Global Journal of Economics and Business (GJEB)

Volume.13, Issue.3 pp: 274-284 Article 6
June (2023)

The Effect of Green HRM Practices on Green Competitive Advantage of the SME Sector of KSA

Tariq Saeed Mian

Accepted قبول البحث	Revised مراجعة البحث	Received استلام البحث
2023/5/27	2023 /5/3	2023 /4/3

DOI: https://doi.org/10.31559/GJEB2023.13.3.6

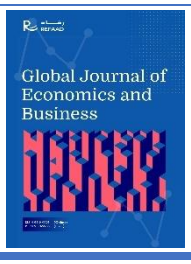
www.refaad.com

Global Journal of Economics and Business (GJEB)

المجلة العالمية للاقتصاد والأعمال

Journal Homepage: https://www.refaad.com/Journal/Index/2

E-ISSN 2519-9293 | P-ISSN 2519-9285



The Effect of Green HRM Practices on Green Competitive Advantage of the SME Sector of KSA

تأثير ممارسات إدارة الموارد البشرية الخضراء على الميزة التنافسية الخضراء لقطاع الشركات الصغيرة والمتوسطة في المملكة العربية السعودية

Tariq Saeed Mian

طارق سعيد ميان

Department of IS, College of Computer Science and Engineering, Taibah University, KSA

قسم نظم المعلومات الحاسوبية- كلية علوم وهندسة الحاسب الآلي- جامعة طيبة- السعودية

tmian@taibahu.edu.sa

Abstract:

This paper aims to examine the mediating role of green service innovation between green entrepreneurship intention, green knowledge sharing and green knowledge management and green competitive advantage. A survey was administered to 300 respondents. For the collection of data, this study used judgemental sampling. Structural equation modelling technique implemented to examine the framework. The findings of the study reveal that green service innovation mediates the relationship between green entrepreneurship intention, green knowledge sharing and green knowledge management and green competitive advantage. These findings also support the proposed direct hypothesis. The findings of the study proposed that marketers should focus on environmentally friendly activities to gain a competitive advantage in the KSA market.

Keywords: *Green competitive advantage; entrepreneurship intention; knowledge management; green knowledge sharing; Kingdom of Saudi Arabia; Saudi Vision 2030.*

الملخص:

تهدف هذه الورقة إلى دراسة الدور الوسيط لابتكار الخدمات الخضراء بين نية ريادة الأعمال الخضراء، ومشاركة المعرفة الخضراء، وإدارة المعرفة الخضراء، والميزة التنافسية الخضراء. تم إجراء مسح على 300 مستجيب. لجمع البيانات، استخدمت هذه الدراسة أخذ العينات الحكمي. تم تنفيذ تقنية نمذجة المعادلة الهيكلية لفحص الإطار. تكشف نتائج الدراسة أن ابتكار الخدمات الخضراء يتوسط العلاقة بين نية ريادة الأعمال الخضراء، ومشاركة المعرفة الخضراء، وإدارة المعرفة الخضراء، والميزة التنافسية الخضراء. هذه النتائج تدعم أيضًا الفرضية المباشرة المقترحة. اقترحت نتائج الدراسة أن يركز المسوقون على الأنشطة الصديقة للبيئة لاكتساب ميزة تنافسية في سوق المملكة العربية السعودية.

الكلمات المفتاحية: *الميزة التنافسية الخضراء؛ نية ريادة الأعمال؛ إدارة المعرفة؛ مشاركة المعرفة الخضراء؛ المملكة العربية السعودية؛ رؤية المملكة العربية السعودية 2030.*

Introduction:

In 2016, the Kingdom of Saudi Arabia launched an ambitious framework to modernize Saudi Society economy and society. One of the tenants of this policy framework is greater role for the SME, private sector and second important issue addressed in this policy document is immediate actions to tackle the Global Warming and promote green initiatives, domestically and globally (Saudi Vision 2030, p. 23).

Since the late 1990s, small and medium enterprises played a very critical role in the growth of KSA. The government of KSA gave importance to SMEs in the late 1990s rather than the large ones. In the next two decades, SMEs constitute the majority of the KSA economy and also more than 4.7 million of the total employment. It is expected that by 2030, more than 35% of KSA GDP will be based on the SME sector highlighting the importance of this sector in KSA (Chin & Lim, 2018).

But the KSA SMEs need to be competitive because global pressure is mounting as new companies are entering the business at the domestic and international levels. It is key for the organisations of SMEs to develop competitive advantage so they can be sustained for a longer period. The present condition of SMEs is changing rapidly. As a result, the product life cycle is getting shorter (D. Li, Huang, Ren, Chen, & Ning, 2018) whereas organizations are also concerned about environmental management in their business operations. The business productivity of the organizations is increased as they apply green innovation and environmental management in their business operations. Such activities also improve augmentation image and repetition among the stakeholders. Organizations achieve this because customers are more concerned about environmental issues and green products. It is reported in past studies that a positive relationship existed between performance and environmental issue strategy as well as with environmental innovation (Huang & Li, 2018).

It is argued by the researchers that organisations must develop a strategy for green innovation, so they can reflect their identity regarding the green organisation. This is also important to improve the performance of the organisation (Soewarno, Tjahjadi, & Fithrianti, 2019). Additionally, Song, Yu and Xu (2020) stated that the effect of green human resource management is moderated by environmental management. Moreover, GHRM has a positive effect on green innovation and environmental management concerns of the organisation.

Organisations become saving organisations with the help of green motivation, green knowledge sharing and green entrepreneurial orientation. All these factors contribute to strengthening the innovation capability of the organisation. Hence, the purpose of this study is to empirically consider the mediating role of green service innovation in the relationship between the critical aspects of increasing green competitive advantage. The study examines the relationships between green entrepreneurial orientation, green knowledge sharing, green motivation with green service innovation as well as a green competitive advantage.

