the alternative hypothesis was confirmed.

This was verified by Vadivel et al., (2021) whose work on the impact of Lean Service Practices, Lean Workplace Environment Practices, and Lean Social Practices on operational performance confirmed a positive and significant impact. This was in agreement with the study of Rauch et al., (2016) which concluded that lean management holds additional potential for the tourism and hospitality sector in the future and advised on the adoption of lean special requirements of the hotel sector.

5.2.7. Assessment of the Magnitude of Moderating Effect

The magnitude of LGP was quantified to determine the nature of the moderation effect; i.e. whether small, medium, or large. The effect size formula which was propounded by Cohen (1988) was used.

The magnitude of LGP was 0.33 which lies between 0.15 and 0.35 but more closer to 0.35 than 0.15. The implication of Lean-green practices therefore can be described as having a large moderation effect between the relationship of Strategic Entrepreneurship and Performance of medium hotels. Gachanja (2020) used Cohens' formula to confirm moderation between the innovation ecosystem on knowledge entrepreneurship and the

innovation performance of manufacturing firms in Kenya. This was another form of tranquilizing the analysis of lean-green moderation.

5.3. Conclusions

Based on the findings guided by the hypotheses of the study the following conclusions were arrived at.

Ho_1: There is no significant positive relationship between entrepreneurial mindset and the performance of medium hotels in Kenyan cities.

From the study, it was concluded that the variable entrepreneurial mindset had a positive statistically significant influence on the performance of medium hotels in Kenyan cities. Analysis of variance between entrepreneurial mindset and performance of medium hotels in Kenyan cities revealed (F=23.710, $p < .05$) which was significant. The effect of lean-green practices on the performance of medium hotels in Kenyan cities was found to be significant at 0.05 level ($\beta = .527$, t = 12.497, $p < .05$). The interaction term was quite weak to yield any significant influence on the performance of medium hotels in the Kenyan cities ($\beta = -.042$, t = -1.367, $p > .05$). Therefore, no model was generated to show the effects of the interaction.

Ho_2: There is no significant positive relationship between innovations and the performance of medium hotels in Kenyan cities.

From the study, it was concluded that the variable innovations had a positive statistically significant influence on the performance of medium hotels in Kenyan cities. Analysis of variance between innovations and performance of medium hotels in Kenyan cities had an (F=9.916, $p < .05$). The effect of lean-green practices on the performance of medium hotels in Kenyan cities was found to be significant at 0.05 level ($\beta = .664$, t = 15.495, $p < .05$). The interaction term was very weak to have any significance influence on the performance of

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medium hotels in the Kenyan cities (β = -.021, t = .649, p > .05). Therefore, there was no

model was generated to incorporate the interaction term.

Ho3: There is no significant positive relationship between internal capital mobilization and

the performance of medium hotels in Kenyan cities.

From the study, it was concluded that the variable capital mobilization had a positive

statistically significant influence on the performance of medium hotels in Kenyan cities.

Analysis of variance between internal capital mobilization and performance of medium

hotels in Kenyan cities had an (F=19.107, p < .05). The effect of lean-green practices on

performance of medium hotels in Kenyan cities was found to be significant at 0.05 level of (β

= .605, t = 14.943, p < .05). The interaction term was too weak to have any significant

influence on the performance of medium hotels in the Kenyan cities (β = -.330, t = -.936, p

> .05). Therefore, there was no significant model generated from the effect of interaction.

Ho4: There is no significant positive relationship between networks and the performance of

medium hotels in Kenyan cities.

From the study, it was concluded that the variable networks had a positive statistically

significant influence on the performance of medium hotels in Kenyan cities. Analysis of

variance between networks and performance of medium hotels in Kenyan cities had

(F=23.620, p < .05). The effect of lean-green practices on the performance of medium hotels

in Kenyan cities was found to be significant at 0.05 level (β = .571, t = 13.278, p < .05). The

interaction term was too weak leading to none significance influence on the performance of

medium hotels in the Kenyan cities (β = -.440, t = -1.342, p > .05). Therefore no model was

generated to show the effects of the interaction.

