

## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability



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**ABSTRACT:** This paper aims to develop a framework for the entrepreneurial orientation in Egypt to cope with the required level of competitive advantage to be achieved by SMEs in the Egyptian context through the mediating role of sustainability. This illustration will be tackling every dimension of entrepreneurial orientation, Sustainability, and competitive advantage. Then the relationship between the three variables will be tested and examined. Literature and prior studies related to this field are reviewed to construct the research hypotheses which state that there is a significant relationship between entrepreneurial orientation and sustainability, there is a significant relationship between sustainability and competitive advantage, Sustainability mediates the relationship between entrepreneurial orientation and competitive advantage. These hypotheses will be tested throughout the research study. Primary data is collected from entrepreneurs of Egyptian SMEs in the food and beverage sector using a quantitative approach (Questionnaire). The data collected is analyzed and then the results of the analysis and findings are demonstrated by the end of the research with some recommendations to Egyptian SMEs to enhance their competitive advantages.

**KEYWORDS:** Entrepreneurial Orientation, Sustainability, Competitive Advantage.

### INTRODUCTION

Competitive advantage is a potential advantage, for example, a company or a country may be better suited for producing one service or product than another service or product, but its advantage for becoming competitive should be exploited. When countries specialize based on their competitive advantages, they can improve their competitiveness and benefit from trade. Comparative and competitive advantages only correlate with the complete use of competitive advantages. Competitive wars are going on constantly between companies and even SMEs, so there's no guarantee that competitive advantage will be maintained for long for an enterprise. Thus, each company and enterprise should explore its resources to best utilize them in a way that would enhance its competitiveness. Many researchers have discussed the competitive advantages of companies, but here in this study, the researcher focuses on SMEs especially the food and beverage sector. Food competition is developed and affected significantly within the broad economic environment of a country or the entire world. Food and beverage firms constitute one of the most dynamic parts not only of the manufacturing sector but for the whole economy, in terms of employment, sales, and value-added as well (Konstantinidis et al., 2019).

In Egypt, over the past few years, the food and beverage sector has been growing rapidly as Egyptians spend more time outside home and the workforce is joined by a higher percentage of women. Such two factors allow consumers in Egypt to rely heavier on ready-to-eat meals or online ordering. Moreover, internet access has now reached nearly 33% of the population in Egypt and online food service is increasing rapidly. Talabat.com, one of the online food ordering and delivery platforms which deliver food and beverages. The sales of the food-service industry hit \$3.8 billion in 2016 . Therefore, it has been very compatible for SMEs to survive. SMEs should be aware of the factors that would help them attain competitive advantages over their rivals and should explore the factors that may influence competitive advantages (Elgeballi, 2019).

As a result, the present study thus aims to determine the competitiveness of the Egyptian SMEs in the food and beverage industry. The researcher links sustainability with the competitive advantage and how sustainability can affect the SMEs' competitive advantage. It also lights the shadow on entrepreneurial orientation and its indirect effect on the SMEs' competitive advantage. Therefore, it is critically important to illustrate the different dimensions of the entrepreneurial orientation and then investigate its effect on sustainability to maintain these essential entities which have a major role to play in the economy. The capacity of sustainability to perform as a competitive advantage for this entrepreneurship is considered as a major point to clarify, as it is assumed that entrepreneurship that can achieve sustainability, is acquiring a competitive advantage over its competitors. In other

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words, this research attempts to examine how the entrepreneurial orientation can influence the SMEs' competitive advantage through sustainability as a mediator.

### RESEARCH AIM AND OBJECTIVES

The current research aims to fill the gap in the literature by exploring the dimensions of the entrepreneurial orientation in the food and beverage sector of Egypt which cope with the required level of competitive advantage to be achieved through the mediating role of sustainability. Therefore, the research objectives could be stated as follows:

- 1- Investigate the effect of entrepreneurial orientation on sustainability
- 2- Examine the impact of sustainability on the competitive advantage.
- 3- Test the influence of entrepreneurial orientation on competitive advantages.

To achieve the above objectives, first, prior studies and literature related to this field should be reviewed as shown in the following section.

### RESEARCH SIGNIFICANCE

The significance of this research or its contribution can be identified on the academic level and practitioners' level as well.

**Academic Level:** First, it extends the existing literature on the impact of entrepreneurial orientation on competitive advantage specifically through sustainability mediating role. second, the study extends existing work on the competitive advantage of SMEs of the food and beverage sector as it focused on the Egyptian context.

**Practitioners' Level:** the research provides empirical evidence of the impact of entrepreneurial orientation on sustainability and competitive advantage especially on SMEs of the food and beverage sector in the Egyptian context.

### LITERATURE REVIEW

In this section, the researcher will define the entrepreneurial orientation and the dimensions which formulate it, and how it may affect sustainability in its different aspects whether economic, social, or environmental on the one hand. On the other hand, the previous contributions of different kinds of literature in the aspect of the relationship between sustainability and competitive advantage will be illustrated.

#### *Entrepreneurial Orientation*

Entrepreneurial Orientation (EO) is defined as an organizational eagerness to identify and accept new opportunities and take responsibility for affecting change (Zehir et al., 2015). The entrepreneurial orientation is considered as one of the situational strategies that allow the firms to permanently engage, involve and follow the risk-taking, innovative, and proactive behaviors that affect the performance of such firms. Thus, the definition of the entrepreneurial orientation could be stated as the strategy and policies of the risk-taking, innovative, and proactive behaviors that firms are engaged in continuing to affect the performance of the firm (Cui et al., 2018).

Entrepreneurship has been recognized as a significant and main factor in the economic and social growth and development which consequently enhances the competitive advantages not only to these enterprises but even on the national base, as this competitive advantage is widely based on the dimensions of entrepreneurial orientation as innovation and risk-taking. Many shreds of evidence have suggested that the entrepreneurial orientation is essential for the survival and growth of small and medium enterprises as well as the economic growth for the whole nation (Covin and Miller, 2014).

Per the literature, the researcher characterizes entrepreneurial orientation as the procedures, processes, structures, and practices of firms described by innovativeness, pro-activeness, competitive aggressiveness, risk-taking, and self-sufficiency. Entrepreneurial orientation is presently managed by five dimensions and measurements (Robinson and Stubberud, 2014): 1) innovativeness which is sustaining creative ideas and empowering new thoughts just as experimentation, creativity; and imagination. 2) Risk or hazard taking. 3) Pro-activeness which is utilizing and seizing first-mover focal points (advantages) and envisioning future occasions. 4) competitive aggressiveness which is the power of a company's efforts or the intensity of a firm's endeavors to outflank competitors, outperform contenders, ambitious market-share objective setting, aggressive actions, or forceful activities, for example, price reducing. 5) autonomy which is self-rule, free dynamic, and independent decision-making (Messersmith and Wales, 2013).

Various conceptualizations of entrepreneurial orientation wander as far as their meanings of its measurements and dimensions. Robinson and Stubberud (2014) utilized three measurements, in particular, innovativeness, pro-activeness, and risk-taking, adopting a unidimensional strategy to develop itself, while some researchers utilized five measurements, to be specific, innovativeness, pro-activeness, risk-taking, aggression, and autonomy adopting a multidimensional strategy to the construct (Messersmith and Wales, 2013). Although the measurements proposed by researchers are not consistently acknowledged in the literature, all things considered, huge numbers of the individuals who propose various measurements in their investigations additionally feature the measurements proposed by most researchers and this is one reason that many papers use these measurements, notwithstanding the

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way that this examination follows a proposition by Zehir et al. (2015) who allude to a build of entrepreneurial orientation involving the measurements: competitive aggressiveness, proactiveness, risk-taking, and innovativeness.

### ***Sustainability in SMEs***

Some definitions were selected to be demonstrated for example; Shepherd and Patzelt, (2011) defined sustainable entrepreneurship as emphasizing protecting nature, promoting life and culture in the search of perceived opportunities to create potential gain-producing products, processes, and services, where benefits are narrowly designed to incorporate economic and non-economic benefits for individuals, the economy and society. Other recommendations to evaluate and assess sustainability have been viewed as joined in the Triple Bottom Line model. The previous measurements (natural (environmental), social, and financial (economic)) were included, for instance, the spatial and social measurements (Salas et al., 2015). In any case, it is conceivable and reasonable to consider that the spatial measurement could be incorporated as a major aspect of the environmental measurement investigation, just as that the social or cultural measurement could be incorporated as a piece of the social measurement (Daunorienė et al., 2015). The Triple Bottom Line model can be viewed as a conceptual view with a dimension of the inter-connections and relations between the elements of sustainable development and advancement: eco-environmental, eco-social, social-eco-environmental, and social-environmental. The Triple Bottom Line model summarizes and stresses as a significant instrument in the execution of company sustainability (Salas et al., 2015).

The economic or financial component of sustainability assesses the financial limit or economic capacity required for enterprises and SMEs to have the option to expand their value in the long run. The financial (economic) measurement is additionally connected to the connections that firms create and develop with their investors and shareholders. Its significance is evident and is identified with the association's financial wellbeing in the short term and long run (Franco et al., 2019). Be that as it may, to the triple bottom line model was pointed the need for joint analysis and investigation of the monetary (economic) and different perspectives incorporated for this possess a concept. Monetary maintainability (Economic sustainability) is required effective allocation (efficient assignment) and the management of assets and resources in a social field with enormous venture streams and large investment flows (Purvis et al., 2019).

Ecological supportability (environmental sustainability) demands classification and prioritization of research on the utilization of renewable natural assets and resources, advancement (development) and utilization of cleaner advances, sustainable technologies, preservation (conservation), recycling of resources, and reusing of assets and energy, successful enactment and effective legislation for natural assurance and conservation, environmental protection, control, reducing and compensation of the negative natural and environmental effects, and natural training (environmental education) (Galí, 2015). Ecological or environmental characteristics of advancement and development are analyzed through the progress from the traditional economy, focused on monetary development, economic growth, and money aggregation, wealth accumulation, to the green economy, which depends on capable improvement (responsible development) and is keen on the financial growth impacts and economic development effects on society (Wang et al., 2018).

