Effect of Supply Chain Management Practice on Operational Performance in Case of Bedele Brewery Share Company.

Jabessa Hinkosa (jabessa205@gmail.com)
Wollega University

Research Article

Keywords: Supply chain Management Practices, Operational performance, Beddelle, Oromia, Ethiopia

Posted Date: June 23rd, 2023

DOI: https://doi.org/10.21203/rs.3.rs-3096707/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License
Effect of Supply Chain Management Practice on Operational Performance in Case of Bedele Brewery Share Company.

Abstract: The main objective of this study was to investigate the effect of supply chain management practices on the operational performance of Bedelle Brewery Share Company. The dimensions of SCM practices examined in this study were strategic supplier partnership, customer relationship management, level of information sharing, quality of information sharing, and internal lean practice. The metric for measuring the company’s operational performance was the lead time. A quantitative research approach was used for this study to determine the effect of supply chain management practices and the operational performance of BBSc. The descriptive and explanatory research design was employed for the study. The probability sampling technique particularly the stratified and simple random sampling method was used to enable the researcher to use his discretion in selecting samples from the target population. Using a total of 33 questionnaires; the primary data was collected from 184 employees. The data was collected by using 5 point Likert Scale type questionnaire and then the collected data were analyzed using SPSS Version 25. From the result of the analysis, it was concluded that there was strongly positive and significant correlation between SCM practices and overall operational performance since the SCM practices included in this study explained 80.9% of the variability of the operational performance of the company. Based on the findings, the researcher recommended that Bedelle Brewery share company should strive to involve its key suppliers in planning and goal setting, create long-term agreement with key strategic suppliers, and interact with customers to set reliability, responsiveness, and other standard work for the organization, to be informed on the changing needs to improve their understanding with their trading partners and to work on improving quality of information sharing practices across the supply chain timely with its supplier.

Key Words: Supply chain Management Practices, Operational performance, Bedelle, Oromia, Ethiopia

Introduction: Companies must not only reestablish themselves to manufacture higher quality goods and services, reduce waste, and adapt to the demand but also manage their supply chains effectively as a result of the increasing number of competing companies growing both locally and globally. To succeed in today's competitive global marketplace, companies face a variety of challenges. Despite significant advancements in research and practice, many organizations continue to struggle to comprehend the complex issues associated with organized preparation and supply activities among supply network participants (Lori et.al., 2011). The concept of Supply chain management refers to a group of three or more entities (organizations or individuals) that are directly involved in the upstream and downstream flow of goods, resources, financing, and/or information from the source to the customer (Mentzer, et.al., 2001). It represents all those efforts and measures considered by the organization for the development of a smooth supply chain process. In recent scenarios competition is among in SCM practices (Deshpande, 2012). Many studies indicate that organizations need to be more focused on SCM practices because it plays an important role in a company’s performance
On the other hand, the concept and practices of SCM have received increasing attention from Managers, academicians, and consultants (Hamister, 2012). For any firm to earn good returns and create value for its customers, embracing excellent supply chain management practices is very paramount. The best supply chain practices are programs that affect the entire supply chain, as well as its components and main processes (Cuthbertson & Piotrowicz, 2008).

According to (Siddig et.al, 2012) a successful SCM implementation is expected to enhance the relationship between upstream suppliers and downstream customers, and thereby increase customer satisfaction and firm performance. Globally, supply chain management practice has been gaining importance for nearly two decades.

In comparison to the global supply chain management practices, the African supply chain management practice is still in its infant stage in the manufacturing company as well as in the service industry (Abu Alrejal, 2007). For example, in the African countries in particular in Gulf countries like Ethiopia, in the Ghanaian, and as well as West Africa business executives and policymakers continue to underrate the strategic importance of SCM. It was contended that African countries are suffering largely due to the non-application of the principles of supply chain management practices to business activities. This phenomenon has halted the manufacturing industry of these countries from adopting and developing practices that enable the effective management of their supply chains.

Correspondingly, the SCM Practice in Ethiopia is still under investigation and there is a lack of practice of integration and collaboration in managing supply chains. In addition to that, (H/Michael, 2011) also suggested that supply chain management practice in Ethiopia is in the beginning stages, and there are small numbers of companies integrating it into their operational concept and practices of SCM have received due to the global competitive business environment. The increase in global business competition has forced companies to reexamine their global supply chain management processes for moving goods and provision of services globally to remain competitive. The issue of global supply chain problems in developing countries has received little attention (Msimangira & Tesha, 2009). A recent study conducted (Gualandris, 2014) confirms that supply chain management and global sourcing have an impact on the sustainability performance of the company. Therefore, a prerequisite for manufacturers enhances profitability and remains competitive in the current global dynamic market is to understand and practice Supply Chain Management (Cook, et.al., 2011)

system. But, many manufacturers and distributors are waking up to the potential for major cost reduction and service improvements offered by implementing best practices in their supply chain.

When we come to the area under investigation of the study, Beddelle Brewery Share Company is a privately owned business organization and is one of Ethiopia’s brewery companies, producing different brands of beer products in our Country, as well as the company is one of the largest producers and distributors of various beer such as Bedelle regular, Bedelle Special, Walia, and Sofi. The company was established in October 1993 E.C in Beddelle town around 483 km from Addis Ababa in Oromia regional state, southwestern Ethiopia. The company is refreshing natural water on 250,000 m2 surface coverage in a major market in the north west, west, south, central and south west of Ethiopia and from abroad USA, Canada, Australia, Israel, and Sudan.

Many researchers reported that, to stay competitive and enjoy market dominancy, organizations have to adopt SCM practices (Li, et, al., 2006; Ng, et, al., 2015; Qrunfleh & Tarafdar, 2015; Tatoglu, et, al.,
A study by Alvarado et al., (2011) documented that the secret of the success of Wal-Mart, Hewlett Packard, Siemens, Dell, and Allied Signal is the implementation of SCM practices within the organization.

