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Effect of Green Products and Green Packaging on Business Performance with the Mediating Effect of Competitive Advantage a case of manufacturing firms in Ethiopia

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Abstract

Green marketing is a movement that encourages businesses to develop and promote environmentally friendly products. This research aims to examine the effect of green products and green packaging on business performance with the mediating effect of competitive advantage in Ethiopia. The data were collected from the sampled 301 medium and large manufacturing firms in the Sidama region of Ethiopia. The data were analyzed using SEM with AMOS version 23. The findings showed that green products and packaging have a significant effect on competitive advantage. The results also demonstrated that green products and packaging have a significant effect on business performance. The relationship between green products, green packaging, and business

performance is significantly mediated by competitive advantage. Therefore, we recommend that medium and large manufacturing firms should implement green marketing practices to enhance their business performance. It was additionally suggested that future studies examine the effect of green marketing practices on other categories of industries.

Keywords: *Green Product, Green Packaging, Competitive Advantage, Business performance*

1. Introduction

Currently, the rapid industrial modernization and globalization have considerably expanded the opportunities for various industries across the globe. This change has created numerous opportunities for economic growth and employment as well as challenges related to the availability of resources and environment management. Among the challenges global warming, air pollution, water pollution, chemical and toxic explosions (Oqubay, 2018). Moreover, evidence suggests that unsafe industrialization affected human health in Sub-Saharan Africa (UNEC, 2006). Manufacturing plants are significant contributors to environmental degradation; primarily because of the substantial volume of pollutants they generate (Mekonnen & Gokcekus, 2019). Along with the rapid change in the global manufacturing sector, environmental issues are becoming a more important concern in managing business organizations (Sulaiman et al., 2023).

Green marketing practices play a positive role in minimizing environmental pollution by developing and promoting environmentally friendly products. Green marketing is defined as an organization's dedication to developing safe and environmentally friendly goods and services (Buswari et al., 2021). Green marketing can be achieved by using of recyclable and easily decomposable packaging, improved pollution-controlling techniques, and more efficient energy use (Mukonza & Swarts, 2019).

In today's fiercely competitive global market, manufacturing companies must embrace green marketing practices to minimize their environmental impact and enhance the efficiency of their operations. Adaptation of green marketing not only gives these enterprises a competitive edge over their rivals but also leads to improved business performance, as highlighted by studies such as Maziriri (2020) and Verma et al. (2023). Furthermore, as Eneizan et al. (2019) suggest, firms are

increasingly turning to green marketing to gain a competitive advantage and boost their overall business performance. Additionally, Ahmad et al. (2020) underscore the significance of green marketing as a vital strategy for business firms aiming to achieve sustainable growth.

Among green marketing practices green products and green packaging are major elements which directly assumed by customers to use (Mumbi et al., 2021). Green products are the result of product-related decisions and actions aimed at preserving or benefiting the natural environment by conserving energy and/or resources, as well as reducing emissions and waste (Ahmad et al., 2020). Similarly, Alsheikh (2020) mentioned that a product could be green if its production process is eco-friendly and less damaging to the environment. Researchers agreed that green products offer a competitive advantage and increase business performance (Alsheikh, 2020; Ahmad et al., 2020; Buswari et al., 2021).

Producing green products alone may not be sufficient to meet environmental standards; integrating additional green marketing practices to meet green requirement is crucial. Therefore, it is imperative to mention that producing green products should be followed by green packaging to achieve a business goal (Synodinos, 2014). Green packaging refers to containers that do not harm future generations, do not go to waste, and save resources while also respecting human needs and working conditions (Rao & Bhargav, 2016). Similarly, Wandosell et al. (2021) mentioned green packaging as the use of environmentally friendly materials for packaging while keeping in mind that products must be effective and safe for human health and the environment. Researchers agreed that green packaging gives a competitive advantage and increases business performance Mumbi et al.,2021, Wandosell et al.,2021).

It is imperative to mention that green products and green packaging would impact competitive advantage and business performance is still in need of enhanced scientific study. It is also essentially noted that most of the studies conducted on green marketing practices (green product and green packaging) were carried out in Asia, Europe, the Middle East, and South African countries (Mumbi et al.,2021, Wandosell et al.,2021)). The existing literature on green products and green packaging has not provided clear evidence about Ethiopia which is a country located in the North Eastern part of Africa. Moreover, available literature related to green products and green packaging in manufacturing firms mainly focused on SMEs.

