International Journal of Research and Review
DOI: https://doi.org/10.52403/ijrr.20210647
Vol.8; Issue: 6; June 2021
Website: www.ijrrjournal.com
Research Paper *E-ISSN: 2349-9788; P-ISSN: 2454-2237*

Sustainability Implementation Analysis in Three Integrated Apparel Companies: Triple Bottom Line Application and Business Sustainability Typology

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ABSTRACT

Ready-made garment industry in Indonesia faces many challenges related to sustainability issue. Betterwork Indonesia found many social issues in their sustainability audits in 127 manufacturers of export-oriented ready-made garments. Moreover, from the environmental aspect, several environmental cases due to the activity of ready-made garment manufacturers have gained the attention of many stakeholders. Considering this background, the objectives of this study are: (1) analyzing the direction of sustainability policy from 3 export-oriented ready-made garment manufacturers (2) analyzing the sustainability level from these manufacturers according to the standards of their international buyers and external assessors (3) analyzing their performances on their sustainability implementation based on the framework of Triple Bottom Line dan Business Sustainability Typology. This study employed the descriptive and quantitative method with guided group discussion, in-depth interviews and using analytic hierarchy process (AHP). The interviews were conducted on 3 representatives from each of the manufacturers and 3 external representatives from different institutions. These three manufacturers already have several sustainability policies related to environmental and social aspects. In total, the policies here are found to be more focused towards economic aspects, followed by environmental and lastly social aspects. However, according to the external parties, these three manufacturers differs in their level of sustainability with Manufacturer A being the leader, followed by Manufacturer B and then Manufacturer C. For the Business Sustainability Typology, the three companies are at the BST 1.0 level and still have to balance the TBL dimensions to achieve True Sustainability. The three companies must take various actions so that there is no variant on each BST 3.0 indicator.

Keywords: AHP, Sustainability, Ready-made garments, TBL, Business Sustainability Typology

INTRODUCTION

By 2030 the world's population is expected to increase to 8.6 billion people, and global GDP will more than double by then (UN 2015). The increasing population will be accompanied by increased demand for apparel, water and energy consumption will also increase. If the global population rises as expected to 8.6 billion people by 2030 and GDP per capita grows by 2% per year in developed countries and 4% in developing countries, it estimates that apparel consumption will increase by 63% from 62 million tons per day in 2015 to 102 million tons by 2030, which equates to 500 billion T-shirts (Boston Consulting Group 2017).

The increase in the world's population, which is also accompanied by an increase in demand for apparel, has a major effect on social and environmental conditions. A simple picture according to the Ellen McArthur Foundation (2017) total greenhouse gas emissions from textile production of 1.2 billion tons per year, more than all international flights and combined

maritime shipping. Meanwhile, according to the United Nations (2015) with such practices the world will face a water crisis where by 2030 the world will be short of 40% fresh water.

In 2019, Indonesia's finished clothing exports to major destination countries recorded a value of US$ 7.07 billion decreased compared to 2018 but remained higher than in 2012 to 2016. Meanwhile, from the price of the piece, there was an increase in 2018 and 2019 compared to previous stagnant years (BPS,2020). This shows that the apparel industry in Indonesia continues to grow.

Table of Finished Apparel Export Value Data for 2012-2019 (Million US$)

Negara tujuan	2012	2013	2014	2015	2016	2017	2018	2019
Amerika Serikat	3202,6	3201,1	3112,7	3234	3098,9	3455,5	3775,1	3712,7
Jepang	369,6	489,8	522,2	582,7	574,8	674,8	740,4	698,7
Jerman	434,9	423,2	449,4	386,4	389,9	372,5	381,6	383,6
Korea Selatan	183,9	232,7	236,3	262,2	256,2	304,7	346	345,9
Inggris	273,1	234,2	230,6	187,3	173,6	171,2	168,6	146,8
Lainnya	1642,3	1635,9	1704,8	1758,3	1736,4	1769	1910,8	1784,8
Jumlah	6106,4	6216,9	6256	6410,9	6229,8	6747,7	7322,5	7072,5

The concept of Sustainability or sustainability was developed from the concept of Triple Bottom Line (Elkington 1998) namely 3P (People, Planet, Profit). The Company should pay attention to other aspects besides profit which is the purpose of the company. And in determining the level of sustainability, Dyllick and Muff (2015) clarified the definition of sustainability by developing typology with a focus on effective contributions to sustainable development, called Business Sustainability Typology (BST), the use of this BST helps companies to formulate their strategies in the process of sustainability integration in business.