As stated by Koplin et al., (2007) viewed SCM practices in terms of supplier partnerships, customer relationships, benchmarking; Just in time processes and e-procurement, few suppliers; many suppliers; strategic planning; outsourcing; subcontracting of activities; holding buffer stock and third-party logistics (3PL). Similarly, David et al., (2014) mentioned, asset utilization, and customer satisfaction include, the 5 rights; right quality, right quantity, right place, right time, and right price as an important SCM practice. According to Tan et al., (2008) the most important SCM practices are supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity, and JIT capability. As well as, Muhammad (2004) stated that supply chain management practices as; upstream (strategic supplier partnership) and downstream (customer relationship), information flow across a supply chain (level of information sharing and quality of information sharing), and internal lean system as an important determinants of operational performance, organizational performance, competitive advantage, and customer satisfaction. It is only by embracing supply chain management practices that companies are recognized by their customers and industry as highly effective professionals who contribute towards the most cost-effective business solutions.

Another critical factor. Supply chain partners that exchange information regularly can understand the needs of the final consumer and are capable of responding fast to ever-changing changing market demand (Li, et al, 2006). The failures can occur when there is an information delay, shortage or distortion occurs across the supply chain.

Also, information sharing is one of the important factors influencing the performance of the company, the significance of its impact on SCM depends on the extent of the quality of information shared, when and how it is shared, and with whom (Holmberg, 2015). Finally, According to Moslem et al., (2013) internal lean practice is the other factor that affects supply chain performance. One of the key vital of internal lean practice is to improve the speed, delivery, and efficiency of production flow (Shah et al, 2008; Sunder, 2013; Vinodh et al, 2012; Ward, et al, 2006).

Subsequently, there are several studies related to the know-how of SCM practices as well as their effect on operational performance in Ethiopian manufacturing companies. However, five SCM practices (strategic supplier partnership, customer relationship management, level of information integration, information sharing, supply chain characteristics, customer service management, geographical proximity, and JIT capability. As well as, Muhammad (2004) stated that supply chain management practices as; upstream (strategic supplier partnership) and downstream (customer relationship), information flow across a supply chain (level of information sharing and quality of information sharing), and internal lean system as an important determinants of operational performance, organizational performance, competitive advantage, and customer satisfaction. It is only by embracing supply chain management practices that companies are recognized by their customers and industry as highly effective professionals who contribute towards the most cost-effective business solutions.

The Company’s operational performance is affected by different supply chain management practices. One of the most important factors influencing the performance of the industry is strategic supplier partnership (Narasimhan, et al., 2006) Effective partnerships with suppliers can be a critical factor to guide supply chain management (Li, et al., 2006). It can improve supplier performance, reduce time to market, and increase the level of customer responsiveness and satisfaction (Frohlich & Westbrook, (2001).) The other factor is having good relationships with customers, which are needed for the successful implementation of SCM schedules on the downstream side of the chain (Moberg et al., 2012) Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Magretta 2008). Furthermore, for Supply Chain integration, information sharing is
sharing, quality of information sharing, and internal lean practice) were designated for this study in line with lead time reduction on the operational performance of BBSc because, the designated SCM practices are important. Since it is a multidimensional cooperation, Beddelle Brewery Share Company was preferred as the unit of study because of its outstanding results, the speed at which it presents products to the market, and establishment of alliance, in essence, in line with the supply chain management Beddelle brewery Share Company was appropriate as the southwestern region of the country by having different partners (like, suppliers distributors and customers) from different part of the country (e.g., from Jimma, Nekemte, Assossa, Mizan tepi, etc.) as well as the
determinants of operational performance, organizational performance, competitive advantage, and customer satisfaction (Muhammad 2004).

Company has a diversified product portfolio (produces different brands namely; Beddelle regular, Beddelle Special, Walia, and Sofi) that is normally used by almost all groups of people and the SCM practices and dimensions identified by this researcher can be applied on this company. As a result, the researcher would be inspired to investigate the effect of supply chain management practice on operational performance, as well as to instigate efforts to fill these gaps by the concentration of Beddelle Brewery Share Company.

Statement of the Problem: Supply Chain Management is currently no longer a new strategy; there are still some serious practical problems that have yet to be addressed. The problem was intensified for developing countries like Ethiopia because, they are characterized by a lack of basic knowledge of SCM among the business practitioners, increasing uncertainty and competition, lack of understanding of what constitutes a comprehensive set of SCM practices (Makena, et.al, 2014). Haque & Islam, (2013), adds that in Ethiopia most of product and service-giving activities have major gaps regards to their operational performances, which is due to a lack of adequate SCM practices.

Despite the increasing of empirical research, the relationship of SCM with operational performances could not be regarded as conclusive. Differences in research design undermine comparability and lack of consensus about the definition and dimensionality of the SCM practices, the use of different units of analysis, and different approaches to performance measurement. This demonstrates that less insight into the supply chain management practices and their effect on operational performance (Chen & Paulraj 2004; Mentzer et al. 2001: Mentzer, & Cook, 2005).

However, Different studies conducted empirical research on the aspects of supply chain management practice to enhance the operational performance of the industry and reduce the operational cost of the company. The study conducted by Kassanesh, (2018), carried out a study on the Effect of Supply Chain Management Practices on Operational Performance at Heineken Kilinto Brewery in Addis Ababa. The study revealed that Strategic supplier partnerships; customer relationships and internal lean practices had a strong positive relationship with the operational performance of the company. But effects of the level of information sharing and quality of information sharing had no statistically significant effect on operational performance. Hence, in this study, the researcher would be inspired to conduct the effect of SCM practice on Beddelle Brewery Share Company by the aforementioned variables.

Additionally, Haftay, (2019) Investigates the effect of SCM practices (strategic supplier partnership management, customer relationship management, level of information sharing, quality
of information sharing, and internal lean practice) on the operational performance of the company. As the major findings of this study, he has observed that there was a significant correlation between all of those SCM practices and the overall operational performance of the company. Also, this researcher measured the company’s operational performance by using delivery dependability, quality of product, supply chain cost, and operational flexibility metrics but not addressed the metrics of lead time allied with those SCM practices on the operational performance of the company. Though, the researcher stirred to investigate the effect of SCM practices in line with lead time metrics of its operational performance on BBSc.