Ho5: There is no significant influence of lean-green practices on the relationship between strategic entrepreneurship and the performance of medium hotels in Kenyan cities.

Strategic Entrepreneurship has a significant influence on the performance of medium hotels in Kenyan cities (β=.751, t=16.193, p< .05). By adding lean-green practices to the model, the coefficient was significant at 0.05 level, (β = .417, t = 7.445, p < .05). The introducing of interaction term (moderator) to the model, it experienced a significant improved (β = .937, t = 2.414, p < .05). The p-value of the interaction term was (p-value=0.017, < .05) implying positive statistical significance of the generated model. The computed magnitude of lean-green practices according to Cohen (1988) was 0.33 which was close to 0.35 leading to the conclusion that lean-green practices positively moderated the relationship between strategic entrepreneurship and performance medium hotels in Kenyan cities. Therefore the hotel as an industry should embrace strategies geared towards the adoption of lean-green practices to achieve better performance.

5.4 Recommendations

The policymakers, private sector as well and advisors on matters concerning hotel entrepreneurship may find this study useful in areas of embracing lean-green practices as a strategy since it significantly influences the performance of the sector leading to positive image, reduced operational costs growth, and survival. The following important recommendations for each objective were made based on findings and conclusions.

5.4.1. Entrepreneurial mindset

Having established the contribution of entrepreneurial mindset on the performance of medium hotels in Kenyan cities with an adjusted R-square value of .599, the study came up with the following recommendations: The concepts concerning lean-green should be incorporated into the national curricula of entrepreneurship. All the sectors dealing with basic, secondary, and tertiary education including universities need to reshape conceptual skills to align mindset to lean-green values. The practitioners in the hospitality sector need to be encouraged to engage the young generations and the youth in particular on short employment engagements in areas of lean-green endeavors to develop a better scope of visualizing opportunities in otherwise obscure or hidden areas. Hence the Government and the private investors in the hotel sector need to implement programs for training and engaging all entrepreneurs on how to acquire skills required to overcome the lack of legitimacy, market power, and other uncertainties brought by not engaging in lean-green practices rarely which are rarely taught in business schools.

5.4.2. Innovations

The influence of innovations on performance was established in medium hotels with an R-square of .535 and as such this study has the following recommendations: There is a need to enhance innovations at all levels with lean-green practices by adopting continuous improvement philosophy. Entrepreneurs need to be synthesized to develop and support inventions and retrain their employees in areas focusing on value in an orderly, safe, clean, comfortable, and positive work environment that links nature's well-being and job creation. The Government should come up with ways of recognizing hotels that show exemplary contributions towards supporting initiatives accelerating lean-green adoption by allowing tax

holidays to enable them to cut on expenses associated with embracing and implementing lean-green initiatives at all levels.

5.4.3. Capital Mobilization

The influence of capital mobilization on the performance of medium hotels was established with an R-square of .485 and therefore this study came up with the following recommendations: The employee's unique competencies need to be tapped through staff exchange programs, training, and seminars to enhance their skill applicability in the dynamic world of doing business. This is necessitated by the varieties of doing the same thing in different styles due to different levels of technologies in existence. The database concerning refurbishing and conservation strategies needs to be enhanced since consumers make more urgent demands and expect convenient and prompt action anytime, anywhere. An adequate database will assist in developing advanced logistics and skill training for workers to adopt and align to new technologies associated with consumer demands. Capital expansion should be tailored towards lean-green practices since they have been proven to go in line with better performance with more emphasis on the concept of 5S being incorporated in entrepreneurship courses in all levels of instruction.