By considering the above research gaps, the main aim of the study is to determine the effect of green products and green packaging on

business performance: the mediating effect of competitive advantage in the case of medium and large-scale manufacturing firms in the study area. More specifically the following objectives are developed (i) To examine the effect of the green product on competitive advantage; (ii) To analyze the effect of the green package on competitive advantage; (iii) To determine the effect of a green product on business performance; (iv) To examine the effect of green package on business performance; and (v) To determine the effect of competitive advantage on business performance; (vi) To examine the mediating effect of competitive advantage on the relationship between green product and business performance; (vii) To examine the mediating effect of competitive advantage on the relationship between green package and business performance.

2. Literature Review and Hypothesis Development

Green Products and Competitive Advantage

Firms must explore ways to produce advanced products to gain a competitive advantage in this period of rapid changes in market competition. Firms that use environmental applications to differentiate their products from others gain a competitive capability (W-H Goh et al., 2019). Similarly, Lin et al. (2013) argued that green products would help companies gain a sustainable competitive advantage and meet their business objectives. Moreover, different studies are performed to investigate the relationship between green products and firms' competitive advantage.

Buswari et al. (2021) investigated the effect of green product innovation and green marketing on competitive advantage and business performance. Results showed that green product innovation has positive effect on competitive advantage. Green marketing, according to Sehgal (2017), is a vehicle for sustainable competitive advantage. The findings revealed that companies that bring green products to market have a sustainable competitive advantage over non-green product suppliers in the industry. Thus, inferring from the above literature the following hypothesis is developed:

H1: Green products has a significant effect on competitive advantage

Green Packaging and Competitive Advantage

Green packaging fulfills all of a package's purposes while still being environmentally friendly. Green packaging refers to containers that do not harm future generations, do not go to waste, and save resources while also respecting human needs and working conditions (Rao & Bhargav, 2016). Similarly, Wandosell et al. (2021) mentioned green packaging as the use of environmentally friendly materials for packaging while keeping in mind that products must be effective and safe for human health and the environment. Further, there are previous studies that show the relationship between a green package and competitive advantage.

The impact of a green package and green distribution on competitive advantage in the Kenyan horticultural industry was investigated by Mumbi et al. (2021). The green package has a positive impact on competitive advantage. Similarly, Maziriri (2020) researched green packaging and green advertising as precursors of competitive advantage and business performance. The result showed that green packaging had a positive influence on competitive advantage and business performance. Thus, by assuming the above literature the following hypothesis is developed.

H2: Green packaging has a significant effect on competitive advantage

Green Products on Business Performance

Green products are those that help the environment by preventing, reducing, or eliminating negative effects on water, air, and soil (Eneizan et al., 2019). Moreover, different studies investigate the relationship between green products and business performance. W-H Goh et al. (2019) investigated how green marketing mix strategies affected business performance. The results demonstrated that green products have a favorable effect on a company's ability to succeed. Similarly, Buswari et al. (2021) examined the effect of green product innovation and green marketing on competitive advantage and business performance. The outcome demonstrated that green innovative products had a positive

effect on business performance. Therefore, the following hypothesis is developed

H3: Green products has a significant effect on business performance

Green Packaging and Business Performance

Green packaging is a critical issue that must be taken into account to achieve Sustainable development Goals, which have both social and economic implications (Fonseca et al., 2020). Green packaging reduces the impact of waste, pollution, and promotes sustainable development (Wong et al., 2012). Mohammed (2016) mentioned that green packaging increase sales, quality, and delivery of goods which increase the profit margins. Specifically, there are previous studies that show the relationship between green packaging and business performance. Wandosell et al. (2021) looked into the connection between green packaging and business performance in southeast Spain. The findings revealed that green packaging has a positive impact on business success. In their research, Buswari et al. (2021) found that green packaging had a positive impact on business performances. Therefore, the following hypothesis is developed

H4: Green packaging has a significant effect on business performance

Competitive Advantage and Business Performance

According to Wang (2014), competitive advantage is getting something that the rivals don't have; it is the advantage that a company has over its competitors. A company can use its unique capability: i.e. competitive advantage to increase its profitability and growth. Similarly, Sihite (2018) mentioned that Competitive advantage is one of the sources of the corporate sustainability performance of the company. Specifically, there are previous studies that show the relationship between competitive advantage and business performance.

