

Upshot of supply chain assimilation and competitive advantage on organizational performance in Ethiopia, Hawassa Industrial Park

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Abstract

Purpose: The aim of the investigation remained to observe the upshot of supply chain assimilation (SCA) and competitive advantage towards organizational recital in Ethiopian industrial Park corporation special reference of Hawassa Industry Park.

Research methodology: To that end, the study adopted an explanatory research design with a mixed approach; and it utilizes a stratified sampling technique to select the relevant firms. In cooperation, first-hand and second-hand sources of data were accessed.

Results: SCA has a considerable effect on both competitive advantage and Business recital and SCA has an indirect considerable upshot on Business recital over and done with a competitive advantage in the case firms'.

Limitations: The study has been unable to see the upstream side of the firms from the perspective of their supplier since they are located abroad but from the firms' perspective.

Contribution: This study has a significant contribution to firms that are engaged in manufacturing, ministers of trade and investment, and future researchers.

Keywords: Competitive advantages, Exporting business, Industry park development, Organizational performance, Supply chain assimilation

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1. Introduction

Currently, in the strengthened competitive overall business atmosphere, firms are prompted to recognize that providing the greatest value to clients at the least cost is related to the activities of the whole of the supply chain, rather than only the function of the individual organization (Ipek, et al 2011). Due to this increased level of competition in the global economy, companies evolve in searching for improved ways of satisfying customers and sustaining a competitive advantage. As clients become further conscious of their needs & aware of their enhanced choices, quicker response period, squatter product phase, and personalized products and services are located at the exact essential of dynamic and reactive value chains, targeting to provide extra worth for the clients. This implies that the culture of customers should be considered to compete in the current global market environment ([Forozandeh, 2021](#)). Therefore, according to [Barlow & Lee \(2005\)](#) to become very competitive in the business environment, firms necessarily need a supply chain.

Due to the increasing competitiveness in the marketplaces suited worldwide onwards 1990s, thus the contests related to attainment of a product and service to the correct location at the precise period at the least cost similarly increased ([Lia, Ragu-Nathan, & Rao, 2006](#)). As a result of this, companies are initiated to understand that self-optimization is not sufficient; rather, the entire supply chain should be viable (Ibid). The idea of this value chain has expected increasing consideration from authors, specialists, and business executives similarly. In support of this, [Jones \(1998\)](#) specifies that since the 1990s as a result of the complex market environment, businesses are realizing SCM is the building block for viable competitive superiorities.

SC is the integration of vital business practices starting from final consumers via original providers which provide goods, amenities, and data that adds value for end-users and other interested party ([Lambert et al, 2000](#)). [Frohlich and Westbrook \(2001\)](#), [Lummus et al. \(2008\)](#) recommended that assimilation leads to improved business enactment. And also these investigators argue that companies with superior supply chains assimilation will have better performance on different metrics.

Ethiopian firms are not sufficiently getting the benefits of supply chain management (SCM) due to a lack of assimilation, alliances, and lack of willingness to exercise supply chains. As [Hagos \(2018\)](#) stated in his research, the traditional way of managing from dealers to consumers is just a buy and sale association. Furthermore, [Felke \(2016\)](#) also suggested that in Ethiopia, supply chain integration is in its infancy stages. There are a petite number of businesses assimilating it into their institutional structure and most commerce has main gaps esteem their performance due to a lack of adequate Supply Chain Integration (SCI).

According to [Pagell \(2004\)](#), supply chain management is instituted on assimilation. [Madhani \(2012\)](#) explores the association between vertical assimilation and the whole enactment of the business and brings into being the broadest degree of arc assimilation, with dealers and clients having a robust relationship with enactment upgrading. The study measured the diversity of integrative activities and several enactment metrics with market share, viability, yield, and client gratification for a worldwide example of producers.

In support of this, [Liu et al \(2013\)](#) provided experiential indication for the moderating upshot of market direction on the association among supply chain assimilation and business enactment for industrial and service businesses in China exposed that interior assimilation and buyer-supplier association coordination considerably linked to business enactment in mutual interactions.

In consideration of the above studies, insufficient research has deliberated mutually the upstream and downstream borders of the supply chain integration concurrently, and they did not consider the internal issues of integration. This study aims to measure the supply chain integration (SCI) effect in sustaining competitive advantage and its impact on organizational performance, and there are no published studies that link SCI and performance through competitive advantage. Specifically, in our country, some studies were conducted, but the researchers cannot find studies that developed this distinctive model from the manufacturing companies' perspective.

Even though the importance of supply chain assimilation and competitive benefit on organizational enactment, there is a lack of studies that link supply chain assimilation and competitive advantage on organizational enactment in Ethiopia; this study seeks to contribute to infilling this gap. This study will measure SCI from four constructive measurements which are customer and supplier integration, which is called vertical integration; internal and information integration, which is called horizontal integration. This study will shed light on the effects of supply chain integration on competitive gain and business enactment in IPDC with special reference to Hawassa industrial park.

This study aimed at meeting the following specific objectives:

- a. To expound the upshot of supply chain integration in achieving organizational performance.
- b. To examine the effect of competitive advantage in improving competitive advantage.

- c. To study the result of competitive advantage on organizational performance.
- d. To explore the result of supply chain integration on organizational performance through competitive advantage.

2. Literature review

Supply chain integration/ assimilation

Almost all of the supply chain articles recommend amalgamation between SC members to enhance business recital in terms of distribution, excellence, suppleness, and charge of the process, for instance; [\(Devaraj et al, 2007; Droge et al, 2004; Flynn et al, 2010; & Swink et al, 2007\)](#). Specifically, [Lambert, D.M., & Cooper, M.C. \(2000\)](#) argued that, the amalgamation of commercial practices from end-consumer over-initial dealers that offers products, services, and information to improve worth used for consumers.” Supply chain management is the synchronization of events, contained by, and among straight-up allied businesses, with the ambition of helping final clients with the return. The view is supply chain amalgamation initiates by client instructions prompting fabrication practice & encompasses back over the business which does the industrial and at that point to the source of resources over acquisition via together material and facility dealers. Therefore, amalgamation is required inside and outside the firms

Constructs of Supply Chain Assimilation (SCA)

Numerous supply chain Works [\(Vikas, 2017\)](#) [\(Barbara, Baofeng, & Xiande, 2009\)](#) classify interior assimilation, supplier assimilation, customer assimilation, and information assimilation as the main indicators of SCI. Therefore; this research is intended to examine their effect on competitive benefit and Firm recital.