The apparel industry in Indonesia today also faces a variety of challenges related to sustainability. Betterwork ILO Report 2018, from 127 export-oriented BWI audited apparel companies, found issues of non-compliance with employment law and ILO convention standards. Apparel companies that have the process of dyeing and or washing potentially have a greater impact on environmental aspects compared to apparel companies without such processes due to the significant use of natural resources. In early 2020, one textile company and one apparel company were civilly punished for pollution against the watersheds around the company's area of operation.

Companies are required to not only contribute to the economy but also help solve problems related to sustainability in social, environmental, and economic aspects. The sustainability level of apparel companies is very important for buyers and stakeholders both directly and indirectly. This study will analyze three apparel companies operating vertically and export-oriented in sustainability policies based on the Triple Bottom Line (TBL) and Business Sustainability Typology (BST) frameworks as well as analyzing sustainability levels in three companies according to international buyers and external assessment agencies.

METHODS

Data retrieval is conducted in three finished clothing business locations in accordance with the criteria of the scope of research and categorized according to the age stage of the agricultural business. Pt. A and PT. B. established since 1979 and 1978, has been operating for more than 30 years and PT. C. established since 1998 which has

been operating for more than ten years. Data retrieval was conducted in October 2020 to February 2021 while data analysis and processing was conducted in March 2021 in Bandung Raya, Solo and Semarang.

The types and data sources used in this study consist of, data Primer, obtained directly from respondents through in depth interviews on several key internal information including General Manager, Chief Executive Officer (CEO), and sustainability managers from all three companies, as well as from external parties, namely brand or buyer representatives, one respondent representing buyer institutions and representatives of sustainability audit bodies as auditing bodies to the three companies under scrutiny. These respondents had a background in sustainability and decision makers for business relationships with all three companies studied. Furthermore, data Sekunder, obtained in the form of archives, reports related to production, the number of production and business people apparel taken from the statistics of apparel business in Indonesia. In addition, data related to the demographics of the apparel business is taken from the Central Bureau of Statistics (BPS), as well as journals, books and articles related to research.

Sampling is done using non-probability sampling technique with purposive sampling method to determine the source who wants to be interviewed. Purposive sampling is a sampling technique with certain considerations or sampling tailored to answer the purpose and purpose of research by considering certain criteria. The criteria of the sample selected are the experts of sustainability practitioners in the company studied and the buyer.

Researchers in this study will interview expert practitioners. The determination of expert practitioner respondents is selected and determined deliberately based on consideration of the respondent's knowledge, ability and experience in the field studied. Expert respondents in the interviewees' studies consisted of:

1. External parties who are representatives of Brand or Buyer, one respondent represents the buyer institution and the representative of the sustainability audit body as the body that conducts audits to the three companies under scrutiny. These respondents had a background in sustainability and decision makers for business relationships with the three companies studied. External parties are also expert resource persons practitioners in focus group discussions to determine research variables as well as opinions of external parties regarding apparel companies in Indonesia.
2. Top Management Company that knows the overall state of the company which is a resource person expert practitioners in the implementation of corporate sustainability policy.
3. Sustainability managers in each company as a resource person umber expert practitioners in the implementation of corporate sustainability policies.

This study uses two types of data, namely primary data and secondary data. Primary data is obtained through questionnaires and in-depth interviews of expert practitioners, while secondary data is obtained from sustainability reports from each company, sustainability audit results reports, and the Indonesian Central Statistics Agency (BPS) as well as better work Indonesia synthesis reports. The questionnaire was distributed to 12 respondents consisting of General Manager, Director, Sustainability Manager at the company studied as well as external buyers and assessors of the sustainability aspects of the company that has years and policy makers and decisions about sustainability. Researchers conduct interviews directly to respondents both face-to-face and online.