Review of Literature:

Kingdom of Saudi Arabis: Vision 2030:

In 2016, the Kingdom of Saudi Arabia launched a framework for sustainable growth which aims to achieve a target of Net Zero by 2026. This development framework is a development agenda to fast-track energy changeover, accomplish sustainability targets and attract foreign investment (Al-Jazeera, 2016).

Saudi Arabia Vision 2030 comprises all the long-term plans that focus on the three fundamental themes that incorporate the development of a vibrant society, maintaining a thriving economy, and enhancing the ambitious nature of the nation. The Saudi Arabia Vision 2030 was developed by the Council of Economic and Development Affairs and set up various goals and targets to address the nation's long-term economic successes. Some key focuses entrenched within the country's Vision 2030 plan entail reducing subsidies, creating a sovereign wealth fund, opening Saudi Aramco to external investment through the adoption of partial initial service offerings and reforming key sectors that focus on defence and tourism. Saudi Arabia is not only a hub of Islamic religious activities and pilgrimage, but it also holds historical places of other Ibrahimic religions like Judaism. Developing a vibrant society entails enhancing the Islamic faith by establishing museums (Islam centric and other anthropology issues) and targeting an increased number of pilgrims visitors to boost tourism. The country's thriving economy seeks to be enhanced through economic diversification and the development of dynamic job opportunities for the country's citizens. In contrast, the country's ambitions will be realized through accountability, transparency and the adoption of effective governing strategies. The country aims to enhance its potential by establishing zero corruption tolerance and enhancing transparency through online service delivery (Vision 2030, 2016).

Kingdom of Saudi Arabia's Business and Economy:

The Kingdom of Saudi Arabia is one of the major players in the global economy and oil markets, a strength resulting from the effective financial system coupled with a thriving banking sector was characterized by multimillion companies that utilize the highly diverse and rich human resources from within the nation. The Kingdom of Saudi Arabia's tremendous economic growth results from long-term economic and financial structural reforms aimed at promoting its economic growth while maintaining its social and financial stability. The Kingdom

of Saudi Arabia is focused on improving the country's business environment by enabling private investors to thrive and supporting economic diversification in sectors that were not explored previously. The country's vision and future growth objectives are built on embracing an economic and financial environment that focuses on enhancing productivity while increasing the contribution of private investments and empowering the workforce. Most of the economic transformations experienced within the Kingdom of Saudi Arabia focus on enhancing local production and the sustainability of public finances. The nation's economic objectives further aim to enhance the private sector's contribution to the country's global GDP by allowing entry of new businesses into the country's market and facilitating access to capital funds for small and medium enterprises (Moshashai, Leber & Savage, 2020).

Saudi Arabia's Vision 2030 proposes SME/private Enterprise/Business initiatives:

The Kingdom of Saudi Arabia's Vision 2030 goals and objectives aim to enhance the contribution of small and medium enterprises and related businesses toward the growth of the country's GDP. For instance, the country has adopted the policy of privatization aimed at developing a regulatory environment that enhances partnership and collaboration between public and private business enterprises. In addition, the country has enacted regulations and laws to enhance the nation's business environment while empowering private sector players. Saudi Arabia's Vision 2030 has further allowed entry of new businesses to previously uncharted sectors by creating an enabling environment that allows easy access to financial resources for small and medium businesses. Sources of capital available for SMEs have been enhanced through the adoption of parallel and derivative markets. In addition, the country has ensured the adoption of ideal labor market policies by enhancing a more modern labor system that embraces flexible work agreements while improving contractual relationships between local companies and foreign contractors. The arrangement allows for local companies and workforce development while enhancing foreign workers' capabilities (Moshashai, Leber & Savage, 2020).

Saudi Arabia Vision 2030 and Green Economy:

The Kingdom of Saudi Arabia's Vision 2030 goals and objectives are entrenched in enhancing sustainability through policy development, investment, infrastructure and planning. The country has adopted the Saudi Green Initiative, which focuses on increasing the country's reliance on clean and sustainable energy sources while reducing emissions characterized by fossil fuel production. The Kingdom of Saudi Arabia is one of the leading petroleum producers and has always been committed to positively contributing to the global fight against climate change. The Saudi Green Initiative focuses on the country's efforts in the fight against climate change and enhancing collaborative efforts that aim at scaling the climate action efforts. The country has adopted tenets proposed in the Circular Carbon Economy (CCE) that focus on reducing, reusing, recycling and eliminating the use of carbon-related products as the nation seeks to address challenges attributed to climate change while advancing measures aimed at developing sustainable economic diversification. Saudi Arabia has the potential for generating energy from solar and wind: an initiative undertaken through key projects aimed at diversifying energy resources while ensuring the country achieves a sustainable energy mix (Vision 2030, 2016).

Green service innovation (GSI) and green competitive advantage (GCA):

An entirely new or significantly improved concept of service delivery taken into practice constitutes service innovation. GSI is a set of several important elements such as environment-friendly innovation, green service delivery or exclusive innovations based on environment service design (Chen, Lin, Lin & Chang, 2015). For example, service innovation might come in the form of an innovative customer interaction activity, a new distribution system, a novel technological concept or a combination of all of these elements. Green service innovation can be a newly designed service element, that involves customer interaction, a technological innovation, a service distribution channel which often in combination leads to an entirely new concept of service delivery to the marketplace and requires fundamental changes in an organization such as new structural, human and technological capabilities (Lin & Chen, 2017).