Maziriri (2020) looked at the relationship between green advertising and business performance, using competitive advantage as a mediating variable. Competitive advantage has a positive effect on market success in South African manufacturing SMEs. Buswari et al., (2021) concluded

that competitive advantage has a significant effect on business performance. Haseeb et al. (2019) focused on the relationship between sustainable competitive advantage and sustainable business performance in Malaysia. The findings showed that sustainable competitive advantage has a substantial positive impact on sustainable business success. Nuryakin (2018) investigated the effect of competitive advantage on marketing performance in Indonesia. The result indicated that competitive advantage had a significant effect on marketing performance. Assuming from the aforementioned discussion the following hypothesis is developed.

H5: competitive advantage has a significant effect on business performance

Competitive Advantage Mediates the Relationship between Green Marketing Practices and Business Performance

In this study competitive advantage is taken as a variable that mediates the relationship between green products, green packaging, and business performance. There are very few studies that use competitive advantage as mediating variable. A study conducted by Maziriri (2020) place competitive advantage as mediating role in explaining green package & green advertising for business performance. The findings showed that competitive advantage mediates the relationship between green marketing practices and business performance. Similarly, Wanjiru et al. (2019) emphasized that competitive advantage can mediate corporate strategies and the performance of manufacturing firms in Kenya. Assuming from the aforementioned discussion the following hypotheses are developed.

H6: Competitive advantage has a significant mediating relationship between green products and business performance

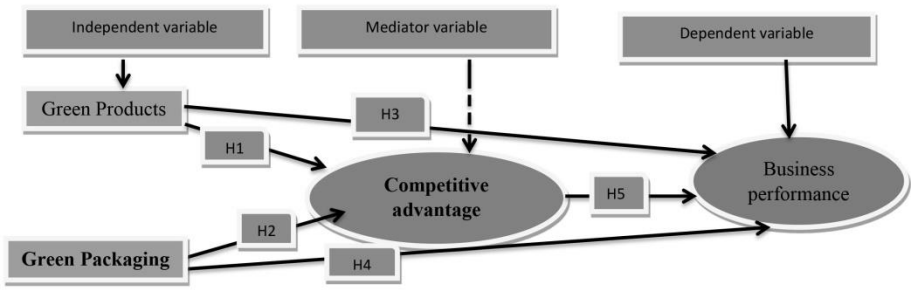
H7: Competitive advantage has a significant mediating relationship between green packaging and business performance

Conceptual Framework

According to Gunzler and Morris (2015), a conceptual framework explains the relationship between the study's variables. The objective of

this study is to test the hypothesis related to green product, green package, competitive advantage, and business performance. In this study, the conceptual framework model suggests a green product and green package are considered as the predictor variables, competitive advantage as the mediating variable, and business performance as the outcome variable. Based on the joining literature related to the research variables, a conceptual model was proposed to guide the empirical study. The conceptual model for this study can be illustrated with a diagrammatic representation of the relationships between all the variables as shown in Figure 1.

Figure 1: Conceptual Framework Model



Source: Prepared by the researchers, 2023.

3. Research Methodology

This study employed an explanatory research design. Explanatory research is typically concerned with determining the relationship between two or more study variables (Malhotra, 2010). The study was conducted to determine the effect of green products and green packaging on business performance: the mediating effect of competitive advantage in the case of medium and large-scale manufacturing firms in Sidama National Regional State of Ethiopia. The specific research design employed for this study was a cross-sectional survey. When a lot of data from a broad population is needed at one time, a cross-sectional survey is utilized (Cooper & Schindler, 2014). The unit of analysis for this study was the medium and large-scale manufacturing firms in Ethiopia. This study deals with each firm's manager's response as an individual data source.

The selection of the firms was derived by using the stratified sampling method that ensures all categories (sectors) of the medium and large-scale manufacturing firms were proportionally represented in the sample. For this study, 318 medium and large-scale manufacturing firms were selected as study samples by applying the Yamane formula from the population of 1546 firms. By considering the level of confidence of 95% and sampling error (margin of error) (5%=0.05).

