BRAZILIAN FOOTWEAR INDUSTRY: AN ANALYSIS OF THE SUSTAINABLE PRACTICES OF CERTIFIED COMPANIES BY THE SUSTAINABLE ORIGIN SEAL

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ABSTRACT

Objective: To analyze the actions of the Brazilian footwear industry aimed at introducing innovations with an emphasis on sustainability.

Theoretical Framework: The categories presented in the study addressed the historical evolution of sustainability and concepts related to the Sustainable Development Goals.

Method: The footwear industries certified by the Sustainable Origin seal were adopted as the research locus. The research method is qualitative, descriptive, applied in nature. The analysis crossed the information published in the sustainability reports of these companies with the dimensions of the sustainable development objectives – people, planet, peace, prosperity and partnership.

Results and Conclusion: It was found that some strategies are transversal to all dimensions. In the people dimension, companies adopt, as a priority, actions aimed at health and education. In the planet dimension, innovations consist of the development of more sustainable products, use of clean energy, reduction in water consumption in processes, use of technology and management models based on the pillars of sustainability. In the prosperity, peace and partnership dimensions, the companies present actions transversal to the main activity of the business, with emphasis on the adoption of a code of ethics and transparent management in the peace dimension.

Research Implications: The research reinforces previous studies regarding the predominance of sustainable practices aimed at solid waste management, however, it is possible to see new actions highlighted, such as the management of the responsible use of water and clean energy, in addition to investments in research and development of products from more sustainable materials.

Originality: These results contribute to academic studies with evidence of changes in the practices of the footwear industry.

Keywords: Sustainability, ODS, Innovation, Certification.

INDÚSTRIA CALÇADISTA BRASILEIRA: UMA ANÁLISE DAS PRÁTICAS SUSTENTÁVEIS DE EMPRESAS CERTIFICADAS PELO SELO ORIGEM SUSTENTÁVEL

RESUMO

Objetivo: Analisar as ações da indústria calçadista brasileira voltadas para a introdução de inovações com ênfase na sustentabilidade.

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Referencial Teórico: As categorias apresentadas no estudo abordaram a evolução histórica da sustentabilidade e conceitos relacionados aos Objetivos do Desenvolvimento Sustentável.

Método: Adotou-se como lócus da pesquisa as indústrias produtoras de calçados certificadas pelo selo Origem Sustentável. O método de investigação é qualitativo, descritivo, de natureza aplicada. A análise cruzou as informações publicadas nos relatórios de sustentabilidade destas empresas com as dimensões dos objetivos do desenvolvimento sustentável – pessoas, planeta, paz, prosperidade e parceria.

Resultados e Conclusão: Verificou-se que algumas estratégias são transversais a todas as dimensões. Na dimensão pessoas, as empresas adotam prioritariamente, ações voltadas para saúde e educação. Na dimensão planeta, as inovações consistem no desenvolvimento de produtos mais sustentáveis, uso de energia limpa, redução no consumo de água nos processos, uso de tecnologia e modelos de gestão fundamentados nos pilares da sustentabilidade. Nas dimensões prosperidade, paz e parceria, as empresas apresentam ações transversais a atividade principal do negócio, com destaque para a adoção de código de ética e gestão transparente na dimensão paz.

Implicações da Pesquisa: A pesquisa reforça os estudos anteriores quanto a predominância das práticas sustentáveis voltadas para a gestão dos resíduos sólidos, contudo, é possível perceber novas ações em destaque, como a gestão do uso responsável da água e de energia limpa, além de investimentos em pesquisas e desenvolvimento de produtos a partir de materiais mais sustentáveis.

Originalidade: Esses resultados contribuem para os estudos acadêmicos com evidências de mudanças nas práticas da indústria calçadista.

Palavras-chave: Sustentabilidade, ODS, Inovação, Certificação.

1 INTRODUCTION

Industry emerged with the industrial revolution in Europe from the migration of manual production processes to the use of machines. In Brazil, the industrial sector encompasses a series of productive activities that positively impact the other sectors of the economy and is presented in three sectorial classes: extractive industry, transformation industry, and construction industry; together, these categories comprise 33 sectors of the Brazilian industry (Portal da Indústria, 2022).