Studies have mentioned that strong organizations often redirect huge financial resources and managerial staff to GSI since they recognize the strategic importance of these programs for gaining competitive advantage. According to La Sala, Silvestri, and Contò (2017), organizations that wish to expand internationally gain a cost advantage via standardization of services and gain a competitive edge in the international market by differentiation. An organization gains a significant completive edge through service process and product innovation (C. H. Chang, 2018).

H1: GSI significantly effects GCA.

Green entrepreneurial orientation (GEO): Association with (GSI) and GCA:

Entrepreneurial orientation, such as entrepreneurial activities, actions, techniques and context enables companies to gain a competitive edge. Socially innovation actions consist of innovative product and service delivery systems, entrepreneurial activities and buying and selling even when there is no apparent profit gain present in a situation. This entrepreneurial orientation urges firms to develop proactive entrepreneurial strategies. In this

study, we have evaluated the company's GEO guidelines in developing entrepreneurial actions and their effect on gaining competitive advantage (Hernández-Linares & López-Fernández, 2018).

Entrepreneurial orientation constitutes innovative techniques, activities and entrepreneurial contexts. Gupta (2018) has defined several indicators for whether a service is a process or a product innovation based on a model of product/process innovation in the service industry. However, models defining patterns of service innovation remain largely limited. New service concepts are the ones that are entirely new to a market and new service delivery systems tend to link services to their clients seamlessly. Hence, technological innovation is an important concept in the service industry.

E-shopping and e-commerce services that provide efficient delivery of products to the customer are part of such innovative service delivery systems and require fundamental reengineering of the entire organization. The two most important and common categories of business innovation are product innovation and service innovation (Wang & Wang, 2019). Victorino, Verma, Plaschka, and Dev (2005) studied customer choice and service innovation in the hospitality industry. Their study indicated that more leisure travellers were influenced by service innovation concepts such as in-room kitchens and innovative childcare services as compared to business travellers. Thus, there is a positive correlation between service innovation and hospitality products the customers choose to purchase for having a value-added experience, offering services and products as a part of service innovation in entrepreneurship. GSI is a process in which the eco-friendly nature of the process presents several opportunities to potential customers. The most innovative service in the hospitality industry which is also environmentally friendly is Disney's Magic Bands. These bands can be used to gain access to Disney parks, purchase products or book a schedule. Universal connectivity of the machines has the potential to provide a rich user experience and thus presents new opportunities for market growth (Shahzad, Qu, Zafar, & Appolloni, 2021).

Sarmah, Kamboj and Kandampully (2018) have studied the hotel preferences of business and leisure travellers to gain insights into service innovation. The study found that fair distribution and delivery of theoretical service ideas have profound consequences. Similarly, Chen et al. (2015) stated that hardware and software distribution channels are a part of GCI. They divided GSI into software and hardware innovation elements. Aksoy (2017) has defined product innovation as the number of entirely new products introduced into the market relative to that those introduced by competitors or the percentage of sales from new products introduced into the market last year. Companies that are tapping into unknown markets with new innovative products and services comprise GSI. This study is based on the model proposed by Lin and Chen (2017) who stated that "to create new markets, firms must imply specific GSI practices to develop scalar business models, manage customer experience, monitor employee performance, and provide managerial green process innovation". However, the two factors proposed by Chen et al. (2015) to measure GSI have been merged into one factor in this study.

Researchers examined entrepreneurial orientation in the context of the tourism industry of Austria. The data was collected by the researchers in the form of questionnaires and respondents were employees. The respondents reported that the orientation of staff must be proactive within the organisation. Entrepreneurial employees were also interviewed but the researcher. Such employees exhibit proactive behaviour and innovation as well. They are also eager to take risks. GSI is the discipline of study that deals with the management techniques and innovation to transform new ideas and environmentally friendly products (Lin & Chen, 2017). Green service innovation also deals with the manufacturing process that plays a very important role to minimise the negative impact of environmental activities such as the processing of knowledge, resources and materials. The activity of GEO comprises behaviours, processes and activities that affect GSI. Therefore, it contains the qualities of initiative, aggressiveness and proactivity that are the main drivers of GSI (Lin & Chen, 2018).

Accordingly, the following hypothesis was proposed:

H2. GEOpositively influences GSI.

H3. Green service innovation mediates the relationship between GEOand GCA.

Green knowledge sharing (GKS): Association with green service innovation and green competitive advantage:

To manage assets such as work experience and expertise in individuals of the organization is called knowledge management. Knowledge is explicitly categorized into three different classes namely, implicit, explicit and tactic. According to Rehman, Bresciani, Ashfaq and Alam (2021), transfer of knowledge is of vital importance for gaining a competitive advantage for a company. Within the company, there should be a free flow of knowledge and experience to those who need it the most for performing their duties efficiently. When individuals mutually share their tactics and explicit knowledge, to create new knowledge, the process is called knowledge sharing. Thus, GKS would be called a degree to which an individual shares his or her green knowledge with other members of the organization (Zhou, Govindan & Xie, 2020).

Boston had examined the relationship between innovation, competitiveness and knowledge management. The findings of the studies revealed that knowledge management please a fundamental role does enhance organisational innovation. The organisation having the capability of knowledge management will use resources more efficiently and try to be more innovative. To build momentum regarding green ideas organisations must

educate employees about the green environment. When the farm can focus on its resources it results in service innovation. Later, these innovative ideas are turning into reality (Abbas et al., 2020).

With the help of green knowledge, management organisations can get skills and knowledge that are required to fulfil the organisational needs. The focus of GSI is to provide service solutions to the customers. By devising green strategies, green service relations can easily meet the need of the environment. Organisations can easily get input from the creation of green knowledge. Green knowledge plays a very critical role in the innovation process of the organisation. It is important that organizations have their knowledge management strategies, so they can develop knowledge regarding the environment and create GSI. Green creativity can also be enhanced through green self-efficacy, green mindfulness and green shared vision (Lin & Chen, 2017).