$no= N/1+N(e)^2$
$no= 1546/1+1546(0.05)^2 \cong 318$

Where
no = sample size
N= population size= 1546
e^2= margin of error at 5%

This formula was preferred in this study because of its simplicity in usage, scientific and applicability in large populations (Yamane, 1967). A structured close-ended questionnaire was used to collect the data. All the items were measured using a five-point Likert scale items presented 1= strongly disagree and 5= strongly agree. Some instrument items were adopted from items originally devised by (Maziriri, 2018) and modified for this study. To ensure an appropriate response rate the questionnaire was pretested from 30 medium and large-scale firms in the study area. This was done mainly to improve the overall look and content of the final data collection instrument. As a result, the questionnaire was revised in terms of readability, wording, and arrangement, and some of the items were omitted based on the feedback received from the pilot study.

Data were analyzed using factor analysis and structural equation modeling. Factor analysis was used to make data more palatable for structural equation modeling analysis and to reduce data to represent a set of variables by smaller numbers. The conceptual model-based hypotheses were put to the test using structural equation modeling (SEM). SEM can address research issues including complex causal linkages between unobserved variables with empirical data (Sung et al., 2018). To perform the SEM analysis, the two-stage approach recommended by Byrne (2013) was adopted.

In the first stage, the measurement model analysis was conducted by specifying the causal relationships between the observed variables and the underlying theoretical constructs. For this purpose, CFA using AMOS version 23 was employed. In the second stage, structural model

analysis was conducted by specifying the causal relationships between latent constructs and testing hypotheses. For this purpose path analysis AMOS version, 23 were applied.

4. Findings and Discussion

Following the scrutiny for missing data, a total of 301 questionnaires were successfully completed from the original sample of 318, resulting in a commendable response rate of 94.7 percent. Out of all the distributed questionnaires, 17 were deemed unusable due to several unanswered items. This 94.7 percent response rate is considered satisfactory for the study, a view aligned with Malhotra's (2010) perspective, which deems a response rate of 50 percent or more as acceptable in social research surveys. Therefore, the study's response rate of 94.7 percent is both substantial and acceptable.

Measure of Reliability and Validity

In this study, to test the reliability of constructs Cronbach's alpha and composite reliability tests were used. Cronbach`s alpha and composite reliability tests are commonly used indicators of internal consistency (Hair et al., 2017). Cronbach alpha coefficient should surpass0.70 which is the threshold. Similarly, the composite reliability test (CR) value should exceed the threshold value of 0.70 (Oluwatayo, 2012). In the current study, the Cronbach alpha coefficient value of constructs ranged from 0.958 to 0.988 which exceeds the 0.70 threshold and is acceptable. In the same way, composite reliability values ranged from 0.876 to 0.963 which is above the 0.70 threshold. This shows all constructs of current studies have good internal consistency.

To test the validity of constructs convergent validity and discriminant validity were used. To check convergent validity inter-item correlation for all the scale items using confirmatory factor analysis was done. As a result, in the current study, the values range from 0.671 to 0.960 which is above 0.50 the threshold (Byrne, 2013). This indicates that there was a unidimensionality of items in the constructs. Furthermore, to check discriminant validity average variance extracted (AVE) was used. AVE values ranged from 0.776 to 0.969 which were above 0.5 thresholds (Oluwatayo, 2012; Byrne, 2013). This result provides evidence that the research scale is acceptable.

Table 1: Summary of reliability and validity analysis result

Research construct		Cronbach`s Test		CR	AVE
		Item-total	Alph value		
GPD	GPD2	0.878	0.958	0.899	0.641
	GPD3	0.910			
	GPD4	0.917			
	GPD5	0.776			
	GPD6	0.934			
GPA	GPA1	0.939	0.976	0.876	0.638
	GPA3	0.932			
	GPA4	0.943			
	GPA5	0.944			
CA	CA1	0.938	0.980	0.939	0.720
	CA2	0.923			
	CA4	0.944			
	CA5	0.949			
	CA6	0.947			
	CA7	0.893			
BP	BP1	0.949	0.988	0.963	0.768
	BP3	0.921			
	BP4	0.958			
	BP5	0.959			
	BP11	0.940			
	BP14	0.939			
	BP15	0.969			
	BP16	0.938			

Source: Prepared by the researchers, 2023

Exploratory Factor Analysis (EFA)

For the current study the Kaiser- Meyer-Olkin (KMO) test value was 0.900 which was greater than 0.60 the threshold indicating that the data was adequate for factor analysis (Sung et al., 2018). Also, Bartlett`s test was significant (P=0.000) as mentioned in Table 2 indicating that the data were suitable for factor analysis. All the commonalities values were greater than 0.60 except for one item CA6 value was 0.590 which is approximately 0.60. The recommended threshold of commonalities greater than 0.6 which is considered the extracted components represents the variable very well (Byrne, 2013).