Social sustainability needs the decrease of imbalance among the living standards, reduction of inequality of different standards of living, enhancing the distribution of income among the society, the gathering of tangible and intangible necessities, the quest for production processes that maintain and regard the roots and characteristics of each culture and local control, and the reduction, mitigation, and compensation of the negative social effects (Capolongo et al., 2016). The social element of the triple bottom line model is related to acting dependably and responsibly in the firm's relationship with the community and society. This relationship is guided by legitimate commitments, legal obligations, minimum conditions for their activities and operations, moral, ethical, and dependable performance (Abdul-Rashid et al., 2017). For example, legitimate commitments and legal obligations corresponding to the nation's labor and work laws prohibiting constrained work (forced labor) and regulating or controlling working conditions.

### ***Competitive Advantage***

A competitive advantage is important in case it is identified with an attribute esteemed and quality valued by the market. Consumers and customers need to see a reliable contrast of insignificant attributes or features between the producer's goods or services and those of its rivals and competitors. These distinctions and differences must identify with some good/distribution qualities which are among the key purchasing criteria for the market. Product/conveyance features are those factors that affect the customers' view of the good or service, its helpfulness, usefulness, and its accessibility and availability. A few cases of such characters are product quality, cost, price, and after-sales services. The key buying and purchasing criteria are those factors and criteria that consumers use in settling on their buy decisions and purchase choices. They are diverse for various enterprises, industries, and distinctive market sections (Delbari et al., 2016). Nazmfar et al. (2019) claim that the competitive advantages include a strategic and efficiency advantage over rivals due to the benefit of resources and skills owned and distributed by the organization. The competitive advantage is therefore described as a significant advantage over its rivals due to the allocation of costs and the results of the operation on which the positioning technique relies.

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### ***Relationship between Entrepreneurial Orientation and Sustainability***

This section examines the relationship between entrepreneurial orientation and competitive advantage. Adomako et al. (2019) discussed the relationship between entrepreneurial orientations and environmental sustainability. Primary data was collected from 242 chief executive officers and entrepreneurs through a questionnaire method. Results showed that the firms achieve environmental sustainability as entrepreneurial orientations implemented. In addition, Läßle and Thorne, (2019) illustrated the impact of innovativeness as the dimension of entrepreneurial orientation on economic sustainability in Irish Small-Medium enterprises (SMEs). Primary data was collected from 342 Irish Small-Medium enterprises (SMEs) through the questionnaire method. Results explained an increase and an improvement in innovativeness which leads to economic sustainability.

Also, Ueasangkomsate (2019) showed the relationship between entrepreneurial orientation and sustainability. The quantitative approach had been used by collecting primary data from 367 responses through the questionnaire method. Findings showed that entrepreneurial orientation had a positive significant impact on sustainability and these findings lighted that entrepreneurial orientation is the critical factor that had an impact on business success or failure. Therefore, managers should take into their consideration the importance of entrepreneurial orientation that would promote sustainability and business success. Furthermore, Singh et al. (2019) explained the effect of innovativeness as the dimension of entrepreneurial orientation on environmental sustainability in Indian Small-Medium enterprises (SMEs). Data was collected from 374 Indian manufacturing Small-Medium enterprises through the questionnaire method. Findings showed that innovativeness as the dimension of entrepreneurial orientation had a positive significant impact on environmental sustainability in Indian Small-Medium enterprises (SMEs). It was recommended that managers of Small-Medium Enterprises (SMEs) should focus on innovativeness impacts on the environmental sustainability of firms due to the importance of innovativeness.

Moreover, Younas and Zafar (2019) showed the relationship between sustainability and risk-taking as the dimension of entrepreneurial orientation of firms in the US and Germany. Primary data was collected from firms in the US and Germany in the period from 2004-2015. Results shed light that risk-taking as the dimension of entrepreneurial orientation has a negative significant effect on sustainability in firms in the US and Germany. It was recommended that governments in the US and Germany put regulations that limit risk-taking for a sustainable society.

Based on the previous studies that were illustrated, the researcher can assume the first hypothesis of the study, which is that there is a statistically significant relationship between entrepreneurial orientation and sustainability.

**H<sub>1</sub>: There is a significant relationship between entrepreneurial orientation and sustainability.**

### ***Relationship Between Sustainability and Competitive Advantage***

This section examines the relationship between sustainability and competitive advantage. Kwarteng et al. (2016) aimed to examine the impact of sustainability on the competitive advantage of manufacturing firms in Ghana. Any firm seeks a position in an attractive market that can be defended against both existing and potential competitors. Although the development of capabilities is important, management's primary focus is on achieving a differentiation position and on keeping balance through strategic investments, pricing strategies, and competitive signaling. So that the role of sustainability as a driver of competitive advantage is dormant. To understand the impact of sustainability on competitive advantage, the required data for achieving the purpose of the study were collected through a survey that was conducted where managers were asked about their engagement in the sustainability issues and how it affects their competitive advantage. The study uses structural equation modeling (SEM) and, in particular, the partial least square (PLS) approaches to SEM. The results indicated that economic and social have a positive impact on the corporate image but not the environment. In addition, corporate image and social have a positive impact on corporate performance, while economy and environment seem not to have any impact on corporate performance.

Moreover, Aboelmaged (2018) showed the relationship between competitive advantage (cost, quality, and flexibility) and sustainability in Egyptian Small-Medium enterprises (SMEs). A quantitative approach had been followed by gathering primary data from 300 Egyptian Small-Medium enterprises (SMEs) through the questionnaire method. The findings shed light that sustainability had a positive significant impact on competitive advantage (cost, quality, and flexibility).

Based on the previous studies that were illustrated, the researcher can assume the second hypothesis of the study, which is that there is a statistically significant relationship between sustainability and competitive advantage.

**H<sub>2</sub>: There is a significant relationship between sustainability and competitive advantage.**

### ***Relationship between Entrepreneurial Orientation and Competitive Advantage***

This section examines the relationship between entrepreneurial orientation and competitive advantage. Bogatyreva et al. (2017) clarified the relationship between competitive advantage and entrepreneurial orientations in Russian and Finnish Small-Medium enterprises (SMEs). The methodology was built upon gathering primary data from 104 Russian and 117 Finnish Small-Medium enterprises (SMEs) through questionnaires distributed to founders of SMEs. Results illustrated that entrepreneurial orientation had a direct effect on the competitive advantage that leads to economic growth. In addition, Bii and Onyango (2018) showed the relationship between competitive advantage and entrepreneurial orientations in Small-Medium enterprises (SMEs). (Bii and Onyango, 2018) methodology builds on collecting data from 1980 Small-Medium enterprises (SMEs) in India. The conclusion

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showed that effective entrepreneurial orientations would help Small-Medium enterprises (SMEs) to obtain a competitive advantage in the face of the business environment to promote higher business performance in Small-Medium enterprises (SMEs). It was noticed that Small-Medium enterprises (SMEs) performance is more important as they provide an opportunity to work and promote economic growth and as Small-Medium enterprises (SMEs) adopted entrepreneurial orientations, they would promote competitive advantage and higher business performance.

Furthermore, Jin et al. (2018) clarified the relationship between competitive advantage and entrepreneurial orientation dimensions (Risk-Taking, innovativeness, and proactiveness) in Small-Medium enterprises (SMEs) in Korea. Primary data was collected from 401 questionnaires distributed on Korean exporting Small-Medium enterprises (SMEs). Results revealed that proactiveness and innovativeness had a positive impact on competitive advantage. However, risk-taking hurt competitive advantages in Korean exporting Small-Medium enterprises (SMEs). Also, Hoque (2018) explained the relationship between competitive advantage and entrepreneurial orientations in Small-Medium enterprises (SMEs) in Bangladesh. Small-Medium Enterprises (SMEs) enhanced job opportunities, innovations, reduction in poverty, and social cohesion that leads to promote economic growth in Bangladesh. The methodology was built on collecting data from 384 owners of Small-Medium enterprises (SMEs) in Bangladesh through a questionnaire method and using SEM-AMOS to analyze the collected data. The finding showed that entrepreneurial orientations had significant impacts on competitive advantage in Small-Medium enterprises (SMEs) in Bangladesh.

Based on the previous studies that were illustrated, the researcher can assume the third hypothesis of the study, which is that there is a statistically significant relationship between entrepreneurial orientation and competitive advantage.

**H<sub>3</sub>: Sustainability mediates the relationship between entrepreneurial orientation and competitive advantage.**

### RESEARCH METHODOLOGY

This paper uses the descriptive explanatory design to be able to describe the relationship between the paper variables, as well as explaining the results expected to be found and justify its presence according to the research field and scope. Moreover, this design is used to gain additional knowledge of a prior understanding of the nature of the research problem and to collect data using survey technique (structural survey questionnaire) and many respondents to answer the research questions under study. The questionnaire targets the first-line managers of SMEs in the food and beverage sector in Egypt. The sampling technique is a non-random convenient one. The sample size of the research is 401 questionnaires. Using Structural Equation Modeling (SEM) constructed using the AMOS program.

### CONCEPTUAL FRAMEWORK AND HYPOTHESES

The research variables are entrepreneurial orientation dimensions (Risk-Taking, Innovativeness, Proactiveness, and Competitive Aggressiveness), sustainability dimensions (economic sustainability, social sustainability, and environmental sustainability), and competitive advantages dimensions (Flexibility, cost, and quality). The framework explained is shown in Figure 1.

Accordingly, from the framework the research hypotheses could be stated as follows:

H<sub>1</sub>: There is a significant relationship between entrepreneurial orientation and sustainability.

H<sub>2</sub>: There is a significant relationship between sustainability and competitive advantage.

H<sub>3</sub>: Sustainability mediates the relationship between entrepreneurial orientation and competitive advantage.