According to K.-C. Chang, Hsu, Hsu and Chen (2019), green marketing strategies could be applied by organizations to attract potential customers and gain brand differentiation. The acquisition and maintenance of new knowledge are considered to be one of the main agendas for companies to gain a competitive advantage over other organizations. With human interaction, knowledge sharing and knowledge gain, it begins to flow freely within an organization and is applied by the members to do their jobs effectively. To produce a green sustainable product or deliver a green service to gain profits, organizational members should be able to acquire and apply green knowledge (Baktash & Talib, 2019).

Sharing of green knowledge and experience by every individual member of the organization constitutes GKS. Engaging members to build each intelligence will lead to both green product manufacturing and green service delivery. Addressing the environmental issues which are inherent in a relationship of a company with its customers will lead to capital gain. Thus, developing a strong green capital will allow the managers to have strong leadership in environmentally friendly products and services. The extent to which green knowledge is being shared determines the green innovation services being offered by a firm (Kuo, Fang, & LePage, 2021).

Companies devise their product/service manufacturing and delivery platforms that are in line with the green innovation philosophy of their customers. There is no stopping of the green market, and thus companies have to adapt to the ever-changing market environment to maintain their competitive advantage. Ansoff (1965) was one of the first researchers to apply competitive advantage to corporate issues. According to the definition proposed by Hofer and Schendel (1978), the application of resources that result in a company's distinctive position in a market as compared to its competitors is called competitive advantage.

Therefore, to get sustainable development green competitive advantage plays a very important role. With the help of GKS, organisations can improve their external brain knowledge end flow of information. Once organisations have such abilities, they can achieve their goals easily (Tuan, 2021).

Accordingly, the following hypothesis was proposed:

H4. GKS positively influences GSI.

H5. GSI mediates the relationship between GKS and green competitive advantage.

Green Motivation: Association with GSI and green competitive advantage:

Workers from diverse fields are regularly exposed to environmental problems which directly lead to pollution and degradation. Therefore, organizations are starting to devise manufacturing and delivery services that are eco-friendly and might resolve environmental problems. However, such a huge endeavour requires the love of nature and support from staff to achieve its prime goals (W. Li et al., 2020). If workers themselves are not motivated to apply green practices to their products and services, then there is no hope of implementing green services in the field of green environment programs (Mittal and Dhar, 2016). According to Hahm (2018), two kinds of distinct motivational patterns are present in workers namely 1) intrinsic motivation 2) extrinsic motivation.

In intrinsic motivation, workers are keenly interested in their jobs and find their work quite remarkable and thus put a lot of time and effort into learning new skills and techniques to deliver their roles effectively. Intrinsic motivation is quite an independent form of motivation and builds on itself solely for its own sake (Fischer, Malycha & Schafmann, 2019). Some workers, however, are dependent on external motivational factors to do their jobs which include capital gain, reward and recognition. Thus, they are prone to finding jobs where such benefits are ample and once these workers receive green rewards, they start applying green practices for the delivery of their services. Thus, both intrinsic and extrinsic motivational factors for green practices need to be examined (Junsheng, Masud, Akhtar & Rana, 2020).

Adoption of green technology involved the usage of technology that can affect the environment negatively at a very minimum level; therefore, it is considered as an up very important part of environmental behaviour. In the context of environmental behaviour, it is very important to understand the motivational approach. There are three basic types of motivation namely motivation, extrinsic motivation which is generated by external factors and intrinsic motivation which engages the satisfaction and sole pleasure of an updated individual. With the help of environmental motivation The behaviour of people to adopt pro-environmental activities can be measured (Bukchin & Kerret, 2020).

According to Bureau, Howard, Chong and Guay (2022), the degree of motivation will depend on the type of motivational context. For example, motivation regarding a certain technology might push an employee to gain skills

and knowledge about that innovative technology. An employee who has an interest in novel technology might make it a success by participating in its manufacturing and marketing process. Similarly, another type of contextual motivation is related to work where employees seeking to complete the assigned task will lead to recommend a green service to the potential customer Gupta (2018).

Past studies were developed on the motivation, opportunity and ability factors so the proper understanding of GHRM on competitive advantage and green innovation can be handled. These studies assessed the effect of employees' green motivation on green innovation and competitive advantage. The practices of HRM play a very important role regarding opportunities and motivation to predict behaviour, attitude and performance. The studies showed that if there is a better understanding and assessment of GHRM, it will have more effect on competitive advantage and green innovation. It is because the HRM practices directly affect the organisational performance, employee motivation, opportunity and ability to perform (Sobaih, Hasanein & Elshaer, 2020).

Organisations need to control environmentally friendly strategies. They can also create environmentally friendly strategies. The proactive level is this to achieve environmental management (Cabral & Jabbour, 2020). These environmental strategies are very important to achieving a competitive advantage (Ahmed et al., 2021). Accordingly, the following hypothesis was proposed:

H6. Green Motivation positively influences GSI.

H7. GSI mediates the relationship between Green Motivation and Green Competitive Advantage.

