



Effects of market orientation on sustainable competitive advantage in Ethiopia's manufacturing industry

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Abstract	Article Information
<p><i>The manufacturing industry is essential for the growth of the economy, with the food and beverage subsector representing a major contributor to Ethiopia's industrial growth. To evaluate the relationship between market orientation and sustainable competitive advantage, this explanatory study surveyed 293 high- and mid-level managers from food and beverage manufacturing firms in Addis Ababa and Shaggar, Ethiopia. Participants were determined through a combination of stratified and purposive sampling techniques. SEM (AMOS 23) was applied, while EFA and CFA were applied using SPSS 27. The KMO values for sustainable competitive advantage (0.900) and market orientation (0.820), together with a $p < 0.001$ value, confirmed the suitability of the data for further analysis. The structural model demonstrated strong goodness-of-fit indices, including $RMR = 0.020$, $GFI = 0.956$, $AGFI = 0.928$, $NFI = 0.981$, $IFI = 0.992$, $TLI = 0.989$, $CFI = 0.992$, and $RMSEA = 0.048$. The findings revealed that market orientation exerts a significant positive influence on sustainable competitive advantage, emphasizing its strategic importance in improving the long-term competitiveness of Ethiopia's food and beverage manufacturing firms. The study contributes to market orientation and competitive advantage literature and provides practical suggestions for policymakers and industry practitioners.</i></p>	<p>Article History: Received: 15-04-2026 Revised: 12-05-2026 Accepted: 28-06-2026</p> <hr/> <p>Keywords: <i>Sustainable competitive advantage, Market orientation; Manufacturing industry; Food and beverage sector, Structural Equation Modeling (SEM); SPSS</i></p>
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INTRODUCTION

Manufacturing is essential for the growth of the economy (Jaeger & Upadhyay, 2020). When it grows, it helps poorer countries a lot and is closely linked to increasing exports and reducing poverty (Abreha et al., 2020). Worldwide food and beverage manufacturing industries are advancing steadily and competitively, with Africa increasingly recognized as a high-growth market (Geylani et al., 2021). In 2021, the sector accounted for nearly USD 313 billion and is estimated to grow to USD 1 trillion by 2030. This growth is because

of more people, cities growing, changes in population, and more people wanting processed foods (Erzse et al., 2022). African consumers, especially those in cities with higher incomes, have changed their food habits a lot over the last 50 years.

In the Ethiopian context, manufacturing industries (food and beverage) are essential for the country's industrial and economic development. It provides a lot of jobs, adds value to the economy, and is home to many businesses. The sector remains

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the largest within manufacturing, contributing significantly to national output and employing over one-third of the manufacturing workforce ([Hotessa & Robe, 2020](#)).

Manufacturing companies must build and maintain a sustainable competitive advantage that is vigorous for strategic longevity and to deal with the challenges related to market and customer needs volatility. SCA arises from implementing unique value-creating strategies that competitors find difficult to imitate ([Pu et al., 2023](#)). It also involves identifying factors that strengthen a firm's market position and enable companies to familiarize themselves with the volatile market and changing customer needs ([Eslami et al., 2021](#)).

Meanwhile, manufacturing industries must understand and meet customer needs and market changes ([Meisya & Surjasa, 2022](#)). This requires adopting market orientation, which involves gathering, sharing, and acting on market intelligence to meet customer demands. Firms with strong market orientation track customer preferences and adjust strategies accordingly. In general, marketing and market orientation are crucial in emerging industries like Ethiopia for gaining a competitive advantage ([Festa et al., 2022](#)).

Statement of Problem

The fast-paced global business environment, with short product life cycles and intense competitive pressures, necessitates firms to develop compliant organizational skills that can respond rapidly to customer changes and conserve a sustainable competitiveness ([Peças et al., 2023](#)). Since the principal objective of a business is to maximize owners' wealth, this can only be achieved through sustainable revenue growth and effective investment decisions ([Shodiya et al., 2019](#)).

The role of market orientation in strategic decision-making lies with firms' understanding of customer needs, following competitors, and adapting to market shifts to establish competitiveness and boost business revenue ([Lusiana et al., 2024](#)). In various fields, marketing scholars regard market orientation as a vital

Sci. Technol. Arts Res. J., April–June, 2026, 15(2), 172-187 strategic imperative for company success. According to recent studies, market-focused companies are better equipped to anticipate customer requirements, adjust to competitive factors, and outperform competitors in diverse sectors like manufacturing, services, or small and medium-sized enterprises ([Kawishe et al., 2025](#)). Despite this widely acknowledged importance, keeping industry competitive requires organizations to focus on aspects such as quality, speed, customer market orientation (i.e., competition awareness), and innovation. Moreover, in addition to addressing market-related issues, scholars argue that the VRIO criterion must be met, i.e., valuable (rarity), incomparable, unattainable, and non-replaceable of a product or service to assure enduring competitiveness ([Majeed et al., 2025](#)).

However, few studies directly correlate market orientation with sustainable competitive advantage. Despite some other factors, there are limitations in managing the impact of other variables ([Wang et al., 2022](#)). The food and beverage industry requires additional studies to comprehend the aspects that affect this relationship ([Isa et al., 2024](#)). Market-oriented firms frequently embed sustainability into their strategic planning; nonetheless, there is still a significant knowledge gap concerning its direct impact on sustainable organizational performance ([Zhang, 2024](#)). Additionally, existing empirical studies are geographically concentrated in developed countries like the USA, Sweden, and Japan, as well as a few parts of Africa, making it problematic to generalize the study results to contexts such as Ethiopia. This regional imbalance highlights the need for context-specific research in Ethiopia's manufacturing industries. Despite its important contributions and ongoing challenges, this study examined the impact of market orientation on sustainable competitive advantage. It focused on Ethiopia's food and beverage manufacturing sector, with particular attention to firms operating in Addis Ababa and the Shaggar City Administration. [Figure 1](#) shows the conceptual framework.