Among these sectors is the footwear industry, which was responsible for 266,000 formal jobs in 2021, and these jobs were generated in 5.4 thousand companies that manufacture footwear all over the country and, in this year, Brazil produced 806.3 million pairs of shoes, of these, 54.3% in the Northeast, 23.8% in the South and 21.1% in the Southeast, distributed in 10 states (Ceará, Paraíba, Pernambuco, Sergipe, Bahia, Minas Gerais, São Paulo, Paraná, Santa Catarina and Rio Grande do Sul). This volume places Brazil among the main shoe producers in the world, occupying the fifth position in the world ranking (ABICalçados, 2022).

However, some research points out that the activities developed by the footwear sector are highly polluting and that, in most companies, the actions aimed at sustainability focus on implementing measures to reduce the impact caused to the environment and society (Luz et al., 2013; Plentz & Tocchetto, 2014; Francisco et al., 2014; Hansein et al., 2021; Wallauer et al., 2022), mostly involving the reuse of materials and the correct disposal of waste (ABICalçados, 2019; Hansein et al., 2021).
However, there are valuable initiatives that can corroborate for the acceleration of these much needed changes in the sector. Plentz and Tocchetto (2014) highlight three practices observed in the footwear industries: the implementation of environmental management in companies; the introduction of eodesign concepts in processes and products, including the search for eco-efficiency; and, the adoption of reverse logistics to the production chain, coupled with more efficient selection of materials.

In addition, in 2013, the Brazilian Association of Footwear Industries (ABICALÇADOS) launched the Sustainable Origin program, with the purpose of certifying companies in this segment that meet the requirements established in the baseline dimensions (Brazil-Arab News Agency, 2022), and aims to certify the largest number of companies in the coming years.

The Sustainable Origin is the only sustainability program in the world that certifies the footwear chain and is based on five dimensions: sustainability, economic, environmental, social and cultural management. Based on these pillars, indicators are made available that serve as parameters for the evaluation of the organizational performance, in each of the dimensions, and these indicators are parameterized by international standards (Origem Sustentável, 2022). The Sustainable Origin seal is genuinely Brazilian, based on the most important international references of sustainability and is aligned with the Sustainable Development Goals (SDGs) proposed by the United Nations (ONUun) and the Global Reporting Initiative (GRI). The companies that seek the seal go through a rigorous evaluation process, and, according to the organizational performance, against each of the indicators, the company receives a seal that can be bronze, silver, gold or diamond level.

Based on the above, this work seeks to answer the question: how are Brazilian footwear industries introducing innovations with emphasis on sustainability?

Thus, the objective is to analyze the actions of the Brazilian footwear industry aimed at introducing innovations with an emphasis on sustainability. The research contributes with information about the innovation strategies and the actions that connect this group of companies to the Sustainable Development Goals (SDGs), a subject in focus both for the organizations, which seek to adapt to this market requirement, and for consumers and society in general, which has become aware of this theme and increasingly search for products from brands that perform sustainability actions.

2 THEORETICAL REVIEW

The term "sustainability" appeared in Germany, around the second half of the 16th century, motivated by the need for the rational use of forests, since wood was the main raw material used in the construction of houses, furniture, agricultural appliances and as fuel for cooking and heating the homes. But it was only in the early 18th century that the concept of sustainability took on a strategic approach. With the creation of mining furnaces, there was an increased demand for charcoal, which triggered more deforestation to meet this new front of progress, hence the concern to establish rules for the responsible use of wood, in order to perpetuate the business and ensure profit (Boff, 2017).

Additionally, with the beginning of the Industrial Revolution, between the 18th and 19th centuries, there was an increase in the demand for natural resources and, consequently, an increase in pollution, concentration of greenhouse gases, and accumulation of solid waste. The dominant thought in this period turned to rationalism, to the determining perspective, to productivity, to industrial innovation, in the understanding that nature was at the service of economic growth (Barros, 2020).