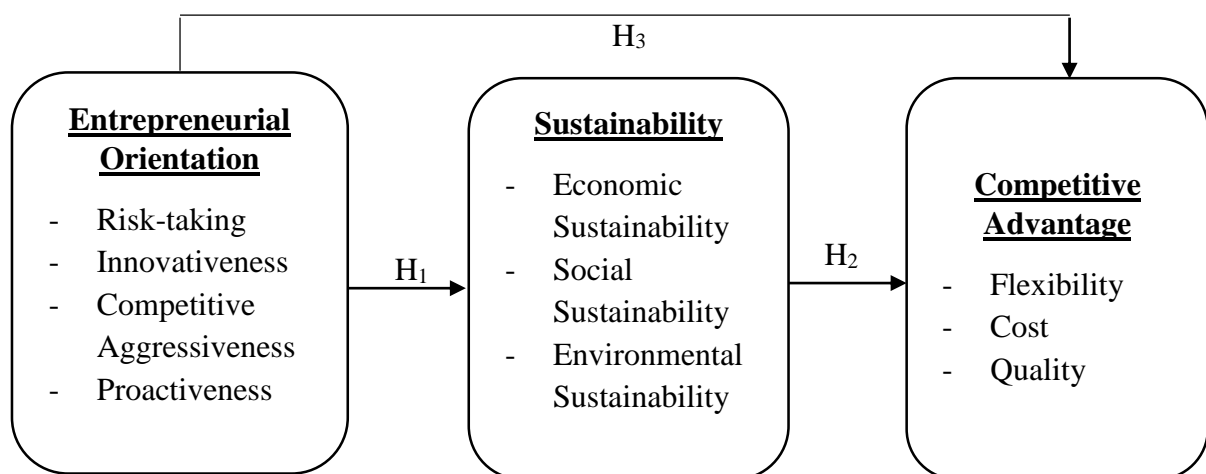


Figure 1: Proposed Paper Model

### Testing Research Hypothesis

In this section, the hypotheses under study are tested using the Pearson correlation and regression.



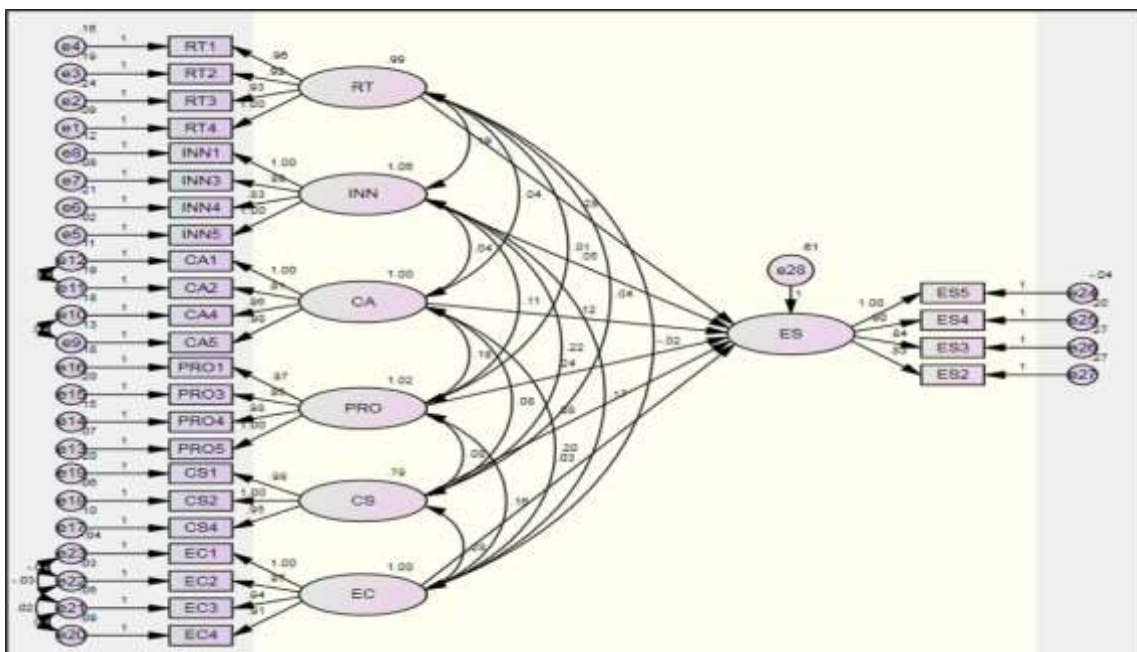
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**Testing the First Hypothesis:** Table 1 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Economic Sustainability. It could be observed that there is a positive significant effect of risk-taking, Competitive Aggressiveness, and Proactiveness on economic sustainability as the P-values are less than 0.05 (P-value = 0.000, 0.003, and 0.000 respectively) with estimates equal to 0.284, 0.119, and 0.242 respectively. Moreover, there is an insignificant effect of Innovativeness, Customer Service, and E-Commerce on Economic Sustainability as the P-values are more than 0.5. Furthermore, the R square is 0.246, which means 24.6% of the variation in the Economic Sustainability can be explained by the model.

**Table 1: SEM Analysis of Entrepreneurial Orientation on Economic Sustainability**

			Estimate	P	R <sup>2</sup>
Economic Sustainability	<---	Risk-Taking	.284	***	.246
Economic Sustainability	<---	Innovativeness	.052	.185	
Economic Sustainability	<---	Competitive Aggressiveness	.119	.003	
Economic Sustainability	<---	Proactiveness	.242	***	
Economic Sustainability	<---	Customer Service	.084	.070	
Economic Sustainability	<---	E-Commerce	.028	.473	

The model fit indices; CMIN/DF = 1.266, GFI = 0.937, CFI = 0.995, AGFI= 0.920, and RMSEA = 0.026 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Economic Sustainability is illustrated in Figure 2.



**Figure 2: SEM for the effect of Entrepreneurial Orientation on Economic Sustainability**

Table 2 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Social Sustainability. It could be observed that there is a positive significant effect of Competitive Aggressiveness, and Proactiveness on Social sustainability as the P-values are less than 0.05 (P-value = 0.016, and 0.000 respectively) with estimates equal to 0.121 and 0.211 respectively. Moreover, there is an insignificant effect of Risk-Taking, Innovativeness, Customer Services, and E-Commerce on Social Sustainability as the P-values are more than 0.5. Furthermore, the R square is 0.085, which means 8.5% of the variation in Social Sustainability can be explained by the model.

**Table 2: SEM Analysis of Entrepreneurial Orientation on Social Sustainability**

			Estimate	P	R <sup>2</sup>
Social Sustainability	<---	Risk-Taking	-.004	.931	.085
Social Sustainability	<---	Innovativeness	.034	.489	
Social Sustainability	<---	Competitive Aggressiveness	.121	.016	

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			Estimate	P	R <sup>2</sup>
Social Sustainability	<---	Proactiveness	.211	***	
Social Sustainability	<---	Customer Service	-.002	.978	
Social Sustainability	<---	E-Commerce	.051	.311	

The model fit indices; CMIN/DF = 1.219, GFI = 0.937, CFI = 0.996, AGFI= 0.920, and RMSEA = 0.023 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Social Sustainability is illustrated in Figure 3.

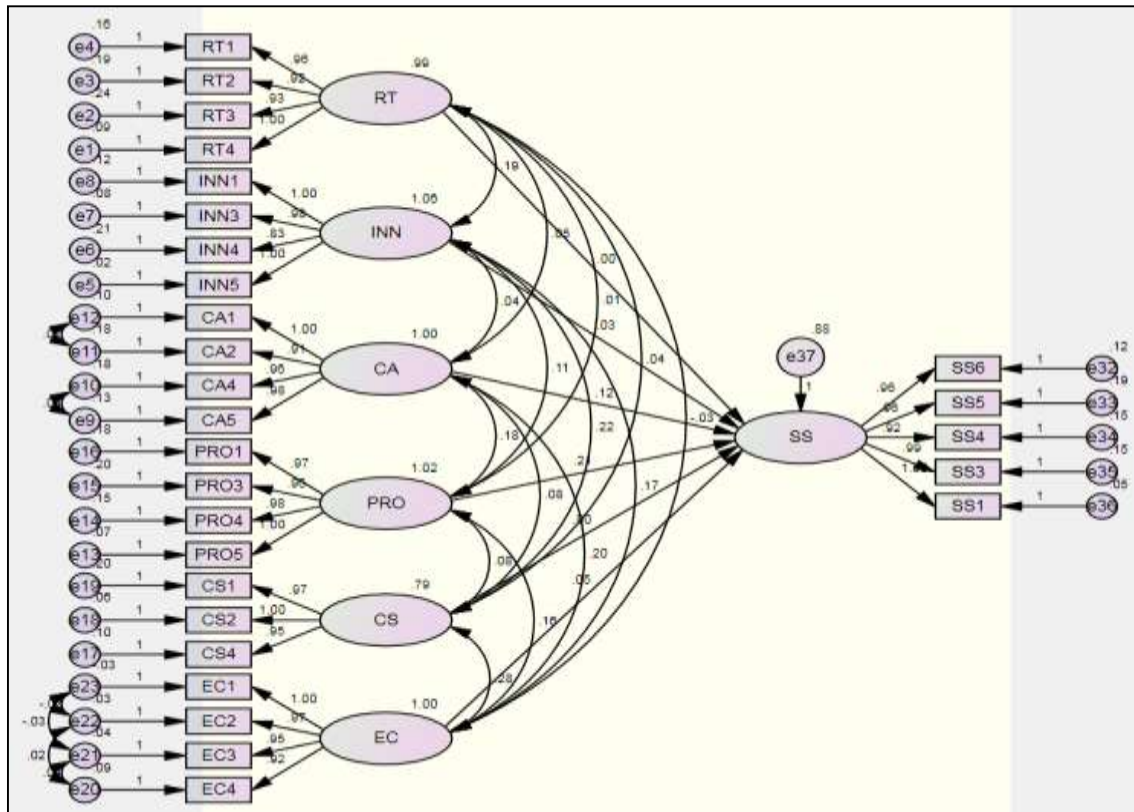


Figure 3: SEM for the effect of Entrepreneurial Orientation on Social Sustainability

Table 3 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Environmental Sustainability. It could be observed that there is a positive significant effect of Competitive Aggressiveness, Proactiveness, and Customer Services on Environmental sustainability as the P-values are less than 0.05 (P-value = 0.000, 0.023, and 0.030 respectively) with estimates equal 0.204, 0.103, and 0.117 respectively. Moreover, there is an insignificant effect of Risk-Taking, Innovativeness, and E-Commerce on Environmental Sustainability as the P-values are more than 0.5. Furthermore, the R square is 0.107, which means 10.7% of the variation in Environmental Sustainability can be explained by the model.

Table 3: SEM Analysis of Entrepreneurial Orientation on Environmental Sustainability

			Estimate	P	R <sup>2</sup>
Environmental Sustainability	<---	Risk-Taking	-.006	.894	
Environmental Sustainability	<---	Innovativeness	.046	.312	
Environmental Sustainability	<---	Competitive Aggressiveness	.204	***	.107
Environmental Sustainability	<---	Proactiveness	.103	.023	
Environmental Sustainability	<---	Customer Service	.117	.030	
Environmental Sustainability	<---	E-Commerce	.036	.426	

The model fit indices; CMIN/DF = 1.369, GFI = 0.932, CFI = 0.993, AGFI= 0.914, and RMSEA = 0.030 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Environmental Sustainability is illustrated in Figure 4.