Competitive advantage

According to [McGinnis & Vallopra \(1999\)](#) and [Power et al., \(2001\)](#), competitive advantage is the scope to which a business is capable of making an invulnerable condition over its rivals. Competitive advantage encompasses competencies that permit a business to distinguish itself from its rivals and is a result of serious management decisions. [\(Tracey et al., 1999\)](#). Various researches have remained a quite reliable cost, excellence, distribution, and agility as significant economical abilities [\(Tracey et al., 1999\)](#). [Koufteros et al. \(1997\)](#) define a study outline for competitive competencies and describe the next five measurements: competitive valuing, least cost, worth to buyer superiority, reliable conveyance, and making innovation. Grounded on prior literature [\(Suhong et al., 2006\)](#), measurements of the competitive advantage concepts deployed in this investigation were cost, quality, delivery, and flexibility. Competitive advantage is the importance a business offers to their clients which is a new enterprise that allows offering alike value. Competencies of business might offer a viable benefit over the actors [\(McGinnis & Vallopra, 1999\)](#).

Business performance

Organizational performance states in what way a business attains its market concerned goals in addition to its financial objectives [\(Yamin et al., 1999\)](#). The temporary goals of Source sequence supervision are mainly to raise output and decrease material and round period, though continuing goals are to advance market share and profits for entire participants of the supply chain [\(Tan et al., 1998\)](#). Financial measures have functioned as a device designed for linking business and valuing a business's comportment over time [\(Holmberg, 2000\)](#). Hence, financial performance may be negatively affected by board mechanisms [\(El Idrissi, & Alami, 2021\)](#). Each business's ingenuity, comprising demand chain controlling, must eventually prime to improved organizational recital. [Suhong et al., \(2006\)](#) estimate organizational performance employing mutually financial and market measures, comprising profit on investment, market segment, profit margin on sales, the development of return on investment, the increase of sales, the growth of market share, and general competitive place. Based on prior works similar dimension was altered to assess organizational performance in this investigation.

Empirical review

Association amongst supply chain assimilation and Competitive benefit

According to [Devaraj et al., \(2007\)](#); [Droge et al., \(2004\)](#); [Flynn et al., \(2010\)](#); [Swink et al., \(2007\)](#); [Wong et al., \(2011\)](#) Assimilation among supply chain members gives enhanced business performance concerning distribution, excellence, flexibility, and cost of doing business. In support of these, [Lambert, D.M., & Cooper, M.C. \(2000\)](#) claimed that “the assimilation of organization practices with end-users over-main suppliers that offer products, services, and information to enhance worth for clients.” The concept of supply chain integration originates through client demand, activating the manufacturing process and prolongs back over the business which ensures manufacturing and formerly to the source of supplies over procurement by together inventory and service providers. Accordingly, assimilation is required both internally and on the outside. To support this, [Flynn et al. \(2010\)](#) explain supply chain integration is the way that producers work together advantageously with their SC allies. And also jointly lead within and without business practices, for the reason to accomplish actual and well-organized products, services, and information flow to deliver superior value to their client”. Integration of supply chain activities will take effect on the organization's competitive advantage. SCI activities are hypothetical advances in a firm's competitive advantage with the cost, quality, distribution reliability, time to market, and product innovation.

Therefore, upon this, the researchers hypothesized that: *If there is supply chain integration, there will be a positive and significant association with a competitive advantage.*

The association amongst supply chain integration with firms enactment

A supply chain comprises every movement correlated to the stream of merchandise starting from raw materials to the end customer. These accomplishments are also linked to the financing data stream ([Panayides et al., 2009](#)). [Larson et al., \(2002\)](#) state that a supply chain is a business “networking “that implicates the source and downstream interactions that produce a worth to fulfill consumers' requests. A virtuous association with the final consumer is precisely essential to advancing a fruitful supply chain. Thus as per [Cook & Garver \(2002\)](#), a supply chain is requisite to be nearby with its final buyer to construct a willing bond in order preparation. Supply chain recital touches the capability to deliver buyer worth, particularly in the greatest rudimentary breadth of the accessibility of goods. Improved firm performance certainly can facilitate several desirable outcomes related to economic development, growth, and resilience ([Barkhamet et al., 2006](#)).

Supply chain repetition can support firms in producing and delivering products or services to the customers at lower cost and higher speed through the improvement in supply chain performance ([Kim, 2009](#)). Past supply chain research has shown how the sharing of order-related information reduces the upstream amplification of errors in forecasting demand signals and reduces the bullwhip effect ([Lee et al., 2000](#)). The integration of technology, people, business, and processes is crucial for survival and competitive edge in the current digital age and this is trifling only within the organization but also across extended enterprises ([Wad & Nassar, 2010](#)). Supply chain management is one of the most strategic functions of an organization that can be exploited to gain a sustainable competitive advantage in the marketplace.

Integration in the supply chain has been found to improve the performance of the chain therefore organizations need to set out clear-cut indicators on what they intend to measure ([Vikas et al, 2017](#)). Therefore; based on this it is hypothesized that: *Supply chain integration has a positive and significant relationship with organization performances.*

The linkage between competitive benefit and organizational rendition

Usually, competitive benefit proposes, taking further than one competence revealed further down once it is linked with the players, a small level of values, a greater level of superiority, great trustworthiness, and a low-lying period for distribution. Taking a viable benefit normally proposes that a business could ensure additional of the next competencies once related to its rivals: least charges, advanced excellence, advanced trustworthiness, and a low-lying conveyance time. These

competencies will require, in greater, boosts the firm's whole enactment ([Mentzer et al., 2000](#)). Viable benefit can crucial to great intensities of the profitable recital, consumer gratification and allegiance, and association value. Greater trademark with customer faithfulness faceless viable exchanging in their objective sections, in this manner accumulative transactions and profitability. Organizations that provide first-class goods can take the finest costs and consequently raise business revenue on transactions and profit on assets. A business devising a minimum period to the marketplace and fast invention could be the original in the marketplace. Hence, the business can enjoy a greater market segment and transactions capacity.