5.4.4. Networks

The influence of networks on performance was established in medium hotels with an R-square of .370 and therefore this study came up with the following recommendations: The Government should subsidize or allow tax-free importation of networking facilities in the hotel industry to make them accessible and affordable by the medium hotels for use in areas like virtual reality tours. Also, networked medium hotels will be able to interact with players in the tourism and hospitality industry because they are interconnected. There is a need to

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introduce gamification for online advertising in the hotel and hospitality sector in our local market. Gamification has been proven to boost customer loyalty, brand awareness, user-generated content, and online engagement as well as revenue growth.

The government through the commercial attachés should make it a policy to organize tours and exhibitions for domestic entrepreneurs to the outskirts of the host countries to tap from this powerful tool of learning from the experience of those ahead. The host communities' education needs to be enhanced to awaken dormant local entrepreneurs to participate in supply chains about supplying fresh organically grown vegetables and other alternative ingredients alternatively sourced from far away and even abroad.

5.4.5. Lean-green Practices

Lean-Green practices have a significant influence on the performance of medium hotels in Kenyan cities as well as the moderation effect on the relationship between strategic entrepreneurship and performance. Lean-green practices therefore qualify as a strategic orientation of entrepreneurship and hence the study recommends the following. To start with the Government should develop and incorporate lean-green standards for enterprises offering hotel services and encourage investments in energy-efficient and renewable energy technologies. Secondly, the government also needs to provide updated information concerning research and innovations to aid in the development of new products aligned to lean-green practices. This can go along with lean-green labels on hotel logos to enhance identification as well as communicating their commitment to sustainability philosophy.

Finally the managers need to retrain in methodologies oriented towards output processes embracing the principles of lean consumption as well the hotel staff on extra skills and a shared means of thinking aimed at driving out waste through involvement in suggesting

better working ways. The findings will benefit hotel developers and investors willing to operate in a more lean-green manner but are unsure whether customers are concerned about adherence to lean-green practices.

5.5. Area for Further Research

This study proposes that a similar study be undertaken across the board involving micro, small, and large enterprises in the hotel industry. Similar studies could be undertaken in the counties to involve rural categorization and hence allow widespread generalization. There is a need for a study in medical tourism to unearth additional lean-green practices required to meet the emotional attributes of the guests. Future research is also needed to expand the scope of lean-green practices to be in line with evolving initiatives and technology, especially the influence of strategic agility. Studies are needed to unearth how to tame the challenge of attracting tourists who are aware of environmental problems but reluctant to invest in lean-green efforts.

Contribution to Knowledge

The Government will find the results useful when developing policies to promote productivity by supporting sustainability through emphasizing cleaner, competitive, and decent employment aimed at conserving resources and lowering greenhouse gases.The study contributes to the literature on the area of lean-green practices as a strategy that be adopted towards achieving same or better results while using less resources. The study will enhancing marketing strategies involving sustainable production to boost the image in an endeavour to satisfy guests with environmental concern. The study will enrich the knowledge of curriculum designers in entrepreneurship by incorporating lean-green practices aspects in line with the changing scope of good practices and marketing.

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Appendix i

INTRODUCTION LETTER

My name is Joseph Karimi, I am a PhD student at Karatina University. I am currently carrying out a research on medium hotels. The title of the study is ***"Strategic Entrepreneurship, lean-green Practices and Performance of Medium hotels in Kenyan Cities"***. Your hotel has been selected to be one of the participant. I assure you that the information you will provide will be used for research study only, and will not be revealed to anyone and therefore I kindly request you to fill in the questionnaire to the best of your knowledge and ability. Proper and correct answers given will make my study more purposeful and fruitful. The information is needed purely for academic research purposes and will therefore be treated with strict confidence. Completing the questionnaire normally takes approximately twenty five minutes. If you have any query about this research, please contact me through my phone number 0720215572 or email: *ngungakj@gmail.com*.

THANK YOU FOR YOUR PARTICIPATION.