Thus, the industrial system begins to produce consumer goods on a large scale using natural resources in an exploitative way, in order to meet the needs and desires of humans, and
nature, in turn, is seen as an inexhaustible source of resources and source of wealth for the dominant countries (Boff, 2017). As economic growth provided some improvements in people's living conditions, environmental problems were not expressively questioned (Jacobi, 1999).

However, Jacobi (1999) emphasizes that sustainability involves social justice, quality of life, environmental balance and the need for development with support capacity, in addition to guarantees of economic, financial and institutional sustainability. He also argues that the emphasis should be on practices based on the development of social policies articulated with the need for recovery, conservation, improvement of the environment and quality of life.

Besides environmental problems, the existing inequalities between various regions of the world and the social ills resulting from the search for economic growth have become explicit and alarming (Dias, 2010; Oppliger et al, 2020), the globalization process, intensified from the twentieth century on, is pointed out as responsible for accelerating the social inequality situation and the environmental issue, described by Jacobi (1999) and Barros (2020), which emerges in the twentieth century and consolidates itself in the twenty-first century, figures in contemporary society as a dilemma for humanity (Oppliger et al., 2020).

In the mid-1990s, John Elkington launched the Triple Bottom Line concept, known as the sustainability tripod, through which he intended to disseminate the idea that companies should measure the value they generate, or destroy, in the economic, social, and environmental dimensions (Elkington, 2012).

For Sachs (2009), the concept of sustainability, based on the tripod (environmentally correct, socially fair and economically viable), becomes a way to maintain human life on earth. It seeks a socially just development that reaches a global scale, with economic viability that provides for the distribution of income in an inclusive and sustainable manner and respects ecological conditions, with a view to meeting the needs of the present and future generations.

Later studies presented more comprehensive concepts, adding the "cultural" dimension to the tripod proposed by Elkington. Werbach (2010) and Landry (2013) argue that this fourth dimension is responsible for manifesting the identity of a community and should be preserved as much as the other dimensions previously proposed, in order to ensure cultural traditions for the next generations.

Other authors, such as Daly (2007) and Sachs (2018), recognize sustainability as multidimensional and these dimensions have interdependent relationships with each other, demonstrating that this is a complex system. Mendes (2009) recognizes seven dimensions in sustainability, and mapped them as: ecological, economic, social, spatial or territorial, cultural, political and psychological, the latter being added because it relates the human being to the other dimensions.

With the intention of engaging companies, in 2000 the Global Compact was launched by the then United Nations Secretary-General Kofi Annan. The initiative is a call for companies to align their strategies and operations with 10 universal principles in the areas of Human Rights, Labor, Environment, and Anti-Corruption, and to develop actions that contribute to meeting society's challenges. It is the largest corporate sustainability initiative in the world, with more than 16 thousand members, among companies and organizations, distributed in 69 local networks, covering 160 countries (Global Compact, 2022).

The Global Compact Network Brazil is the third largest network in the world, with more than 1,100 members. Among these members, there are large Brazilian companies, such as Natura, Samarco, and several companies in the financial sector; however, no large company from the footwear sector was identified. In the small or medium size category, there is one company classified as a footwear industry and trade, a member in July 2020 (Global Compact, 2022). However, it is worth considering that companies can implement actions aligned to the SDGs even if they are not associated with the Global Compact, as identified in the strategies of footwear industries certified by the Sustainable Origin Seal.
However, Feil and Schreiber (2019) question the effectiveness of the various discussions for practical implementation of sustainability. According to the authors, the studies of isolated fragments are incipient to validate such practices, in addition to the fact that organizations publish sustainability reports or similar to these, with the sole purpose of demonstrating to society their concern with social thinking and expectation on such issue, and, generally, the companies that invest in environmental and social aspects are the ones that most harm or impact the environment. They also point out that companies with low environmental and social impacts usually do not invest financial resources in these areas, which shows that environmental and social investments are subjugated to financial interests.

The field of study on sustainability is broad and requires special attention beyond theoretical discussions, because it is necessary to evaluate the effectiveness of sustainable practices. As one delves deeper into investigations, several questions arise regarding the motivations why some organizations adhere to so-called "sustainable" actions, would these actions be the result of voluntary initiatives, or do these actions need to be implemented to mitigate social and environmental impacts caused by the organization? (Feil & Schreiber, 2019).