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.900
Bartlett's Test of Sphericity	Approx. Chi-Square	6029.312
	Df	253
	Sig.	.000

Source: Prepared by the researchers, 2023

Principal components analysis explored the unidimensionality of each scale using an eigenvalue of 1.0 as the cutoff point (Byrne, 2013). Using SPSS, all constructs have been forced into four factors and rotated using the VARIMAX rotation method to assess their loadings.
Accordingly, as the result of the current final study showed; all of the items' values range from 0.765 to 0.968 which is greater than 0.50 loads on their predicted construct that demonstrate a higher degree of association between the latent items and those constructs. The model includes 23 items describing 4 latent constructs: green product (GPD), green package (GPA), competitive advantage (CA), and business performance (BP).

Confirmatory factor analysis (CFA)

To evaluate the model fitness of the proposed model confirmatory factor analysis (CFA) was done. After the modification indices, a few items were deleted to obtain a model that better represents the data. As a result of the deletion, the new model fit summary table 3 shows the overall model fit of the proposed model. Chi-square (CMIN /χ^2=288.357, DF=214, CMIN/DF=1.347) indicates a good model fit (Sung et al., 2018). In addition, the fit statistics for this model indicated a good fit: GFI = .923; NFI = .978; CFI = .994; IFI = .994; TLI=.993; all of them are above the recommended thresholds 0.9 (Kline, 2010). The badness-of- fit is measured by RMSEA and the value is measured at 0.034, fulfilling the threshold value of less than 0.08. Also, the value of all constructs' squared multiple correlations are greater than zero (R^2>0.00). Thus, this can confirm that the Confirmatory Factor Analysis (CFA) model is acceptable.

Table 3: Model fit results (CFA)

S.no	Fit indices	Acceptable threshold	Result	Model fit verification
1	CMIN/DF	≤ 3	1.347	Good fit
2	GFI	≥0.9	0.923	Good fit
3	NFI	≥ 0.9	0.978	Good fit
4	TLI	≥ 0.9	0.993	Good fit
5	CFI	≥ 0.9	0.994	Good fit
6	IFI	≥ 0.9	0.994	Good fit
7	RMSEA	≤ 0.08	0.034	Good fit

Source: Prepared by the researchers, 2023

Structural Equation Modeling (SEM)

After assessing & testing the measurement model& having found it satisfactory by using CFA. The next step in SEM analysis was to evaluate the structural model. It involves the statistical testing of hypothesized relationships between the constructs at a significance level of 0.05. The R2 analyses the variance and showed the explanatory power of the model (Byrne, 2013). The finding of the final model explained 91 percent of the variance in 'competitive advantage' and 91 percent of the model explained variance in 'business performance'. By running SEM analysis fit indices results were shown in table 4.

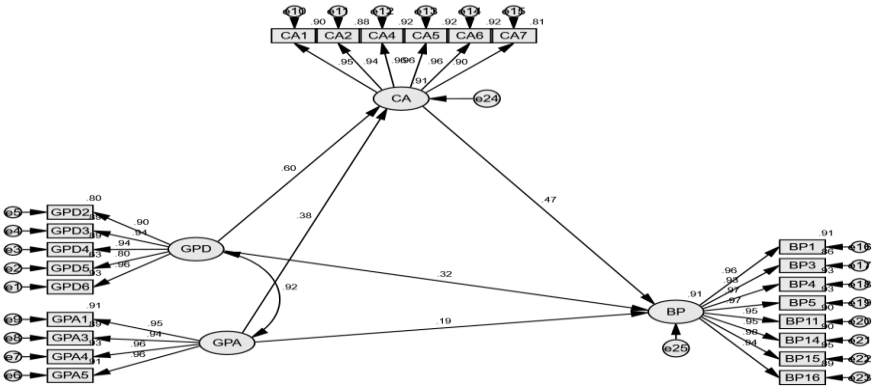
Table 4: Structural Model fit Results (SEM)

