Social Sustainable Supply Chain Management Performance: Empirical Evidence from Large-Scale Manufacturing Firms in Ethiopia

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ABSTRACT- *The purpose of this study is to examine social sustainability performance of large-scale manufacturing firms in Ethiopia. In order to achieve this objective, descriptive research design was applied. The data was collected through survey questionnaires from the top and middle-level managers of the sample firms. The sample firms were selected by proportional stratified sampling technique and from each sample firms, three respondents were selected purposively. Accordingly, valid data were collected from 420 sample respondents from 146 large-scale manufacturing firms. The major findings of this study revealed that: health and safety aspects of social sustainability were found not well considered by large-scale manufacturing firms in Ethiopia. Especially in reducing occupational related ill-health and injuries, in reducing number of accidents in firms, and in providing adequate training to employees on risk prevention and control were relatively poor performances. On the other hand both in employees' right and quality of life indicators of social sustainability large-scale manufacturing firms in Ethiopia were found performing very well.*

Keywords: sustainability, social sustainability, performance, manufacturing, Ethiopia.

1 Introduction

Nowadays it is the hard-truth that sustainable supply chain management (SSCM) is becoming an area of emphasis for both researchers and practitioners. According to [1], for the last three decades, better attention was given to sustainability, as it is an indispensable condition for the long-lasting profitability and for being competitive enough for firms in their business environment. [2] stated that *"...today, one cannot pick up, a newspaper, magazine or journal without encountering some discussion of the issue, some recent or innovative example of what business is thinking or doing about corporate social responsibility (CSR), or some new conference that is being held"* on sustainability or social responsibility activities. These statements clearly and boldly depicted that, a sustainability issue is a hot and contemporary world agenda.

At the earlier, supply chain management (SCM) has been focused on reducing the total cost, adding value and customer satisfaction for products and nevertheless the chain did not consider much about social responsibility, which is one aspect of SSCM [3], [4]. Even though, several research efforts have been committed to the assessment of the sustainability of supply chains, only few of them have incorporated all the three (environmental, social, and economic) dimensions of sustainability. Since the majority of these research works have covered the environmental and the economic dimensions, while ignored the social aspect of SSCM, which is the least addressed in the literature [5], [6]). Furthermore, [7] stated that, beside the economic aspects the environmental sustainability mainly green supply chains have been widely studied, while the social sustainability are still not fully understood. According to [8] the fundamental reason that the social aspects of SSCM were not well addressed in studies of sustainability is due to the difficulty come across in quantifying and its qualitative nature.

A comprehensive literature review conducted by [9] on SSCM evidenced that SSCM practice and understanding is highly dominated and focused on the environmental dimension of sustainability. Since, in their review of 191 papers, 140 were addressed on environmental sustainability, while only 20 papers addressed social sustainability. Likewise, [10], states that only two sustainability pillars i.e, economic and environmental aspects are commonly discussed and taken into account in the supply chain design and there are little research works on integrating altogether (environmental, social, and economic) indicators of SSCM. [11] Also denoted the scarcity of social sustainable literatures in the academic areas of SSCM, which clearly depicted as there is a research gap in this area.

According to [3], [4], [7], [9-11] observations relatively articles those dealing with social aspects of SSCM performance in mainstream research has been very scarce. Therefore, one of the intentions of this study is to fill the above research gap and disclose the current performance of social SSCM performance of large-scale manufacturing firms in developing country particularly in Ethiopia.

2 Literature Review

2.1 Sustainable Supply Chain Management Performance

Many scholars discussed that sustainability performance measurement is more complex than the usual or traditional economic performance. [12] Defined sustainability performance as the performance of a company in all dimensions and for all drivers of corporate sustainability.

From preceding scholars [13], [14], [15] boldly discussed that SSCM performance is driven from the impact of supply chain on ecological (planet), social system (people), and economics and resources (profit). [16] Also stated that the triple bottom line (environmental, social, and economic) indicators of SSCM have been identified as a tool to measure the organization's progress towards the ultimate goal of being truly sustainable. Finding from an empirical study conducted by [17] in Thailand, shows that, SSCM performance has positively influenced by social SSCM dimension. Even though, SSCM performance incorporates the triple bottom lines; this paper focuses on social sustainability aspects of SSCM performance in large-scale manufacturing firms in Ethiopia. Therefore, the following section of literature part provides such social sustainability, and its performance indicators.