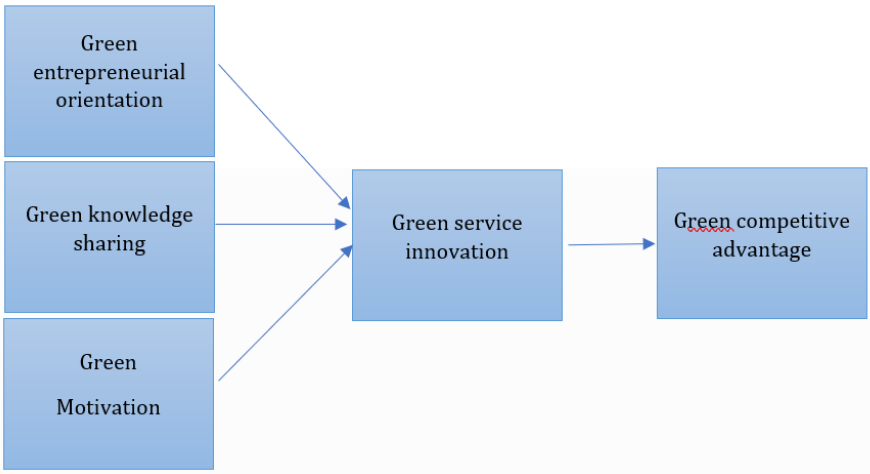


Figure (1): Framework of research

Research Methodology:

The main objective of the study was to examine the effect of factors that can affect green competitive advantage in the SMEs of KSA. Therefore, based on past studies a self-administered questionnaire was developed. The questionnaire was based on two parts. The first part was linked to the basic information regarding the respondents whereas the second part of the questionnaire was linked to the items or questions linked to the variables of the study. In this questionnaire, the items of Green Competitive Advantage were adapted from (Son, Narasimhan & Riggins, 2005). The items of GEO and Green Innovation were adapted from (Guo, Wang & Chen, 2020), the items of motivation were adapted from (Hendershot, Otto, Collins, Liang & Wall, 2010) and the items of knowledge sharing were adapted from (Bock, Zmud, Kim & Lee, 2005).

To measure these items, this study adopted a 7-point Likert scale. Each item of the questionnaire was measured on this scale ranging from 7 showing strongly agree to 1 showing strongly disagree. The data of this study was gathered from the employees working in the SMEs of KSA. For this purpose, judgemental sampling was adopted in this study as proposed by Marakanon and Panjakajornsak (2017) showing it to be more appropriate to generalize the results. The suggestions of Comrey and Lee (1992) were determined for the sample size determination. This study distributed the questionnaire among 300 respondents as Comrey and Lee (1992) termed this sample size as good. A total of 228 usable questionnaires were received back showing a response rate of 76%. This study adapted structural equation modelling for the analysis of the data. There are several advantages of using SEM over other first-generation tools. These advantages include convenience, efficiency and accuracy (Aslam et al., 2019). There are two kinds of SEM namely variance-based SEM, and other one is covariance based SEM (Richter, Cepeda-Carrion, Roldán Salgueiro & Ringle, 2016). This study adopted PLS-SEM because it can examine complicated relationships (Joe F Hair, Ringle & Sarstedt, 2011). Thus, the present study adopted PLS-SEM through the usage of PLS 3.3.3 software.

Results:

The analysis through PLS-SEM is based on two steps namely the structural model and measurement model (Joseph F Hair, Hult, Ringle, Sarstedt & Thiele, 2017). The measurement model also known as the inner model is based on validity and reliability tests. On the other hand, the analysis of the structural model includes the testing of hypothesis significance.

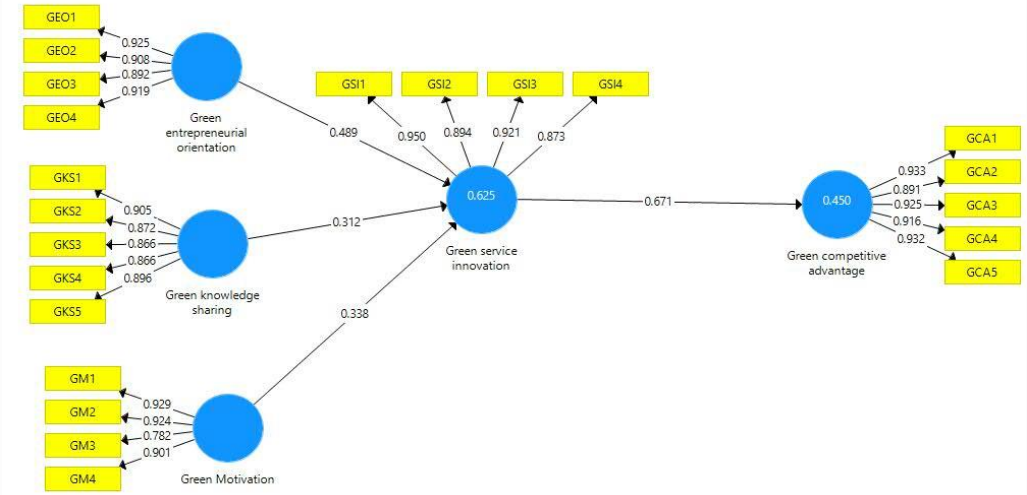


Figure (2): Measurement model

This study examined the convergent validity of the measurement model. This validity is used for the reflective model. There are two tests of convergent validity. Construct validity is referred as the level to which a test is measuring what it purports and claims. For the measurement of convergent validity AVE, composite reliability and outer loadings were measured (Hair Jr, Sarstedt, Matthews & Ringle, 2016). This study deleted no items as all of the items had a factor loading of more than 0.50 as mentioned in table 1. Moreover, the threshold level of CR was also achieved in this study (Hair Jr, Sarstedt, Hopkins & Kuppelwieser, 2014) as mentioned in table 2. Additionally, the value of AVE is also more than 0.50 as recommended by (Anderson & Gerbing, 1988).

In the later stage of the measurement model, discriminant validity of the study was examined through the HTMT test. This test is considered one of the most appropriate and robust tests (Henseler, Ringle & Sarstedt, 2015). According to the criteria of HTMT, the discriminant validity is achieved if the matrix has values less than 0.90 (Gold, Malhotra & Segars, 2001). The present study achieves this criterion as well.