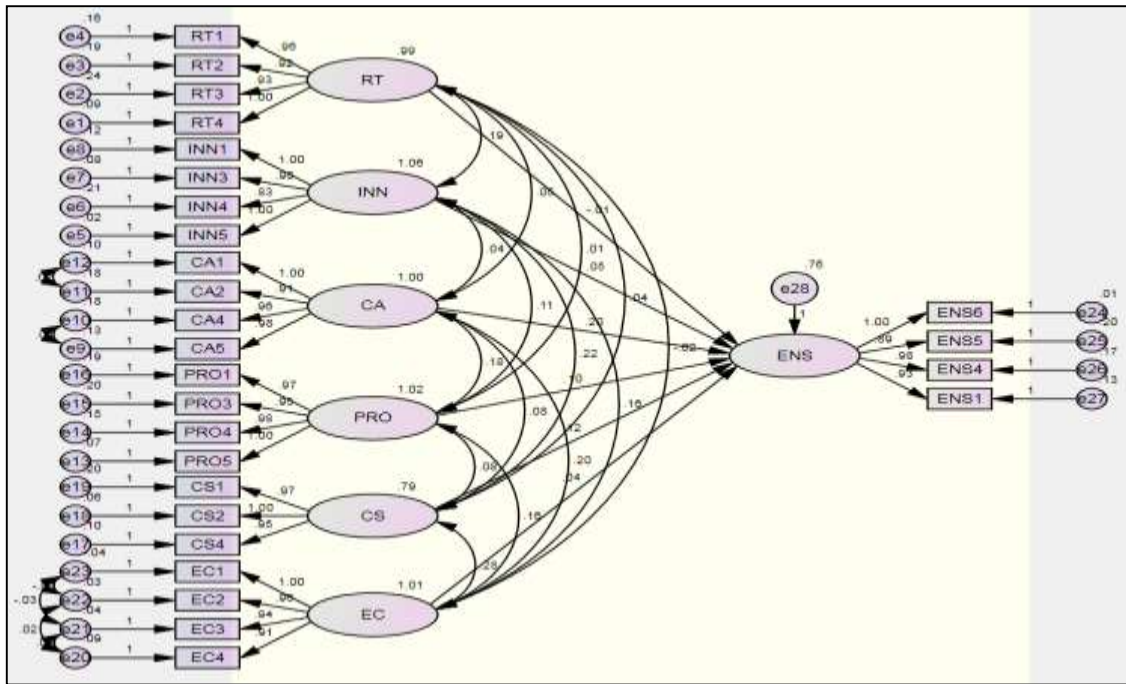


Figure 4: SEM for the effect of Entrepreneurial Orientation on Environmental Sustainability

Accordingly, the first hypothesis, H<sub>1</sub> “There is a significant relationship between entrepreneurial orientation and sustainability” is partially supported.

**Testing the Second Hypothesis:** Table 4 shows the SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Flexibility. It could be observed that there is a positive significant effect of Economic, Social, and Environmental on Flexibility as the P-values are less than 0.05 (P-value = 0.000, 0.000, and 0.003 respectively) with estimates equal to 0.353, 0.226, and 0.171 respectively. Furthermore, the R square is 0.189, which means 18.9% of the variation in the Flexibility can be explained by the model.

Table 4: SEM Analysis of Sustainability Dimensions on Flexibility

			Estimate	P	R <sup>2</sup>
Flexibility	<---	Economic	.353	***	.189
Flexibility	<---	Environmental	.226	***	
Flexibility	<---	Social	.171	.003	

The model fit indices; CMIN/DF = 1.211, GFI = 0.962, CFI = 0.998, AGFI= 0.949, and RMSEA = 0.023 are all within their acceptable levels. The SEM model conducted for the effect of the Sustainability Dimensions on Flexibility is illustrated in Figure 5.

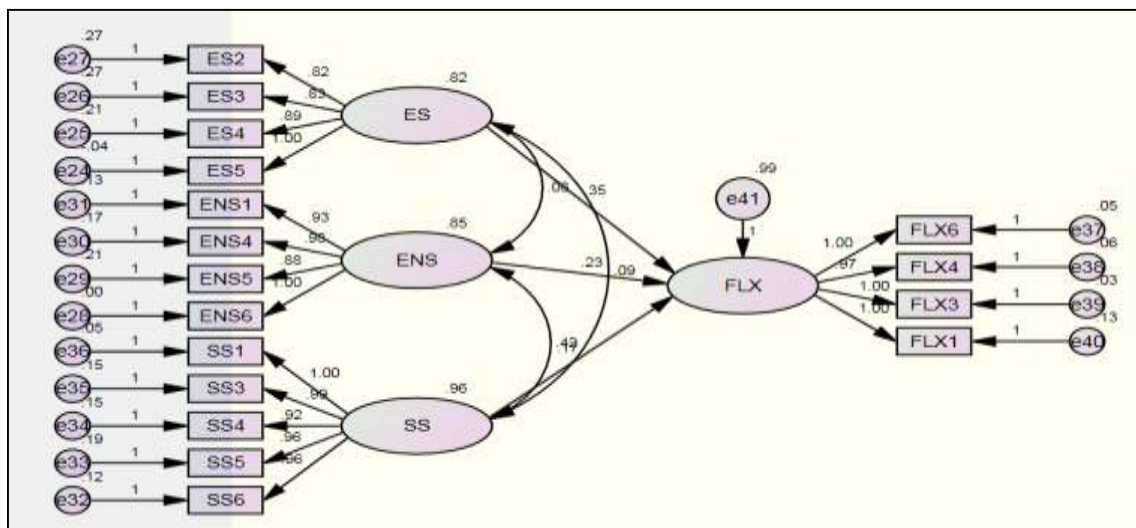


Figure 5: SEM for the effect of Sustainability Dimensions on Flexibility



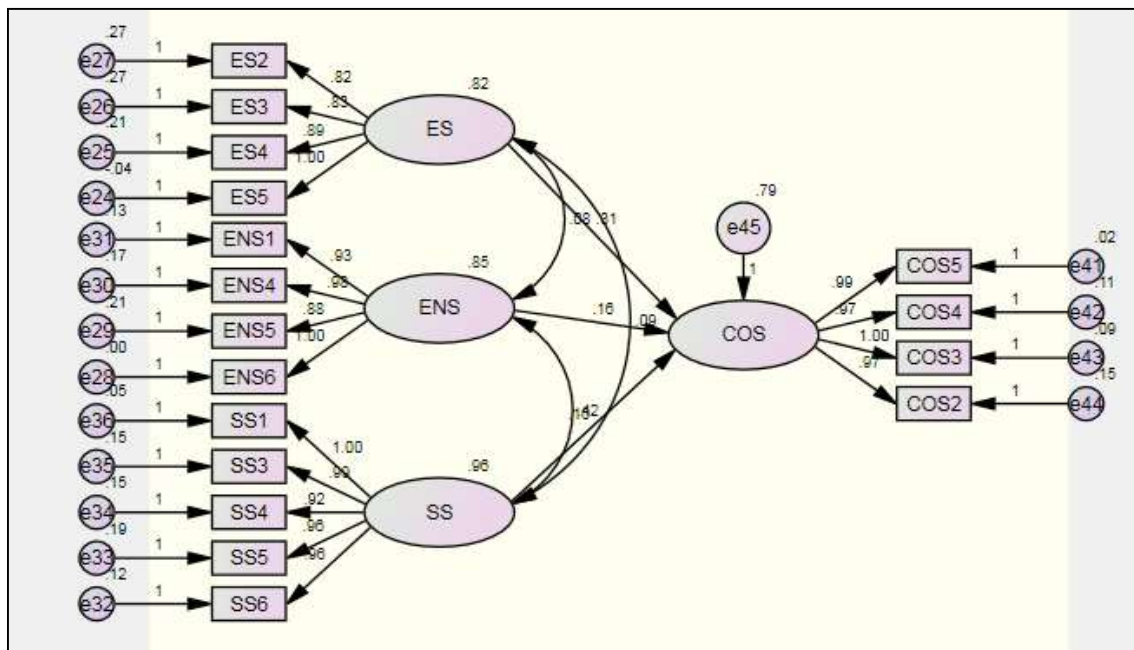
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Table 5 shows the SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Cost. It could be observed that there is a positive significant effect of Economic, Social, and Environmental on Cost as the P-values are less than 0.05 (P-value = 0.000, 0.000, and 0.003 respectively) with estimates equal to 0.313, 0.162, and 0.157 respectively. Furthermore, the R square is 0.173, which means 17.3% of the variation in the Cost can be explained by the model.

**Table 5: SEM Analysis of Sustainability Dimensions on Cost**

			Estimate	P	R <sup>2</sup>
Cost	<---	Economic	.313	***	.173
Cost	<---	Environmental	.162	.003	
Cost	<---	Social	.157	.003	

The model fit indices; CMIN/DF = 1.239, GFI = 0.961, CFI = 0.997, AGFI= 0.947, and RMSEA = 0.024 are all within their acceptable levels. The SEM model conducted for the effect of the Sustainability Dimensions on Cost is illustrated in Figure 6.



**Figure 6: SEM for the effect of Sustainability Dimensions on Cost**

Table 6 shows the SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Quality. It could be observed that there is a positive significant effect of Economic on Quality as the P-value is less than 0.05 (P-value = 0.000) with an estimate equal 0.754, while, there is an insignificant effect of Social, and Environmental on Quality as the P-values are more than 0.05. Furthermore, the R square is 0.610, which means 61% of the variation in the Quality can be explained by the model.

**Table 6: SEM Analysis of Sustainability Dimensions on Quality**

			Estimate	P	R <sup>2</sup>
Quality	<---	Economic	.754	***	.610
Quality	<---	Environmental	.051	.122	
Quality	<---	Social	-.016	.613	

The model fit indices; CMIN/DF = 1.473, GFI = 0.958, CFI = 0.995, AGFI= 0.942, and RMSEA = 0.034 are all within their acceptable levels. The SEM model conducted for the effect of the Sustainability Dimensions on Quality is illustrated in Figure 7.