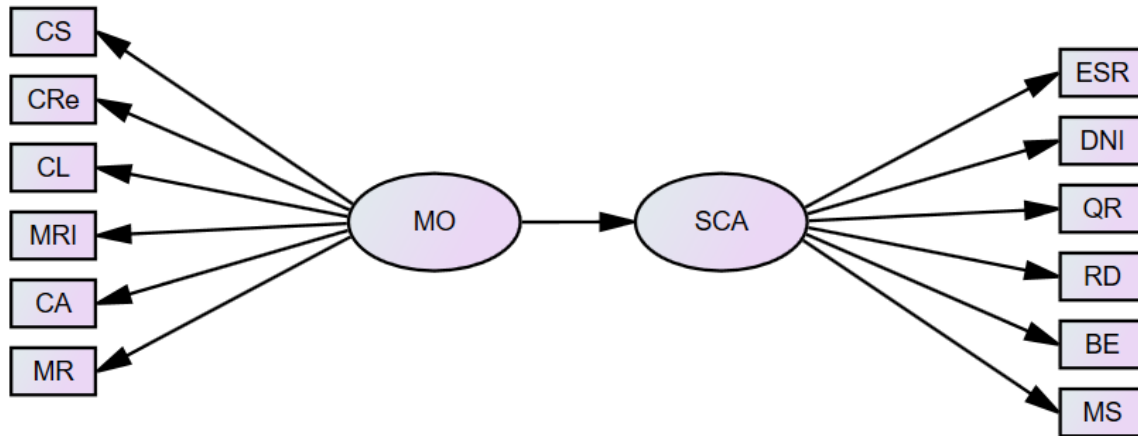


Figure 1. The Study Conceptual Framework

Note: Market orientation (MO); MO Indicators: Customer satisfaction (CS), Customer retention (CRe), Customer loyalty (CL), Market research investment (MRI), Competitor analysis (CA), Market responsiveness (MR). Dependent Variable (DV): Sustainable competitive advantage (SCA), Environmental and social responsibility (ESR), Distribution network and infrastructure (DNI), Quality and reliability (QR), Research and development investment (RD), Brand equity (BE), Market share (MS).

Hypothesis

- H1: There exists a significant positive relationship between market orientation and sustainable competitive advantage.
- H1a: Customer satisfaction significantly and strongly reflects market orientation.
- H1b: Customer retention significantly and strongly loads on market orientation.
- H1c: Customer loyalty significantly and strongly affects market orientation.
- H1d: Market research investment significantly and strongly influences market orientation.
- H1e: Competitor analysis significantly and strongly impacted market orientation.
- H1f: Market responsiveness significantly and strongly loads on market orientation.
- H2a: Market share significantly and strongly affects sustainable competitive advantage.
- H2b: Brand equity significantly and strongly loads on sustainable competitive advantage.
- H2c: Research and development investment significantly and strongly loads on sustainable competitive advantage.

- H2d: Quality and reliability significantly and strongly load on sustainable competitive advantage.
- H2e: The distribution network and infrastructure significantly and strongly affect the sustainable competitive advantage.
- H2f: Environmental and social responsibility significantly and strongly load on sustainable competitive advantage.

MATERIALS AND METHODS

Study Design and Sample Population

The study uses an explanatory research design to examine the relationship between MO and SCA (Sakyi et al., 2020). This research focused on large-scale food, alcohol, and non-alcoholic manufacturing firms as its primary target population, selecting entities active in Addis Ababa and Shaggar cities.

Sampling Techniques

This study used purposive and stratified sampling. Purposive sampling was used to address knowledge-intensive issues, while strata were

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applied to ensure representativeness across a heterogeneous population (Saegusa, 2021).

The broader population for this study comprises 1,103 Ethiopian food and beverage manufacturing enterprises, of which roughly 64% (706 entities) are concentrated in the cities of Addis Ababa and Shaggar. This study purposively targeted the large-scale segment of this group,

Sci. Technol. Arts Res. J., April–June, 2026, 15(2), 172-187 focusing on 45% of those firms, which equated to a sample size of 318. Respondents were drawn proportionally from diverse manufacturing streams, specifically wheat flour, pasta, biscuits, dietary oils, confectionery, chewing gum, beer, wine, and various other beverage lines. Following data cleaning, 293 questionnaires provided valid data for the empirical analysis (Table 1).

Table 1

Sampling and sample size

No.	Manufacturing Sector (Strata)	Target Sample Size (n)	Valid Responses Realized
1.	Beer factories, Wine factories, and Alcoholic liquor factories	n=64	~59
2.	Edible oil factories	n=36	~34
3.	Bottled water factories	n=118	~109
4.	Wheat, spaghetti, and biscuit factories	n=82	~75
5.	Candy and chewing gum factories	n=18	~16
Total	All Sectors	N=318	~293

Data Collection Tools and Response Rate

To collect primary data, the study utilized structured, closed-ended surveys administered to mid- and top-level managers in the sector. This survey format optimized data collection by keeping the questions strictly relevant to the study's aims, allowing for efficient participant responses and straightforward data entry (Taherdoost, 2022).