The variables used in this study are described and measured by the description of each variable shown in Table 3.1. The variables to be tested are economic

dimension variables, environmental dimensions and social dimensions measured by several indicators of each variable variable to measure the level of sustainability. Indicators were made by studying the research results of Kim and Park (2016), Braccini and Margaretha (2018), Miller E, Buys L, Summerville J (2007), sustainability standards in Better Work (BW) and Focus Group Discussion (FGD) with external and internal parties of the company.

This research was conducted in various stages of data processing and analysis, including by conducting sustainability implementation analysis based on the concept of Triple Bottom Line (TBL) and Business Sustainability Typology (BST). The method used in this study is a descriptive quantitative method using analytic hierarchy process (AHP) to set priorities by using a tool in the form of Microsoft Excel Software.

Descriptive approaches are used to obtain an overview of information, explanations, and conditions related to research objects and research objects themselves factually and systematically. Yusuf (2014) stated that descriptive quantitative research is a type of research that aims to describe systematically, factually and accurately to provide answers to a problem by using the stages of research with quantitative approaches.

Kangas et al. 2001 stated that this AHP is used to give weight at every level and provide an assessment to know the exact strategy of the resulting alternative strategy. AHP is a measurement theory by taking a quantitative approach (quantifiable) and/or intangible criteria. Decision making is done with a multi criteria approach through pairwaise comparison that comes from the scale of preference among a group of alternatives (Saaty 2008). Matrix processing is performed with Microsoft Excel.

Prioritization of factors, actors, objectives and strategies in analyzing the level of sustainability of the company and the composition of the Triple Bottom Line (TBL) is carried out by the AHP method. The first step in AHP is to build a hierarchy. The issue of determining strategy in the development of the sustainability level of apparel companies in Indonesia is described into elements, namely factors / criteria, actors, the objectives of each actor and alternative strategies to be chosen.

After the preparation of the hierarchy of the problems faced, then assessed through a comparison of pairs. The authors conducted an assessment with experts using Microsoft Excel assisted by filling out questionnaires first.

Comparisons are made based on decision-making policies by assessing the importance of one element to another. The comparison process is paired, starting at the top of the hierarchy level intended to select criteria, such as A, and then taking the elements to be compared, such as A1, A2, and A3.

The authors used two AHP model designs to determine the level of implementation of the Company's Triple Bottom Line and an analysis of the precepts of international buyers at the three companies studied. The network on the AHP model is designed with the main objective of analyzing the sustainability implementation of the three selected companies operating in the apparel sector in Indonesia. Each criterion is selected according to the definition of Triple Bottom Line sustainability which is in specification into three sub criteria. Analysis of triple bottom line implementation in the company, researchers using AHP model shown in the picture below.

As for analyzing the precepts of international buyers and external appraisal agencies against TBL and the three companies studied. In the author's image using the AHP model.

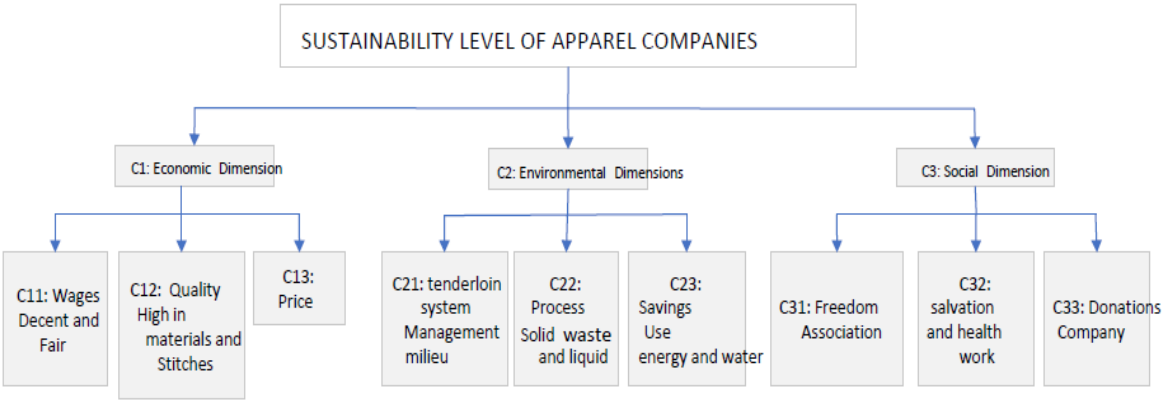


Figure 3.1 AHP model of the sustainability level of finished clothing in the company