2.2 Social Sustainability

According to [18] social sustainability shifts the focus to both internal communities (employees) and external ones (community and customers). As discussed by [19] a social aspect of SSCM envisions the wellbeing of society, social security, a humble lifestyle, health and safety of society by producing and sustaining eco-friendly products. In addition, they discussed that activities related with social responsibility, ultimately close the gap between rich and poor of the particular society. According to [20] the fundamental social sustainability principles require firms to be responsible to encourage diversity, provide equitable opportunities, uphold relationships both within and outside community of the firms, ensure quality of life, and provide accountable governance structure via democratic processes. Besides [19] and [20] some scholars for instance, [21] and [22] stated that, social sustainability can be enriched through creating employment opportunities, development of new entrepreneurship, provision of various social cares, and reducing poverty. For realizing incessant development in all aspects of SSCM, human resource sustainability takes a central stage. Therefore, as elucidated by [23] and [24] for having human resource sustainability, firms take into consideration value and enhance their capability with the right and appropriate polices and practices for the fundamental social sustainability principles. Indeed, some firms are engaged in corporate social responsibility (CSR) activities as a way to enhance their social reputation [25].

2.2 *Social Sustainable Supply Chain Management Performance Indicators*

The study conducted by [26], discussed more in detail about various factors used to evaluate the social dimension of SSCM performances. Accordingly, these factors are, applied innovative ideas generated by employees, number of harassments and violence per employee, employees turnover, number of accidents per employee, number of complaints per employee, number of complaints per customer, a portion invested from total sales for social projects per year, training time to employees, and compensation managements.

In a summarized way according to many scholars [19], [26],[27] and others the main indicators to measure social dimension of SSCM performance through which firms and supply chain partners can achieve their social sustainability are health and safety, human rights, employment equity, and quality of life. According to different scholars these indicators were reviewed briefly here bellow.

Health and safety: This indicator deals with the health and safety concerns of employees, local people, and customers. This dimension can be achieved by decreasing accident rates, number of injuries, occupational related ill-health, and having health and accident insurance from insurance company for employees and firms [28]. An empirical study conducted by [29] on "Green supply chain management practices in Ethiopian tannery industry" depicted the poor performance of the tanneries on the health of the local community since the nearby habitats to the firms were seriously suffering by the tanneries practices of emitting their wastes without proper treatments. This is due to the tanneries have no a separate environmental unit who are responsible for such treatment.

Human rights: It is related to the fundamental rights to employees, suppliers, and customers, which denotes that employee rights, procurement justice and ethical trading [30]. According to [3], the human rights indictor is completed with good policies and practice planning and implementation.

Employment equity*:* as it was stated in different literatures reviewed by scholars for instance according to [31] and [32] employment equity is related to equality of employees, including fairness in the areas of gender, wages per person, number of tasks per person, and other related issues.

Quality of life: according to [4], quality of life performance of social sustainability has to be measured by social welfare, training for workers, educational opportunity, and having a good relationship with both internal and external communities (social interaction). According to [33] statement, without social interaction, people who are living in a given area can only be referred to as a group of individuals living isolated lives with little sense of community or feeling of pride or spot connection. Social interaction and social networks are reliably portrayed as central parts of social capital [34]. According to [35] social capital is an intangible form of capital (or stock), which is distinct from physical capital, since it 'occurs in the relations among persons'.

3 Methods and Materials

3.1 Research Design, Approach and Strategy

According to [36], based on the purpose of the study most often the research design can be classified into threefold namely, exploratory, descriptive and explanatory. Therefore, based on the purpose of the paper, descriptive type of research design was found more appropriate for this study in order to address the pre-determined objective of this paper.

According to [37], quantitative, qualitative or mixed approaches are the three research approaches in social researches. As primary data was collected in a close-ended questionnaire, which is developed in five (5) point- Likert- scale types, a quantitative research approach was used for this study.

As presented by [36] the most common and subsequently considered research strategies are (experiment; survey; case study; action research; grounded theory; ethnography; and archival research). As this study was conducted throughout the country on large-scale firms of the selected manufacturing industries in Ethiopia, survey type of research strategy was used and found more appropriate.

3.2 Sources and Methods of Data Collection

According to [38] the researcher should keep in mind, the two sources of data (primary and secondary) sources when deciding the methods for collecting the data used for the investigation undertaken. Therefore, both primarily and secondary sources of data were used in this study. Accordingly primary data was collected through questionnaire while articles, books, journals were used for secondary sources of data.