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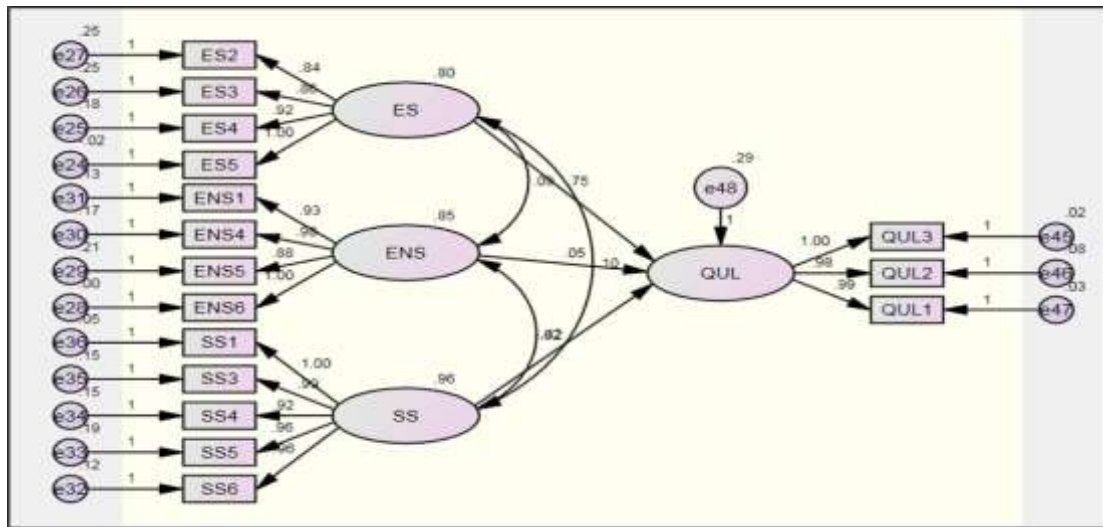


Figure 7: SEM for the effect of Sustainability Dimensions on Quality

Accordingly, the second hypothesis, H<sub>2</sub> “There is a significant relationship between sustainability and competitive advantage” is partially supported.

**Testing the Third Hypothesis:** Table 7 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Flexibility. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, Proactiveness, and E-Commerce on Flexibility as the P-values are less than 0.05 (P-value = 0.000, 0.000, 0.000, 0.000 and 0.035 respectively) with estimates 0.227, 0.193, 0.326, 0.372 and 0.109 respectively. However, there is a significant negative effect of Customer Service on Flexibility as the P-value is less than 0.5 and the with estimate -0.134. Furthermore, the R square is 0.359, which means 35.9% of the variation in the Flexibility can be explained by the model.

Table 7: SEM Analysis of Entrepreneurial Orientation on Flexibility

			Estimate	P	R <sup>2</sup>
Flexibility	<---	Risk-Taking	.227	***	.359
Flexibility	<---	Innovativeness	.193	***	
Flexibility	<---	Competitive Aggressiveness	.326	***	
Flexibility	<---	Proactiveness	.372	***	
Flexibility	<---	Customer Service	-.134	.021	
Flexibility	<---	E-Commerce	.109	.035	

The model fit indices; CMIN/DF = 1.229, GFI = 0.939, CFI = 0.996, AGFI= 0.922, and RMSEA = 0.024 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Flexibility is illustrated in Figure 8.

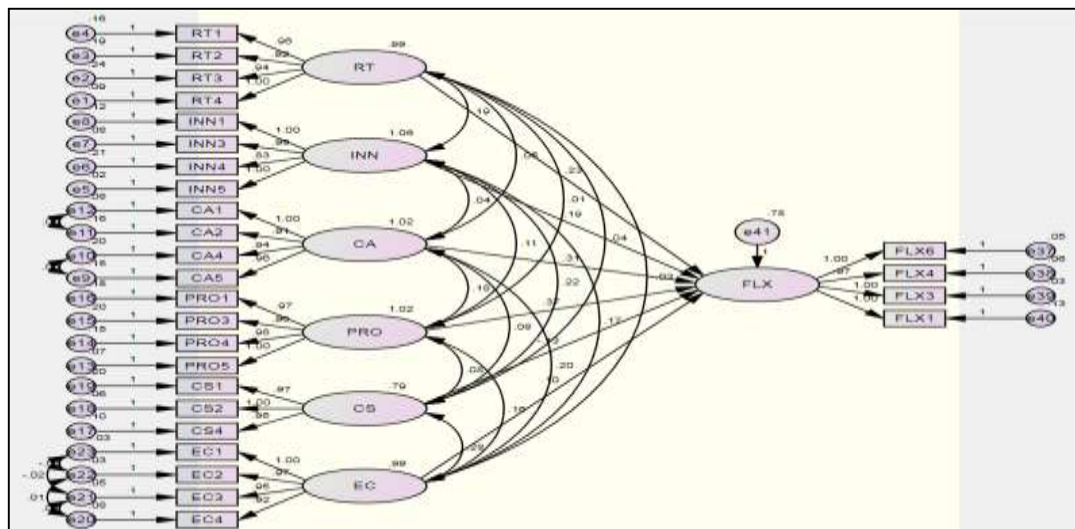


Figure 8: SEM for the effect of Entrepreneurial Orientation on Flexibility

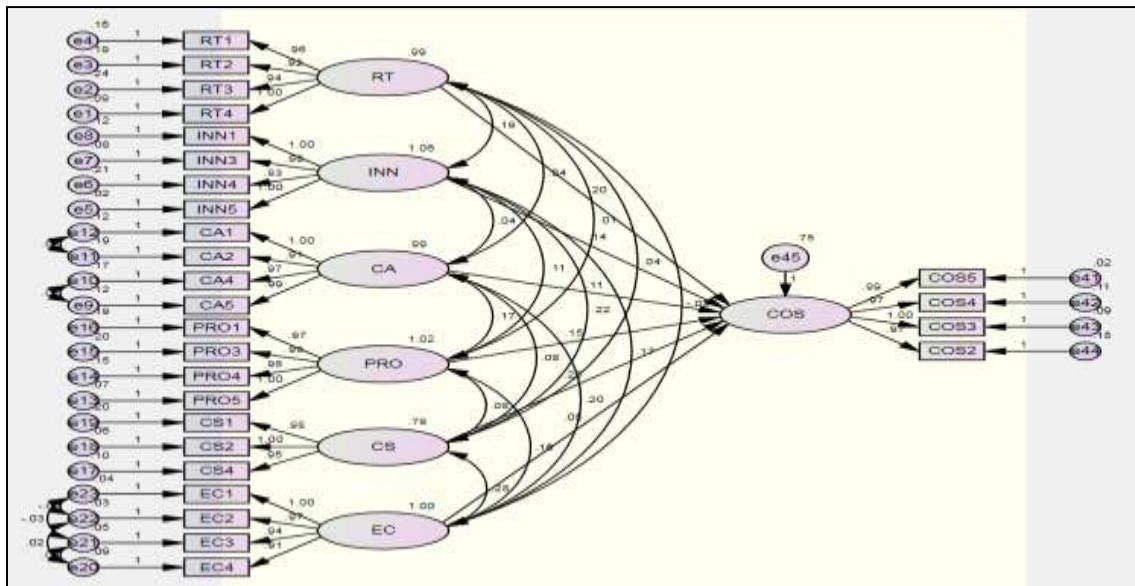
## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

Table 8 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Cost. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, Proactiveness, and Customer Services on Cost as the P-values are less than 0.05 (P-value = 0.000, 0.002, 0.015, 0.000, and 0.000 respectively) with estimates equal 0.201, 0.138, 0.114, 0.154 and 0.232 respectively. However, there is an insignificant effect of E-Commerce on Cost as the P-value is more than 0.5. Furthermore, the R square is 0.217, which means 21.7% of the variation in the Cost can be explained by the model.

**Table 8: SEM Analysis of Entrepreneurial Orientation on Cost**

			Estimate	P	R <sup>2</sup>
Cost	<---	Risk-Taking	.201	***	.217
Cost	<---	Innovativeness	.138	.002	
Cost	<---	Competitive Aggressiveness	.114	.015	
Cost	<---	Proactiveness	.154	***	
Cost	<---	Customer Service	.232	***	
Cost	<---	E-Commerce	.047	.302	

The model fit indices; CMIN/DF = 1.202, GFI = 0.940, CFI = 0.996, AGFI= 0.924, and RMSEA = 0.022 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Cost is illustrated in Figure 9.



**Figure 9: SEM for the effect of Entrepreneurial Orientation on Cost**

Table 9 shows the SEM analysis for the impact of the Entrepreneurial Orientation on Quality. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, and Proactiveness on Quality as the P-values are less than 0.05 (P-value = 0.000, 0.014, 0.003, and 0.000 respectively) with estimates equal to 0.278, 0.096, 0.120, and 0.221 respectively. However, there is an insignificant effect of Customer Services, and E-Commerce on Quality as the P-values are more than 0.5. Furthermore, the R square is 0.268, which means 26.8% of the variation in the Quality can be explained by the model.

**Table 9: SEM Analysis of Entrepreneurial Orientation on Quality**

			Estimate	P	R <sup>2</sup>
Quality	<---	Risk-Taking	.278	***	.268
Quality	<---	Innovativeness	.096	.014	
Quality	<---	Competitive Aggressiveness	.120	.003	
Quality	<---	Proactiveness	.221	***	
Quality	<---	Customer Service	.077	.099	
Quality	<---	E-Commerce	.036	.367	

## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

The model fit indices; CMIN/DF = 1.425, GFI = 0.933, CFI = 0.992, AGFI= 0.914, and RMSEA = 0.033 are all within their acceptable levels. The SEM model conducted for the effect of the Entrepreneurial Orientation on Quality is illustrated in Figure 10.