Among the manufacturing firms selected, 318 higher and middle-level managers were sent questionnaires. Whereas 293 were sent back and found to be valid for analysis, the rest were left unfinished. Consequently, the investigation achieved a 92.1% response rate. A return rate of this magnitude is highly satisfactory for multivariate analysis and reinforces the reliability of the empirical findings.

Instrument development and measurement Scale

A Likert scale was employed to create questionnaires that measure respondents' attitudes (Taherdoost, 2022). The five-point scale (ordinal measurement), ranging from strongly disagree (1) to strongly agree (5) (Jebb et al., 2021). The

dependent variable was assessed by measuring six indicators of market share, brand equity, research and development investment, quality and reliability, distribution network infrastructure, and environmental and social responsibility. Market orientation, an independent variable, incorporated six indicators: customer satisfaction, retention, loyalty, investment in market research, competitor analysis, and market response, which were assessed using 27 items. We retained the items of both variables by means of EFA using PAF along with the promax rotation method, to find the underlying factor structure and confirm construct validity (Watkins, 2020).

Empirical Model Specifications

The empirical analysis was grounded in CB-SEM (Covariance-Based Structural Equation Modeling) model, this method commonly recognized for its utility in confirmatory factor analysis (CFA) and hypothesis verification (Hair et al., 2025). The technique allowed for the systematic examination of the direct path mapping the effect of market orientation (MO) onto sustainable competitive advantage (SCA) (Figure 2).

$$MO = \beta_0 + \beta_1 * CS + \beta_2 * CR + \beta_3 * CL + \beta_4 * MRI + \beta_5 * CA + \beta_6 * MR + \epsilon \quad (1)$$

$$SCA = \beta_0 + \beta_1 * MS + \beta_2 * BE + \beta_3 * RD + \beta_4 * QR + \beta_5 * DNI + \beta_6 * ESR + \epsilon \quad (2)$$

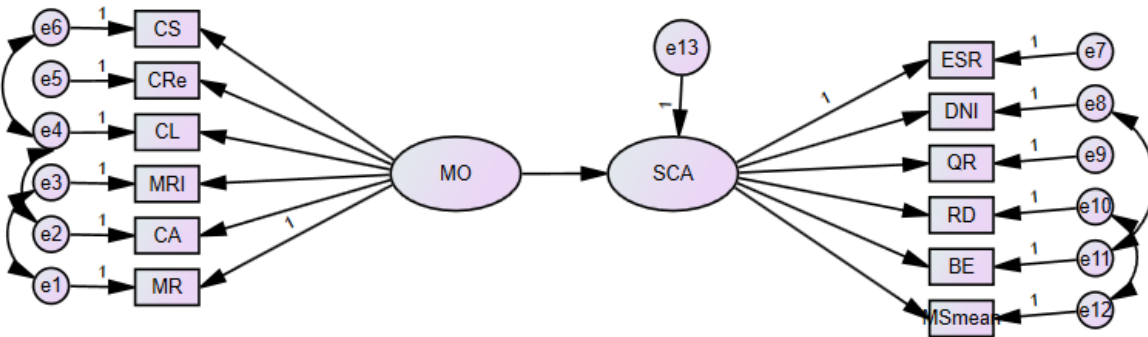


Figure 2. Study the structural equation model (SEM)

RESULTS AND DISCUSSION

Results

This study analyzed the questionnaire data in two steps. First, the model fitness (measurement) was assessed using construct and discriminant validity, and reliability test using AMOS 23 in conjunction with exploratory factor analysis (EFA) performed using SPSS 27. Second, to test the hypotheses, SEM was employed.

Measurement model assessment

The model was verified several times to ensure its validity. PAF with Promax rotation was used to determine the factors with eigenvalues > 1. Based on Exploratory factor analysis (EFA), the results indicated three factors for sustainable competitive edge and six factors with eigenvalues ≥ 1 that are relevant to market orientation. From market orientation items, CR5, MI1, and MR1 were removed from further consideration. By obtaining KMO values of 0.900 and 0.820, we established that SCA is an excellent sampling technique and MO is highly effective, respectively. Bartlett's tests of Sphericity for both constructs (p<0.001) were observed and demonstrated satisfactory associations among variables. Collectively, these preliminary metrics endorse the integrity of the data, establishing its readiness for formal factor analysis and structural equation modeling.

We conducted a reliability test using Cronbach's alpha (α). The findings revealed a sustainable

competitive advantage, measured using 27 questions, attained a Cronbach's alpha (α) value = 0.922, demonstrating an outstanding consistency (internal). Similarly, market orientation, measured with 27 items, had a Cronbach's alpha of 0.842, indicating good reliability. Both values exceeded the customary threshold (0.70). Thus, the scales are consistent and appropriate for subsequent CAF and SEM model testing (Kusmaryono et al., 2022).

The first-order measurement model for all dimensions of SCA showed strong factor loadings: market share (0.726-0.887), brand equity (0.777-0.890), R&D investment (0.836-0.888), quality and reliability (0.774-0.861), distribution network (0.810-0.911), and environmental and social responsibility (0.798-0.975) (Figure 3). Generally, the SCA construct is reliable and valid for structural analysis. Similarly, the first-order measurement model for six market orientation indicators shows strong factor loadings (0.89-0.926), indicating excellent convergent validity. Customer retention and customer satisfaction have the highest loadings, highlighting the importance of long-term customer relationships (Figure 4). Other indicators, such as market research investment, competitor analysis, customer loyalty, and market responsiveness, also load strongly, confirming that effective market intelligence generation, dissemination, and responsiveness are key dimensions of market orientation.