3.3 Sample Design

3.3.1 Target population of the study*:* According to Ethiopian central statistic agency [39], report manufacturing firms were grouped in to fifteen categories based on their nature of products. Since it is not easy and manageable for incorporate all of these fifteen groups throughout the country, this paper focused only on large-scale manufacturing firms of four selected groups of manufacturing industries in Ethiopian. These are: (1) Food products and beverages (2) Manufacturing of Textile, (3) Tanning and dress of Leather, manufacture of Footwear, and Luggage and handbags (4) basic Iron and Steel manufacturing industries groups. The main justification for selecting the aforementioned industrial groups is that, as they are prioritized in the Industrial development strategy of the nation [40]. Furthermore, a particular emphasis has also given in the country first Growth and Transformation Plan (GTP) being implemented in the 2010/11to 2014/15 time frame [41] and which is continued in the second GTP that is implemented from 2015/16-2019/20. According to the Ethiopian central statistic agency [39] report the total number of firms in the above four targeted industrial categories throughout the country in the year 2014/15 was 405.

3.3.2 ***Sample size determination*****:** According to [38], the size of the sample should neither be excessively large, nor too small. The researcher applied [42] formula as provided here below to determine the sample size for this study. The sample size was determined with a precision level (sampling error) of e = 5%, and population of = 405 firms.

$$n = \frac{N}{1 + N(e)2} \qquad n = \frac{405}{1 + 405 * 0.05^2} \qquad = 201$$

Where: **n** = sample size; **N** = population size; and **e** = precision level/sampling error.

3.3.2 Sampling techniques and response rate

Both probability and non-probability sampling types were used for this study. In view of their proportion of distribution from each manufacturing industrial categories (strata) through proportional stratified, randomly 201 sample firms were selected and then from each sample firm three top and middle level managers (respondents) were selected by using a purposive sampling technique. The detailed about the sample respondents' distribution was illustrated in **Table 1**.

Table-1: Distribution of Firms in the Population and Actual (valid) respondents

Targeted manufacturing industries groups	Target population, sample firms and No of questionnaires distributed			Valid Firms response rate		Valid Respondents response rate	
	No of firms in the industry	No of firms sampled	No of questionnaire distributed	No of firms returned questionnaires	% of firms' response rate	No of valid respondents	% of valid respondents from total
Food products and Beverages	262	131	393	92	70.23	266	63.01
Manufacture of Textiles	51	24	72	20	83.33	56	13.71
Leather Manufacturing	56	28	84	21	75.00	59	14.38
Manufacture of Basic Iron and Steel.	36	18	54	13	72.22	39	8.90
Total	**405**	**201**	**603**	**146**		**420**	**100**

Source: Based on Ethiopia. CSA (2016) and sample response rate (2018)

3.4 Methods of Data analysis

Finally the collected data was analyzed quantitatively by using different descriptive statistical tools such as percentage, mean, and standard deviations.

3.5 Reliability Test

There are a variety of methods for calculating internal consistency (reliability), among them the most commonly used one is Cronbach's alpha (α) [36]. Moreover, as stated by [43] the acceptable Cronbach's alpha (α) value is (≥ 0.70) which proves the dependency of instruments. Therefire, after the relevant data was collected from the sample respondents, reliability (internal consistency) test was conducted by using Cronbach's alpha (α) and the result was illustrated in **Table 2.**

Table- 2: Result of Reliability Test

Name of variable	ɔ of items	Cronbach's Alpha (α)
Health and Safety (So1)	6	0.910
Employees right (So2)	3	0.840
Employment equity (So3)	4	0.893
Quality of life (So4)	6	0.898

As it can be seen from **Table 2**, all of the reliability tests of Cronbach's Alpha values are (≥ 0.70) which shows that the reliability of all the variables under this study is acceptable.

4 Result and Discussion

This part presents social SSCM performance descriptive analysis. All items were collected by 5 points Liker –type- scale questionnaire which represent 1= very low, 2= Low, 3= Moderate, 4= high and 5= very high. Therefore, based on the given response of the sample respondents mean (M) and standard deviation (SD) statistics were used for analysis.

Even though there is no hard and fast rule for likert-type-scale items to determine the cut point or range of values, the cut point or mean value range used for this study is supported by other previous scholars' work for instance [29] and [44]. Accordingly, an item or group mean (sub-grand mean) that achieved a mean score value of (M > 3.5), M ≥ 2.50 but < 3.50) and less than / below (M < 2.5) depicts that high, moderate and low social SSCM performance respectively. Besides the mean score values an item that scored standard deviation greater than one (SD **>**1.0**)** denotes as there is a significant difference/inconsistency among respondents.