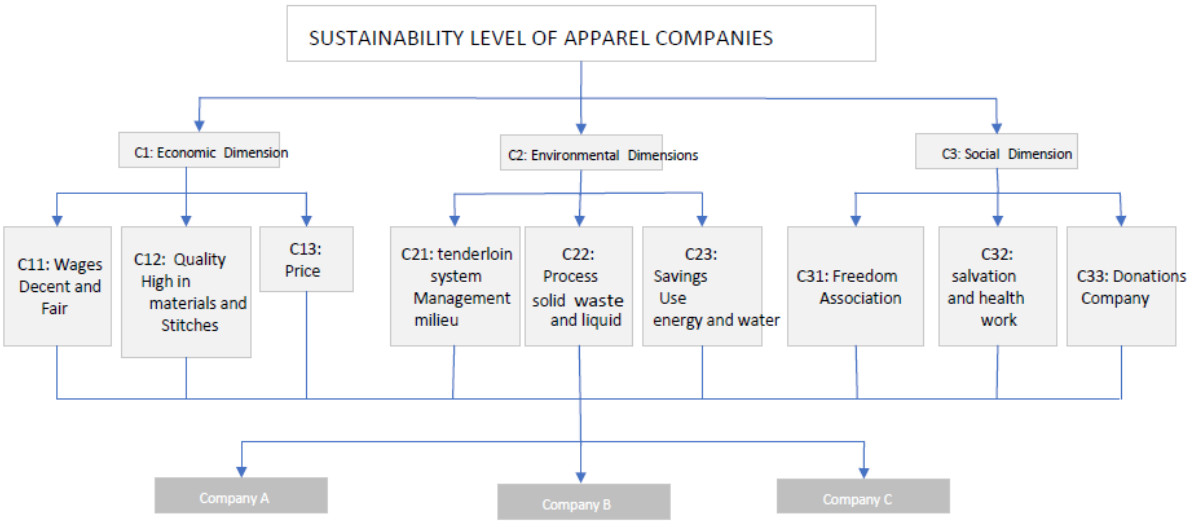


Figure 3.2 Design of the structure of the company's electoral hierarchy by external parties

RESULTS

Selected Sectors

According to Jiliow (2017) The Policy is a clear and simple statement of how the organization intends to perform its services, actions or businesses. Policy is the way in which annual goals will be achieved. Policies include established guidelines, rules, and procedures to support efforts to achieve stated goals. A policy is defined as the value or perspective underlying the action.

To carry out activities related to sustainability be it environmental, social or business sustainability is required a policy of top management that becomes a beacon for every component of the organization. When sustainability policies are implemented, there are greater opportunities to go further for sustainable initiatives instilled into every company's activities (Price &Pitt, 2011).

In terms of sustainability policy, PT A has 8 written policies related to variables that are researched. All of these policies are signed by the company's top management. Policies related to employment and the environment are written in reference to the prevailing laws and regulations in Indonesia while the quality policy and referring to ISO 9001, each of these policies states the company's commitment to comply with existing laws and regulations and ensures regular monitoring of implementation and communicating the policy to all employees. These policies meet the criteria of ISO 26000 and ISO 14001 primarily in relevance to products and activities, taking into account stakeholder expectations, having top management commitments, following