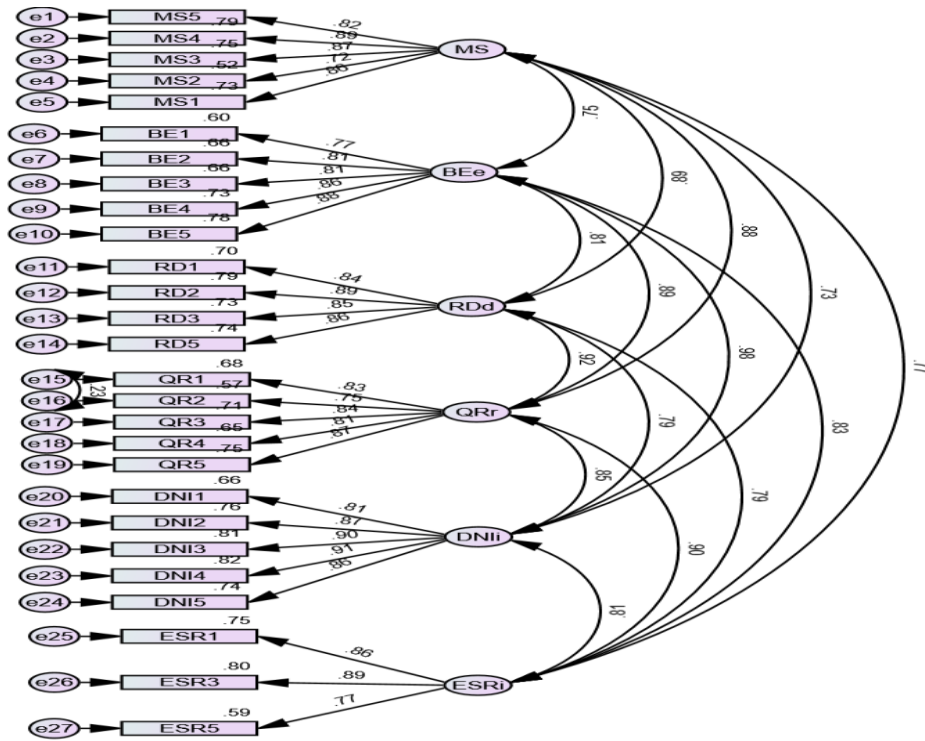


Figure 3. First-order measurement model for the dependent variable (SCA)

The Sustainable Competitive Advantage (SCA) measurement model revealed an acceptable to good fit (Table 2). The chi-square value (CMIN/DF=1.904) (<3) indicates a good fit. Also, the absolute fit shown by RMR (0.035), GFI (0.873), and AGFI (0.844) suggested an acceptable

fit. Similarly, NFI (0.928), RFI (0.917), IFI (0.964), TLI (0.959), and CFI (0.964) surpassed the 0.90 threshold. In addition, RMSEA = 0.056 shows a good fit. Overall, the CFA model sufficiently characterizes the study data.

Table 2

First-order measurement model fitness for sustainable competitive advantage

S.No	Model Fit Index	Fit Value
1	CMIN/DF	1.904
2	RMR	0.035
3	GFI	0.873
4	AGFI	0.844
5	NFI	0.928
6	RFI	0.917
7	IFI	0.964
8	TLI	0.959
9	CFI	0.964
10	RMSEA	0.056

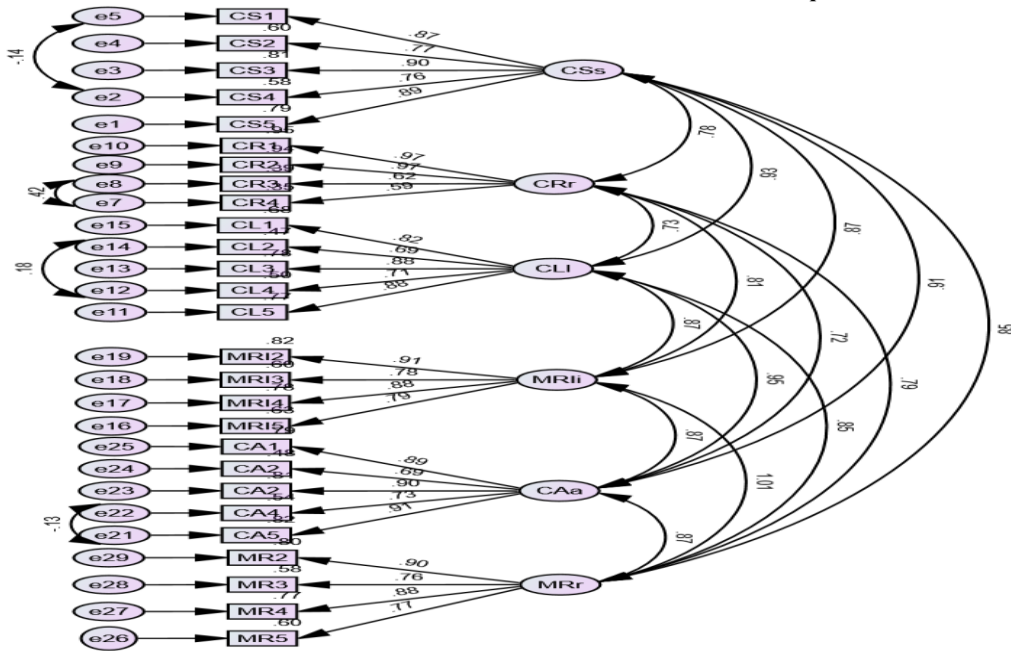


Figure 4. First-order confirmatory measurement model for MO (Independent variable)