4.1. *Descriptive Analysis of Respondents Demographic Profile*

In order to determine the sample respondents' background (profile) different factors were raised to the respondents. Accordingly:

***4.1.1. Gender, age, and level of education*:** This part of study discus about the sample respondents' demographic backgrounds regarding their gender, age, and education and qualification levels. As this paper is focused on social sustainability, the respondents profile on these aspects are considered as important for the study.

Table- 3: Distribution of Respondents According to Gender, Age, and Education Level

Demographic Characteristics	Alternative	Frequency	Percentage
Gender	Male	308	73.3
	Female	112	26.7
	Total	**420**	**100.0**
Age	18-29	155	36.9
	30-45	205	48.8
	46-65	53	12.6
	Above 65	7	1.7
	Total	**420**	**100.0**
Qualifications/ Educational Background	12 complete	17	4.0
	certificate	6	1.4
	TVET	33	7.9
	Diploma	59	14.0
	1st Degree	262	62.4
	2nd Degree and Above	43	10.2
	Total	**420**	**100.0**

From the total sample of 420 respondents, 73.3% are male and the remaining 26.7% were female. Majorities (48.8%) of the sample respondents are under the age group of 30-45 years, followed by (36.9 %) are from 18-29 years and only 1.7% were above 65 years. Regarding their education profile majorities (62.4%) are first degree holders, and 10.2% are second degree and above and the remaining were Diploma and below.

4.1.2. Job designation of respondents: Other important demographic characteristics of the sample respondents considered in this study were about their job designations in their current working organizations. As per the sample respondents' response the result was presented in Chart 1 below.

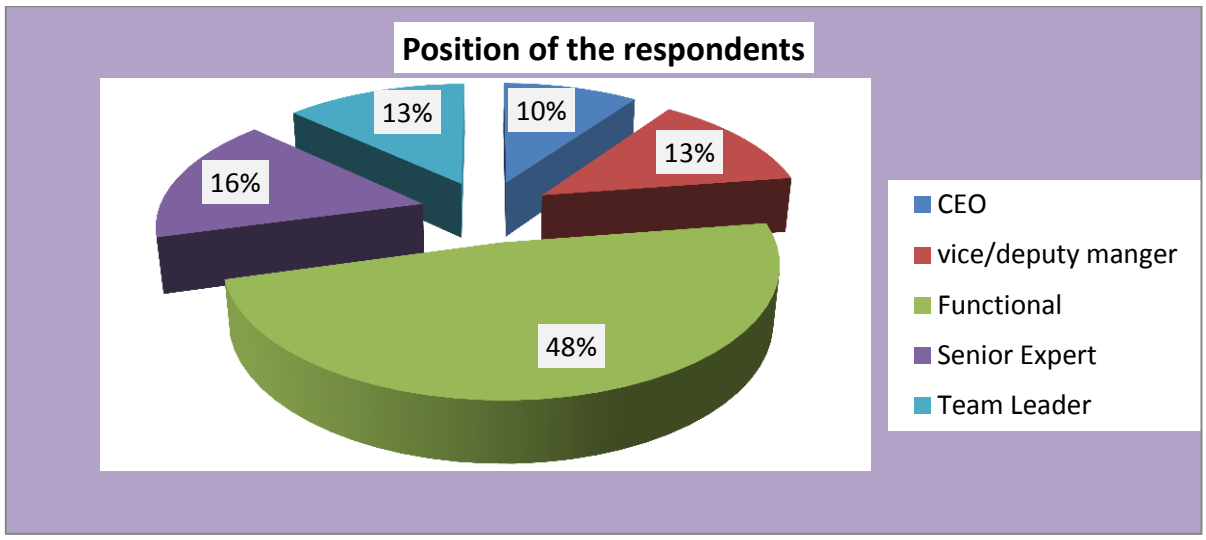

Chart-1: Distribution of respondents according to their position

As clearly depicted by the pie chart above, the majorities 48% of the sample respondent are functional (head of the department) position holders which is followed by senior experts (16%). In addition, the lowest only 10% of the sample respondents were chief executive officer (CEO) position holders. This implies that the higher number respondents are middle level managers those belong to purchasing/supply chain management and operations departments.

4.1.3. Length of work experience/ service in the current position: Another item used by the researcher for assessing the respondents' background is work experience in their current positions.