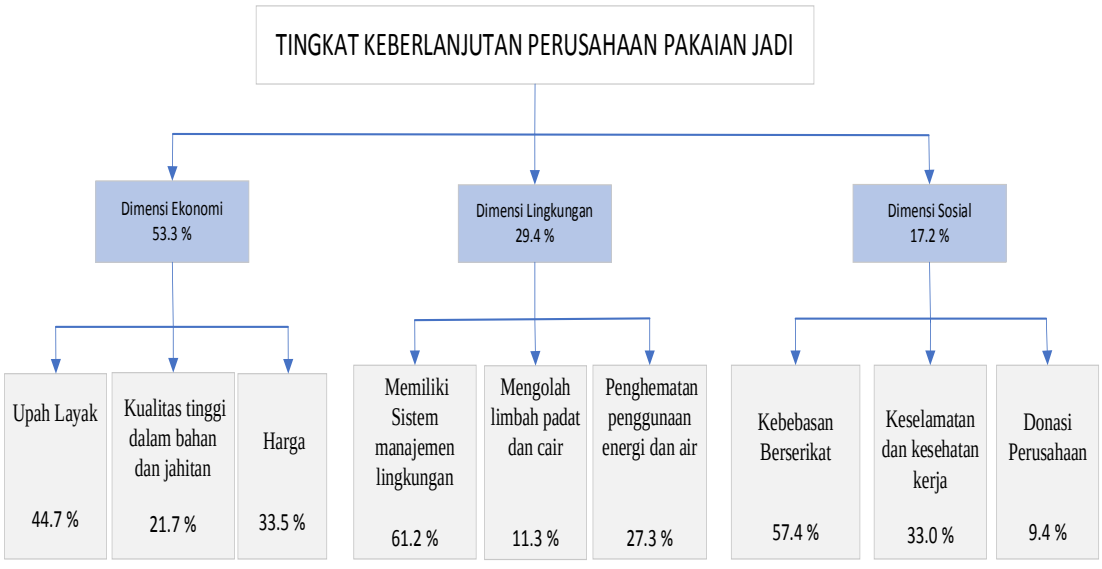
applicable laws, documented and communicated to employees.

The company has not fully implemented environmental policies on every process of operation and treatment of waste, in 2018 found cases of tributary pollution around the company. Although according to the company's management, the problem has been solved and they have built a system for environmental impact control but building transparent cooperation with stakeholders is very important, with the establishment of mutual understanding and good communication is expected to create a check and balance mechanism to ensure the company's policies are implemented properly.

PT B, has 9 written policies related to sustainability, sustainability policies in PT. B. Policy issued by PT. B make legislation, international standards as a reference in their policy making and the policies are also signed by the top management, documented and socialized through announcements and company websites. This is in accordance with the policy writing standards contained in ISO 26000 and ISO 14001. As one of the largest companies in the area where it is produced, PT. B is expected to be an example for other companies in terms of sustainability. The case of environmental waste that caused a loud protest of the community around the company because of air pollution at one of pt's subsidiaries. B can be a benchmark for successful implementation of the company's sustainability policy. Case of pungent odor due to production process in PT. B according to the company due to the overlap of development permits for industrial and residential areas. To overcome this, the company invests in new technological machines that are expected to reduce air pollution in the form of pungent odors due to the production process.

While PT. C has 11 written policies relating to sustainability, all of which are signed by the company's top management and updated from time to time. All such policies are based on applicable laws and regulations of brand holders.

According to the results of this study, it was found that in policies related to the three-dimensional Triple Bottom Line sustainability, in total all three companies have priority in determining the direction of company policy. Here's a chart of the sustainability policies of the three companies and their priority levels in figure 6.