Thus, based on this, it is hypothesized that: *Competitive advantage of the firm has a positive and significant relationship with organizational performance.*

3. Research methodology

In addressing its specific objectives, the study involved a mixed research approach; that is, combinations of qualitative and quantitative methods were utilized. For this study, 18 manufacturing companies in Hawassa Industrial Park (HIP) engaged in exporting were considered. Those were selected randomly, and the target populations for this study were all higher-position staff of the companies, i.e. 720. To determine sample size, the researchers selected a representative sample based on stratified sampling. Determine an appropriate sample size that requires producing steady model results depends on the complexity of the hypothesized model and further related issues. The sample size recommended by different writers designed for the structural Equation model should be greater than 200 cases ([Barbara et al., 2009](#)) since the study going to deploy SEM for data analysis, the total sample size of the study were 257.

The study accessed both primary and secondary sources, to collect data related to its major concern. In gathering primary data, the study was conducting a series of observations, key-informant interviews, and a 5-point Likert scale questionnaire like other researchers ([Naab, & Bans-Akutey, 2021](#); [Ricardianto et al., 2021](#)) that measure the variables included in the dependent, independent, and mediating variables. Moreover, the study was undertaking in-depth reviews of different documents; to exploit relevant secondary data, from available, published as well as unpublished sources. Procedures for content analysis and statistical analysis were carried out. Like [Amegayibor \(2021\)](#) statistical Package for Social Sciences (SPSS) 20.0 Versions were used descriptive (percentage) analysis and inferential statistics with structural calculation model/SEM through the support of Analysis of Moment Structures (AMOS) software version 23 was utilized to analyze data collected through survey questionnaires (Five scale Likert questions).

Conceptual framework

The theoretical structure of this investigation presents the supply chain assimilation context established in the current research. The conceptual outline intends that supply chain assimilation will have an upshot on the firm's reputation, directly and indirectly over competitive advantage. Supply chain assimilation is abstracted as four latent variables, they are customer assimilation, supplier integration, internal integration, and information assimilation.

Competitive advantage is measured by a four-dimensional construct (i.e. price/cost, quality, flexibility, and distribution). While organizational performance is measured from a marketing and financial performance perspective ([Suhong et al., 2006](#)). To that end, the study wants to validate the following research hypotheses:

- H1:** *If there is Supply chain assimilation, there will be a positive and significant association with organization performances.*
- H2:** *If there is Supply chain assimilation, there will be a constructive and momentous association with a competitive advantage.*
- H3:** *Competitive advantage of the firm has a positive and significant association with organizational performance.*
- H4:** *Supply chain integration has a positive and significant association with organization performances through competitive advantage.*

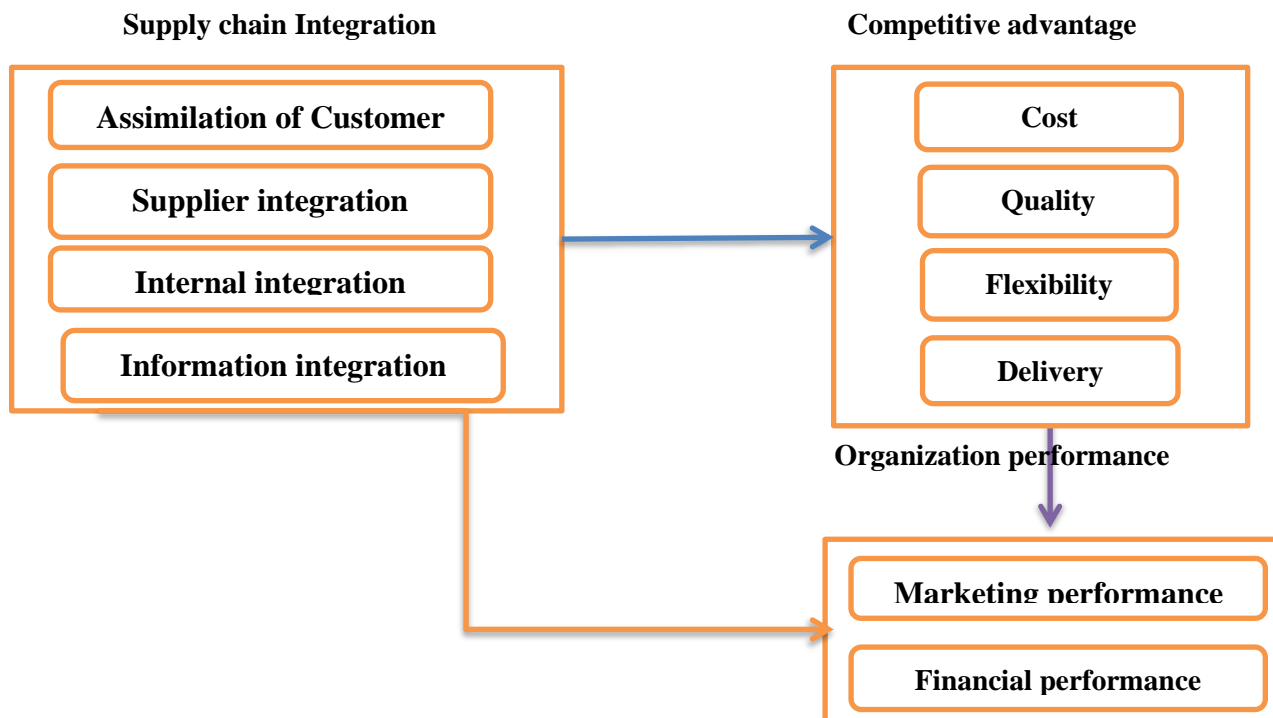


Figure 1. Conceptual framework
Source: Author conceptualized

4. Research findings and discussion

Preliminary analysis (Result of measurement model)

As [Hales \(2016\)](#) stated that the normality of data studied in view of skewness and kurtosis of the scattering designs. For normality, skewness describes the proportion of the spreading, whereas kurtosis indicates the “peakedness” of a distribution. Both skewness and kurtosis value indicates that the distribution of the data was normally distributed or not.

According to [Cramer \(1998\)](#) the value of skewness and kurtosis should anywhere in the extent of ± 2 . Therefore, the value of skewness and kurtosis within the range of ± 2 is considered as a normal distribution. For this study, skewness and kurtosis of all variables items were tested and all items were within the range of ± 2 . Therefore; from the normality test results of this study is considered as a normally distributed

Validity test (Content and convergent validity)

In this study validity of the ten (10) items was tested using Confirmatory Factor Analysis (CFA) via AMOS 23 and content validity. Prior to the CFA test of the items, the researchers checked content validity. Content validity was checked by getting the questionnaire reviewed by an academician to make some wording adjustments and to avoid jargon words and languages.