Table (1): Factor loading

	GCA	GEO	GKS	GM	GSI
GCA1	0.933				
GCA2	0.891				
GCA3	0.925				
GCA4	0.916				
GCA5	0.932				
GEO1		0.925			
GEO2		0.908			
GEO3		0.892			
GEO4		0.919			
GKS1			0.905		
GKS2			0.872		
GKS3			0.866		
GKS4			0.866		
GKS5			0.896		
GM1				0.929	
GM2				0.924	
GM3				0.782	
GM4				0.901	
GSI1					0.950
GSI2					0.894
GSI3					0.921
GSI4					0.873

Table (2): Reliability and Validity

	Cronbach's Alpha	CR	AVE
GCA	0.954	0.965	0.846
GEO	0.932	0.951	0.830
GKS	0.928	0.946	0.777
GM	0.912	0.936	0.785
GSI	0.931	0.951	0.829

Table (3): Discriminant Validity

	GCA	GEO	GKS	GM	GSI
GCA					
GEO	0.638				
GKS	0.871	0.526			
GM	0.198	0.062	0.192		
GSI	0.710	0.672	0.648	0.375	

After a successful examination of the measurement model, this study performed a structural model. The bootstrapping procedure was adopted with a resampling of 5000. For the determination, t- a value of more than 1.64 was employed. The result of the study shows that all of the proposed hypotheses had the t value of more than 1.64. Therefore, they are supported as mentioned in the table below.

Table (4): Results of direct relationships

	Beta	SD	T value	P Values
GEO -> GSI	0.489	0.092	5.314	0.000
GKS -> GSI	0.312	0.084	3.730	0.000
GM -> GSI	0.338	0.081	4.155	0.000
GSI -> GCA	0.671	0.079	8.523	0.000

Table (5): Results of in-direct relationships

	Beta	SD	T value	P Values
GEO -> GSI -> GCA	0.328	0.075	4.366	0.000
GM -> GSI -> GCA	0.227	0.053	4.309	0.000
GKS -> GSI -> GCA	0.209	0.069	3.047	0.001

At the end of the analysis, the value of R square was examined. As per the recommendations of Joe F Hair et al. (2011), the minimum acceptable value of R square is 0.25. The value of the R square is mentioned in figure 2 and the table below shows the criteria are fulfilled.

Table (6): R square

	R square
GCA	0.450
GSI	0.625

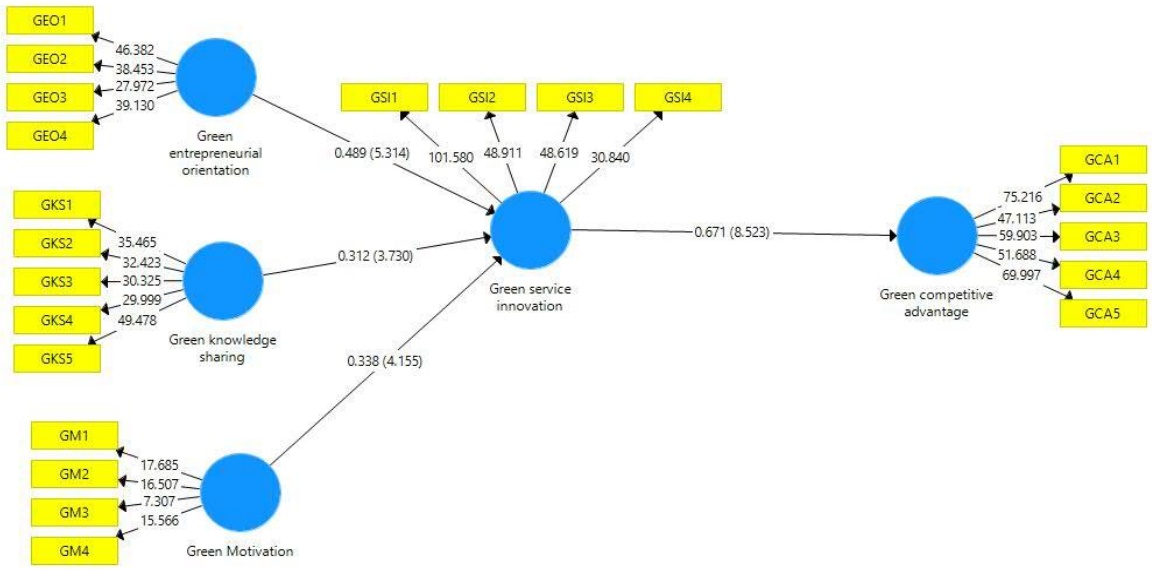


Figure (3): Structural model

Conclusion:

In 2016, the Saudi leadership decided to modernise the economy and the society and launched a futuristic framework i.e. Vision 2030. Private entrepreneurship and green environment are one of the main focus points of the framework. Furthermore, in the present age, stakeholders are very much concerned about environmental issues. Therefore, this paper examined the role of green entrepreneurial orientation, GKS, green motivation and green innovation service on green competitive advantage. The mediating relationship of green innovation services was also examined in the research. The data was gathered from the employees working in SMEs in KSA. The data obtained from respondents was assessed through SEM using PLS. The results demonstrated that GEO and GSI are positively and significantly linked to each other. These findings are supported by (Shahzad, Qu, Zafar & Appolloni, 2021). Moreover, GKS and GSI have a positive association with each other as well (Tuan, 2021). The same results were revealed with the relationship between GM and GSI a (Fischer, Malycha & Schafmann, 2019) and GSI and GCA (Lin & Chen, 2017).

This study is cross-sectional in nature and recommend that Saudi enterprise should adapt environmentally friendly CSR to enhance their competitive advantage.