Sustainability Policy Priority Images in three Companies

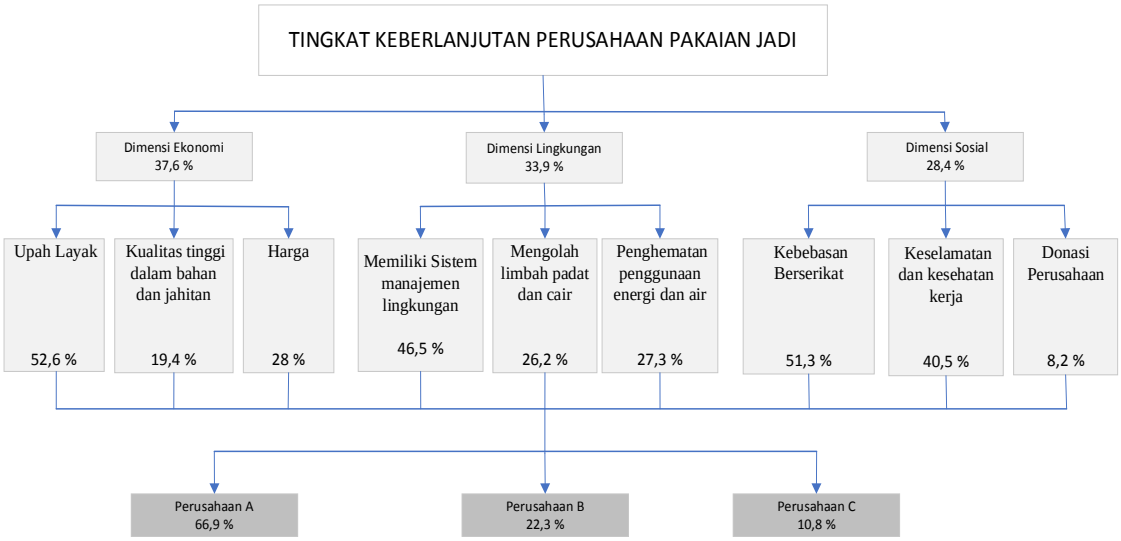
It can be seen that at the first level, the policy that is highly prioritized is the policy on the economic dimension, where the percentage obtained is 53.3%. While the

sub factor that is a priority in that dimension is the policy on the living wage of 44.7%, which some respondents argue that the economic dimension is very important. This is because the company strives to gain profit and economic dimensions can strengthen the company's economic factors. Fisk's opinion (2010) states businesses need to address their economic, social and environmental challenges holistically, and to understand how they can join as a positive force in creating a better world.

The priority subfactor in this dimension is the living wage of 44.7%, which according to all respondents has a huge impact on the company because some time ago the minimum wage changes were unpredictable and employers hoped that with the Ominibus law wage changes can be predicted so that employers can plan the company's finances well. The condition of the Covid 19 pandemic also makes the company more focused on economic factors to maintain the sustainability of the company, because the many export markets are locking down so that products cannot be shipped and imported raw materials are rather difficult to come by.

While the environmental dimension is a policy that is prioritized in the second order after the economic dimension, namely the environmental dimension with a percentage of 29.4%. Most companies argue that in addition to the main purpose of the company is increased profit, but the company must also maintain the sustainability of nature. The priority subfactor on that dimension is that the company has an environmental management system of 61.2%, social dimension is a policy that is prioritized in the third place after the economic dimension of 53.26%, With the priority subfactor on that dimension is to contain a policy on freedom of association of 57.4%. The subfactor of freedom of association becomes a priority subfactor on this dimension because according to respondents as a company that employs many people, cooperation and interdependence with employees is very important to support the continuity and smooth running of the business. Without employee involvement through the union, management will find it difficult to know the condition of the employee's actuary and the demands and complaints of employees.

External Assessment



Corporate Sustainability Level Image - External Assessment

Based on the picture above in the external assessment of the composition of the Triple Bottom Line, namely the economic dimension of 37.6 %, the environmental dimension of 33.9% and the social dimension of 28.4%. In the economic

dimension according to the external assessment the level of sustainability priority in the economic dimension is 37.6%. This is because, according to external parties the economic dimension is the main driving factor in business and sustainability must be included in the company's business strategy to benefit. The priority subfactor in this dimension is the living wage of 52.6%, all external respondents argue that apparel companies should pay attention to the living wage for employees because often wages are sacrificed to pursue corporate profits. One third party said the issue of wage payments and overtime wages was still found in sustainability audits even though the number of findings was not large. According to James et al (2015) the fact is that businesses profit more by acting sustainably and Silvestre et al (2016) benefit from competitive advantage opportunities in the sustainability aspects they create and plan.