The figure below reviews the output of the CFA for the measurement model. The 10 construct items' validity was assessed by squared multiple correlations (R²). The values (R²) measure the strength of the linear relationships of the construct. In this study, all items factor values are greater than 0.6, which shows an acceptable level of the model. The assessment ranges between one and zero (0 – 1). The expected range of consistent loadings for weighty indicators is 0.7 but 0.6 is considered to be a tolerable level (Zikmund, 2003). To assure statistical support for a measurement model fit, the following mentioned indices like Goodness-Of-Fit (GFI), Adjusted Goodness of Fit (AGFI), Comparative Fit (CFI), Normed Fit (NFI), Incremental Fit (IFI), Root Mean Square Error of Approximation (RMSEA) indices and PCLOSE were verified. That way to the main to estimate the fitness of the dimension model. The output indicates that the measurement model is strongly fit. The model fit indices are summarized in the table below.

Table 1. Model fit

Model Fit indices	RMSEA	GIF	AGFI	CFI	NFI	IFI
Result	.055	.974	.970	.894	.880	.977

Source: Survey data (2019)

As indicated in the figure below, the standardized factors loading for 47 items were loaded beyond 0.6 with the level of significance (p-value) being < 0.05. Founded in figure 1 factor loading result of the model fit, assumed that all 47-measurement items demonstrated an adequate model fit.

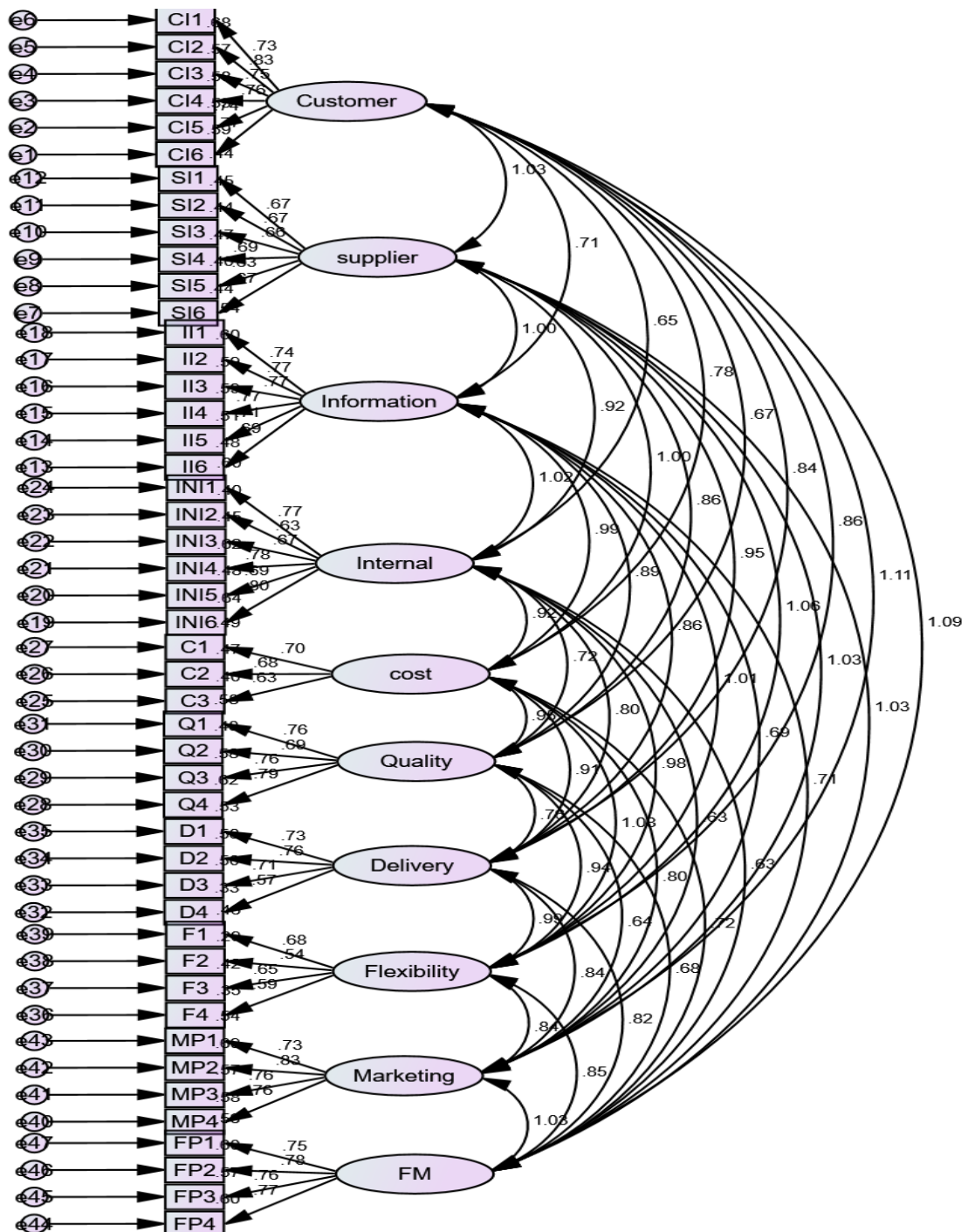


Figure 2. Model fit
Source: Survey data (2019)

Confirmation of Second-order measurements

This investigation remained to highlight SC assimilation, viable benefit, and business enactment hypothesized as an advanced order model. In this case, SCI consists of four dimension variables, CA has four measurement variables, and finally to measure business performance the study used two dimensional variables. Structural equation modelling using Amos software version 23 was deployed to examine whether the advanced order construct is suitable for SC assimilation, organizational performance, and viable benefit.

Herewith figure two, three, and four indicate the output of second-order factor analysis in AMOS 23 for Supply chain assimilation, organizational performance, and Competitive advantage respectively. According to [Hair et al., \(2013\)](#), an upper-order construct can be tolerable while it has a good model fitting and analytical power.