Appendix ii

QUESTIONNAIRE

<u>**SECTION A: GENERAL/ DEMOGRAPHIC DATA**</u>

1. Kindly indicate your gender by ticking (√)   Male {   }   Female {   }

2. How long has this hotel been operational?

Less than 5 years	6-10 years	11-15 years	16-20 year	Above 20 years

 3. How many employees are currently working in the hotel?

Less than 50	50-100	Above 100

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4. What is your highest level of education?

Diploma	Higher national diploma	Bachelor	Masters	Doctorate	Others specify

5. For how long have you been at managerial position?

Less than 5 Years	Between 5-10 Years	Between 11-15 Years	Between 16-20 Years	Over 20 years

SECTION B. STRATEGIC ENTRPRENEURSHIP

INNOVATIONS.

6. Which method do you use to deal with competition (Can tick more than one item).

□ Price war

□ Changing product design

□ On-time delivery

□ Product quality improvement

□ Changing technology of Production

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For each of the statement given in the table below, place a (√) in the appropriate cell to indicate your level of agreement with the statement.

Key: 1 = SD(Strongly Disagree), 2 = D(Disagree), 3 = N(Neutral), 4 = A(Agree), 5 = SA(Strongly Agree)

	Statement	1 SD	2 D	3 N	4 A	5 SA
	Applying creativity					
1	The hotel is constantly in search for processes with multiplier effect.					
2	Our procedures are based on newness in brand identity that can be applied easily by our employees.					
3	I believe my hotel leads in upgrading existing products and competitors follow.					
4	Our products have a higher degree of novelty from those of our competitors.					
	Lean innovations					
5	During the last six months the hotel has introduced something different to attract new clients.					
6	The hotel prefers to engage in a series of good guesses daily and act on them.					
7	Your hotel creates value for new and existing clients through utilizing reduced material resources use strategy.					
8	The hotel adores increasing Lean-green related strategies in the menu as well as services.					

ii) ENTREPRENEURIAL MIND SET

	Statement	1 SD	2 D	3 N	4 A	5 SA
	Entrepreneurial strategies					
1	I find it hard to punish errors from an idea well thought about.					
2	I tend to make decisions rather quickly.					
3	I have a passion for pursuing weak ideas that show potential of growth.					
	Capturing uncertainty					
4	The hotel has in place a budget for emergency of creative innovations.					
5	I'm always ready to take limitless amount of risk to achieve real success.					
6	In exploiting opportunities, the hotel management is not afraid to take bold unique rare decisions.					

iii) CAPITAL MOBILIZATION

	Statement	1 SD	2 D	3 N	4 A	5 SA
	Intellectual capital					
1	The hotel employees have unique competencies which management consider valuable.					
2	The hotel database has helped to strategies on buying preferences of our customers.					
3	The hotel has cultivated good relations with the local community in the surrounding.					
	Financial capital	1 SD	2 D	3 N	4 A	5 SA

		1	2	3	4	5
4	Capital specific expansions had ensured that regulatory requirements are met.					
5	Investing capital on lean-green practices has led to improvement on employee's morale.					
6	Investing more capital in lean-green methods always results in amplified returns.					

iv) NETWORKS AND ALLIANCES

	Statement	1	2	3	4	5
		SD	D	N	A	SA
	Access to information					
1	The hotel is able to identify who needs a particular value before engaging on creating a value stream.					
2	Networking avails vital information helpful to avoiding operational risks associated with defects.					
	Access to technology					
3	Utilizing cyberspace helped in increasing credibility of supplied information about the hotels service quality.					
4	The hotel works on customers' constant feedback when developing a new products.					
	Access to markets					
5	Through net-working our recognition has improved resulting in increased facilities booking.					
6	There is an established long term relationships with key partners in the chain and this enhances our equity share.					

SECTION C: LEAN-GREEN PRACTICES

Lead time reduction dimensions

How often does your establishment perform any of the following or a combination of them.