Furthermore, the research worked by Solomon, (2017) emphasized the effect of supply chain management practices on the operational performance of ethio telecom. The study studied that all supply chain management practices i.e. strategic supplier partnership, customer relationship, information sharing, information quality, and lean practices had significantly affected the operational performance of ethio telecom. As well, this research is conducted on the ethio telecom nevertheless, not on beer company particularly, Beddelle Brewery Share Company. Likewise, the study lacks to see the dimension of operational performance, (i.e., Lead Time). Therefore, the above-stated study was unable to show the effect of SCM Practice on the operational performance of the Beddelle brewery factory.

Although, the other research conducted by Vilhenac, (2017) focused on the impact of Supply chain management practices (like Top management support, Customer focus, Supplier management, Process control, and improvement) and the company”s” operational performance on the Vietnam garment industry. However, the above-stated research shows us the existence of gaps. Those gaps were; the study was dears to see the major SCM practices such as level of information sharing, quality of information sharing, and internal lean practice on the operational performance of the company in line with lead time. Additionally, the study was focused on the garment industry not on brewery factories pertaining with lead time.

Consequently, the research conducted by, Binalla, (2019), focused on the title of the study of strategic supplier partnership along with the status of supply chain management among the hardware and construction supplies enterprises operating in the Philippines on Competitive Advantage. The significant findings of this researcher were; there is a positive relationship between strategic supplier partnership and the competitive advantage of the company and there is a need to revisit supply chain strategies in improving competitive opportunity and harnessing relationships among different units within the supply chain. The researcher targeted strategic supplier partnerships in the retail industry and their relationship to obtaining a competitive advantage through price and cost, value to customer, and delivery dependability but not concerted on the effect of the strategic supplier partnership in Brewery Company and not raised the metrics of lead time to measure the operational performance of the company.

The other research also indicated that strategic supplier partnership practice affected Supply Chain Integration, Supply Chain Performance, and Farmer’s Performance, (Sedyaningrum, et.al, 2019). This researcher concentrated on Supply Chain Integration, Supply Chain Performance, and Farmers Performance in terms of competitive advantage and level of profitability.

However, the above studies failed to demonstrate the link between supply chain management practices and the operational performance of Beddelle Brewery Share Company and as well as its effects In terms of lead time. Therefore, to fill
The above-stated gaps the researcher was inspired to investigate the effect of SCM Practices (strategic supplier partnership management, customer relationship management, level of information sharing, quality of information sharing, and internal lean practice) in line with lead time metrics under study on the operational performance of Beddelle brewery Share Company. To do so the researcher addressed the following questions.

**The objective of the Study**
The main purpose of this study was to investigate the effect of supply chain management practice on operational performance: The Case of Bedele Brewery Share Company. Therefore, the following specific objectives were addressed.

1. To describe the current operational performance of Bedele Brewery Share Company looks like in Bedele Brewery Share Company;
2. To assess the effect of strategic supplier’s partnership on the operational performance of the Bedele brewery share company;
3. To investigate the impact of customer relationship management on the operational performance of the Bedele Brewery Share Company;
4. To assess the effect of the level of information sharing on the operational performance of the Bedele Brewery Share Company;
5. To examine the effect of Quality of Information Sharing on the operational performance of the Bedele Brewery Share Company; Level of Information Sharing
6. To investigate the effect of internal lean practice on the operational performance of the Bedele Brewery share company

Strategic Supplier Partnership; Customer Relationship management; Quality of Information Sharing Internal lean practice Operational performance Lead time.

![Conceptual Framework Source: Researcher’s survey, (2023)](image)

**4. Research Methodology**
To conduct this research; the researcher used descriptive and explanatory research designs by describing the characteristics or functions of particular individual or groups or phenomenon and pattern of the study to answer research questions by qualitative and quantitative approaches. Both primary; questionnaire and interview surveys and secondary data sources were used used to analyze this data. The sampling design used in this paper and the total population of the employees of Bedele Brewery Share Company were 395. Since, it is difficult to access all employees, the researcher taken 195 sample size out of the total population by using (Kothari,2004) statistical formula as

\[ n = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + Z^2 \cdot p \cdot q} \]

The researcher used (Kothari, 2004) formula to determine the sample size for the study based on a 95% desired confidence level, a 5% desired level of precision, proportion of success (50%), proportion of fail (50%) and confidence level (1.96) from the following departments:

Table 3. 1: Sample Size Determination
### Identified Departments

<table>
<thead>
<tr>
<th>Identified Departments</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation/Production</td>
<td>266</td>
<td>266/395x195= 131</td>
</tr>
<tr>
<td>Transportation Management</td>
<td>61</td>
<td>61/395x195= 30</td>
</tr>
<tr>
<td>Sales Management</td>
<td>4</td>
<td>4/395x195 = 2</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>26</td>
<td>26/395x195 = 13</td>
</tr>
<tr>
<td>Warehouse</td>
<td>6</td>
<td>6/395x195 = 3</td>
</tr>
<tr>
<td>Inventory/ Material Management</td>
<td>32</td>
<td>32/395x195= 16</td>
</tr>
<tr>
<td><strong>Total BBSc Populations</strong></td>
<td><strong>395</strong></td>
<td><strong>195</strong></td>
</tr>
</tbody>
</table>

**Source:** Own computation based on (Kothari, 2004) formula

Therefore, the model that is applied for this study was as described below:

**Multiple Regression model,** \( Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \)

### RESULT AND DISCUSSION

**Table 4.1: Cronbach's Alpha reliability test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach’s Alpha reliability test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Supplier Partnership</td>
<td>5</td>
<td>0.687370</td>
</tr>
<tr>
<td>Customer Relationship Management</td>
<td>6</td>
<td>0.852148</td>
</tr>
<tr>
<td>Level of Information Sharing</td>
<td>6</td>
<td>0.724610</td>
</tr>
<tr>
<td>Quality of Information Sharing</td>
<td>5</td>
<td>0.708036</td>
</tr>
<tr>
<td>Internal Lean Practice</td>
<td>5</td>
<td>0.765478</td>
</tr>
<tr>
<td>Operational performance (Lead Time)</td>
<td>6</td>
<td>0.646626</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>0.937266≈0.94</strong></td>
</tr>
</tbody>
</table>

(Source: Researcher’s survey result, 2023)

**Descriptive Statistical Analysis of the Study**

#### 4.4.1. Descriptive Analysis for Operational performance of company (BBSc)

**Table 4.2: Descriptive statistics on operational performance**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>In our company, the time elapsed between request and delivery of product</td>
<td>3.15</td>
<td>1.168</td>
<td>184</td>
</tr>
<tr>
<td>Our company can quickly respond to changes in market demand</td>
<td>3.52</td>
<td>1.395</td>
<td>184</td>
</tr>
<tr>
<td>In our company, the time required for manufacturing process is lesser</td>
<td>3.29</td>
<td>1.346</td>
<td>184</td>
</tr>
<tr>
<td>The company takes a little time until the goods are ready for packaging</td>
<td>3.76</td>
<td>1.346</td>
<td>184</td>
</tr>
<tr>
<td>In the company, the time required for supplier selection based on time</td>
<td>3.78</td>
<td>1.375</td>
<td>184</td>
</tr>
<tr>
<td>considerations is reasonable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Company can quickly adjust products to meet our customer’s requirement</td>
<td>3.84</td>
<td>1.357</td>
<td>184</td>
</tr>
<tr>
<td><strong>Grand mean of Lead time (operational performance)</strong></td>
<td><strong>3.555</strong></td>
<td><strong>0.803</strong></td>
<td></td>
</tr>
</tbody>
</table>

From the table 4.7 above, Regarding to lead time, 6 questions were asked the respondents to understand that those questions resulted in operational performance. Accordingly, the Company can quickly adjust products to meet the customer’s requirement have high mean score which is 3.84 with 1.357 standard deviation followed by the time required for supplier selection based on time considerations is reasonable with the mean value of 3.78 & 1.38 standard deviation. Also, the statement that the company takes a little time until the goods are ready for packaging have mean 3.76 & 1.246 standard deviation and the company can quickly respond to changes in market demand have mean 3.52 and 1.359 standard deviation. On the other hand, the mean score of the time elapsed between request and delivery of product required by internal customers in the company is as requested have 3.15 with 1.168 and in the Beddelle brewery share company, „the time required for manufacturing process is lesser“ have 3.29 with 1.346. The overall mean score of operational performance was 3.555 with standard deviation 0.803. It denoted that most of the respondents were agreed to be retained and efficient in all parameters of operational performance.
From this result it is possible to understand that, how is the operational performance of the company in line with lead time in BBSc. Therefore, the operational performance of the Beddelle brewery Share Company was practiced quick response for product adjustment to meet customer’s requirement, reasonable time for supplier selection, to be ready for packing at the company and respond to changes in the market demand is quick and efficient in all parameters of operational performance. Hence, the study’s first research question which says, “What is the current operational performance of the BBSc looks like, would be answered by this analysis.

Descriptive analysis of the Supply Chain Management practices

4.4.2.1. Analysis of the Strategic Supplier Partnership Table

4.3: analysis of Strategic Supplier Partnership

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>We consider quality as our number one criterion in selecting suppliers</td>
<td>3.47</td>
<td>1.272</td>
<td>184</td>
</tr>
<tr>
<td>BBSc include our key suppliers in our planning and goal setting activities</td>
<td>3.17</td>
<td>1.418</td>
<td>184</td>
</tr>
<tr>
<td>BBSc Encourages and developed the capacity of local strategic suppliers</td>
<td>3.58</td>
<td>1.381</td>
<td>184</td>
</tr>
<tr>
<td>BBSc has a long term agreement with key strategic suppliers</td>
<td>3.24</td>
<td>1.228</td>
<td>184</td>
</tr>
<tr>
<td>BBSc has continuous improvement programs that include our key suppliers</td>
<td>3.48</td>
<td>1.263</td>
<td>184</td>
</tr>
</tbody>
</table>

**Grand mean of Strategic Supplier Partnership**

3.383 1.312

(Source: Researcher’s survey, 2023)

As it is indicated in above table 4.8, In order to measure the perception of employees about strategic supplier partnership five questions were asked to the respondents. From the questions which are asked to the respondents BBSc encourages and developed the capacity of local strategic suppliers have a highest mean score 3.58 with 1.381 standard deviation. BBSc has continuous improvement programs that include our key suppliers have the second mean score of 3.48 with 1.263 standard deviation followed by the respondents consider quality as their number one criterion in selecting suppliers have a mean score of 3.47 & 1.272 standard deviation.

The others remaining questions the BBSc include the key suppliers in their planning and goal setting activities and BBSc has a long term agreement with key strategic suppliers has 3.17 and 3.24 mean score respectively. Accordingly the overall mean score of Strategic Supplier Partnership shows that 3.383 with standard deviation 1.312, which means that, most of the respondents were not agreed (neutral) to the practice of strategic supplier partnership in BBSc, as the rule indicated above by (Alhakimi & Alhariry, 2014). Therefore, the finding has shown as Beddelle brewery Share Company has averagely practiced the Strategic supplier partnership. This shows, Even if the mean value of strategic supplier partnership of the company felled in neutral averegically, to some degree there is a practice of strategic supplier partnership in BBSc. Hence, the company has to improve the involvement of its key suppliers in planning and goal setting activities and on a long term agreement with key strategic suppliers in order to improve its strategic supplier relationship.