The default model showed good overall fit (Table 3) with CMIN/DF=1.709 (<3), indicating a great improvement over the independence model. The absolute fitness for the model showed that RMR (0.084), GFI (0.886), and AGFI (0.858) were

acceptable. Incremental fitness is also shown by the results of NFI (0.917), RFI (0.904), IFI (0.964), TLI (0.958), and CFI (0.964), indicating a very good fit. RMSEA = 0.049 also confirmed a close model fit.

Table 3

First-order measurement model fitness for MO

S.No	Model Fit Index	Fit Value
1	CMIN/DF	1.709
2	RMR	0.084
3	GFI	0.886
4	AGFI	0.858
5	NFI	0.928
6	RFI	0.904
7	IFI	0.964
8	TLI	0.958
9	CFI	0.964
10	RMSEA	0.049

The standardized regression weights for the market orientation second-order construct show strong factor loadings, all of which are above the suggested threshold of 0.70. The factor loading results from 0.810 for CRr to 0.963 for MRi

dimensions, demonstrating that the indicators reliably represent the MO construct. These results confirm good construct validity and support the adequacy of the MO second-order measurement model (Figure 5).

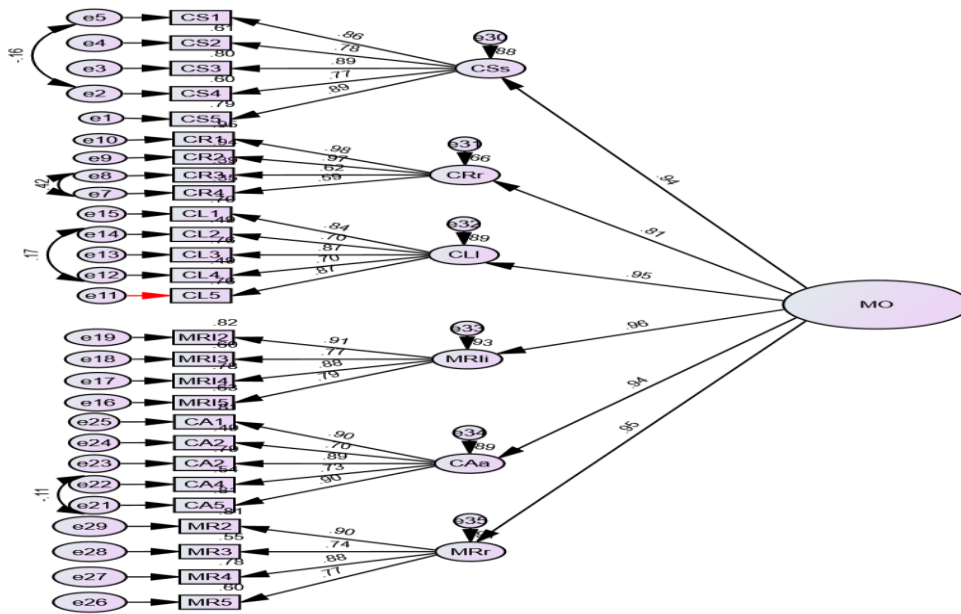


Figure 5. Second-order construct measurement model for the independent variable

The second-order market orientation (MO) measurement model shows an acceptable to good fit. The (CMIN/DF = 2.023) indicates a reasonable fit despite a significant chi-square. The absolute fitness results shown by RMR (0.089), GFI (0.897), and AGFI (0.878) are within acceptable ranges.

Incremental fitness results are also shown as NFI (0.902), RFI (0.901), IFI (0.934), TLI (0.938), and CFI (0.936), bypassing 0.90, demonstrating a good fit, confirming suitability for structural model analysis (Table 4).

Table 4

Second-order model fitness for MO

S.No	Model Fit Index	Fit Value
1	CMIN/DF	2.023
2	RMR	0.089
3	GFI	0.897
4	AGFI	0.878
5	NFI	0.902
6	RFI	0.901
7	IFI	0.934
8	TLI	0.938
9	CFI	0.936
10	RMSEA	0.052

Structural validation via a second-order CFA for SCA fitted the data exceptionally. All underlying first-order constructs loaded heavily onto SCA, displaying the following coefficients: quality and reliability (0.971), BEe (0.937), distribution network and infrastructure DNie (0.912), RDe

(0.912), ESR (0.891), and MS (0.870). Because all values cleared the required 0.70 benchmark, construct validity is fully supported, highlighted by quality and reliability as the most critical factor (Figure 6).