	Activity	Often	Quite Often	Very Often
a	Involving lean suppliers			
b	Welcoming employee's suggestions			
c	Rewarding super ideas			
d	Self-directed work teams			
e	Create multi-skilled work force			

	Statement	1 SD	2 D	3 N	4 A	5 SA
	Waste Reduction Strategies					
1	The hotel focuses on elimination of any process that doesn't contribute to value but leads to scrap.					
2	The hotels' serving ware and packaging containers are made from biodegradable (paper) or materials which can be washed for re-use (re-cycled).					
	Iterative customer feedback approach					
3	The hotel purposely integrates energy and water-efficient equipment in the kitchen, dining and rest rooms to boost its' eco-friendly image.					
4	The hotel is encouraged to use non-toxic and biodegradable inputs by the customers.					
	Continuous improvement strategy					
5	The hotel has tried lean start-ups with positive results.					
6	Basing operations on continuous improvement saves on resource use and wastage.					

SECTION D: FIRM PERFORMANCE

The following are judgment criteria for firm performance due to application of lean-green practices. Please select the degree of agreement as follows

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral 4 = agree, 5 = Strongly Agree

	Performance indicator	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
	Market value and profits,					
1	Increase in return on investment.					
2	Increase in value of total assets.					
	Customer satisfaction					
3	Customer satisfaction due to sourcing from lean-green suppliers is expected to improve.					
4	Recognition due to adoption of sustainable operations has increased rate of clientele booking.					
	New ventures creation.					
5	The need enhanced continuous improvement strategy had made us franchise.					
6	The internet has been useful in accessing new markets.					
	Enhanced corporate image,					
7	Hotel recognition and image improvement in the last two years.					
8	The hotel never postpones lean-green innovations due to high costs of innovation.					

THE END

THANK YOU

OBSERVATTION CHECKLIST

Use of reusable towel savvies instead of paper savvies.	YES	NO
Is there labeled recycle bins or facilities.	YES	NO
Does the facility use energy saving lighting system?	YES	NO
Are re-usable utensils in use?	YES	NO
Presence of suggestion box within the hotel.	YES	NO
Is there application of paperless technology?	YES	NO
Do the toilets have checkup and maintenance schedule?	YES	NO
Does reception have flowers ?	YES	NO
Are furniture made of recycled materials?	YES	NO
Does the hotel get fresh vegetables supplies from the local area?	YES	NO
Are there refillable soap dispensers?	YES	NO
Does the hotel irrigate flowers with kitchen waste water?	YES	NO
Are there pictures, murals or décor from recycled waste?	YES	NO
Is drying of wet clothes done in the sun?	YES	NO
Is there use of rechargeable appliances	YES	NO

HOTEL NAME
Chak Guesthouse and conference
center
Haya Suites& Hotel
Ngong Hills Hotel
Palm Breeze Hotel(Kawangware)
Accra Hotel & Guest Room
Sportsview Hotel
Silk Oak Guest House
Anchor Hotel
Seldom Hotel
Jostem Makuti Inn
Fair View Hotel
Bellie suites
Marble Arch
Kozi Hotel
Elano Guest House
Melonia Guest Resort
Sleep Inn Hotel
Sunrise Guest House
KAP Guest House
Masaai Lodge
Kigwa Guest House
Karina Guest House
Well Star Guest House
Utugi Home & Guest House
Rainbow Hotel
The Social House
Khweza Bed & Breakfast
Capital Heights Hotel
Angaza guest House
YMCAParkview Suites
Jupiter Guest Resort
hotel Southern Blue
Dreamland Guest House
Mirema Hotel
Park Place Hotel
Ridge View Lodge
Aquarium Guest Resort
Fahari Gardens