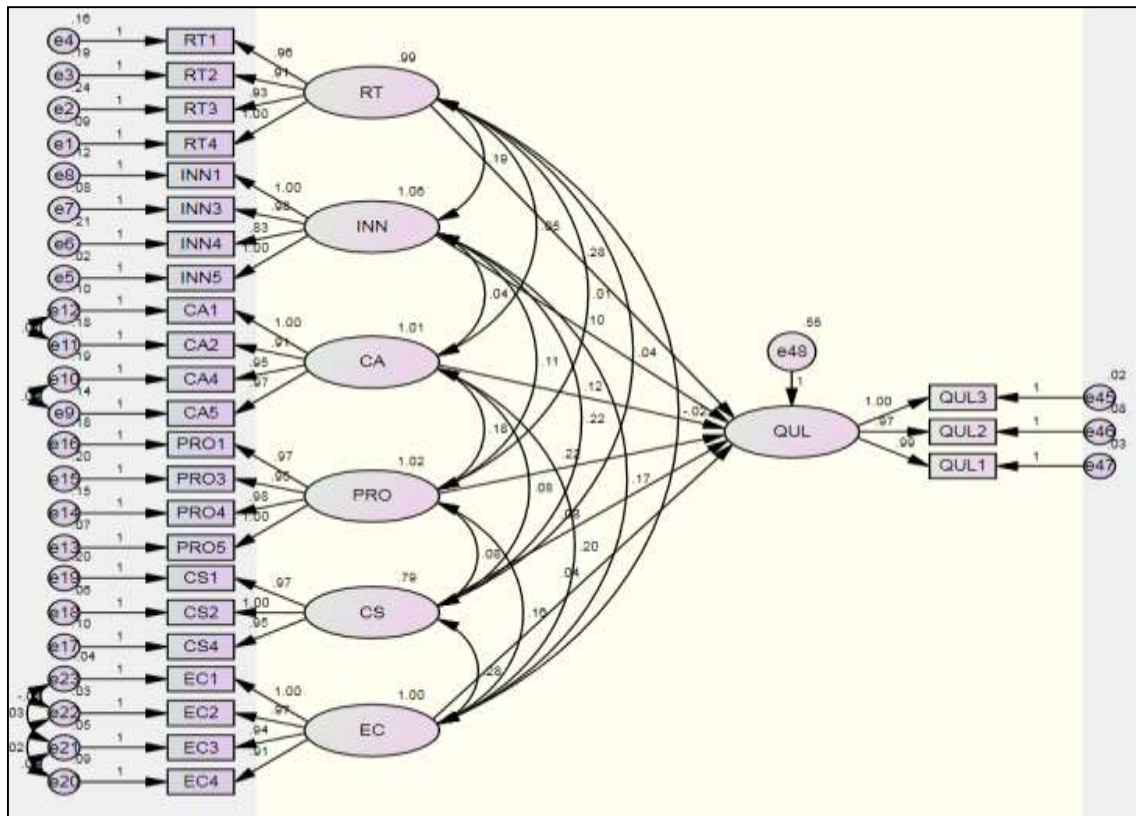


Figure 10: SEM for the effect of Entrepreneurial Orientation on Quality

**Testing the Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Flexibility.** Based on the results of Table 10 it could be noted that Economic Sustainability has an insignificant effect on Flexibility as the P-value is more than 0.05, so, Economic Sustainability could not mediate the relationship between Research Entrepreneurial Orientation and Flexibility.

Table 10: Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Flexibility

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	-.103	.338		-.306	.760	
Risk-Taking	.182	.048	.169	3.789	.000	.353
Innovativeness	.178	.046	.168	3.876	.000	
Competitive Aggressiveness	.284	.045	.264	6.249	.000	
Proactiveness	.348	.047	.327	7.438	.000	
Customer Service	-.146	.054	-.118	-2.690	.007	
E-Commerce	.125	.051	.109	2.462	.014	
Economic Sustainability	.096	.060	.076	1.603	.110	

a. Dependent Variable: Flexibility

**Testing the Mediation Role of Social Sustainability between Entrepreneurial Orientation and Flexibility.** Based on the results of Table 11 it could be noted that Social Sustainability has a significant effect on Flexibility as the P-value is less than 0.05, so, Social Sustainability could mediate the relationship between Entrepreneurial Orientation and Flexibility



## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

**Table 11: Mediation Role of Social Sustainability between Entrepreneurial Orientation and Flexibility**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	-.300	.343		-.874	.383	
Risk-Taking	.209	.044	.195	4.725	.000	
Innovativeness	.180	.045	.170	3.974	.000	
Competitive Aggressiveness	.278	.045	.258	6.183	.000	
Proactiveness	.343	.045	.322	7.654	.000	.365
Customer Service	-.143	.054	-.116	-2.660	.008	
E-Commerce	.118	.050	.103	2.346	.019	
Social Sustainability	.144	.046	.131	3.125	.002	

a. Dependent Variable: Flexibility

**Testing the Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Flexibility.** Based on the results of Table 12 it could be noted that Environmental Sustainability has a significant effect on Flexibility as the P-value is less than 0.05, so, Environmental Sustainability could mediate the relationship between Entrepreneurial Orientation and Flexibility.

**Table 12: Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Flexibility**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	-.300	.343		-.874	.383	
Risk-Taking	.209	.044	.195	4.725	.000	
Innovativeness	.180	.045	.170	3.974	.000	
Competitive Aggressiveness	.278	.045	.258	6.183	.000	
Proactiveness	.343	.045	.322	7.654	.000	.365
Customer Service	-.143	.054	-.116	-2.660	.008	
E-Commerce	.118	.050	.103	2.346	.019	
Environmental Sustainability	.144	.046	.131	3.125	.002	

a. Dependent Variable: Flexibility

**Testing the Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Cost.** Based on the results of Table 13 it could be noted that Economic Sustainability has a significant effect on Cost as the P-value is less than 0.05, so, Economic Sustainability could mediate the relationship between Research Entrepreneurial Orientation and Cost.

**Table 13: Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Cost**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	.408	.326		1.251	.212	
Risk-Taking	.126	.046	.133	2.729	.007	
Innovativeness	.125	.044	.133	2.817	.005	
Competitive Aggressiveness	.085	.044	.090	1.942	.053	
Proactiveness	.100	.045	.107	2.216	.027	.227
Customer Service	.223	.052	.204	4.248	.000	
E-Commerce	.044	.049	.043	.900	.369	
Economic Sustainability	.179	.058	.161	3.094	.002	

a. Dependent Variable: Cost

**Testing the Mediation Role of Social Sustainability between Entrepreneurial Orientation and Cost.** Based on the results of Table 14 it could be noted that Social Sustainability has a significant effect on Cost as the P-value is less than 0.05, so, Social Sustainability could mediate the relationship between Research Entrepreneurial Orientation and Cost.

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**Table 14: Mediation Role of Social Sustainability between Entrepreneurial Orientation and Cost**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	.237	.332		.714	.476	
Risk-Taking	.178	.043	.188	4.151	.000	
Innovativeness	.131	.044	.140	2.985	.003	
Competitive Aggressiveness	.084	.043	.089	1.940	.053	
Proactiveness	.111	.043	.118	2.557	.011	.237
Customer Service	.229	.052	.210	4.405	.000	
E-Commerce	.039	.049	.038	.800	.424	
Social Sustainability	.171	.045	.176	3.823	.000	

a. Dependent Variable: Cost

**Testing the Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Cost.** Based on the results of Table 15 it could be noted that Environmental Sustainability has a significant effect on Cost as the P-value is less than 0.05, so, Environmental Sustainability could mediate the relationship between Research Entrepreneurial Orientation and Cost.

**Table 15: Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Cost**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	.244	.337		.724	.470	
Risk-Taking	.178	.043	.188	4.131	.000	
Innovativeness	.127	.044	.135	2.866	.004	
Competitive Aggressiveness	.069	.045	.073	1.557	.120	
Proactiveness	.130	.043	.139	3.040	.003	.229
Customer Service	.210	.053	.192	3.980	.000	
E-Commerce	.051	.049	.050	1.046	.296	
Environmental Sustainability	.160	.050	.152	3.237	.001	

a. Dependent Variable: Cost

**Testing the Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Quality.** Based on the results of Table 16 it could be noted that Economic Sustainability has a significant effect on Quality as the P-value is less than 0.05, so, Economic Sustainability could mediate the relationship between Research Entrepreneurial Orientation and Quality.

**Table 16: Mediation Role of Economic Sustainability between Entrepreneurial Orientation and Quality**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
(Constant)	.163	.191		.855	.393	
Risk-Taking	.040	.027	.047	1.462	.145	
Innovativeness	.055	.026	.066	2.115	.035	
Competitive Aggressiveness	.045	.026	.053	1.745	.082	
Proactiveness	.026	.026	.031	.978	.329	.667
Customer Service	.064	.031	.066	2.085	.038	
E-Commerce	-.008	.029	-.009	-.270	.788	
Economic Sustainability	.742	.034	.748	21.862	.000	

a. Dependent Variable: Quality

**Testing the Mediation Role of Social Sustainability between Entrepreneurial Orientation and Quality.** Based on the results of Table 17 it could be noted that Social Sustainability has an insignificant effect on Quality as the P-value is more than 0.05, so, Social Sustainability could not mediate the relationship between Research Entrepreneurial Orientation and Quality.

## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

**Table 17: Mediation Role of Social Sustainability between Entrepreneurial Orientation and Quality**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
	(Constant)	.866	.291			
Risk-Taking	.256	.038	.303	6.812	.000	.263
Innovativeness	.093	.038	.112	2.422	.016	
Competitive Aggressiveness	.119	.038	.140	3.119	.002	
Proactiveness	.220	.038	.262	5.773	.000	
Customer Service	.096	.046	.099	2.113	.035	
E-Commerce	.027	.043	.030	.628	.530	
Social Sustainability	-.006	.039	-.007	-.164	.870	

a. Dependent Variable: Quality

**Testing the Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Quality.** Based on the results of Table 18 it could be noted that Environmental Sustainability has an insignificant effect on Quality as the P-value is more than 0.05, so, Environmental Sustainability could not mediate the relationship between Research Entrepreneurial Orientation and Quality.

**Table 18: Mediation Role of Environmental Sustainability between Entrepreneurial Orientation and Quality**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R <sup>2</sup>
	B	Std. Error	Beta			
	(Constant)	.825	.294			
Risk-Taking	.256	.038	.303	6.810	.000	.263
Innovativeness	.093	.039	.111	2.400	.017	
Competitive Aggressiveness	.115	.039	.136	2.964	.003	
Proactiveness	.217	.037	.259	5.799	.000	
Customer Service	.095	.046	.097	2.058	.040	
E-Commerce	.026	.043	.029	.616	.539	
Environmental Sustainability	.013	.043	.014	.312	.755	

a. Dependent Variable: Quality

Therefore, the third hypothesis that “**Sustainability Mediates the relation between Entrepreneurial Orientation and Competitive Advantage**” is partially supported.