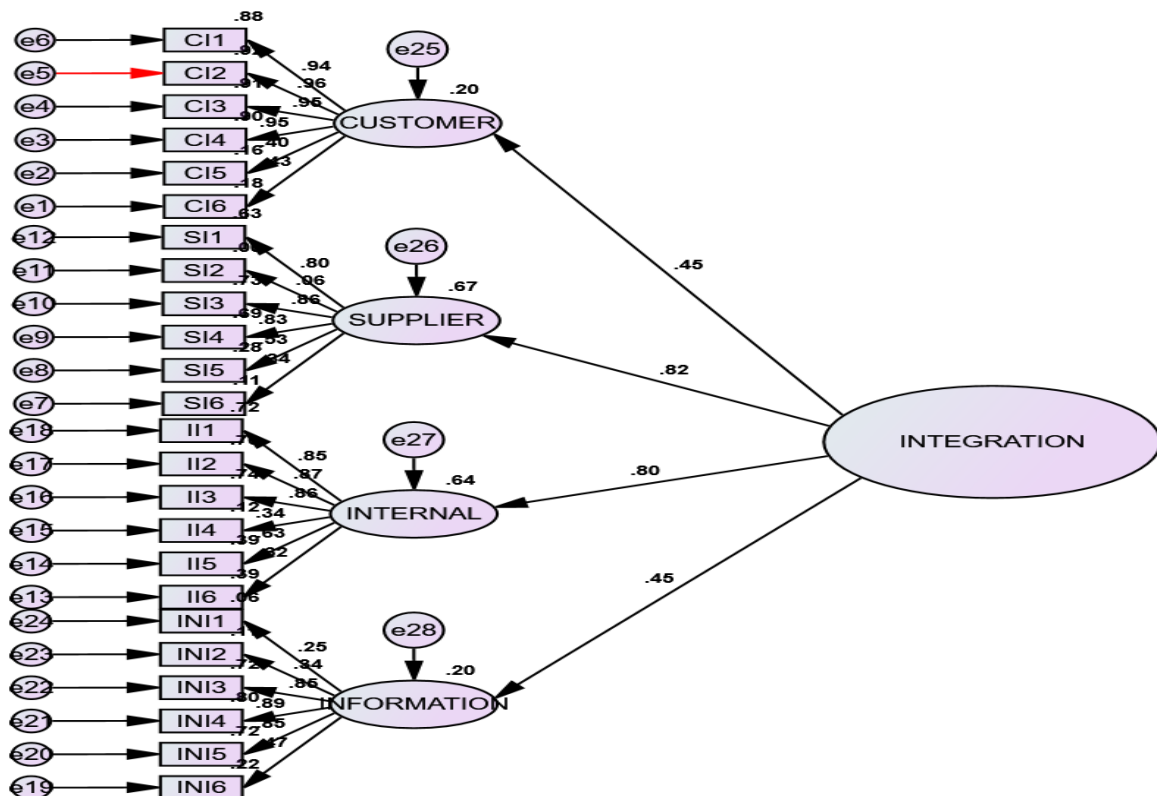


Figure 3. Second order construct of Supply chain integration
Source: Survey data (2019)

The appropriate measurements for the upper order construct for SCI is GFI=.93, AGFI=.95, and the RMSR =.043, signifying a rational model-data fit. Remained momentous value is a significant value of <.05.

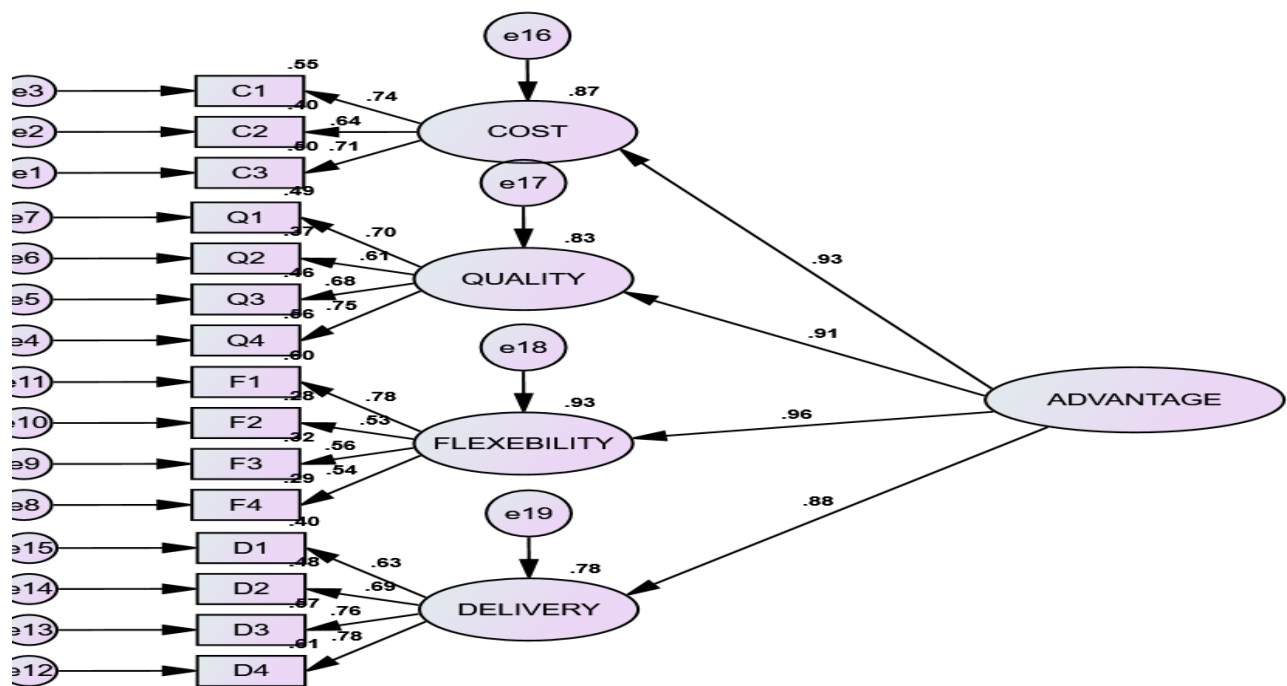


Figure 4. Second-order construct of Competitive advantage
Source: Survey data (2019)

For competitive advantage, indicators are GFI=.846, AGFI=.895, and the RMSR =.013, which specifies a strong model fit, and is significant at $P < .05$.