Faith Apartments
Brown Vibes
Bermunda Gardens Hotel
New Swanga Logde
Diamond Plaza
West Park Hotel
Metro Hotel
Medina Hotel
Simani Guest House
Weston Hotel
Mamba Hotel
Joventure Hotel
Nyar Kogello Homes
Mirage Palace
Mbomani Penthouse
Royal City Hotel
Lake View Casino & Hotel
Dunga Lakeside Resort
Havana Hotel
Full Junction Hotel
Millimani Holliday Hotel
Perch Hotel
New Victoria Hotel
Riversand hotel
Mattan Issah Hotel
Akwacha Hangover
Downtown Akwacha
Lake Breeze
Kisumu Travellers
Norumba Guest House
Kamas Guest House
Sunnside Apartments
Mahf Jeh Hotel
Ladius Hotel
Siaya evest House Hotel
Pearldew Hotel
Grand Forty Hotel
New Rwathia Guest House
The Cummings Hotel
Abala Hotel
Double M Lounge
Raygreen Hotel
Hotel Vundumba

The Scottis Tarten Hotels
Hotel Vintakone
Raj Palace
Asba Guest House & restaurant
Davundu Restaurnt
Deacons Guest House
Mamba village
Kiguthu Hotel
Jawambe Hotel
Neptune Hotels
Ceinmach House
Severine Lodge
Jacyjoka Apartments
Marigold Guest House
Indiana Beach Apartments
Pride Inn Paradise
Shanzu Pride Inn Hotel
Marina English Point
Silent Sky Guest House
Wawa Sunset
Sebuleni Homestay Hotel
Jayid Homestay
Choka Cottages Hotel
Tulia House Hotel
Hotel Sisters & Spa
Shanzu beachway Home
Shimani Reef Lodge
Serena Beach Rersort & Spa
Spotvilla Hotel
Malaika Beach Apartments
Twiga Canopy Villas
Golden Guest House
Tea Room Guest House
Eveninig Hotel
Prestige Holliday Resort
Heritage Hotel
Jumeirian Beach Front
Milele Beach
Shiloh Hotel
Sanana Conference Centre & hotel
Travellers Beach Hotel & Club
Baobab Beach Resort & Spa
Mombasa Continental

Diani Dhow
Sarova Whitesands Hotel
Lambada
The Sands
The Reef Hotel
Millbrook Resort
Jambo Travellers
Kaskazi Beach Hotei
Sherraton
Jacyjoka Apartments
Diani Reef
Kaskazi Beach Hotei
Danpark Hotel
Fast Care Villa Bavaria
Azul Magarita Resort
Ary Homestay
Ichaweri Hotel
Yamoke Hotel
Rafiki Place Hotel
MiDview Hotel
Lijo Beach Resort
Bahari Beach Hotel & Conference
Centre
Sun Africa Beach Hotel &Spa
Royal Cort Nyali
Kwetu Resort
Greenwood Resort
Mawenzi Resort & Convention Centre
Kahama Hotel
Pride Inn Nyali
Lenox Southern
Windsor Hotel
Blue Comfort Hotel
The Planet Apartments
Magongo Safari Hotel
Jambo Paradise Hotel
Stadium Inn Hotel
Peacock Hotel
Palm Breeze Mombasa
Taeven Inn shanzu
Coral Breeze Tudor
Bridge Hotel
Kilva Hotel

Sunrise Resort Mbombolulu
Hotel Basilea
White Rhino Mombasa
Masters Downtown Mbaraki
Boston Hotel
Tamarind Village Hotel
Manson Beach Road Hotel
City Blue Creek Side
Sea View Hotel
Cingaki Hotel
Ukunda Pride Inn
Mtwapa Travellers Jambo Hotel
Woglet PCEA Makupa Hotel
Savannah Hotel
Mciric Annex
Leisure Lodge
Rutfa Diani Resort
Ziwa Beach Hotel
Leopard Beach Resort & Spa
Ciardino Restaurant
Eataly Restaurant1
Athusi Resraurant
Alfajiri Conner
Mashariki Annex
Meya Bar & Restaurant
Nyali Misono Japanese
Singh Hotel
Thalasa Restaurant
Yul's Aquadrom
Alarabi Food & Accomndation
Al-Waris Resort
Silver Spoon
Sizzling Flames
SkyPark Guest House
Splendid View
Universal Palace
Pine Breeze Resort
Salama Resort