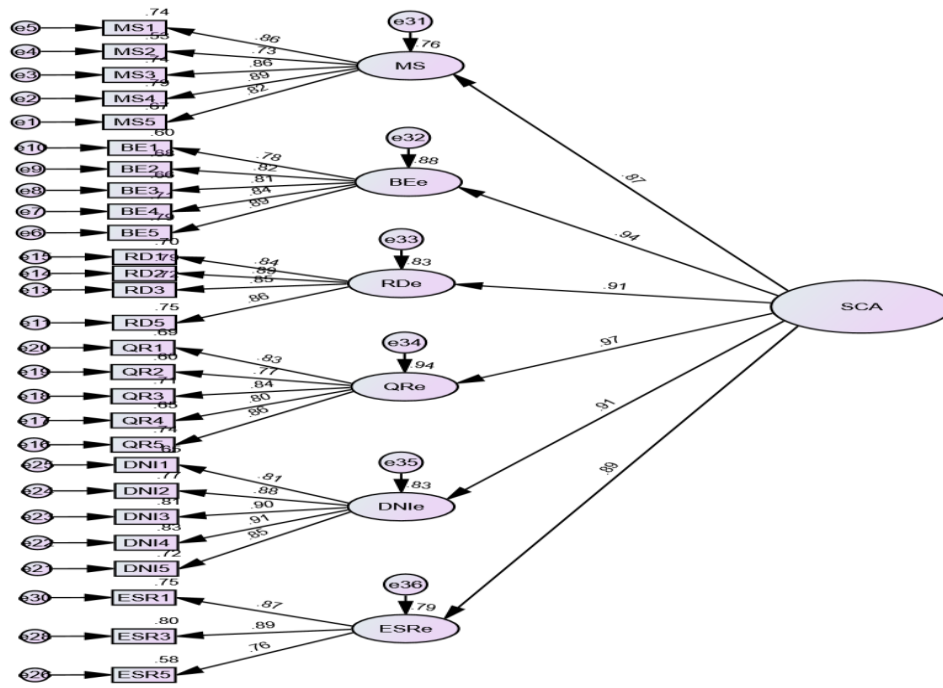


Figure 6. Second-order measurement model for the dependent variable

Table 5

Second-order measurement model fitness test for SCA

Fit Index	Obtained Value	Recommended Threshold	Model Fitness Interpretation
CMIN/DF	2.117	< 3.00	Acceptable Fit
RMR	0.053	< 0.08	Good Fit
GFI	0.912	≥0.90	Good Fit
AGFI	0.893	≥0.80	Acceptable Fit
PGFI	0.842	≥0.50	Good Fit
NFI	0.929	≥0.90	Good Fit
RFI	0.927	≥0.90	Good Fit
IFI	0.974	≥0.90	Excellent Fit
TLI	0.969	≥0.90	Excellent Fit
CFI	0.972	≥0.90	Excellent Fit
RMSEA	0.060	≤0.08	Acceptable Fi

The fitness statistics compiled in Table 5 confirm that the measurement model aligns robustly with the collected data. The absolute fit properties displayed satisfactory levels, characterized by an RMR = 0.053, a GFI = 0.912, and an AGFI = 0.893. All evaluated incremental fit indexes, NFI = 0.929,

RFI = 0.927, IFI = 0.974, TLI = 0.969, and CFI = 0.972, all surpassed the extensively accepted minimum threshold of 0.90, indicating a highly superior fit compared to the independence model. Additionally, parsimony and error optimization were supported by an RMSEA = 0.060, establishing an acceptable fit.

Table 6

Measurement Model Evaluation: Reliability, Convergent, and Discriminant Validity of MO

Construct	CR	AVE	MSV	ASV	CS	CR	CL	CA	MR	MRI
CS	0.913	0.677	0.714	0.578	0.823					
CR	0.882	0.663	0.608	0.590	0.759	0.814				
CL	0.899	0.642	0.632	0.502	-0.820	0.767	0.801			
CA	0.910	0.671	0.526	0.599	-0.721	0.764	-0.791	0.819		
MR	0.896	0.684	0.661	0.633	0.815	-0.771	0.601	-0.787	0.827	
MRI	0.903	0.703	0.561	0.542	-0.702	0.780	-0.712	0.809	-0.728	0.839

Discriminant and convergent validity for the market orientation dimensions were confirmed. CR ranging from 0.882 to 0.913, which is above the suggested 0.70, indicating strong reliability (Cheung et al., 2024a). AVE value ranges from 0.642 to 0.703, which supports validity

(convergent). Furthermore, the \sqrt{AVE} (discriminant validity), ranging from 0.801 to 0.839, also exceeds inter-construct correlations, while MSV and ASV are lower than AVE, as shown in Table 6.

Table 7

Reliability and Convergent Validity of SCA Constructs

Construct	CR	AVE	MSV	ASV	MS	ESRe	BEe	DNie	RDe	QRe
MS	0.918	0.692	0.412	0.286	0.832					
ESRe	0.880	0.711	0.398	0.271	0.462	0.843				
BEe	0.917	0.689	0.421	0.294	0.517	0.548	0.830			
DNie	0.940	0.758	0.436	0.309	0.494	0.522	0.611	0.870		
RDe	0.919	0.739	0.429	0.301	0.481	0.506	0.587	0.642	0.860	
QRe	0.914	0.679	0.448	0.318	0.539	0.563	0.621	0.668	0.655	0.824

Source: Model analysis via AMOS and the Fornell-Larcker Criterion Calculator (Gaskin, 2025).

Structural verification through a second-order CFA validates the reliability and validity of the SCA model (measurement). The indicators reflect strong internal consistency shown by CR scores between 0.880 and 0.940. Convergent validity is likewise confirmed, with AVE estimates ranging from 0.679 to 0.758 to demonstrate adequate variance extraction. Moreover, discriminant validity was confirmed across all dimensions because every construct's AVE proved greater than its corresponding MSV and ASV values. These results collectively guarantee that each sub-dimension represents a unique empirical property within the overarching SCA framework (Table 7).