Questions like these are raised by several researchers who alert to the need to reflect on such sustainable practices, if in fact organizations are evolving regarding the change of posture regarding the use of natural resources, the interaction with society in a broad way involving all stakeholders, and the application of financial resources with emphasis on establishing a relationship of benefits that contemplates the tripod of sustainability. It is noteworthy that such questions are healthy from the point of view of the search for improvement of current practices and corrections of possible actions that are insufficient in relation to the Sustainable Development Goals (SDGs).

The SDGs were built on the Millennium Development Goals (MDGs) with the intention of continuing to advance in the search for a better world for all. Inserted in the 2030 Agenda, the 17 SDGs are based on five axes: people, planet, prosperity, peace, and partnership (5Ps), and constitute a global call to action to end poverty, protect the environment and the climate, and ensure that people everywhere can enjoy peace and prosperity (United Nations, 2016).

It can be said that the 17 SDGs have the logic of transversality and indivisibility, since it is impossible to develop a project focused on only one SDG, since they are closely interconnected, so that the more themes are addressed, the closer to a sustainable agenda one will be (Raeder & Menezes, 2019; Zampier et al., 2022).

According to Berlato et al. (2016), some companies have already aligned their strategies and actions, with an emphasis on sustainability, to the business objective, mission, and values, in order to gain competitive advantages, improve their reputation, generate trust, credibility, and build customer loyalty. This effort is genuine, since sustainable development is the path to business continuity.

Do Nascimento Duda et al. (2022) call attention to the positive relationship between sustainable practices with intangible assets, the authors consider that the value of the company's image is measured and classified within the intangible assets, they also highlight that strategies that take into account sustainability criteria have the ability to create long-term value, because such actions arouse the interest of investors and customers.

But Cavaleri and Shabana (2018) warn to the aspect that actions, even guided by the tripod of sustainability, when disconnected from the business strategy, do not add competitive advantage to the company, and may only consume the resources without generating adequate return, lead inefficiency to the company and affect the competitiveness of the business. This inconsistency may be a reflection of lack of knowledge, lack of resources and lack of internal skills (Iraldo et al., 2017).
In this sense, companies need to have their mission and values integrated into the pillars of sustainability, and their business strategies, policies, programs, and socio-environmental procedures must be present in all areas, being disseminated throughout the organizational structure, including the collaboration of all hierarchical levels, so that the organization develops a holistic vision and a proactive and transparent conduct that reflects on the impacts of the business and considers the interests of stakeholders (Tachizawa & Andrade, 2012; Belinky, 2016; Santos & Silva, 2017). These actions, if well planned and implemented, can contribute to improved business image, brand enhancement, customer satisfaction, conquest of new markets, cost and risk reduction, and improvement in the quality of life of employees and society (Moura, 2011; Lopes et al., 2014; Hansein et al., 2021).

For Hansein et al. (2021), organizations can adopt environmental actions aimed at the product and the production process, and these changes involve the replacement of polluting or toxic materials, for environmentally appropriate inputs, still in the product development phase, in order to reduce material consumption and waste. This proposal is based on the just-in-time principle, doing more with less. According to Francisco et al. (2014), in the footwear sector, production is based on this principle, but with intensive use of natural resources and great generation of waste, effluents, and gas emissions.

From the foregoing, there is a dimension of the necessary demands for the footwear industry sector, concerning the strategic definition that guides the practical actions of organizations, with a view to obtaining better results in the environmental, social, and economic spheres.

3 METHODOLOGICAL PROCEDURES

This work proposes to analyze the actions of the Brazilian footwear industry directed toward the introduction of innovations with emphasis on sustainability. This is a study of an applied nature, as it aims to compile plausible information of practical contributions for the footwear industry sector. As for the approach to the problem, it is qualitative in nature. For Godoi and Bandeira-de-Melo (2006), in qualitative research, both the delimitation and the formulation of the problem have their own characteristics, requiring the researcher to immerse himself in the context to be researched. As for the objective, it is descriptive, since it describes the strategic actions pointed out in the sustainability reports of footwear companies awarded by the Sustainable Origin seal.