**Analysis of Customer relationship management.**

Table 4.4: Statistical analysis for Customer Relationship

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBSc interact with customers to set reliability, responsiveness, and other standards for the organization</td>
<td>3.26</td>
<td>1.474</td>
<td>184</td>
</tr>
<tr>
<td>BBSc Trusts key strategic customers to share supply chain Information</td>
<td>3.82</td>
<td>1.437</td>
<td>184</td>
</tr>
<tr>
<td>BBSc Integrates with key customers in product carrying decision</td>
<td>3.76</td>
<td>1.507</td>
<td>184</td>
</tr>
<tr>
<td>BBSc has documented procedures to deal with customer complaints</td>
<td>3.86</td>
<td>1.384</td>
<td>184</td>
</tr>
<tr>
<td>BBSc facilitate customers’ ability to seek assistance from us</td>
<td>3.84</td>
<td>1.461</td>
<td>184</td>
</tr>
</tbody>
</table>
BBSc periodically evaluate the importance of our relationship with our customers.

| Grand mean of Customer Relationship management Practices | 3.72 | 1.106 |

(Source: Researcher’s survey, 2023)

From the above table 4.9, Observing all the values, highest number of employees has agreed on the company has documented procedures to deal with customer complaints, facilitate customers’ ability to seek assistance from them, Trusts key strategic customers to share supply chain Information, the important evaluation of the company’s relationship with their customers and Integration with key customers in product carrying decision.

However, few respondents were said neutral or not agreed on the company’s interaction with customers to set reliability, responsiveness, and standard work for the organization by mean 3.26 and 1.474 standard deviation. Using the overall variables the practice of customer’s relationship management is implemented in the Beddelle brewery share company. This is indicated by overall mean of 3.72 and standard deviation of 1.106. This showed that Beddelle brewery Share Company has good customer relationship with the customer. However, the company has to work to improve its relationship with the customer especially by interacting with customers to set reliability, responsiveness, and other standards for the organization.

Analysis of Level of information sharing

Table 4.5: Statistical analysis for level of information sharing practice

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>We inform Supply chain partners in advance of changing needs</td>
<td>3.30</td>
<td>1.340</td>
<td>184</td>
</tr>
<tr>
<td>Our suppliers share proprietary (original) information with us</td>
<td>3.57</td>
<td>1.213</td>
<td>184</td>
</tr>
<tr>
<td>Our suppliers keep us fully informed about issues that affect our business.</td>
<td>3.28</td>
<td>1.234</td>
<td>184</td>
</tr>
<tr>
<td>Our Supply partners share business knowledge of core business processes with us</td>
<td>3.58</td>
<td>1.442</td>
<td>184</td>
</tr>
<tr>
<td>our organization and our suppliers exchange information that helps establishment of business planning</td>
<td>3.42</td>
<td>1.435</td>
<td>184</td>
</tr>
<tr>
<td>We and our trading partners keep each other informed about events or changes that may affect the other partners.</td>
<td>3.97</td>
<td>1.400</td>
<td>184</td>
</tr>
<tr>
<td><strong>Grand mean of level of information sharing</strong></td>
<td><strong>3.52</strong></td>
<td><strong>0.870</strong></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Researcher’s survey Result, 2023)

As it is presented in the Table 4.10 above, the mean value for most variables has shown a higher than the middle value whereas few items has little higher than the middle value. Detecting all the values, the highest number of employees has agreed on the company their trading partners keep each other informed about events or changes that may affect the other partners with mean 3.97 and 1.400 standard deviation, followed by the company’s Supply chain partners share business knowledge of core business processes with them have mean 3.58 & 1.442. In addition, the highest mean has been also observed for the BBSc’s suppliers share proprietary (original) information with the company and the organization and their suppliers exchange information that helps establishment of business planning with the mean of 3.57 & 1.213, standard deviation. On the other hand, some respondents were said neither agree nor disagree on company’s suppliers keep fully informed about issues that affect their business and Supply chain partners in advance of changing needs. From this result it is possible to understand that, Beddelle brewery Share Company lacks to keep each other informed about events or changes that may affect the other partners with its trading partners and to informed its trading partners on the changing needs. This implies that some the respondents were not agree or neutral concerning to keep each other informed about events or changes that may affect the other partners with its trading partners and to inform its trading partners on the changing needs of the company (BBSc). Because the mean score between 2.61 and 3.40 was considered as neutral for the purpose of this study as it was discussed earlier. Overall mean for practice of level of information sharing is 3.52 and the
standard deviation is 0.870 suggesting that there is information sharing in the company (BBSc). Based on the overall variables of the level of information sharing practices, the findings have clearly showed that BBSc has well practiced with respect to the level of information sharing across the supply chain. Consequently, BBSc has attempted to retain the extent of its information sharing with upstream and downstream of the supply chain.

Analysis of Quality of information sharing

Table 4.6: Descriptive statistics on quality of information sharing

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Devi.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information exchange between our suppliers and BBSc is accurate</td>
<td>3.45</td>
<td>1.317</td>
<td>184</td>
</tr>
<tr>
<td>Information exchange between our suppliers and BBSc is reliable</td>
<td>3.91</td>
<td>1.491</td>
<td>184</td>
</tr>
<tr>
<td>Information exchange between our suppliers and BBSc is adequate.</td>
<td>3.61</td>
<td>1.163</td>
<td>184</td>
</tr>
<tr>
<td>Information exchange between our suppliers and BBSc is complete</td>
<td>3.95</td>
<td>1.453</td>
<td>184</td>
</tr>
<tr>
<td>Information exchange between our suppliers and BBSc is timely</td>
<td>3.27</td>
<td>1.237</td>
<td>184</td>
</tr>
<tr>
<td>Quality of information sharing</td>
<td>3.635</td>
<td>0.917</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Researcher’s survey, 2023)

Based on the previous literatures, practice of quality of information sharing is indicated by dimensions of accurate, adequate, complete, reliable, and timely. Table 4.11 above presented the practice of quality of information sharing in the BBSc. The responses indicated that the company and supply chain partners are exchanging accurate, adequate, reliable, and complete information. This indicated that BBSc had little or unsatisfactory practices in terms of quality of information sharing timely with its supplier. So, BBSc has to make efforts to improve quality information sharing practices across the supply chain timely. Overall mean for quality of information sharing is 3.635 and 0.917 standard deviation. This implied that the BBSc is sharing quality information with strategic Supplier partners. Ensuring the quality of the shared information becomes a critical aspect of effective supply chain management.