References:

Abbas, J., Zhang, Q., Hussain, I., Akram, S., Afaq, A., & Shad, M. A. (2020). Sustainable innovation in small medium enterprises: the impact of knowledge management on organizational innovation through a mediation analysis by using SEM approach. *Sustainability, 12*(6), 2407. https://doi.org/10.3390/su12062407

Ahmed, M., Guo, Q., Qureshi, M. A., Raza, S. A., Khan, K. A., & Salam, J. (2021). Do green HR practices enhance green motivation and proactive environmental management maturity in hotel industry? *International Journal of Hospitality Management, 94*, 102852. https://doi.org/10.1016/j.ijhm.2020.102852

Aksoy, H. (2017). How do innovation culture, marketing innovation and product innovation affect the market performance of small and medium-sized enterprises (SMEs). *Technology in Society, 51*(4), 133-141. https://doi.org/10.1016/j.techsoc.2017.08.005

Al-Jazeera. (2016, April 25). Saudi Arabia unveils Vision 2030 economic plan. https://www.aljazeera.com/news/2016/4/25/saudi-arabia-unveils-vision-2030-economic-plan

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103*(3), 411. https://doi.org/10.1037/0033-2909.103.3.411

Ansoff, H. I. (1965). *Corporate strategy: An analytic approach to business policy for growth and expansion*: McGraw-Hill Companies.

Baktash, L., & Talib, M. A. (2019). Green marketing strategies: exploring intrinsic and extrinsic factors towards green customers' loyalty. *Calitatea, 20*(168), 127-134.

Bock, G.-W., Zmud, R. W., Kim, Y.-G., & Lee, J.-N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS quarterly*, 29(1), 87-111. https://doi.org/10.2307/25148669

Bukchin, S., & Kerret, D. (2020). The role of self-control, hope and information in technology adoption by smallholder farmers–A moderation model. *Journal of rural studies, 74*, 160-168. https://doi.org/10.1016/j.jrurstud.2020.01.009

Bureau, J. S., Howard, J. L., Chong, J. X., & Guay, F. (2022). Pathways to student motivation: A meta-analysis of antecedents of autonomous and controlled motivations. *Review of Educational Research, 92*(1), 46-72. https://doi.org/10.3102/00346543211042426

Cabral, C., & Jabbour, C. J. C. (2020). Understanding the human side of green hospitality management. *International Journal of Hospitality Management, 88*, 102389. https://doi.org/10.1016/j.ijhm.2019.102389

Chang, C. H. (2018). How to enhance green service and green product innovation performance? The roles of inward and outward capabilities. *Corporate Social Responsibility and Environmental Management, 25*(4), 411-425. https://doi.org/10.1002/csr.1469

Chang, K.-C., Hsu, C.-L., Hsu, Y.-T., & Chen, M.-C. (2019). How green marketing, perceived motives and incentives influence behavioral intentions. *Journal of Retailing and Consumer Services, 49*, 336-345. https://doi.org/10.1016/j.jretconser.2019.04.012

Chen, Y.-S., Lin, Y.-H., Lin, C.-Y., & Chang, C.-W. (2015). Enhancing green absorptive capacity, green dynamic capacities and green service innovation to improve firm performance: An analysis of structural equation modeling (SEM). *Sustainability, 7*(11), 15674-15692. https://doi.org/10.3390/su71115674

Chin, Y.-W., & Lim, E.-S. (2018). *SME policies and performance in Malaysia*.

Comrey, A., & Lee, H. (1992). Interpretation and application of factor analytic results. *Comrey AL, Lee HB. A first course in factor analysis, 2*.

Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers in psychology, 10*, 137. https://doi.org/10.3389/fpsyg.2019.00137

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems, 18*(1), 185-214. https://doi.org/10.1080/07421222.2001.11045669

Guo, Y., Wang, L., & Chen, Y. (2020). Green entrepreneurial orientation and green innovation: The mediating effect of supply chain learning. *Sage Open, 10*(1), 2158244019898798. https://doi.org/10.1177/2158244019898798

Gupta, M. (2018). The innovation process from an idea to a final product: a review of the literature. *International Journal of Comparative Management, 1*(4), 400-421. https://doi.org/10.1504/ijcm.2018.10017885

Hahm, S.-W. (2018). Roles of authentic leadership, psychological empowerment and intrinsic motivation on workers' creativity in e-business. *Journal of Internet Computing and Services, 19*(1), 113-122.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the academy of marketing science, 45*(5), 616-632. https://doi.org/10.1007/s11747-017-0517-x

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice, 19*(2), 139-152. https://doi.org/10.2753/mtp1069-6679190202

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, *26*(2), 106-121. https://doi.org/10.1108/ebr-10-2013-0128

Hair Jr, J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I–method. *European Business Review*, *28*(1), 63-76. https://doi.org/10.1108/ebr-09-2015-0094

Hendershot, C. S., Otto, J. M., Collins, S. E., Liang, T., & Wall, T. L. (2010). Evaluation of a brief web-based genetic feedback intervention for reducing alcohol-related health risks associated with ALDH2. *Annals of Behavioral Medicine, 40*(1), 77-88. https://doi.org/10.1007/s12160-010-9207-3

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science, 43*(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8

Hernández-Linares, R., & López-Fernández, M. C. (2018). Entrepreneurial orientation and the family firm: Mapping the field and tracing a path for future research. *Family Business Review, 31*(3), 318-351. https://doi.org/10.1177/0894486518781940

Hofer, C. W., & Schendel, D. (1978). *Strategy formulation: Analytical concepts*: West Publ.