In contrast to the economic dimension, the calculation results on the Environmental dimension show that the priority of sustainability in the environmental dimension is 33.9%. According to external parties, the environmental dimension is very important although the economic dimension is the main driver in business, but the environmental dimension should not be sidelined with the priority subfactor on this element is the environmental management system of 46.5%, according to the external environmental management is the basis of environmental management in the company. With environmental management that is well implemented, the company can control the environmental impact from the beginning of production to the final process such as waste treatment.

While in the social dimension, according to external assessment the level of sustainability priority in the social dimension is 28.4%. According to external parties, the social, and environmental dimensions of an economic activity are two inseparable aspects. The priority subfactor in this dimension is freedom of association at 51.3%. Good industrial relations and guaranteed worker welfare are the key to stable production activities of the company. Employment problems in apparel companies for the social dimension are dominated by the poor communication process between employees and management.

According to international buyers and external valuation bodies, the three companies have different levels of sustainability. However, each company has a different characteristic in dealing with it. Where U.S. companies weighing 66.9% are viewed in the implementation of good sustainability over time and the implementation of its programs is very open with various innovations. In addition, company A is considered to have a comprehensive sustainability management system from the social and environmental side that is integrated with the business and supported by resources that suit each field. Therefore, company A is seen as better than the other two companies. Whereas according to international buyers and external valuation bodies, company B with a weight of 22.3% and C with a weight of 10.8% in sustainability implementation has not been as good as company A, while the company is a smaller company compared to company A so it is very important for these apparel companies to implement sustainability correctly because of its high level of importance (Neumann at al , 2019).

Brands or Buyers who are respondents from external parties, agree that companies that become their suppliers must meet sustainability criteria in accordance with applicable laws and required by buyers. According to these buyers, as brand holders they have an obligation to put forward sustainability on their activities and supply chain activities, not only because of the demands of stakeholders but also their responsibilities as a sizable business entity.

A good relationship between buyers and suppliers is very useful for developing a sustainable supply chain and the adoption of

sustainability by supply chain partners will benefit buyers such as better reputation, product differentiation, premium prices and more (Kumara and Rahman, 2015). However, according to external respondents, although they have a good relationship between buyers and suppliers, as buyers they do not get access or only have limited access to all areas of the supplier company because they do not utilize the capacity of the supplier 100% and usually the supplier does not give 100% production capacity to one brand. So this becomes an obstacle in ensuring supplier companies apply and adopt the implementation of sustainability in all units of the company.

Corporate Sustainability Level in Business Sustainable Typhology (BST) Concept

The apparel industry makes the triple bottom line balance the basis for a more advanced sustainability process (Pfante and Rosso 2020). In the triple bottom line all dimensions must be balanced ((Wang, Tong, Takeuchi &George 2016), according to the concept of Triple Bottom Line Elkington (1998). So the composition of Business Sustainability Typology used in this study is adapted to the concept of Dyllick and Muff (2015).

Here are the results of the calculation of the level of sustainability priorities in company A, company B, and company C as well as the average value to get the results of sustainability levels in the export-oriented apparel industry represented by the three companies:

Table Business Sustainability Typology Apparel Company

		Perusahaan A	Perusahaan B	Perusahaan C	Rata-Rata
Ekonomi (Profit)	Upah Layak dan Adil	0.13123487	0.146933746	0.519860163	0.266009593
	Kualitas Tinggi dalam Bahan dan Jahitan	0.108869882	0.045683224	0.159382169	0.104645092
	Harga FOB	0.158019927	0.431721655	0.037735166	0.209158916
Sub Total		0.398124679	0.624338624	0.716977499	0.579813601
Lingkungan (Planet)	Memiliki Sistem Manajemen Lingkungan	0.164559173	0.075972764	0.167495474	0.136009137
	Mengolah Limbah padat dan Cair	0.188373229	0.01006361	0.012060825	0.070165888
	Penghematan dalam penggunaan energi dan air	0.094186614	0.022429235	0.048000609	0.054872153
Sub Total		0.447119016	0.108465608	0.227556908	0.261047178
Sosial (People)	Kebebasan berserikat	0.045567631	0.041340207	0.011880226	0.032929355
	Fasilitas dan Benefit untuk karyawan	0.087320331	0.169473828	0.040672293	0.099155484
	Donasi Sosial Perusahaan	0.021868343	0.056381732	0.002913074	0.027054383
Sub Total		0.154756305	0.267195767	0.055465593	0.159139222
Total		1	1	1	1

The total average economic factor is 57.9%, environmental factor is 26.15% and social factor is 15.9%, this result shows no balance on triple bottom line. All companies no longer focus solely on the economic dimension, they already pay attention and allocate their resources on all three dimensions of sustainability but the value of the dimension is still higher than the social and environmental dimensions.