The research database is secondary, the data survey was carried out in October 2022, and 23 certified companies were identified throughout the footwear production chain. Among these, nine companies produce footwear, but only six of these publish the sustainability report on their websites (Origem Sustentável, 2022). Furthermore, only the last sustainability report released by the company was used as a database.

The data were compiled taking as a parameter the 5P’s (people, planet, prosperity, peace and partnership) that form the basis of the 17 SDGs (United Nations, 2016). Following the defined parameters, the study was conducted in the six footwear producing companies that disclose their sustainability reports and are certified by the Sustainable Origin seal. The strategic actions of these companies that contribute to the implementation of innovations with an emphasis on sustainability were mapped. The data collected was cross-referenced with the SDGs in order to verify the contribution of this productive sector to the achievement of the 2030 Agenda. Complying with the ethical criteria of the research, the companies analyzed here will be called A, B, C, D, E and F.

After this step, the qualitative analysis was performed in light of the theoretical review presented in section 2 of this study. The results are presented in the next section, compiled into tables and discussed from the viewpoint of the authors cited throughout the work.
4. ANALYSIS AND DISCUSSION OF THE RESULTS

After analyzing the sustainability reports, it was found that all companies develop actions aimed at sustainability and these contribute to the effectiveness of meeting the SDGs. This result was expected considering that the companies have the Sustainable Origin seal. Table 01 shows the actions developed by companies in the People dimension, respecting the framework given by each company to their actions in relation to the SDGs.

Table 01: Actions of assessed companies, related to the People dimension of the SDGs.

<table>
<thead>
<tr>
<th>EMPRESAS</th>
<th>Ações: dimensão Pessoas</th>
<th>ODS relacionados</th>
</tr>
</thead>
</table>
| A        | - Realizam campanha para estimular a vacinação contra a gripe (optativo) e distribuem cartazes e folder que tratam sobre a importância da saúde dos colaboradores; - Desenvolvimento interno de liderança através de treinamentos; - Oferta de cursos para a confecção e modelagem de sapatos; - Combatem o trabalho infantil e escravo, por meio de políticas de gestão de pessoas responsável, e prezam pela igualdade de gênero; - Reconhecem a participação sindical e política. | 3 BOA SAÚDE E BEM-ESTAR  
4 EDUCAÇÃO DE QUALIDADE  
5 IGUALDADE DE GÊNERO  
10 REDUÇÃO DAS DESIGUALDADES |
| B        | - Realizaram ações internas contra Covid-19: - Doações de EPIs e respiradores para prefeituras e hospitais da região; - Concessão de benefícios: cesta básica, almoço, licença paternidade e maternidade; - Ações para reabilitar pessoas que estavam de licença pelo INSS ou que tenham alguma deficiência através do Programa “Empresa Acessível”, este programa também desenvolve ações para retenção de talentos, além de ações junto a APAE e escolas para capacitação de PCD’s e inclusão dos mesmos no mercado de trabalho; - Desenvolvimento profissional: dispõe de vários programas de formação continuada nas áreas de liderança, processos administrativos, pesquisa e desenvolvimento de produto, tecnologias, mercado. | 3 BOA SAÚDE E BEM-ESTAR  
4 EDUCAÇÃO DE QUALIDADE  
5 IGUALDADE DE GÊNERO  
8 EMPREGO DIGNO E CRESCIMENTO ECONÔMICO  
10 REDUÇÃO DAS DESIGUALDADES |
| C        | - “Manifesto não demita” – evitaram demitir pessoas na pandemia; - Convênio maternais, plano de saúde e ações de incentivo para o autocuidado e hábitos saudáveis; - “Bom dia Empresa”, realizado por um médico que discute sobre a importância das frutas, atividades laborais e ergonomia no trabalho; - Universidade corporativa – Programas de desenvolvimento de lideranças, preparação voltadas para a sustentabilidade, mercados, etc.; - “Projeto: como estou hoje” sobre a satisfação do colaborador representado com a sua foto em um mural, com foco na empatia e compreensão das questões emocionais. | 3 BOA SAÚDE E BEM-ESTAR  
4 EDUCAÇÃO DE QUALIDADE  
8 EMPREGO DIGNO E CRESCIMENTO ECONÔMICO |
The various actions developed by the companies aimed at improving the quality of life of people converge on education, health and inclusion. The programs established and benefits granted reach employees and dependents, and some efforts extend to the community, thus meeting the goals of the SDGs listed in the table. It is possible to recognize the social dimension of sustainability (Sachs, 2009; Werbach, 2010; Elkington, 2012; Landry, 2013) in these actions, as well as to observe the transversality and indivisibility (Raeder & Menezes, 2019; Zampier,
et al., 2022) of the actions in meeting the various SDGs that are achieved through organizational practices.