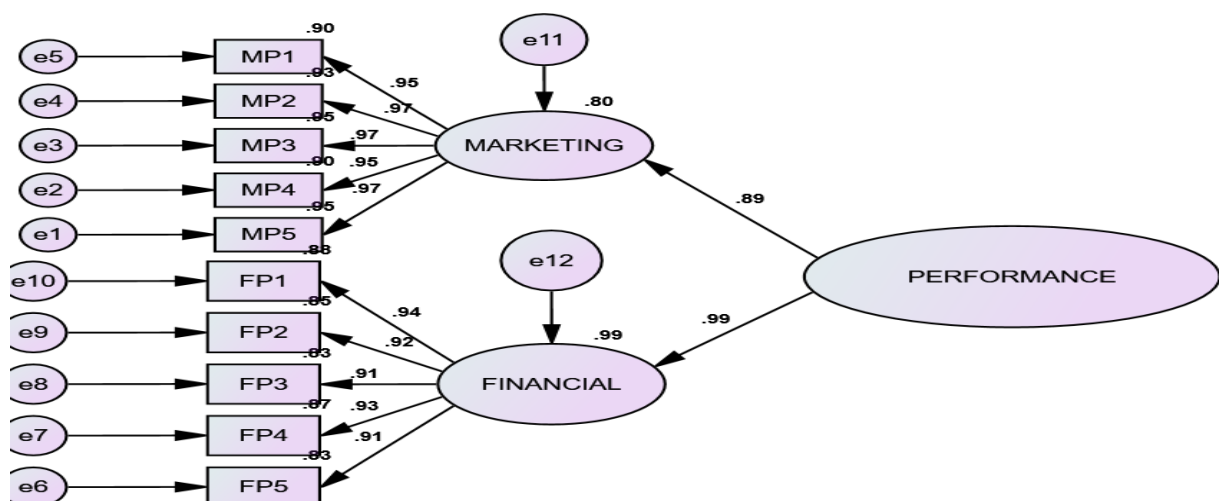


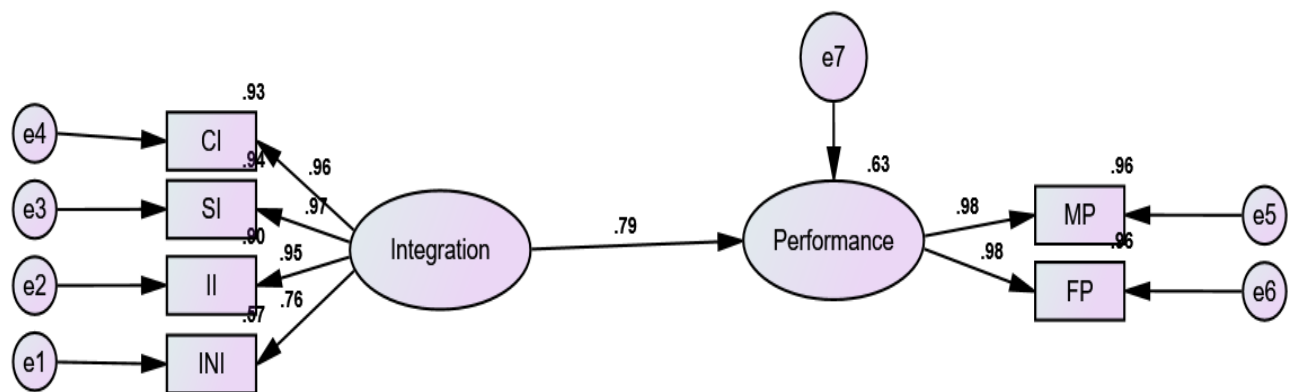
Figure 5. Second-order construct of organizational Performance
Source: Survey data (2019)

In the case of organizational performance, indicators are perfectly fit. GFI=.967, AGFI=.995, and the RMSR =.003, which specifies a good model fit. And the measurements were all statically significant at $P < .05$. This indicates this study does not have a model fit problem.

Structural Equation Mode result and Hypotheses testing

Structural equation modeling is a sequence of arithmetical approaches that let multifaceted associations amongst one or more independent and dependent variables. In supporting this, [Daniel & Assefa \(2018\)](#) explained that SEM is a group of numerical representations that pursues to expound interactions between numerous variables. It allows investigators to study associations between numerous dependent and independent variables instantaneously. In the current investigation, the dimension model is estimated by employing the highest possibility calculation methods.

Firstly, the direct impacts of the independent variable (i.e. supply chain assimilation) on the dependent variable (business enactment) were evaluated. The result of the straight influence of supply chain assimilation on organizational performance is depicted in figure five.



Integration: refers to Supply chain assimilation and

Performance: refers to organizational performance

Figure 6. Structural Equation Modeling of the Direct Effect

Source: Survey data (2019)

The statistical outcome of the direct upshot of supply chain assimilation on business enactment is shown in Table 2 that β is 0.79 and it has a positive and significant at (significant-value < 0.05). The direct influence of supply chain integrations on business performance is considered a large impact size as [Cohen \(1990\)](#) argued. According to [Cohen \(1990\)](#) the impact extent of 0.371 or beyond is well-thought-out large, concerning 0.100 and 0.371 is can be said that medium and 0.1 or less is said to be small. Table 3. Summery of Structural Equation summarized the direct link of SCI and organizational performance.

Table 2. The straight effect of supply chain assimilation (SCA) on organizational enactment

Dependent Var.		Independent Var.	Estimate	S.E.	C.R.	P-Value	Result
OP	<---	SCI	.792	.089	12.961	0.001	Significant

Source: Survey data (2019)

In this study after testing the direct result of the exogenous variable on an endogenous variable, a mediator (Competitive advantage) was introduced in the investigation of the path diagram resulting from the SEM using AMOS version 23.

Mediation states that a condition that contains three or extra variables, and there is a causative relation amongst all variables. While the intermediary variable comes into the model analysis, the straight outcome would be condensed meanwhile some of the outcomes have moved over the intermediary ([Awang, 2012](#)). The mediating variable introduced in the model leads to a reduction of the direct

effect; nevertheless still momentous, the arbitration result is named “partial mediation”. Conversely, if the straight upshot is condensed and not momentous at a P-value of < 0.05 , then intervention is named complete mediation.