Analysis of internal lean practice

Table 4.7: Statistical analysis for internal lean practice

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Company strives to reduce time wastage in operation</td>
<td>3.42</td>
<td>1.435</td>
<td>184</td>
</tr>
<tr>
<td>The company has continuous quality improvement programs</td>
<td>3.94</td>
<td>1.472</td>
<td>184</td>
</tr>
<tr>
<td>The company produces only what is ordered by customers when needed (e.g. JIT)</td>
<td>3.57</td>
<td>1.213</td>
<td>184</td>
</tr>
<tr>
<td>The company has an organized team of dedicated employees who lead and support the implementation of internal lean practice</td>
<td>3.82</td>
<td>1.477</td>
<td>184</td>
</tr>
<tr>
<td>BBSc pushes suppliers for shorter lead-time</td>
<td>3.94</td>
<td>1.419</td>
<td>184</td>
</tr>
<tr>
<td>Grand mean of Internal lean practice</td>
<td><strong>3.752</strong></td>
<td>1.019</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Researcher’s survey, 2023)

Based on the analysis, the result of the mean value of internal lean practice scores were greater than 3.42 or all variables mean are higher than the moderate value, which inferred the respondents agreed to the fact that internal lean practices are highly applied in the Company followed by Customer relationship, the level of information sharing and quality of information sharing. The value of overall mean for internal lean practice 3.75 suggesting that there is good internal lean practice in the company. The standard deviation of 1.019 suggests that the agreement of the respondents is similar with little variation in order to reduce wastages of time and resources.
Inferential Analysis for SCM practices and operational Performance

4.5.1. Correlation Analysis

Table 4.8: Correlation matrix between constructs of SCM practices and operational performance

<table>
<thead>
<tr>
<th></th>
<th>LIS</th>
<th>SSP</th>
<th>CRM</th>
<th>QIS</th>
<th>ILP</th>
<th>Operational Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS</td>
<td>Pearson Correlation</td>
<td>0.754**</td>
<td>.705**</td>
<td>.775**</td>
<td>.733**</td>
<td>.810**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>SSP</td>
<td>Pearson Correlation</td>
<td>.705**</td>
<td>.460**</td>
<td>.643**</td>
<td>.507**</td>
<td>.658**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>CRM</td>
<td>Pearson Correlation</td>
<td>0.810**</td>
<td>.835**</td>
<td>.877**</td>
<td>.857**</td>
<td>.807**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>QIS</td>
<td>Pearson Correlation</td>
<td>0.807**</td>
<td>.798**</td>
<td>.776**</td>
<td>.776**</td>
<td>.807**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>ILP</td>
<td>Pearson Correlation</td>
<td>0.835**</td>
<td>.798**</td>
<td>.857**</td>
<td>.776**</td>
<td>.807**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Operational Performance</td>
<td>Pearson Correlation</td>
<td>0.810**</td>
<td>.835**</td>
<td>.877**</td>
<td>.857**</td>
<td>.807**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

(Source: Researcher’s survey result, 2023)

As the correlation matrix table 4.14 above shown, the correlation coefficient values of the company’s performance among SCM Practices (SSP, CRM, LIS, QIS and ILP) were 0.658**, 0.798**, 0.810**, 0.835 and 0.807** respectively. Their significant level is 0.000.

As the conducted Pearson correlation test indicated that there is strong positive relationship between Quality of information sharing (QIS) and operational performance with a Pearson correlation coefficient of 0.835 with (p<0.001). This significance tells that there is genuine relationship between quality of information sharing and operational performance of the company. Followed by quality of information sharing, the study depicted that there is strong positive relationship between Level of information sharing (LIS) and operational performance with a Pearson correlation coefficient of 0.810 at (p<0.001). This significance tells that there is honest relationship between Level of information sharing and operational performance of the company.

Simultaneously, as the correlation matrix inferred in the above table 4.14, there is a strong positive relationship between internal lean practice and customer relationship management with operational performance with correlation coefficients of 0.807 and 0.798 respectively at p<0.001. In addition to that, table 4.14 clearly indicates that the existence of a high positive relation between Strategic supplier partnership (SSP) and operational performance at correlation coefficient of 0.658(p<0.001).

Consequently, a Pearson correlation analysis results indicated here under is a significant correlation between all SCM practices and the overall operational performance of BBSc, which means they have a strong effect on company’s operational performance. This inferred that if the QIS, LIS, ILP, CRM, and SSP increase the operational performance of the Beddelle brewery Share Company will increase. The finding of this study is similar to the results of (Haftay, 2019 & Solomon, 2017,) as discussed under the statement problem of the study.

Analytical tests

4.5.2.1 Multicolinearity tests for independent variables

Table 4.9: Multicolinearity Test
<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1 Level of Information Sharing</td>
<td>.240</td>
<td>4.171</td>
</tr>
<tr>
<td>Strategic Supplier Partnership</td>
<td>.391</td>
<td>2.555</td>
</tr>
<tr>
<td>Customer Relationship Management</td>
<td>.224</td>
<td>4.467</td>
</tr>
<tr>
<td>Quality of Information Sharing</td>
<td>.264</td>
<td>3.789</td>
</tr>
<tr>
<td>Internal Lean Practice</td>
<td>.224</td>
<td>4.460</td>
</tr>
</tbody>
</table>

Table 4.15: Model Collinearity Statistics (Source: own survey result, 2023)

Regarding table 4.15 above, the result of VIF was below 10 and the tolerance statistics was more than 0.1 (10%). So, there is no Multicolinearity problem in the regression model used for this study among the predictors. Because, Variance Inflation Factors (VIF) and tolerance all fall within the acceptance range (VIF=1-10, and tolerance=0.1–1.0).