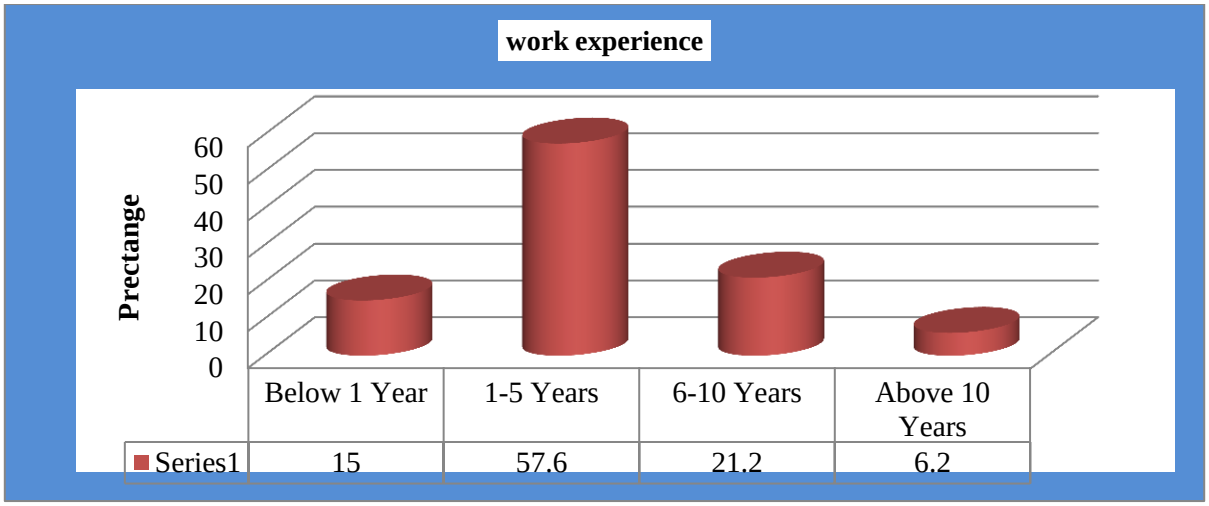

Chart-2: Distribution of respondents according to work experience at the current position

According to the respondents' response majorities (57.6%) of the sample respondents replied as they have 1-5 years of work experience at their current position they are working, followed by (21.2%) respondents who had 6-10 years of work experience at their current position. Therefore, majorities of the sample respondents have high work experience in their current position that means they knew more about issues raised for them which enable the obtained data be reliable for this paper.

4.1.4. Monthly Gross Salary of Respondents*:* Another demographic characteristic's of the sample respondents addressed in this paper is about their monthly salary. As per their response the monthly salary what they earned was illustrated in Chart 3.

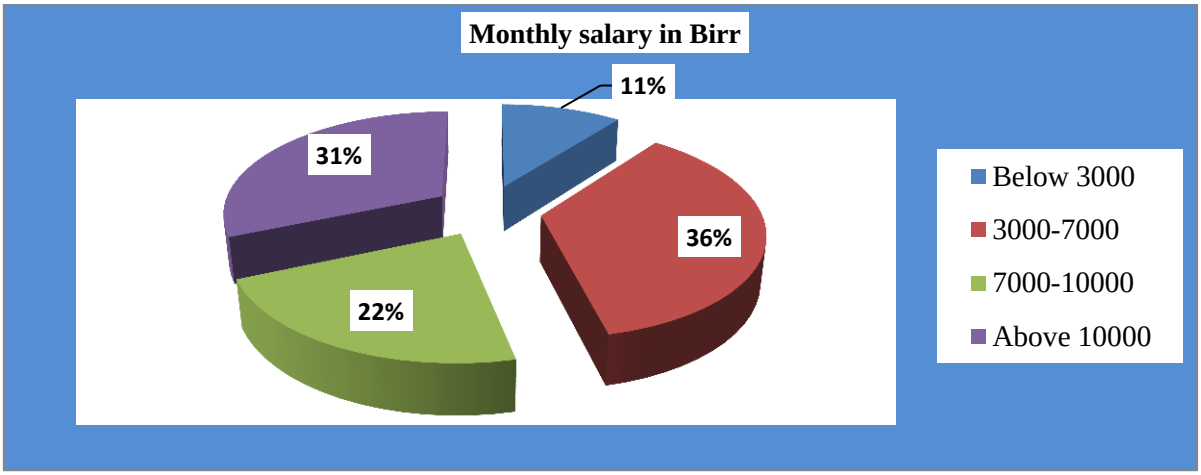

Chart-3: Distribution of respondents based on their monthly gross salary

As it can be seen from the Chart 3, majorities 36% and 31% of the sample respondents earns monthly from 3000-7000 and above 10000 Ethiopian Birr respectively. Only 11% of respondents have earned below 3000 Ethiopian Birr. Therefore, what the researcher concludes is that the salary (monthly payment) is relatively the amount paid is fair enough in Ethiopian case since majorities (62.4%) of the respondents are first-degree holders.