### DISCUSSION

This section tries to identify if the research objectives and hypotheses were achieved or not. In addition, this section covers how this research can respond to these objectives. The objective of the study: investigate the effect of entrepreneurial orientation on sustainability.

This objective was covered through the first Hypothesis of this research, which stated that there is a significant relationship between entrepreneurial orientation and sustainability.

- **H<sub>1.1</sub> “There is a significant relationship between entrepreneurial orientation and economic sustainability.**

SEM analysis for the impact of the Entrepreneurial Orientation on Economic Sustainability. It could be observed that there is a positive significant effect of risk-taking, Competitive Aggressiveness, and Proactiveness on economic sustainability as the P-values are less than 0.05. Moreover, there is an insignificant effect of Innovativeness, Customer Service, and E-Commerce on Economic Sustainability as the P-values are more than 0.05.

Therefore, **H<sub>1.1</sub> “There is a significant relationship between entrepreneurial orientation and economic sustainability”** is partially supported.

- **H<sub>1.2</sub>: There is a significant relationship between entrepreneurial orientation and economic sustainability.**

SEM analysis for the impact of the Entrepreneurial Orientation on Social Sustainability. It could be observed that there is a positive significant effect of Competitive Aggressiveness, and Proactiveness on Social sustainability as the P-values are less than 0.05. Moreover, there is an insignificant effect of Risk-Taking, Innovativeness, Customer Services, and E-Commerce on Social Sustainability as the P-values are more than 0.05.

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Therefore, **H<sub>1.2</sub>** “**There is a significant relationship between entrepreneurial orientation and economic sustainability**” is partially supported.

- **H<sub>1.3</sub>: There is a significant relationship between entrepreneurial orientation and environmental sustainability.**

SEM analysis for the impact of the Entrepreneurial Orientation on Environmental Sustainability. It could be observed that there is a positive significant effect of Competitive Aggressiveness, Proactiveness, and Customer Services on Environmental sustainability as the P-values are less than 0.05. Moreover, there is an insignificant effect of Risk-Taking, Innovativeness, and E-Commerce on Environmental Sustainability as the P-values are more than 0.05.

Therefore, **H<sub>1.3</sub>** “**There is a significant relationship between entrepreneurial orientation and environmental sustainability**” is partially supported. Accordingly, the first hypothesis, **H<sub>1</sub>** “**There is a significant relationship between entrepreneurial orientation and sustainability**” is partially supported.

The Objective of the Study: Explain the impact of sustainability on competitive advantage. This objective was covered through the second Hypothesis of this research, which stated that there is a significant relationship between sustainability and competitive advantage.

- **H<sub>2.1</sub>: There is a significant relationship between sustainability and flexibility.**

SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Flexibility. It could be observed that there is a positive significant effect of Economic, Social, and Environmental on Flexibility as the P-values are less than 0.05.

Therefore, **H<sub>2.1</sub>** “**There is a significant relationship between sustainability and flexibility**” is fully supported.

- **H<sub>2.2</sub>: There is a significant relationship between sustainability and cost**

SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Cost. It could be observed that there is a positive significant effect of Economic, Social, and Environmental on Cost as the P-values are less than 0.05.

Therefore, **H<sub>2.2</sub>** “**There is a significant relationship between sustainability and cost**” is fully supported.

- **H<sub>2.3</sub>: There is a significant relationship between sustainability and quality**

SEM analysis for the impact of the Sustainability dimensions; Economic, Social, and Environmental on Quality. It could be observed that there is a positive significant effect of Economic on Quality as the P-value is less than 0.05, while, there is an insignificant effect of Social, and Environmental on Quality as the P-values are more than 0.05.

Therefore, **H<sub>2.3</sub>** “**There is a significant relationship between sustainability and quality**” is partially supported. Accordingly, the second hypothesis, **H<sub>2</sub>** “**There is a significant relationship between sustainability and competitive advantage**” is partially supported.

**The Objective of the Study: Test the influence of entrepreneurial orientation on competitive advantage.** This objective was covered through the third Hypothesis of this research, which stated that there is a significant relationship between entrepreneurial orientation and competitive advantage.

- **H<sub>3.1</sub>: There is a significant relationship between entrepreneurial orientation and flexibility**

SEM analysis for the impact of the Entrepreneurial Orientation on Flexibility. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, Proactiveness, and E-Commerce on Flexibility as the P-values are less than 0.05 (P-value = 0.000, 0.000, 0.000, 0.000 and 0.035 respectively) with estimates 0.227, 0.193, 0.326, 0.372 and 0.109 respectively. However, there is a significant negative effect of Customer Service on Flexibility as the P-value is less than 0.5 and the with estimate -0.134.

Therefore, **H<sub>3.1</sub>** “**There is a significant relationship between entrepreneurial orientation and flexibility**” is fully supported.

- **H<sub>3.2</sub>: There is a significant relationship between entrepreneurial orientation and Cost.**

SEM analysis for the impact of the Entrepreneurial Orientation on Cost. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, Proactiveness, and Customer Services on Cost as the P-values are less than 0.05. However, there is an insignificant effect of E-Commerce on Cost as the P-value is more than 0.5.

Therefore, **H<sub>3.2</sub>** “**There is a significant relationship between entrepreneurial orientation and Cost**” is partially supported.

- **H<sub>3.3</sub>: There is a significant relationship between entrepreneurial orientation and Quality.**

SEM analysis for the impact of the Entrepreneurial Orientation on Quality. It could be observed that there is a positive significant effect of Risk-Taking, Innovativeness, Competitive Aggressiveness, and Proactiveness on Quality as the P-values are less than 0.05. However, there is an insignificant effect of Customer Services, and E-Commerce on Quality as the P-values are more than 0.5.

Therefore, **H<sub>3.3</sub>** “**There is a significant relationship between entrepreneurial orientation and Quality**” is partially supported. Accordingly, the third hypothesis, **H<sub>3</sub>** “**There is a significant relationship between entrepreneurial orientation and competitive advantage**” is partially supported.

## **RECOMMENDATIONS**

The research provides some recommendations for decision-makers in different sectors, these recommendations are as follows:

- Develop a study course in universities, so that the student can understand the entrepreneurial orientation, its benefits,



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and importance, and spread the spirit of entrepreneurship among university students, which enhances the implementation of pioneering initiatives when joining the labor market.

- The need for institutions in the industrial sector to continue as materials for building a consolidation that shows the dimensions of the entrepreneurial orientation, especially concerning flexibility in its internal and external environment.
- The necessity of applying the concept of flexibility to show a pioneering approach through the use of the principles of participation in achieving the goals and taking the opinions and suggestions of employees and putting them into seriousness in the economic institutions.
- Increased interest in the entrepreneurial orientation and its dimensions in the food and beverage sector in general, as it is one of the basic means to achieve superiority and leadership over competitors.
- The continuous pursuit by the institutions involved in the sector of food and beverage to monitor the environment in a way that achieves sustainability.
- Institutions in the food and beverage sector should develop the skills of employees and train them in the field of entrepreneurial spirit, taking risks, calculating risks, and tracking and seizing opportunities.

### LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

It has been known that most empirical studies include some limitations that might impact the research findings and prevent the generalization of the outcomes. The sample size studied in this research might constitute a limitation since the data was collected and analysis was conducted for only employees of the food and beverage sector. Accordingly, it is recommended to increase the sample size in future research for more reliable results. The study also limited its research on Egypt only as a developing country. Therefore, the researcher suggested that future researches have to measure the variables of the study in other countries and make the comparison between developed and developing countries.

This research has several recommendations that could be useful for future research. First, a longitudinal study would be recommended for better results, as time was one of the barriers in this study. Future research could also consider other cities and other sectors to explore the dimensions of the entrepreneurial orientation in the food and beverage sector which cope with the required level of competitive advantage to be achieved through the mediating role of sustainability. And also, it could consider all the SMEs in Egypt whether it is formal registered or informal to collect most reliable data.

In addition, larger number of sample size would make more précised results but that could be costly. Future research would be able to have better period to be able to collect larger sample as well as following a random sampling technique. Finally, a comparative study could be conducted to compare between the effect of different dimensions of entrepreneurial orientation on competitive advantage through the mediating role of sustainability in both; developed and developing countries.

### REFERENCE

- 1) Abdul-Rashid, S.H., Sakundarini, N., Ghazilla, R.A.R. and Thurasamy, R., 2017. The impact of sustainable manufacturing practices on sustainability performance. *International Journal of Operations & Production Management*.
- 2) Aboelmaged, M., 2018. The drivers of sustainable manufacturing practices in Egyptian SMEs and their impact on competitive capabilities: A PLS-SEM model. *Journal of Cleaner Production*, 175, pp.207-221.
- 3) Adomako, S., Amankwah-Amoah, J., Danso, A., Konadu, R. and Owusu-Agyei, S., 2019. Environmental sustainability orientation and performance of family and nonfamily firms. *Business Strategy and the Environment*, 28(6), pp.1250-1259.
- 4) Bii, J. and Onyango, R., 2018. Moderating effect of dynamic capabilities on the relationship between entrepreneurial orientation and business performance of small and medium enterprises. *International Journal of Multidisciplinary and Current Research*, 6, pp.1122-1134.
- 5) Bogatyreva, K., Beliaeva, T., Shirokova, G. and Puffer, S.M., 2017. As different as chalk and cheese? The relationship between entrepreneurial orientation and SMEs' growth: Evidence from Russia and Finland. *Journal of East-West Business*, 23(4), pp.337-366.
- 6) Capolongo, S., Gola, M., Di Noia, M., Nickolova, M., Nachiero, D., Rebecchi, A., Settimo, G., Vittori, G. and Buffoli, M., 2016. Social sustainability in healthcare facilities: a rating tool for analysing and improving social aspects in environments of care. *Annali dell'Istituto superiore di sanita*, 52(1), pp.15-23.
- 7) Covin, J.G. and Miller, D., 2014. International entrepreneurial orientation: Conceptual considerations, research themes, measurement issues, and future research directions. *Entrepreneurship Theory and Practice*, 38(1), pp.11-44.
- 8) Cui, L., Fan, D., Guo, F. and Fan, Y., 2018. Explicating the relationship of entrepreneurial orientation and firm performance: Underlying mechanisms in the context of an emerging market. *Industrial Marketing Management*, 71, pp.27-40.
- 9) Daunorienė, A., Drakšaitė, A., Snieška, V. and Valodkienė, G., 2015. Evaluating sustainability of sharing economy business models. *Procedia-Social and Behavioral Sciences*, 213, pp.836-841.