4.5.2.2 Normality Test

As stated in the work of George & Mallery, (2010) which describes that the values for Skewness and kurtosis between -2 and +2 are considered acceptable and the departure from normality is not extreme. Therefore, the data used in this study was normally distributed considering the criteria of Skewness and kurtosis values between -2 and +2.

**Table 4.10: Statistically Normality Test by Kurtosis and Skewness**

<table>
<thead>
<tr>
<th></th>
<th>LIS</th>
<th>SSP</th>
<th>CRM</th>
<th>QIS</th>
<th>ILP</th>
<th>Operational Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>184</td>
<td>184</td>
<td>184</td>
<td>184</td>
<td>184</td>
<td>184</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Skewness</td>
<td>-1.081</td>
<td>-.252</td>
<td>-.854</td>
<td>-.960</td>
<td>.994</td>
<td>-1.092</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.179</td>
<td>.179</td>
<td>.179</td>
<td>.179</td>
<td>.179</td>
<td>.179</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.891</td>
<td>-.715</td>
<td>-.284</td>
<td>.264</td>
<td>-.004</td>
<td>1.086</td>
</tr>
</tbody>
</table>

(Source: Own survey result, 2023)
(Source: Regression output of SPSS from own survey result, 2023)

In addition to the above test for normality, (Hair, et.al, 2010) also suggest that histogram is another method to use for comparing the observed data values with a distribution approximating the normal of distribution. The researcher used histogram to identify normal distribution of residuals and the result indicates that standard residuals are a little far away from the curve, many of the residuals are fairly close more to the curve and the histogram is bell shaped. This implies that the majority of scores lie around the center of the distribution. So, the largest bars on the histogram are all around the central value. Therefore, this indicates that the residuals are normally distributed as shown in figure 4.1 of histogram below.

4.5.2.3 Homoscedasticity Test: Figure 4.2: Homoscedasticity Test

![Scatterplot](source: Own Survey, 2023)

In order to test the Homoscedasticity assumption the researcher used scatterplots graph. Scatterplots depicted the relationship between each of the independent and dependent variables that are identified for the purpose of this study. Therefore, the scatterplots for each of the five independent variables (strategic supplier partnership practice, customer relationship management practice, level of information sharing practice, quality of information sharing practice and internal lean practice) and the dependent variable (operational performance) is depicted as follows. The graph of *ZRESID and *ZPRED should look like a random array of dots evenly dispersed around zero. Therefore, it is safe to say that this study has no heteroscedasticity problem.

4.5.2.4. Linearity Test

Figure 4. 3: Linearity Test
Figure 4.3 above showed that the residuals have a sound normal distribution because the plotted residuals were around the diagonal straight line instead of making any other shape or curve. The scatterplot shown from Figure 4.3, the relationship between each of the independent variables (SSP, CRM, LIS, QIS and ILP) and the dependent variable (operational performance) could be modeled by a straight line proposing that the relationship between each of these two variables is linear. Therefore, the assumption of multiple linear regressions is met. As a result, multiple regression can accurately estimate the relationship between dependent and independent variables i.e., the relationship can be characterized by a straight line.

4.5.3. Multiple Linear Regression Analysis

4.6.3.1. Model Summary

Table 4.11: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.900a</td>
<td>.809</td>
<td>.804</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ILP, SSP, QIS, LIS, CRM

b. Dependent Variable: Operational Performance

Regarding to the SPSS generated in table 4.17 above, R=0.900, indicates that the sum of SCM Practices (which are SSP, CRM, LIS QIS and ILP) have a linear relationship with company’s operational performance. And, R² (also called the coefficient of multiple determinations) is indicates how much of the total variation in the dependent variable, (operational performance), can be explained by the independent variable, (SCM Practices), in this case, 80.9% (0.809) could be explained, which is very large.

Therefore, as table 4.17 disclosed, the R² (coefficient of multiple determination) explicate 80.9 % (0.809). This means that 80.9% of the changes in the company’s performance are explained by the changes in the independent variables (SSP, CRM, LIS QIS and ILP) in the study. The remaining 19.1% of the changes in the dependent variables is explained by other factors not involved in this study.

4.6.3.2. ANOVA Test

Table 4.12: ANOVA Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>5</td>
<td>19.123</td>
<td>151.217</td>
<td>.000p</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>178</td>
<td>.126</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Total</td>
<td>183</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Operational Performance

b. Predictors: (Constant), SSP, CRM, LIS, QIS, ILP

(Source: Own Survey result, 2023)
The table 4.18 above shown the results of the F ratio is 151.217, with 0.000, significance. The sum of squares gives the model fit. It explains that the data set fits into regression model. In other word, this analysis is used to identify effect of supply chain management on operational performance which is general objective of the study. In addition, this analysis is used to identify appropriateness of the model in estimating effect of supply chain management practices on operational performance.

The researcher used multilinear regression method to run regression analysis. F-statistic value of the model is 151.217 and it is significant at 0.001 indicating that the model used is appropriate to explain effect of supply chain management on operational performance. This implies that supply chain management of BBSc significantly affects operational performance of the company. Finding of this study is that supply chain management practice of the study has significant positive effect on operational performance of BBSc through Lead Time metric. Since, Regression>Residual, these variables statistically significantly predicted at, F= 151.217, p = 0.000, R² = 0.809. All five variables added statistically significantly to the prediction, p < 0.05.