The result in Table 8 demonstrates that the SCA measurement model is reliable and valid. Composite reliability (0.880-0.940) confirms strong internal consistency, while the AVE value is

> 0.50, which establishes convergent validity. Also, discriminant validity was assessed, as well as the MSV and ASV. The \sqrt{AVE} are 0.865 for SCA and 0.907 for MO, and the values on the diagonal are > 0.367 (inter-construct correlation), representing that each construct shares more variance with its indicators. In addition, both AVE values exceeded MSV (0.135) and ASV (0.224), further confirming validity (discriminant). The MO measurement model also demonstrates strong reliability and validity. Composite Reliability 0.92 confirms excellent internal consistency, while AVE values (0.823) above 0.50 establish convergent validity (Hair et al., 2021), and validity (discriminant) is supported, with MSV and ASV also below AVE for all constructs. Overall, the model is suitable for structural analysis and hypothesis testing.

Table 8

Reliability, validity, and discriminant validity-Fornell-Larcker Criterion

Construct	Indicator	Loading	CR	AVE	MSV	ASV	SCA	MO
SCA	MS	0.832	0.91	0.748	0.135	0.224	0.865	0.367
	BE	0.856						
	RD	0.874						
	QR	0.951						
	DNI	0.837						
	ESR	0.833						
MO	CS	0.917	0.92	0.823	0.135	0.224	0.367	0.907
	CRe	0.926						
	CL	0.898						
	MRI	0.909						
	CA	0.901						
	MR	0.891						

Structural Model

The study used CB-SEM operationalized using AMOS 23 to investigate the influence of MO on

SCA in the Ethiopian food and beverage manufacturing industry, as shown in Figure 7.

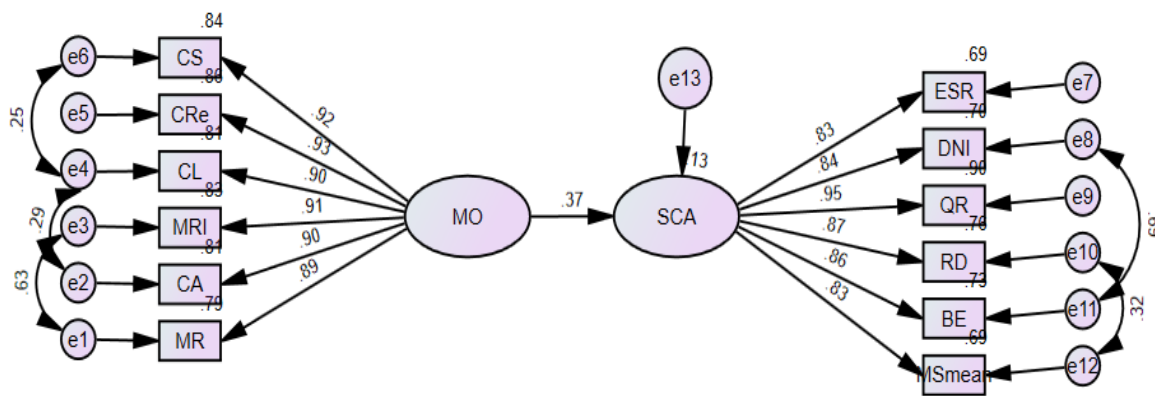


Figure 7. CB- SEM

The structural model, as shown in Table 9, has an excellent overall fit. The DMIN/DF is 1.679 with a P = 0.002, which, while statistically significant due to sample sensitivity, is common in SEM with large samples. Other fit indices designate excellent model fit: RMR (0.020) suggests low residual error, GFI (0.956) and AGFI (0.928) exceeded the conventional thresholds of 0.90, indicating good

absolute fit. Also, NFI = 0.981, RFI = 0.974, IFI = 0.992, TLI = 0.989, and CFI = 0.992, all exceeded 0.95, showing excellent incremental fitness. The RMSEA = 0.048, which is < the cut-off point 0.05, resulting in a low error of approximation, confirming the proposed model exhibits a highly pleasing fit to the target population parameters.

Table 9*Structural Model Fit Indices*

t Index	Value	Recommended Threshold	Interpretation
CMIN/DF	1.679	≤ 3.00	Excellent fit
P-value	0.002	< 0.05	Significant model
RMR	0.020	< 0.08	Excellent fit
GFI	0.956	≥ 0.90	Good fit
AGFI	0.928	≥ 0.80	Good fit
NFI	0.981	≥ 0.90	Excellent fit
RFI	0.974	≥ 0.90	Excellent fit
IFI	0.992	≥ 0.90	Excellent fit
TLI	0.989	≥ 0.90	Excellent fit
CFI	0.992	≥ 0.90	Excellent fit
RMSEA	0.048	≤ 0.08	Close fit

Hypotheses Testing

We performed hypothesis testing to determine the significance and effect of MO and its measurement indicators on the dependent variable (SCA) and its respective measurement indicators, as presented in the Hypothesis section. As a result, the structural equation model results discovered that MO has a significant positive consequence on SCA with $\beta = 0.325$, $CR = 6.100$, and $p < 0.001$. Therefore, H1 is supported, confirming stronger market-oriented practices on sustainable competitive advantage, supporting previous studies (Harjadi et al., 2020).