SDG 3 - Good health and well-being and SDG 4 - Quality education, appear in all companies, and the SDG actions are focused on training that meets the organization’s demands, with a view to future perspectives. Companies C and F present projects focused on psycho-emotional issues. Companies D and F report the development of actions that meet the demands of the diversity theme, and companies D and E develop female empowerment and career development programs.

These are still timid initiatives, but they need to be highlighted and extended to all organizations, regardless of the segment in which they operate. Actions such as these can contribute to the improvement of the business image, brand value, customer satisfaction, conquest of new markets, cost and risk reduction, and improvement in the quality of life of employees and society (Moura, 2011; Lopes et al., 2014; Hansein et al., 2021).

The actions related to the Planet dimension are shown in Table 02. Companies A, B, C and D adopt measures for the responsible use of water. These same companies, including company F, use energy from renewable sources, especially company D, which owns a photovoltaic plant with 3,500 panels and a generation capacity of 1.14 MWp, besides five effluent treatment plants, which allow the reuse of 87% of the water. In addition, all companies present solid waste management policies, with emphasis on the coprocessing of production waste and appropriate destination for the reuse of waste that could not be coprocessed internally (ABICalçados, 2019; Hansein et al., 2021).

Table 02: Actions of assessed companies, related to the Planet dimension of the SDGs

<table>
<thead>
<tr>
<th>EMPRESAS</th>
<th>Ações: dimensão Planeta</th>
<th>ODS relacionados</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>- Operações certificadas com selo de energia limpa e são aplicadas ações para o controle da captação e do uso da água, bem como a redução no consumo de energia e a troca de equipamentos fluorescentes para led; - Programa interno de gestão dos resíduos sólidos.</td>
<td>6 ÁGUA LIMPA E SANEAMENTO 7 ENERGIA ACCESSÍVEL E LIMPA 12 CONSUMO E PRODUÇÃO RESPONSÁVEIS 13 COMBATE ÀS ALTERAÇÕES CLIMÁTICAS</td>
</tr>
<tr>
<td>B</td>
<td>- Política interna para gestão dos resíduos sólidos; - Reciclagem e coprocessamento; - Matérias-primas de origem sustentável; - O consumo de água é restrito aos seres humanos, não sendo utilizado no processo produtivo; - 98% da energia vem de fontes renováveis, adquirida por meio de Ambiente de Livre Contratação (ACL); - Cartilha onde os parceiros assinam e criam um compromisso de não utilizarem substância que infrinjam o meio ambiente.</td>
<td>3 BOA SAÚDE ESEMENTAR 6 ÁGUA LIMPA E SANEAMENTO 7 ENERGIA ACCESSÍVEL E LIMPA 12 CONSUMO E PRODUÇÃO RESPONSÁVEIS</td>
</tr>
<tr>
<td>C</td>
<td>- Tem em seu portifólio calçado fabricado com garrafa PET, serragem, cascas de arroz, além de outros materiais reaproveitáveis; - 100% de reaproveitamento dos resíduos (resíduos gerados são destinados para três tipos de tratamento: reciclagem, coprocessamento e tratamento</td>
<td></td>
</tr>
</tbody>
</table>
específico); - Assumiram o compromisso de reduzirem a geração de resíduos em 20% até 2025; - “Recicla C” projeto que estimula os colaboradores a levarem resíduos até o trabalho para ser reciclado; - Utilizam energia renováveis de fontes eólico ou solar; - Substituição por lâmpadas mais eficientes e modernização do layout com redução do número de máquinas no parque fabril e a redução da água nos processos; - Não utiliza água no processo direto de fabricação e desenvolve ações de redução do consumo de água nas atividades secundárias.