Appendix iv
Factor loading

Rotated Component Matrix[a]

| | Component |
	1	2	3	4	5	6	7
APC1						.811	
APC2						.880	
APC3						.801	
APC4						.870	
LNV1							.735
LNV2							.757
LNV3							.810
LNV4							.777
EnStr1			.758				
EnStr2			.775				
EnStr3			.751				
Uncer1			.764				
Uncer2			.730				
Uncer3			.756				
IC1				.815			
IC2				.698			
IC3				.819			
FC1				.767			
FC2				.531			
FC3				.752			
AcInf1					.563		
AcInf2					.794		
AcTc1					.781		
AcTc2					.779		
Am1					.789		
Am2					.637		
LPW1		.549					
LPW2		.725					
LPI1		.851					
LPI2		.844					
LPC1		.854					
LPC2		.773					
MvP1	.765						
CuSat2	.708						
CuSat1	.695						
NCret1	.744						
ECI2	.741						
MvP2	.757						
ECI1	.721						
NCret2	.759						

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.[a]

Appendix v

Scree Plot

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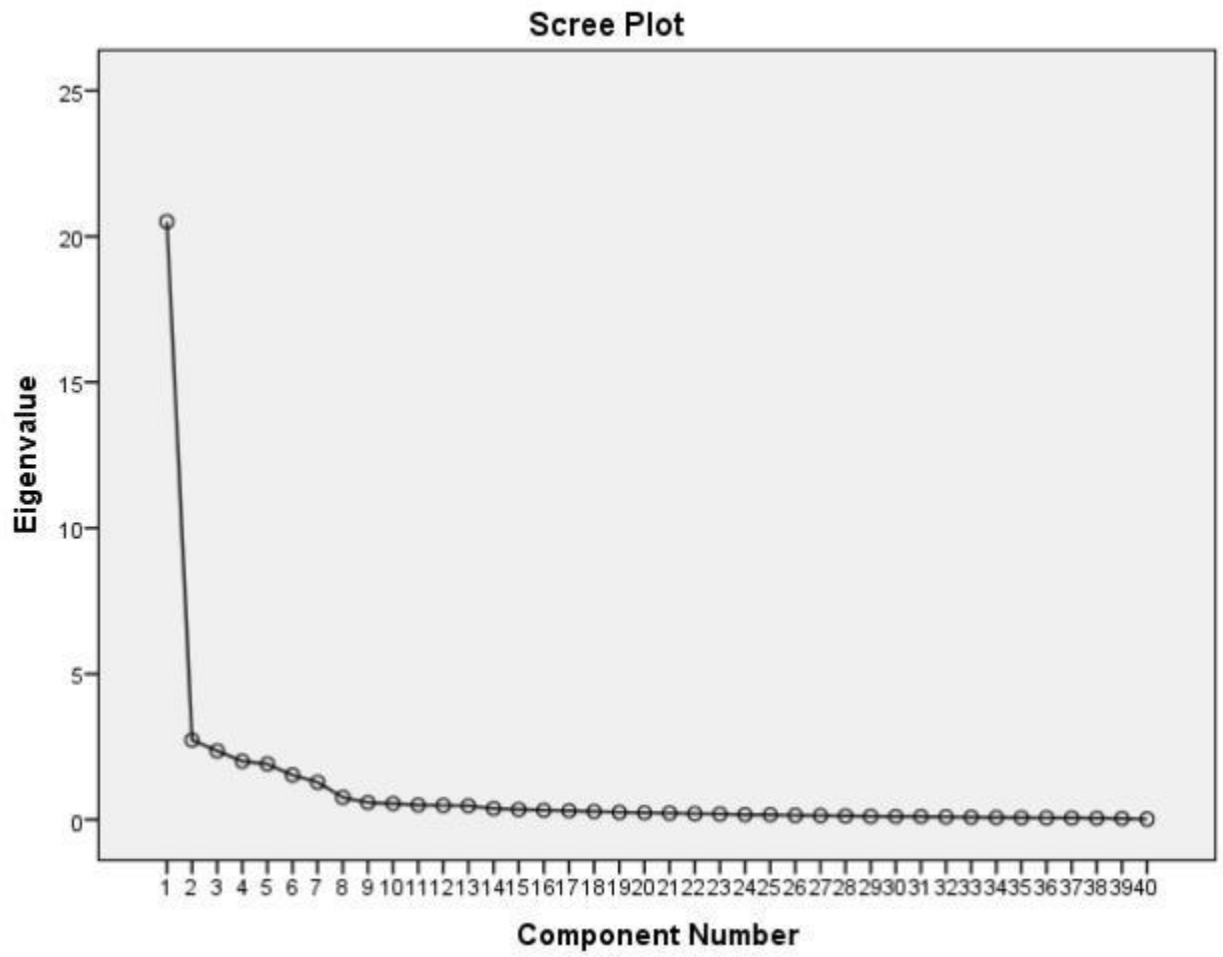
Appendix vi