4.2 *Social Sustainable Supply Chain Management Performance*

In order to determine the social sustainable supply chain management performance, the researcher adopted about four indicator and different items measured each indicators. In total, about nineteen (19) items were developed and used to examine the overall social sustainability performance of large-scale manufacturing firms in Ethiopia. Accordingly the sample respondents mean and standard deviation was depicted in **Table 4**.

Table- 4: Descriptive Statistics on Social Sustainable Supply Chain Management Performance

Item code	Social SSCM Performance indicators	Mean	SD
1	**Health and Safety**	**2.74**	
HS1	Improvements in health and safety standards	2.85	.864
HS2	Education and training programs provided on risk prevention and control	2.59	.911
HS3	Reduction of accidents within the company	2.56	.878
HS4	Reduction of occupational ill-health and injuries on employees	2.49	.864
HS5	Improvements in working conditions for employees	2.87	.838
HS6	Reduction in spillage and leakage of chemical substances	3.10	.817
2	**Employees right**	**2.30**	
ER1	Physical, sexual, psychological harassment and abuse of employees	2.35	1.094
ER2	Violation of human rights	2.42	1.084
ER3	Incidence of forced and Compulsory labor	2.13	.982
3	**Employment equity**	**3.27**	
EE1	The intensity of workers' treatment without any form of discrimination	3.18	.829

EE2	Jobs offered to local community	3.30	.842
EE3	Female to male employment proportion	3.30	.855
EE4	Uniformity of firm's wage and benefits scheme with national standards	3.31	.875
4	**Quality of life**	**3.61**	
QL1	Investment in staff education and training	3.69	.799
QL2	Effectiveness of staff education and training programs	3.45	.779
QL3	Staff retention rate	3.75	.880
QL4	Efforts on ensuring social welfare	3.65	.878
QL5	Improvements in community relationship	3.49	.774
QL6	Participation in voluntary programs	3.62	.822
	Amassed mean of Social SSCM Performance	**2.98**	

From the six items adopted to examine the health and safety aspect of social SSCM performance the lowest mean score value (M= 2.49) was recorded by the fourth item which deals with the reduction of occupational ill-health and injuries on employees. This denotes that large-scale manufacturing firms in Ethiopia have poor performance concerning in reducing the working environment that causes occupational ill-health and physical injuries on employees. Items regarding to accidents reduction within the company, and in providing education & training programs to employees on risk prevention and control scored mean value of (M= 2.56, and 2.59) with standard deviation of (SD=0.878, and 0.911) respectively. Even if these mean score values fall under the moderate performance level it clearly implies that there is a huge problem in realizing the health and safety aspect of social sustainability especially in the reduction of occupational-related ill-health & injuries, and in reduction of accidents. This is escalated due to inadequate education and training program designed and offered to employees regarding risk prevention and control.

Whereas the remaining items such as, improvements in health and safety standards, improvements in working conditions for employees, and reduction in spillage and leakage of chemical substances scored a mean value of (M= 2.85, 2.87, and 3.10) with the standard deviation (SD=0.864, 0.838, and 0.817) respectively. This denotes that relatively moderate performance. This indicates that due to the existence of occupational-related ill-health and injuries, relatively weak accident and injuries reduction as well as not adequate risk prevention and control training programs, large-scale manufacturing firms in Ethiopia to some extent have been improving their health and safety standards, working conditions, and chemical substance spillage and leakage reductions to improve their social sustainability. Furthermore, all items used to assess health and safety indicator of social sustainability performance standard deviations demonstrated that there is no significant disparity among the sample respondents.

Finally the sub-amassed mean score value of health and safety was conducted and obtained (M=2.74) which implies that collectively large-scale manufacturing firms in Ethiopia have moderate performance on the health and safety aspect of social sustainability.