### 4.6.3.3. Regression Coefficients

Table 4.13: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.477</td>
<td>.118</td>
<td>4.056</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>SSP</td>
<td>.110</td>
<td>.045</td>
<td>.127</td>
<td>2.430</td>
</tr>
<tr>
<td></td>
<td>CRM</td>
<td>.151</td>
<td>.050</td>
<td>.208</td>
<td>3.005</td>
</tr>
<tr>
<td></td>
<td>LIS</td>
<td>.190</td>
<td>.062</td>
<td>.206</td>
<td>3.085</td>
</tr>
<tr>
<td></td>
<td>QIS</td>
<td>.245</td>
<td>.056</td>
<td>.280</td>
<td>4.395</td>
</tr>
<tr>
<td></td>
<td>ILP</td>
<td>.155</td>
<td>.054</td>
<td>.197</td>
<td>2.853</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Operational Performance

The above multiple regression coefficients referred that, the effect of each supply chain management practices on operation performance. The independent variables which have a higher beta coefficient with the lower p-value (p<0.05) have a significant contribution or effect on the dependent variable.

The highest value of Beta value shows the highest influenced variable or the dominant factor, due to that Quality of information sharing is the highest influenced variable in this study.

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e
\]

\[
\text{Op.} = \beta_0 + SSP X_1 + CRM X_2 + LIS X_3 + QIS X_4 + ILP X_5
\]

This is:

\[
\text{Op.} = 0.477 + 0.110 SSP + 0.151 CRM + 0.190 LIS + 0.245 QIS + 0.155 ILP
\]

The value of \(\beta_0\) is 0.477 which mean the expected value of company performance is 0.477 when all the five variables assume zero value.

**Hypothesis Testing**

Table 4.20: Summary of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Analysis used</th>
<th>Findings</th>
<th>Results</th>
</tr>
</thead>
</table>

(Source: Own Survey, 2023)
Summary of Major Findings: From the total distributed study questionnaire, 94% were returned. The study shown that, the major respondent’s gender score was male employees (66%). From employees’ age group, majority of the employees were from were from 26-33 (49.5%) years followed by 34-41 (27.2%) years old. From the study’s result, the highest respondents have 1-4 & 9-12 years experiences (35.3%). From the prospective of educational level, the most respondents had 1st degree holders (47.3%) followed by college diploma (35.9%) The study also revealed that 69% of respondents were from operation/production department; this is the department which has highest employees than other department in the Beddelle brewery share company.

In reference to the results from the conducted descriptive analysis showed that, the overall mean score of operational performance was 3.555 with standard deviation 0.803. It implies that most of the respondents were agreed to be retained and efficient in all parameters of operational performance. This is reinforced by the results from the conducted regression analysis that indicated there is a strong relationship between SCM practices and the operational performance of BBSc. Hence, the finding of the study revealed that, the operational performance of the Beddelle brewery Share Company was practiced quick response for product adjustment to meet customer’s requirement, reasonable time for supplier selection, to be ready for packing at the company and respond to changes in the market demand is quick and efficient in all parameters of operational performance. By the first specific objective of the study, which says “what is the current operational performance of the Beddelle brewery share company looks like,” this finding was resulted or carried out.

Consequently, The descriptive analysis of this study revealed that Internal lean practice has the highest mean value of 3.75, followed by Customer relationship management with the mean value of 3.72, Quality of information sharing with the mean of 3.63, Lead Time with the mean of 3.56, and Strategic supplier partnership have the mean value of 3.38. This indicated that the attitudes of respondents were agreed on the idea requested with respect to each.

The findings from the Pearson correlation analysis results revealed that there is a high positive and significant correlation between the aggregated SCM practices (SSP, ILP, CRM, QIS and LIS) and the operational performance of Beddelle brewery Share Company with value of (0.658, 0.807, 0.798, 0.835, 0.810 at p=0.000) respectively.
In this study, regarding analytical tests the study used Multicolinearity test, normality tests, Homoscedasticity test and linearity). Regarding Multicolinearity test, the result of VIF was below 10 and the tolerance statistics was more than 0.1 (10%). The finding showed that, there is no Multicolinearity problem in the regression model used for this study among the predictors. On the other hand, the data used in this study was normally distributed considering the criteria of skewness and kurtosis values between -2 and +2. (i.e. lied between -1.092 and 1.086).

The results of the regression analysis showed that R=0.900 and R²=0.809, indicated that there is a strong linear correlation between SCM practices and the operational performance of BBSc. Therefore, the result of the analysis revealed that SCM practices as the independent variables explained 80.9% of the variability of the dependent variable which is the operational performance of BBSc. The findings from ANOVA (F- Test) clearly shown that multiple regression model used in this study is statistically significant in explaining the relationship between the independent variables.

**Conclusions:** The main objective of the study was to investigate the effect of SCM practices on operational performance. Based on the findings, the researcher concludes that BBSc was implemented the SCM practices (SSP, CRM, LIS, QIS and ILP). These practices have helped BBSc to improve its operational performance. This is supported by the results from the conducted descriptive analysis that showed, the operational performance of the Beddelle brewery Share Company was practiced quick response for product adjustment to meet customer’s requirement, reasonable time for supplier selection, to be ready for packing at the company and respond to changes in the market demand is quick and efficient in all parameters of operational performance.

The findings from the Pearson correlation analysis results revealed that there is a positive and significant correlation between the aggregated SCM practices and operational performance of Beddelle brewery Share Company. Accordingly, the multiple regression analysis result of this study demonstrated that, all independent variables (designated SCM Practices) have a positive and statistically significant effect on operational performance of the BBSc. From the model summary of multiple regressions, the result showed that, the designated supply chain management practices were highly influences operational performance of Beddelle brewery Share Company.

**Reference**


Feldman, M., & Muller, S . (2003). An incentive scheme for true information providing in supply chains. OMEGA.


Discovering Statistics using SPSS 3rd ed London SAGE Publication Ltd.


Financial Prentice Hall.
International Journal of Production Research, 46(20), 5633-5649.


. *Unpublished M. Sc Thesis of the University of Utara, Malaysia.*


surgical intervention vs watchful waiting and outcomes for mitral regurgitation due to flail mi.


simulation. *Journal of Manufacturing Technology Management*, 16(8), 825-841.