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PERF
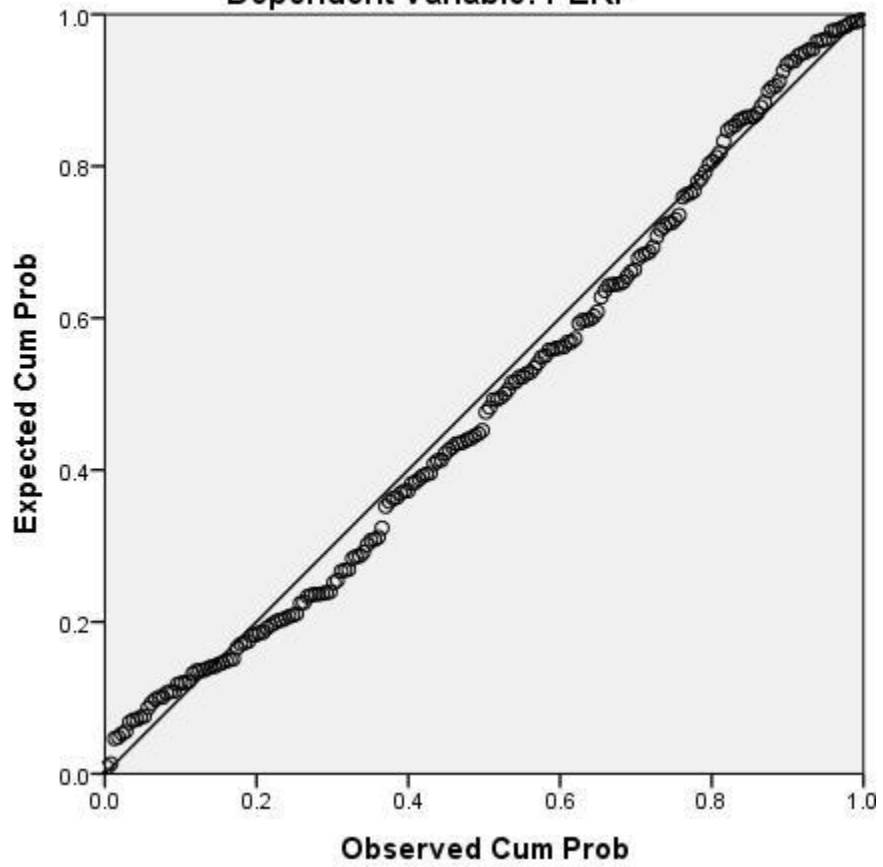
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