- Operação ecoeficiente; - Relatórios dos resultados são submetidos ao Carbon Disclosure Project (CDP) para análise do desempenho ambiental; - Certificado I – REC, 100% de uso de energia renovável; - Usina Fotovoltaica com 3.500 painéis e capacidade de geração de 1.14 MWp; - Fórum de Energia discute a ampliação da eficiência e redução dos custos; - 22% dos materiais utilizados são de origem renovável e continuam com estudos e pesquisas para ampliar, de forma contínua, apresenta metas com prazos; - Baixa pegada hídrica, com 70% do consumo de água para usos humano; - Dispõe de cinco estações de tratamento dos efluentes, permite reuso de 87% da água; - Produtos com menor impacto ambiental (uso de matéria-prima mais sustentável); - Produto 100% vegano, certificado pela Vegan Society; - Programa próprio de logística reversa.

- Posuem um Comitê de sustentabilidade; - Programa de gestão dos resíduos sólidos (resíduos categorizados e tratados de acordo com a especificidade de cada material), em 2020, cerca de 39,81% dos resíduos gerados pela empresa foram destinados para reciclagem e 59,9% destinados para coprocessamento; - 35% dos produtos possuem matéria-prima que foram reaproveitados; - Inventário da emissão de gases.
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F - Possuem catálogo com materiais sustentáveis, com intenção de auxiliar fornecedores no aceleramento de ações de menor impacto ambiental; Cartilha de substâncias restritivas (matérias-primas que precisam ser monitoradas e limites aceitáveis; - Circularidade: recupera aproximadamente 22% dos produtos e embalagens pós uso para destino adequado do resíduo, organiza o maior brechó online do Brasil para incentivar a economia circular; - Uso do "seaplast" nas embalagens (material que substitui o plástico tradicional com características sustentáveis); - Operação ecoeficiente com selo ouro no Programa ABVTEX; - Uso de telhas translúcidas, lâmpadas de LED, aquisição de energia de fontes renováveis e uso de veículos elétricos para entrega de produtos.

Source: Search data (2022)

Companies B, C, D, E and F also adopt policies for the use of renewable or recyclable inputs that do not harm the environment, in addition to making available a primer with guidance on the composition of inputs and their impact on the environment. Hansein et al. (2021) suggest that organizations can adopt environmental actions aimed at the product and the production process, and these changes imply the replacement of polluting or toxic materials by environmentally adequate inputs. In this context, company C has in its portfolio footwear made with PET bottles, sawdust, rice husks, and other reusable materials. Companies D and F have their own reverse logistics programs, especially Company F, which encourages the circular economy.

SDG 12, related to responsible consumption and production, appears in the actions of all companies. On the other hand, companies E and F do not develop actions corresponding to SDG 6 - Clean water and sanitation. Company E also does not adopt actions aimed at SDG 7 - Accessible and clean energy and includes SDG 13 - Combat climate change, but does not point out actions for this purpose, only reports efforts to inventory gas emissions. Only companies C, D and F highlight SDG 9 - Industry, innovation and infrastructure, with investments in innovation that correspond to the development of new products from more sustainable materials, use of technologies and changes in management policies with emphasis on sustainability.

When analyzing the reports of these companies and comparing research previously conducted in footwear industries (Luz et al., 2013; Plentz & Tocchetto, 2014; Francisco et al., 2014; Hansein et al., 2021; Wallauer et al., 2022) it is possible to notice an advance, even if incipient, in the practices adopted by these companies. An effort to align actions with the organization's strategies is also observed. Although they do not reflect in significant changes in the productive operations of the footwear sector as a whole, one can find initiatives that stand out in relation to the general representation. In this study, we observe in companies C, D, and F innovation practices aimed at sustainability in more advanced stages than in the other companies.