While evaluating the mediator, here are the dual distinct outcomes that would exist. That is a straight outcome and an indirect outcome. The direct result from the exogenous variable directly to the endogenous variable, though the indirect outcome is the upshot from the exogenous variable to the endogenous variable indirectly over the mediating variable.

Figure seven provides the path analysis of the model. SCI is an independent variable; OP is a dependent variable, and CA is a mediator in the model. The single-headed arrow shows the causal upshot of supply chain assimilation on organizational enactment. Supply chain integration on Viable benefit, and Competitive advantage on business enactment. In figure 7, the investigators examined the straight effect of SCA on business enactment and Competitive benefit, the straight effect of Viable benefit on business enactment, and also the indirect upshot of supply chain assimilation on organizational enactment with the mediation of modest advantage.

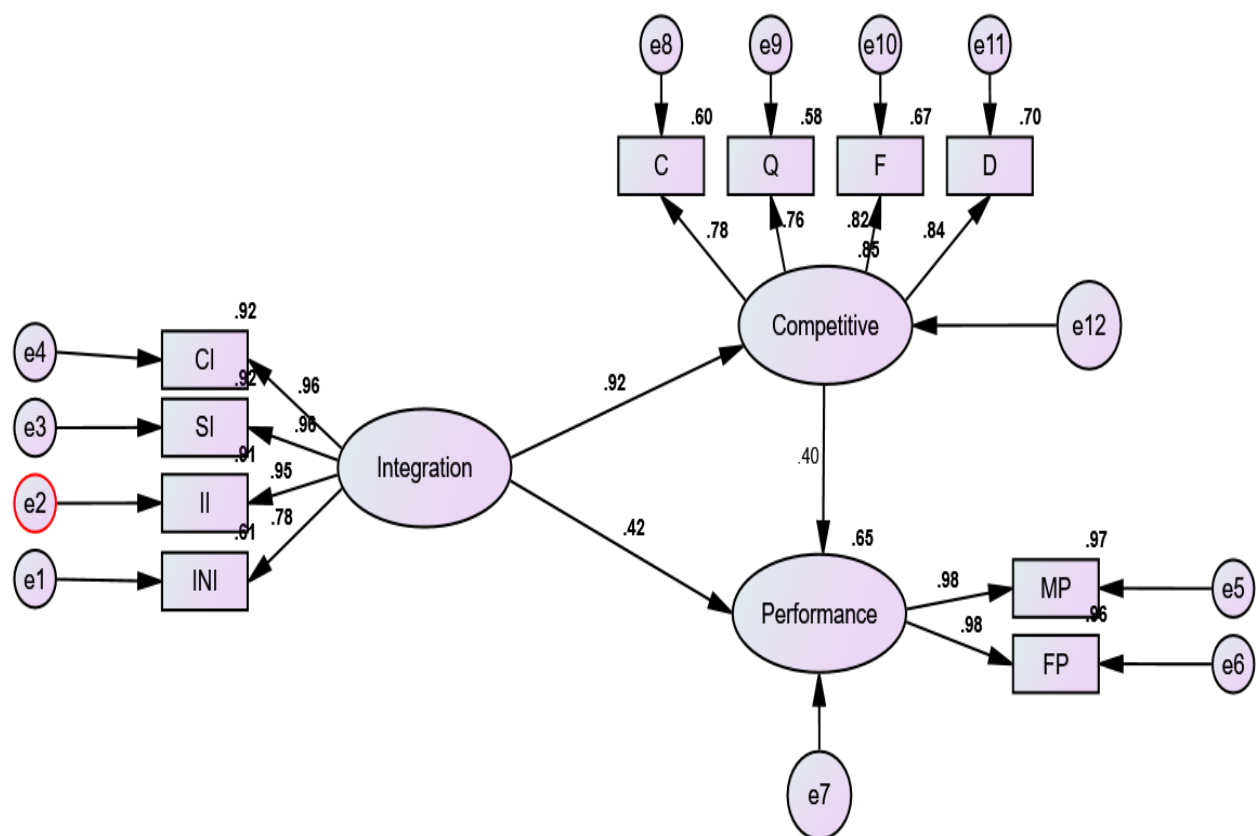


Figure 7. Structural Equation Modelling of the Study
Source: Survey data (2019)

The result displays that supply chain assimilation takes a positive straight upshot on business enactment and competitive advantage through path amount of 0.42 and 0.92 at ($p < 0.05$) correspondingly and competitive advantage has a direct positive significant effect on organizational performance with a beta value of 0.40 at ($p < 0.05$). The output of indirect upshot implies that competitive advantage partially mediates the association amongst supply chain assimilation and organizational performance.

The measurements model fit result shows that all indicators has a good fit with GFI=.962, AGFI=.0.949, NFI=.0.932, IFI= .973, TLI=.922, CFI= .950 and the RMSEA =.035 with PCLOSE of 1.00.

Table 3. Summery of Structural Equation modelling

Hypotheses	Relationship	Estimate	Hypothesis Result
H1	<i>OP <--- SCI</i>	.42	Accepted
	<i>P-value</i>	.001	
H2	<i>CA <--- SCI</i>	.92	Accepted
	<i>P-value</i>	.001	
H3	<i>OP<--- CA</i>	.40	Accepted
	<i>P-value</i>	.001	
H4	<i>OP<---CA<--- SCI</i>	.372	Partial Mediation
	<i>P-value</i>	.006	

Source: Survey data (2019)

In this study, the researchers tested the relationship between exogenous variables (SCI) with four-dimensional latent variables, endogenous variables with two-dimensional latent variables, and mediating variables with four latent variables (cost, quality, flexibility, and delivery). The test of structural equation modeling results depict that are a strong association among the designed independent, dependent, and mediating variables. First, the investigators evaluated the straight result of supply chain assimilation on organizational enactment. The above figure shows that supply chain assimilation has a direct positive momentous effect on organizational enactment with a beta constant of 0.76 at $P < 0.05$. This result implies that the higher level of supply chain assimilation boosts the company's enactment. With the support of this, previous related studies ([Zhao, et al, 2015](#) & [Huo et al, 2014](#)) suggested that the companies that have a good level of SCA are important to the general enactment of the organization. The results of an interview with the perspective of supply chain assimilation and performance also reveal that the positive effect of SCI and organizational performance. The respondents state that the inadequate level of information technology infrastructures, capacity, distance to inland as well as seaports make the operation challenging. Even though there is an operational challenge, we are operating better with the existing resources. Currently, the global business trend indicates self-optimization has changed to whole supply chain optimization. When partners within the supply chain are integrated and they have a good flow of information, they can get updated information to handle the change rapidly, minimize the bullwhip effect, and improve the performance of the organization. Since profitability is measured through the entire supply chain, the integration of members in the supply chain is vital for the long-run existence of the business. The execution of supply chain assimilation enhances the capability of companies to respond to the changing business situation. Hence, based on the effect size and result of the hypothesized research model, the researchers argued; **hypothesis 1 is accepted**