Therefore, the above analysis implies that large-scale manufacturing firms in Ethiopia have a problem (lagging behind) in plummeting/reducing occupational-related ill-health and injuries, in reducing accidents in their firms, and in providing adequate training to their employees on risk preventions and control. However, in health and safety standard improvements, in working condition improvement, and in reducing spillage and leakage of chemical substances to some extent they revealed an auspicious performance. Relative to the other indicators health and safety aspects of social sustainability is somewhat ignored or not well considered by large-scale manufacturing firms in Ethiopia.

Regarding to employees' rights which scored the lowest sub-grand mean value (M = 2.30). At the same time the three items adopted to examine employee rights protection aspects of social sustainability performance namely harassment and abuse of employees, violation of employees rights, and incidence of forced and compulsory labor scored a mean value of (M= 2.35, 2.42, and 2.13) with the standard deviations of (SD=1.094, 1.084 and 0.982) respectively.

The standard deviation of the first two items indicates that a significant inconsistency among the sample respondents regarding harassment and abuse of employees, and violation of employees' rights while concerning incidence of forced and compulsory labor there is no significant difference. This implies that even if on average there is low harassment and abuse of employees, and violation of employees' rights in large scale manufacturing firms in Ethiopia (performing very well), as per the standard deviations value there is high harassment and abuse of employees, and violation of employees' rights (which needs more concerns) in some manufacturing firms.

Therefore, the items and the sub-grand mean score value of this study signifies that on average employees' right aspects of social sustainability performance is high and appreciative for achieving social sustainability. Because of the low mean value of these items (harassment and abuse of employees, violation of employees' rights, and incidence of forced and compulsory labor) implies that there is high protection about employees' right by large-scale manufacturing firms in Ethiopia.

The third indicator of social SSCM is about employees' equity which scored the sub-grand mean value of (M = 3.27). The four items used for examining this aspect of social SSCM performance namely treatment of workers without discrimination, jobs offered to the local community, female to male employment proportion, and uniformity of firm's wage and benefits scheme with national standards scored a mean value of (M= 3.18, 3.3,3.30, and 3.31) respectively. Both in items wise and sub-grand the scored mean value depicted that on average employee equity performance of large-scale manufacturing firms in Ethiopia is moderate and their standard deviation values indicates that no significant difference among the sample respondents.

Lastly, the fourth indicator of social SSCM performance is about quality of life which is measured by six items. According to the sample respondents' response, investment in staff education and training, staff retention rate, efforts on ensuring social welfare, and participation in voluntary programs scored a mean value of (M = 3.69, 3.75, 3.65 and 3.62) respectively. This indicates that large-scale manufacturing firms are highly concerned and performing very well through investing on training and education, retaining staffs, ensuring community wellbeing, and highly participating in various voluntary programs. However, regarding relationship improvement with the community, and effectiveness of staff education and training program which scored a mean value of (M= 3.49 and 3.45) respectively denotes moderate performance. Furthermore, the sub-grand mean value of the quality aspect of social SSCM performance scored the highest value of (M =3.61) than other aspects/indicators of social sustainability performance. This sub-grand mean score implies that large-scale manufacturing firms in Ethiopia have been working very well on the quality of life sub-indicator of social SSCM performance.

Eventually, besides the sub-grand mean value analysis of the four indicators or aspects of social SSCM performance, the total grand (amassed) mean value of the social SSCM performance was conducted and scored mean value of (M = 2.98). This grand mean value implies that even though, large-scale manufacturing in Ethiopia have high performance in the quality of life and employees right aspects of social sustainability, collectively the overall social SSCM performance is moderate.

For more elucidation sub-grand mean values of the social SSCM performance indicators (i.e, health and safety, employees' right, employees' equity, and quality of life) was graphically demonstrated in Chart 4.