S.no	Fit indices	Acceptable threshold	Result	Model fit verification
1	CMIN/DF	≤ 3	1.287	Good fit
2	GFI	≥0.9	0.927	Good fit
3	NFI	≥ 0.9	0.979	Good fit
4	TLI	≥ 0.9	0.994	Good fit
5	CFI	≥ 0.9	0.995	Good fit
6	IFI	≥ 0.9	0.995	Good fit
7	RMSEA	≤ 0.08	0.031	Good fit

Source: Prepared by the researchers, 2023

The results in Table 4 dictate that the value CMIN /χ^2= 272.883, DF=212, CMIN/DF= 1.287 which indicates an acceptable level of model fit (Sung et al., 2018). The incremental model fit: GFI= 0.927, NFI= 0.979, IFI= 0.995, TLI= 0.994, CFI= 0.995 all of them are above the recommended thresholds 0.90 (Kline, 2010). The badness-of-fit is measured by RMSEA and the value was 0.031 which fulfills the threshold value of less than 0.08. Based on the results, it can be concluded that the overall fit indices are acceptable. The final specified model shows all the paths as indicated in Figure 1 below.

Figure 2: Structural model



Source: Prepared by the researchers, 2023

Note: GPD= Green products; GPA= Green packaging; CA= Competitive advantage; BP= Business performance

Hypotheses Tests

Figure 2 illustrates a final validated best-fit model with relevant hypotheses. Lines with arrows indicate hypothesized direct relationship among the different constructs (latent variables). This section provides the results of the preliminary formulated hypotheses developed out of the research hypotheses and objectives. The hypotheses were evaluated by examining standard regression coefficients and p-values. The direction and importance of the relationships are determined by the standard regression coefficient weights whereas the p-value indicates statistical significance at the level of 0.001, 0.01, and 0.05 respectively. Table 5 summarizes the results of the hypotheses tests and discussions presented hereafter.

Table 5: Hypothesized Relationships and Results

Hypotheses	Path/ proposed hypotheses relationship	Estimate	T-statistics	P-value	Accepted /Rejected
H1	Green products ➡ Competitive advantage	0.60	10.237	***	Accepted
H2	Green packaging ➡ Competitive advantage	0.38	6.528	***	Accepted
H3	Green products ➡ Business performance	0.32	4.328	***	Accepted
H4	Green packaging ➡ Business performance	0.19	3.117	0.002	Accepted
H5	Competitive advantage ➡ Business performance	0.47	6.151	***	Accepted

Source: Prepared by the researchers, 20
* Significance level <0.05; ** significance level <0.01; *** significance level <0.001

H1: Green products has a significant effect on competitive advantage

The results (refer to Table5) revealed that green products had a positive significant effect on competitive advantage. The standardized direct effect of green product on competitive advantage was 0.60 (p-value=0.000 <0.05).This means that when green products increases by 1 standard deviation, competitive advantage increases by 0.60 standard deviation. In addition, the finding shows a t-statistics value of 10.237 evidence that green product has a significant effect on competitive advantage. This result is in line with research conducted by Buswari et al. (2021) which showed that green products have a significant impact on competitive advantage. Thus, hypothesis H1 is accepted.

H2: Green packaging has a significant effect on competitive advantage

The results (refer to Table5) revealed that green packaging had a positive significant effect on competitive advantage. The standardized direct effect of green packaging on competitive advantage was 0.38 (p-value=0.000 <0.05).This means that when the green packaging increases by 1 standard deviation, competitive advantage increases by 0.38 standard deviations. In addition, the finding indicates a t-statistics value of 6.528 evidences that green packaging has a positive effect on

competitive advantage. This result is in line with research conducted by Mumbi et al (2021) which showed that green packaging have a significant impact on competitive advantage. Thus, hypothesis H2 is accepted.

H3: Green products has a significant effect on business performance

The results (refer to Table 5) revealed that green products had a positive significant effect on business performance. The standardized direct effect of green products on business performance was 0.32 (p- value=0.000 <0.05). This means that when green products increases by 1 standard deviation, business performance increases by 0.32 standard deviations. In addition, the finding showed a t-statistics value of 4.328 evidencing that green products has a positive significant effect on business performance. This study is in line with research conducted by Buswari et al. (2021) which showed that green products has a significant effect on business performance. Thus, hypothesis H3 is accepted.