Regarding the dimensions of market orientation, the results show that customer satisfaction, customer retention, customer loyalty, market research investment, competitor analysis, and market responsiveness all significantly and strongly load on market orientation, with critical ratios well above the recommended threshold and p-values below 0.001. Thus, H1a-H1f are supported, indicating that these collectively represent key components of the market orientation construct. Contemporary studies that consider market orientation as a multidimensional strategic capability, including customer focus, competitor intelligence, systematic market research, and the ability to respond to market fluctuations, agree with this finding. Strong market-oriented practices are associated with a greater tendency to encourage

customer retention and loyalty by actively collecting and interpreting market information.

Similarly, the indicators of SCA, including market share, brand equity, research and development investment, quality and reliability, distribution network and infrastructure, and environmental and social responsibility, all show significant and strong loadings on SCA. The high critical ratios and significant p-values confirm that H2a-H2f are supported. These results imply that the selected indicators accurately reflect the multidimensional nature of sustainable competitive advantage. Overall, the findings demonstrate that market orientation significantly contributes to sustainable competitive advantage, while the identified indicators measure the constructs of both independent and dependent variables.

Discussion

The dataset for this study was compiled from middle and top management personnel representing the target firms under evaluation. Grounded in the association (cause-effect) mapping market orientation onto sustainable competitive advantage, the conclusions reached herein are highly consistent with preceding studies executed in different corporate and institutional environments. The results reveal a significant positive relationship between market orientation and sustainable competitive advantage. Market orientation impacts

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sustainable competitive advantage both directly ($\beta = 0.325, p < 0.001$) and indirectly through its key dimensions such as customer satisfaction (CS), customer retention (CR), customer loyalty (CL), market responsiveness (MR), and market research investment (MRI), which support the role of market-oriented practices in strengthening firm competitiveness (Guo et al., 2021).

Furthermore, the results show that indicators of sustainable competitive advantage (i.e., market share, brand equity, quality and reliability, research and development investment, distribution network and infrastructure, and environmental and social responsibility) load strongly on the SCA construct. Among the examined dimensions, quality and reliability exhibit the strongest factor loading (0.951), emphasizing their central importance in sustaining competitive advantage through consistent performance and dependable service delivery. This outcome is consistent with dynamic capability theory, which views superior quality and reliability as valuable and hard to replicate strategic assets (Shebeshe & Sharma, 2024). The results also reveal that innovation capability and brand strength play significant roles, reinforcing their importance in securing long-term competitiveness, in agreement with (Puspitasari & Kusumawardhani, 2023). Overall, these dimensions collectively serve as key indicators in explaining sustainable competitive advantage within the industry, aligning with earlier empirical evidence (Koshksaray et al., 2023).

Regarding Market Orientation (MO), all six indicators exhibit robust factor loading (0.891 to 0.926), revealing excellent convergent validity. The highest loadings are observed for Customer Retention (0.926) and Customer Satisfaction (0.917), emphasizing that maintaining long-term customer orientation is a core element of market-oriented strategy, which significantly improves firm performance (Kumera et al., 2024). This result is consistent with findings that indicate marketing competence increases Ethiopian manufacturing firms' competitiveness as a source of superior performance (Wakgari et al., 2024). Overall, the results confirm that organizations that adopt strong

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market-oriented practices are more likely to sustain their competitive advantage in dynamic business environments.

CONCLUSIONS

The results demonstrate that market orientation positively and significantly influences sustainable competitive advantage. The study underscores that organizations that effectively generate market intelligence, respond to customer needs, and monitor competitors can better position themselves to achieve long-term competitive benefits.

The results also indicate that dimensions of market orientation play a key role in strengthening firms' competitive positions. Similarly, indicators of sustainable competitive advantage, including market share, brand equity, quality and reliability, research and development investment, distribution networks, and environmental and social responsibility, significantly contribute to sustaining organizational competitiveness. Specifically, quality and reliability exhibit the strongest factor loading, emphasizing their central importance in sustaining competitive advantage. Similarly, for market orientation, customer retention and customer satisfaction are the major dimensions that contribute to sustainable competitive advantages of the manufacturing industries (food and beverage). Overall, the study confirms that manufacturing firms with strong market-oriented practices are more capable of developing strategic capabilities that support long-term performance and competitive advantage. Therefore, the industry (food and beverage manufacturing) should strengthen market-oriented strategies that enhance its competitiveness in increasingly dynamic market environments.

Recommendation

Based on the findings, manufacturing firms should strengthen market-oriented practices by continuously monitoring customer needs and improving customer satisfaction, retention, and loyalty. Managers should invest in market research and competitor analysis to enhance market responsiveness and support effective strategic

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decision-making. Manufacturing industries are also fortified to improve product quality and reliability, expand research and development activities, and strengthen their distribution networks to increase market share and brand equity as well. In addition, integrating environmental and social issues into business strategies can further enhance sustainable competitive advantage. Policymakers and industry stakeholders should support these efforts by promoting policies and programs that encourage market-driven strategies, innovation, and sustainable competitiveness in the manufacturing sector.

CRedit Authorship Contribution Statement

Kumala Tolessa Gadeffa: Conceptualization, Methodology, Data Curation, Formal analysis, Investigation, Software, and Writing original draft. **Zerihun Ayenew Birbirs**a: Supervision and Writing Review and editing. **Misganu Getahun Wedajo:** Supervision and Writing Review and editing.

Declaration of Interest

The authors declare that there are no competing interests regarding this study.

Ethical Approval

Not Applicable

Data Availability Statement

Data will be readily accessible upon request to the corresponding author.

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