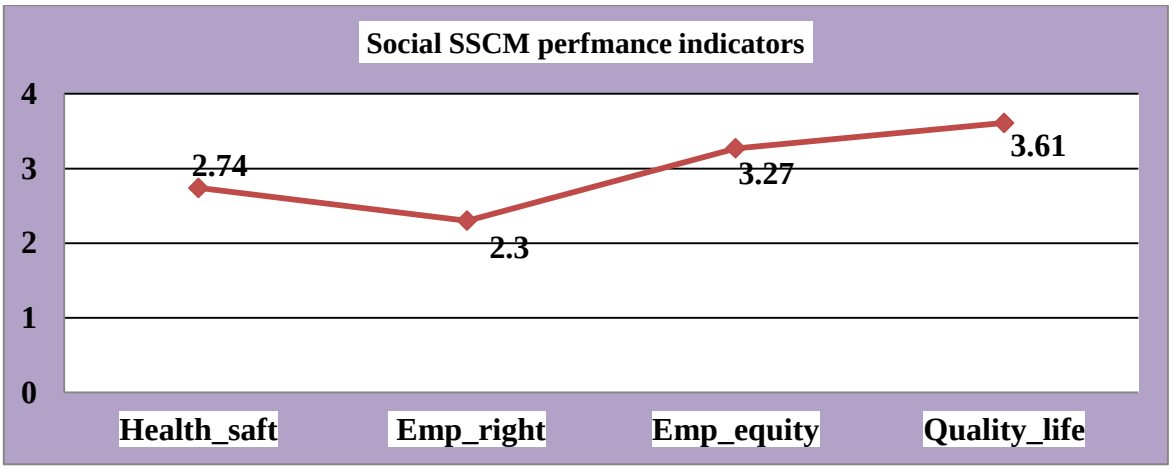

Chart- 4: The Sub-grand Mean Value of Social Sustainability Performance Indicators

As we can observe from the above chart, among the four indicators used to examine the social dimension of SSCM performance, quality of life indicator's performance scored the highest with (M = 3.61) were as the health and safety, and the employees equity aspects or indicators scored mean value of (M= 2.74 and 3.27) demonstrates moderate performance. However, employees right aspects of the social SSCM performance scored the lowest mean value (M = 2.30). Even though employees' right mean score value is low, its implication is high performance in protection of employees rights, since the items raised under this indicator were deals with the extent of employees harassment and abuse, employees (human) right violation, and incidence of forced labor usage. Therefore, the extent of these variables being low implementation or low score reveals high performance in employees' right protection by large-scale manufacturing firms in Ethiopia.

Therefore, based on the above analysis regarding the social SSCM performance large-scale manufacturing firms in Ethiopia were performing very well on the quality of life, and employees' right aspects, whereas they were found performing at a moderate level regarding health and safety, and employees equity aspects of social sustainability.

5 Conclusion

Large-scale manufacturing firms in Ethiopia were found both in employees' right and quality of life indicators of social SSCM are performing very well. That reveals on average there is high employees' right protection and highly employees' quality of life performance via investing on training and education, in retaining staffs, and involving in different voluntary programs for community wellbeing. However, regarding health and safety aspects of social sustainability performance of SSCM, large-scale manufacturing firms in Ethiopia were relatively lagging behind. The conclusion that can be drawn on the social SSCM performance is that even if there is a very promising performance on employees' right protection and quality of life aspects of social sustainability performance, the very important part which is employees' health and safety indicator was found ignored and not well considered by large-scale manufacturing firms in Ethiopia. Mainly in reducing occupational related ill-health and injuries, in reducing number of accidents in firms, and in providing adequate training to employees on risk prevention and control performances were relatively poor. This indicates that there is no well-programmed and documented strategy about employees' health and safety.

6 Limitation and direction of future research

Despite the valuable contribution of this study to the social sustainability in specific and to SSCM body of knowledge and practitioners in general, like other previous studies this study was not without any limitation, even if the impact of such limitations does not compromise the reliability and validity of the study output. The major limitations of this study are: First, the scope of this study was limited to only four large-scale manufacturing industries (Food and Beverage, Textile, Leather, and Basic Iron and steel) it does not incorporate manufacturing industries categories. Second, the data was collected by using only Likert-scale type which is perception based. Third, the respondents were only from manufacturing firms i,e, it does not include suppliers and customers' perceptions.

Despite the above limitations based on the foundation provided by this study on social sustainability performance, some more important and attention-grabbing areas suggested for further research works are: the future researchers shall incorporate other manufacturing industry categories; it is recommended future researchers shall use secondary (objective) data beside the Likert-scale type to measure the social sustainability performance more mathematically. Future researchers are also recommended to incorporate both suppliers' and customers' perceptions to provide an encompassing elucidation and picture of social aspects of SSCM performance.

7 Acknowledgments

I would like to extend my sincere gratitude to all sample respondents in the surveyed organizations for their cooperation by spending their invaluable time in filling up the survey questionnaires.

8 Conflict of interest statement

I assure that, I have no known competing financial interests or personal relationships which have or could be perceived to influence the work reported in this paper. In short, I have no conflict of interest in the publication of this paper.

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