H4: Green packaging has a significant effect on business performance

The results (refer to Table 5) revealed that green packaging had a positive significant effect on business performance. The standardized direct effect of green packaging on business performance was 0.19 (p-value=0.002<0.05).This means that when green package increases by 1 standard deviation, business performance increases by 0.19 standard deviation. In addition, the finding showed a t-statistics value of 3.117 evidenced that green packaging has a positive significant effect on business performance. This study is in line with research conducted by Wandosell et al. (2021) which showed that the green packaging has a significant effect on business performance. Therefore, hypothesis H4 is accepted.

H5: competitive advantage has a significant effect on business performance

The results (refer to Table 5) showed that competitive advantage had a positive significant effect on business performance. The standardized direct effect of competitive advantage on business performance was 0.47 (p- value=0.003 <0.05).This means that when competitive advantage

increases by 1 standard deviation, business performance increases by 0.47 standard deviation. Besides, the finding showed a t-statistics value of 6.151, evidenced that competitive advantage has a positive significant effect on business performance. The results of this test can be in line with the results of W-H Goh (2019); Enaizan et al. (2020) and Buswari et al. (2021) researches. Therefore, hypothesis H5 is accepted.

Testing for mediation effect among variables

To test the mediating effect of competitive advantage between the predictor variables (green products and green packaging) and the outcome variable (business performance) AMOS version 23 was used. The standardized regression coefficient and p-values were used to test the proposed relationship. The required thresholds for the p-value must be less than 0.05 (Ringle et al., 2015).

Table 6: Hypothesized Relationships and Results of the Mediation Effect

Hypothesis	Path/proposed hypothesis relationship	Estimate	P-value	Accepted /Rejected
H6	Green products ➡ Competitive ➡ advantage Business performance	0.28	***	Accepted
H7	Green packaging ➡ Competitive ➡ advantage Business performance	0.18	***	Accepted

Source: Prepared by the researchers, 2023

* Significance level <0.05; ** significance level <0.01; *** significance level <0.001

H6: Competitive advantage has a significant mediating relationship between green products and business performance

The results (refer to Table 6) above revealed that the relationship between the independent variable green product and the dependent variable business performance is mediated by competitive advantage. The standardized produced positive path coefficient value was 0.28 (p-value=0.000 <0.05).This means that the mediating variable competitive advantage in this case positively mediates the relationship between green products and business performance. This confirmed that competitive advantage significantly mediates the relationship between green products and business performance. The results of this test can be in line with the result of Maziriri (2018) which shows that competitive advantage has a

mediating impact between green products and business performance. Therefore, hypothesis H6 is accepted.

H7: Competitive advantage has a significant mediating relationship between green packaging and business performance

The result (refer to Table 6) above showed that the relationship between the independent variable green packaging and the dependent variable business performance is mediated by competitive advantage. The standardized produced positive path coefficient value was 0.18 (p-value=0.000<0.05). This portrayed that competitive advantage significantly mediates the relationship between green packaging and business performance. The results of this test can be in line with the result of Maziriri (2018) which should that competitive advantage has a mediating impact between green packaging and business performance. Thus, hypothesis H7 is accepted.

5. Conclusions

This study concludes that green products and green packaging undertaken by medium and large manufacturing firms in the study area affect competitive advantage and business performance significantly. In turn implementation and improvement of green marketing practices (green products and green packaging) result in improved business performance. Competitive advantage significantly mediates the relationship between green marketing practices (green products and green packaging) and business performance. Finally, it is important to enhance the implementation of green marketing practices (green products and green packaging) to gain a competitive advantage and improved overall business performance in medium and large firms in the study area. This study has several implications: to policy, theory and practice moreover, it contributes to prevent serious consequences from happening to society's welfare and the only option to save our planet. The research also highlights some research limitations and suggestions for future research hereafter. This research is not free from limitations. The results of this study are based on the data collected through questionnaires from medium and large manufacturing firms and only a quantitative approach was applied. Another limitation of the results of this study cannot be generalized to other manufacturing industries other than medium and large manufacturing firms. So that it is recommended

that future research should determine green marketing practices in other categories of industries. Furthermore, future studies can introduce other appropriate moderation or mediation variables like innovation and attitude between green marketing practices (green products and green packaging) and business performance.

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