Huang, J.-W., & Li, Y.-H. (2018). How resource alignment moderates the relationship between environmental innovation strategy and green innovation performance. *Journal of Business & Industrial Marketing*, *33*(3), 316- 324. https://doi.org/10.1108/jbim-10-2016-0253

Junsheng, H., Masud, M. M., Akhtar, R., & Rana, M. (2020). The mediating role of employees' green motivation between exploratory factors and green behaviour in the Malaysian food industry. *Sustainability, 12*(2), 509. https://doi.org/10.3390/su12020509

Kuo, F.-I., Fang, W.-T., & LePage, B. A. (2021). Proactive environmental strategies in the hotel industry: eco-innovation, green competitive advantage, and green core competence. *Journal of Sustainable Tourism*, 1-22.

La Sala, P., Silvestri, R., & Contò, F. (2017). Differentiation strategies for the wine and nursery sector: empirical evidence from an Italy region. *Agricultural and Food Economics, 5*(1), 1-17. https://doi.org/10.1186/s40100-017-0091-z

Li, D., Huang, M., Ren, S., Chen, X., & Ning, L. (2018). Environmental legitimacy, green innovation, and corporate carbon disclosure: Evidence from CDP China 100. *Journal of Business Ethics, 150*(4), 1089-1104. https://doi.org/10.1007/s10551-016-3187-6

Li, W., Bhutto, T. A., Xuhui, W., Maitlo, Q., Zafar, A. U., & Bhutto, N. A. (2020). Unlocking employees' green creativity: The effects of green transformational leadership, green intrinsic, and extrinsic motivation. *Journal of Cleaner Production, 255*, 120229. https://doi.org/10.1016/j.jclepro.2020.120229

Lin, Y.-H., & Chen, H.-C. (2018). Critical factors for enhancing green service innovation: Linking green relationship quality and green entrepreneurial orientation. *Journal of Hospitality and Tourism Technology*, *9*(2), 188-203. https://doi.org/10.1108/jhtt-02-2017-0014

Lin, Y.-H., & Chen, Y.-S. (2017). Determinants of green competitive advantage: the roles of green knowledge sharing, green dynamic capabilities, and green service innovation. *Quality & Quantity, 51*(4), 1663-1685. https://doi.org/10.1007/s11135-016-0358-6

Marakanon, L., & Panjakajornsak, V. (2017). Perceived quality, perceived risk and customer trust affecting customer loyalty of environmentally friendly electronics products. *Kasetsart Journal of Social Sciences, 38*(1), 24-30. https://doi.org/10.1016/j.kjss.2016.08.012

Moshashai, Daniel, Andrew M. Leber & James D. Savage. (2020). Saudi Arabia plans for its economic future: Vision 2030, the National Transformation Plan and Saudi fiscal reform. *British Journal of Middle Eastern Studies*, 47(3), 381-401. https://doi.org/10.1080/13530194.2018.1500269

Rehman, S. U., Bresciani, S., Ashfaq, K., & Alam, G. M. (2021). Intellectual capital, knowledge management and competitive advantage: a resource orchestration perspective. *Journal of Knowledge Management*, *26*(7), 1705- 1731. https://doi.org/10.1108/jkm-06-2021-0453

Richter, N. F., Cepeda-Carrion, G., Roldán Salgueiro, J. L., & Ringle, C. M. (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal, 34 (6), 589-597.* https://doi.org/10.1016/j.emj.2016.08.001

Sarmah, B., Kamboj, S., & Kandampully, J. (2018). Social media and co-creative service innovation: an empirical study. *Online Information Review*, *42*(7), 1146-1179. https://doi.org/10.1108/oir-03-2017-0079

Shahzad, M., Qu, Y., Zafar, A. U., & Appolloni, A. (2021). Does the interaction between the knowledge management process and sustainable development practices boost corporate green innovation? *Business Strategy and the Environment*, *30*(8), 4206- 4222. https://doi.org/10.1002/bse.2865

Sobaih, A. E. E., Hasanein, A., & Elshaer, I. (2020). Influences of green human resources management on environmental performance in small lodging enterprises: The role of green innovation. *Sustainability, 12*(24), 10371. https://doi.org/10.3390/su122410371

Soewarno, N., Tjahjadi, B., & Fithrianti, F. (2019). Green innovation strategy and green innovation: The roles of green organizational identity and environmental organizational legitimacy. *Management Decision*, 57(11), 3061- 3078. https://doi.org/10.1108/md-05-2018-0563

Son, J.-Y., Narasimhan, S., & Riggins, F. J. (2005). Effects of relational factors and channel climate on EDI usage in the customer-supplier relationship. *Journal of Management Information Systems, 22*(1), 321-353. https://doi.org/10.1080/07421222.2003.11045839

Song, W., Yu, H., & Xu, H. (2020). Effects of green human resource management and managerial environmental concern on green innovation. *European journal of innovation management*, *24*(3), 951- 967. https://doi.org/10.1108/ejim-11-2019-0315

Tuan, L. T. (2021). Disentangling green service innovative behavior among hospitality employees: The role of customer green involvement. *International Journal of Hospitality Management, 99*, 103045. https://doi.org/10.1016/j.ijhm.2021.103045

Victorino, L., Verma, R., Plaschka, G., & Dev, C. (2005). Service innovation and customer choices in the hospitality industry. *Managing Service Quality: An International Journal*, 15(6), 555-576. https://doi.org/10.1108/09604520510634023

Vision 2030 (2016). Published by Saudi Government.

Wang, X., & Wang, H. (2019). A study on sustaining corporate innovation with E-commerce in China. *Sustainability, 11*(23), 6604. https://doi.org/10.3390/su11236604

Zhou, M., Govindan, K., & Xie, X. (2020). How fairness perceptions, embeddedness, and knowledge sharing drive green innovation in sustainable supply chains: An equity theory and network perspective to achieve sustainable development goals. *Journal of Cleaner Production, 260*, 120950. https://doi.org/10.1016/j.jclepro.2020.120950