From these results these apparel companies are still at a BST 1.0 level where they only focus on the economic dimension or Business as Usual but have not yet achieved the triple bottom line balance and there has been no creation of value for the common good required for BST 2.0 and BST 3.0. Where Business Sustainability 3.0 (True Sustainability) is a truly sustainable business that shifts perspectives from efforts to minimise their negative impacts into understanding how it can create significant positive impacts in areas critical and relevant to social and environmental (Dyllick and Muff, 2015)

The calculation result obtained the value of sustainability priority level in company A, namely for economic dimension of 39.8%, for environmental dimension of 44.7%, and for social dimension of 15.4%. This shows that the results have not come close to the concept of BST 2.0. The calculation result obtained the value of sustainability priority level in company B, namely for economic dimension of 71.7%, for environmental

dimension of 10.8%, and for social dimension of 26.7%. This shows that the results obtained by TBL are not balanced and have not approached the concept of BST 2.0 (Dyllick and Muff 2015). The calculation result obtained the value of sustainability priority level in company C, namely for economic dimension of 72%, for environmental dimension of 22.7%, and for social dimension of 5.5%. This shows that the results have not come close to the concept of BST 2.0.

CONCLUSIONS

In this study, several conclusions were obtained, namely the following: First, the three companies studied have had several policies related to sustainability and the direction of sustainability policies of the three companies in total is more inclined to the economic dimension of 53.2% for the economic dimension, 29.4% for the environmental dimension, and 17.3% for the social dimension. The implementation of the policy is still a homework for the researched company because there are still some cases of sustainability, especially in the environmental dimension. Sustainability is a requirement for all three companies to become suppliers to buyers because the company becomes a supply chain of buyers demanded by their stakeholders to be sustainable in all their business activities. According to external parties, U.S. companies are considered better at sustainability implementation than the other two companies because the sustainability system is better integrated in the company's activities. This is influenced by the size and impact of the company. The sustainability levels of the three companies according to external parties are company A by 66.9%, company B by 22.3%, company C by 10.8%. While external parties terutam buyers still have a gap in controlling the implementation of sustainability in their suppliers.

Based on the results of research obtained that export-oriented apparel companies in Indonesia are represented by the three companies studied are still at the level of sustainability Business Sustainability Typology 1.0 where the company has not achieved the balance on all dimensions of the Triple Bottom Line required Business Sustainability Typology 2.0 with an economic dimension of 57.9%, environmental dimension of 26.15%. and social 15.9% To reach the level of BST 3.0 or True Sustainability the company must still balance the Triple Bottom Line and have the initiative to make innovations that can create value for companies, entrepreneurs and stakeholders.

This research is limited to apparel companies with a limited vertical setup in Indonesia, to get a broader picture of the implementation of Sustainability in the apparel industry in Indonesia so for further research can involve companies with cut and sew processes and local oriented companies. While the impact of the covid 19 pandemic on the sustainability of the company's performance and the implementation of sustainability obtained in the interview session can be followed up with more in-depth research and specifically on that. To make apparel companies with vertical setups at BST 3.0 level, these companies must first balance all dimensions of the Triple Bottom Line (TBL) in the policy and implementation of sustainability by making the social and environmental dimensions part of the company's economic dimension decisions and policies.

Acknowledgement: None

Conflict of Interest: None

Source of Funding: None

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How to cite this article: Gusmara T, Harianto, Riffin A. Sustainability implementation analysis in three integrated apparel companies: triple bottom line application and business sustainability typology. *International Journal of Research and Review*. 2021; 8(6): 370-381. DOI: *https://doi.org/10.52403/ijrr.20210647*

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