## The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

- 10) Delbari, S.A., Ng, S.I., Aziz, Y.A. and Ho, J.A., 2016. An investigation of key competitiveness indicators and drivers of full-service airlines using Delphi and AHP techniques. *Journal of Air Transport Management*, 52, pp.23-34.
- 11) Elgeballi, M., 2019. Marketing Innovation in Service Smes a Study in the Egyptian Food and Beverage Industry. *International Journal of Entrepreneurship*, 23(3), pp.1-12.
- 12) Franco, I., Saito, O., Vaughter, P., Whereat, J., Kanie, N. and Takemoto, K., 2019. Higher education for sustainable development: actioning the global goals in policy, curriculum and practice. *Sustainability Science*, 14(6), pp.1621-1642.
- 13) Galí, J., 2015. Monetary policy, inflation, and the business cycle: an introduction to the new Keynesian framework and its applications. Princeton University Press.
- 14) Hoque, A.S.M.M., 2018. The effect of entrepreneurial orientation on Bangladeshi SME performance: Role of organizational culture. *International Journal of Data and Network Science*, 2(1), pp.1-14.
- 15) Jin, B., Jung, S. and Jeong, S.W., 2018. Dimensional effects of Korean SME's entrepreneurial orientation on internationalization and performance: the mediating role of marketing capability. *International Entrepreneurship and Management Journal*, 14(1), pp.195-215.
- 16) Konstantinidis, N., Matakos, K. and Mutlu-Eren, H., 2019. "Take back control"? The effects of supranational integration on party-system polarization. *The Review of International Organizations*, 14(2), pp.297-333.
- 17) Kwarteng, A., Dadzie, S.A. and Famiyeh, S., 2016. Sustainability and competitive advantage from a developing economy. *Journal of Global Responsibility*.
- 18) Läßle, D. and Thorne, F., 2019. The role of innovation in farm economic sustainability: Generalised propensity score evidence from Irish dairy farms. *Journal of agricultural economics*, 70(1), pp.178-197.
- 19) Messersmith, J.G. and Wales, W.J., 2013. Entrepreneurial orientation and performance in young firms: The role of human resource management. *International small business journal*, 31(2), pp.115-136.
- 20) Nazmfar, H., Eshghei, A., Alavi, S. and Pourmoradian, S., 2019. Analysis of travel and tourism competitiveness index in middle-east countries. *Asia Pacific Journal of Tourism Research*, 24(6), pp.501-513.
- 21) Purvis, B., Mao, Y. and Robinson, D., 2019. Three pillars of sustainability: in search of conceptual origins. *Sustainability science*, 14(3), pp.681-695.
- 22) Robinson, S. and Stubberud, H.A., 2014. INNOVATION MOTIVATION: REDUCING ENVIRONMENTAL IMPACT. In *Allied Academies International Conference. Academy for Studies in International Business. Proceedings (Vol. 14, No. 1, p. 7)*. Jordan Whitney Enterprises, Inc.
- 23) Salas, E., Tannenbaum, S.I., Kozlowski, S.W., Miller, C.A., Mathieu, J.E. and Vessey, W.B., 2015. Teams in space exploration: A new frontier for the science of team effectiveness. *Current Directions in Psychological Science*, 24(3), pp.200-207.
- 24) Shepherd, D.A. and Patzelt, H., 2011. The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship theory and practice*, 35(1), pp.137-163.
- 25) Singh, S.K., Chen, J., Del Giudice, M. and El-Kassar, A.N., 2019. Environmental ethics, environmental performance, and competitive advantage: role of environmental training. *Technological Forecasting and Social Change*, 146, pp.203-211.
- 26) Ueasangkomsate, P., 2019, March. Entrepreneurial Orientation for Project Sustainability and Business Success. In *2019 8th International Conference on Industrial Technology and Management (ICITM) (pp. 75-80)*. IEEE.
- 27) Wang, L., Xue, X., Zhao, Z. and Wang, Z., 2018. The impacts of transportation infrastructure on sustainable development: emerging trends and challenges. *International journal of environmental research and public health*, 15(6), p.1172.
- 28) Younas, Z.I. and Zafar, A., 2019. Corporate risk taking and sustainability: a case of listed firms from USA and Germany. *Journal of Global Responsibility*.
- 29) Zehir, C., Can, E. and Karaboga, T., 2015. Linking entrepreneurial orientation to firm performance: the role of differentiation strategy and innovation performance. *Procedia-Social and Behavioral Sciences*, 210, pp.358-367.

# The Impact of Entrepreneurial Orientation on Competitive Advantage through the Mediation Role of Sustainability

## APPENDIX (1): RESEARCH VARIABLES OPERATIONAL DEFINITIONS

Research Variable	Measurement	Reference
<b>Entrepreneurial Orientation</b>		
<b>Risk Taking</b>	<ol style="list-style-type: none"> <li>1. There is a strong tendency for high-risk food and beverage projects.</li> <li>2. In the food and beverage sector, our operations include high risk.</li> <li>3. Taking aggressive postures to maximize the probability of exploiting potential opportunities.</li> <li>4. There is a weak tendency for high-risk food and beverage projects.</li> </ol>	<b>Zehir et al. (2015)</b>
<b>Innovativeness</b>	<ol style="list-style-type: none"> <li>5. Technical innovations based on research results are accepted quickly in the food and beverage sector.</li> <li>6. The importance is given to innovative ideas regarding products and services of food and beverage.</li> <li>7. In our sector of food and beverage, innovations are accepted easily in projects.</li> <li>8. Employees are not punished even if their new ideas do not work.</li> <li>9. Innovativeness is encouraged in the firm of food and beverage.</li> <li>10. In our firm, innovations are not accepted easily in projects.</li> </ol>	<b>Zehir et al. (2015)</b>
<b>Competitive Aggressiveness</b>	<ol style="list-style-type: none"> <li>11. We often sacrifice profitability to gain market share in the food and beverage sector.</li> <li>12. We often cut prices to increase market share in the food and beverage sector.</li> <li>13. For higher prices, we often set prices below competitors.</li> <li>14. Market share position at the expense of cash flow and profitability.</li> <li>15. We do not sacrifice profitability to gain market share in the food and beverage sector.</li> </ol>	<b>Zehir et al. (2015)</b>
<b>Proactiveness</b>	<ol style="list-style-type: none"> <li>16. Effectiveness in providing new products/services in the food and beverage sector.</li> <li>17. Changes in the products in the food and beverage sector are more radical compared to competitors.</li> <li>18. Great importance to the development of new and innovative products in the food and beverage sector.</li> <li>19. First, move instead of responding to the moves of our competitors.</li> <li>20. Changes in the products in the food and beverage sector are less radical compared to competitors.</li> </ol>	<b>Zehir et al. (2015)</b>
<b>Sustainability</b>		
<b>Economic Sustainability</b>	<ol style="list-style-type: none"> <li>21. Sustainable development requires that companies act responsibly towards their employees, customers, and suppliers.</li> <li>22. Sustainable development requires a fair distribution of goods and services among people in the world.</li> <li>23. Wiping out poverty in the world is necessary for sustainable development.</li> <li>24. Sustainable development demands that people understand how the economy functions.</li> <li>25. Wiping out poverty in the world is unnecessary for sustainable development.</li> </ol>	<b>Olsson et al. (2019)</b>
<b>social Sustainability</b>	<ol style="list-style-type: none"> <li>26. Improving people's chances for a long and healthy life contributes to sustainable development.</li> <li>27. A culture where conflicts are resolved peacefully through discussion is necessary for sustainable development.</li> <li>28. People who exercise their democratic rights are necessary for sustainable development (for example, they vote in elections, involve themselves in social issues, express their opinions).</li> <li>29. Reinforcing girls' and women's rights and increasing equality around the world is necessary for sustainable development.</li> <li>30. Respecting human rights, it's necessary for sustainable development.</li> <li>31. To achieve sustainable development, all the people in the world must have access to a good education.</li> <li>32. Having respect for other cultures is necessary for sustainable development.</li> <li>33. Respecting human rights, it's unnecessary for sustainable development.</li> </ol>	<b>Olsson et al. (2019)</b>

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Research Variable	Measurement	Reference
<b>Environmental Sustainability</b>	<p>34. Reducing water consumption is necessary for sustainable development.</p> <p>35. Preserving nature is not necessary for sustainable development.</p> <p>36. Preserving the variety of living creatures is necessary for sustainable development (preserving biological diversity).</p> <p>37. Sustainable development requires shift renewable natural resources.</p> <p>38. For sustainable development, people need to be educated on how to protect themselves against natural disasters.</p> <p>39. Preserving nature is necessary for sustainable development.</p>	<b>Olsson et al. (2019)</b>
<b>Competitive Advantage</b>		
<b>Flexibility</b>	<p>40. The company management assurance material and moral support to meet the needs and aspirations of current and future clients in the food and beverage sector.</p> <p>41. The company's management gives staff complete freedom to complete the work entrusted to them.</p> <p>42. The company's management work on developing employee performance and improve their skills as required by the market of renewable.</p> <p>43. The company's management seeks to know the characteristics of the market for the preparation of strategies and tactics appropriate for any situation possible current and future in the food and beverage sector.</p> <p>44. The relationship between management and employee Features to efficiency and effectiveness to complete customer orders in the food and beverage sector.</p> <p>45. The company's management does not give staff complete freedom to complete the work entrusted to them.</p>	<b>Agha et al. (2012)</b>
<b>Cost</b>	<p>46. My firm has a low cost of production than others.</p> <p>47. My firm operates low inventory.</p> <p>48. My firm produces at maximum capacity utilization.</p> <p>49. My firm operates at a low overhead cost.</p> <p>50. My firm produces at minimum capacity utilization.</p>	<b>Abker et al. (2019)</b>
<b>Quality</b>	<p>51. We offer very durable products.</p> <p>52. Provide products compatible with customer specifications.</p> <p>53. We offer very short-lived products.</p>	<b>Abker et al. (2019)</b>