Second, the results of Structural Equation Modeling display that supply chain integration predicts competitive advantage by the beta coefficient of 0.92 at $P < 0.05$ directly. This shows that one standard deviation increase in supply chain integration will affect 0.92, the standard deviation in competitive advantage. The result empirically reflects the constructive and momentous relationship between supply chain integration and competitive advantage. If companies integrate their supply chain with the stated four dimensions, they will have a better market advantage than their competitors will. Currently, the competition has shifted from organizations to their whole supply chain. This result is supported by previous studies, [Vikas et al. \(2017\)](#) argued that successful supply-chain integration can improve a firm's competitive advantage. In most developing countries, the manufacturing industry has been facing extraordinary competitiveness caused by the new global trends. To this, end companies need to do business differently than they did in the past. [Du \(2007\)](#) recommends assimilation between supply chain members enhances industry performance in terms of the competitive dimension of operation. Well succeeded supply chain assimilation minimize the waiting time to get product and

service, reduce the overall costs, increase accuracy when delivering products to the customer, improve the competitive advantage of the firm, and finally maximize the profit generated from it since profit are measured across the entire supply chain. Hence, a significant positive relationship was found between supply chain assimilation on modest benefit. **Therefore, supports the second hypothesis.**

The third hypothesis of the study was the association between competitive benefit and business performance. The results of SEM with Amos software specify there is a constructive and significant relationship between viable benefit/ CA and Business enactment. The output of SEM shows that if the competitive advantage of the company goes to by one standard deviation, organizational performance will increase by 0.40, standard at a significance level of $P < 0.05$. As [Mentzer e al., \(2000\)](#) stated that taking a competitive benefit usually recommends that a business can have the next competencies while associated with its rivalry: best prices, greater quality, greater reliability, and littler conveyance period. These competencies are determined to improve the business general enactment. Hence, centered on the effect size and result of the Structural Equation Modelling, the researchers argue; **hypothesis 3 is accepted**

Lastly, the study tests the mediation (indirect) effect of competitive advantage on the business performance of the company. According to [Awang \(2012\)](#) the straight-upshot is the result that goes straight from exogenous variable to endogenous variable. Whereas the indirect upshot is the outcome of the exogenous construct to the endogenous construct, this is circuitously over the facilitator in the model. As the researchers discussed earlier, for this study supply chain integration is an exogenous construct; organizational performance is an endogenous variable, and competitive advantage is a mediator. From the result of the SEM, The usual indirect (mediated) upshot of Integration on Performance is.42 that is; due to the mediated upshot of supply chain Assimilation on the organizational recital, when supply chain Integration drives up by one average deviance, organizational Performance goes up by 0.42 standard deviations. This is in extension as a result of a direct (unmediated) effect that supply chain Integration may have on organizational recital supply chain assimilation is a significant constructive upshot on organizational performance indirectly through competitive advantage with a beta value of 0.42 at $P < 0.05$. This implies that when supply chain Integration goes up by one average deviance, organizational Performance drives up by 0.42 usual deviances. Therefore based on the resulting **hypothesis 4 is supported.**

5. Conclusion

The study's statistical results discover the straight upshot of supply chain integration has a positive to significant effect on the organizational recital. The study hypothesized model results show that SCA has a positive and momentous outcome on competitive advantage and business recital. Competitive advantage also has a constructive and momentous upshot on organizational performance.

Supply chain assimilation has an indirect constructive and significant upshot on organizational recital through competitive advantage. The improvement in supply chain integration results in excellent organizational performance but will have better performance if supply chain assimilation becomes a source of competitive advantage. The direct effect was better than the indirect effect in this study. This study illustrates that sound assimilation of internal practices can support the business enhancement and enable assimilation with providers and clients over suitable data distribution.

The current practice of supply chain assimilation in the circumstances of companies was satisfactory, but it needs more than the current level. Hawassa Industry Park should integrate the supply chain differently than the current conditions, they will possibly predict the demand and act accordingly, manage the fluctuation of the market, extend the product life cycle, reduce cost, respond rapidly to their customer, deliver more value than the competitors, and boost performance. Therefore, to realize this, they should be able to practice supply chain integration differently than before.

The case companies should gather real-time information from all partners of the business as a prior task to enhance the supply chain network and competitiveness of the companies. The competitiveness

of firms depends on the level of practice of supply chain assimilation. The implementation of excellent supply chain assimilation would enhance supply chain networks, the competitiveness of the companies.

Companies should measure their profitability and competitiveness from the whole supply chain perspective because currently profitability and competitiveness are measured across the single supply chain rather than firm level. Competitive advantages show a positive effect on the performance of the companies. Companies should upgrade their systems with innovative technology to lower delays in processes and improve inventory systems through internal integration and information integration for incremental competitive advantage.

The organizations should need to develop intra-organizational integration culture because it gives the standardized diffusion of outside data recognized hooked on the business since every interaction argument with the supply chain participants to numerous structural processes or departments. Companies should also note that the SCI may be prejudiced by circumstantial issues; for instance, the kind of manufacturing, firm size, a firm's place in the supply chain, supply chain span, plus the nature of a supply chain while practicing it.

Upcoming researchers' should be focusing on gathering additional assessment responses and prolonging the investigation elsewhere in the manufacturing division to gather an all-inclusive outlook on the influence of SCI on organizational performance through competitive advantage.

In this study due to scope limitations, the following issues are not well investigated.

- The study has unable to see the upstream side of the firms from the perspective of their supplier since they are located abroad but from the firms' perspective.
- The study could not see other manufacturing sectors since all firms in Hawassa Industry Park are engaged in textile manufacturing.
- The study did not access the financial data of the firms, due to the unwillingness of the firms to give such data.

If it is possible future researchers should file the gap raised under this study, basically from the perspective of the upstream side of the supply chain.

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