In the view of the companies analyzed, the actions that promote prosperity primarily meet the SDG 10 - Reduction of inequality, in addition to this SDG, it is highlighted employability and economic growth actions, linked to SDG 8, as well as social and local development actions that contribute to SDG 11 (TABLE 03). It is observed that these three SDGs highlighted in this dimension also appear in the other tables, that is, the actions developed in different dimensions meet the same SDG, confirming the transversality and indivisibility even in different dimensions (Raeder & Menezes, 2019; Zampier et al., 2022).
<table>
<thead>
<tr>
<th>EMPRESAS</th>
<th>Ações: dimensão Prosperidade</th>
<th>ODS relacionados</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>- Oficinas de artes por meio do CRAS, CREA e CAPS, e oficina de marceneiras (sobras de materiais e pallets são destinados a entidades para realização de trabalhos manuais e capacitação de jovens da comunidade).</td>
<td>10 REDUÇÃO DAS DESIGUALDADES</td>
</tr>
<tr>
<td>B</td>
<td>- Geração de emprego; - Presença de mercado; - Ações para reabilitar pessoas que estavam de licença pelo INSS ou que tenham alguma deficiência através do Programa “Empresa Acessível”.</td>
<td>8 EMPREENDIMENTO ECRISTAL</td>
</tr>
<tr>
<td>C</td>
<td>- Doação de sapatos para a comunidade local desde 2019, para crianças e recém nascidos, além de máscaras no início da pandemia em 2020; - Desenvolvimento das comunidades locais; - Práticas justas de trabalho, saúde e segurança; - Realização de trabalhos voluntários locais, que tenham conexão com o propósito da empresa; - Doa, anualmente, o equivalente a um dia de produção das fábricas, em calçados, para instituições que possuam conexão com o propósito da empresa; - Promove o crescimento econômico em todas as frentes de negócio da empresa de forma sustentável, gerando impactos econômicos positivos na comunidade local por meio da geração de empregos e pagamento de tributos.</td>
<td>8 EMPREENDIMENTO ECRISTAL</td>
</tr>
<tr>
<td>D</td>
<td>- Contribuição social através de alimentos (natal sem fome) e a doação de materiais têxteis para a ONG “Rede de Mulheres Empreendedoras”; - Programa para o respeito da diversidade impulsiona o valor da marca; - 586,7 MI distribuídos em salários e benefícios, 100% dos colaboradores cobertos por acordos de negociação coletiva; - R$ 122,5 MI pagos em impostos e R$ 1,3 BI pago em contratos com fornecedores; - R$ 2,5 BI em valor econômico distribuído, R$ 376,7 MI distribuídos em proventos aos acionistas (Dividendos + JCP), R$ 601 MI de Lucro Líquido em 2021.</td>
<td>8 EMPREENDIMENTO ECRISTAL</td>
</tr>
<tr>
<td>E</td>
<td>- Apoia a Fundação Tenis que trabalha com o desenvolvimento de crianças e adolescentes, contribui com o fundo do idoso de Gramado, patrocina a Oktoberfest de Igrejinha (evento de caráter solidário, que distribui os recursos arrecadados para as entidades da região); “Primeiros Passos” – doação de materiais higiênicos para gestantes.</td>
<td>8 EMPREENDIMENTO ECRISTAL</td>
</tr>
<tr>
<td>F</td>
<td>- Investimento na cadeia de valor (fornecedores); - Desenvolvimento regional (99,58% dos</td>
<td></td>
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fornecedores estão localizados no território nacional); - R$ 1,1 bilhão em valor adicionado distribuído ao negócio, governo e colaboradores, R$ 139,6 milhões distribuídos aos acionistas em forma de juros sobre o capital próprio e dividendos, R$ 2,9 bilhões em Receita Líquida Consolidada; - 343 Fornecedores diretos, + de R$ 266 mil investidos no SEBRAE para apoiar os fornecedores na adesão ao programa ABVTEX, + de 60 milhões de Pratos de Comida doados desde 2016, R$ 1 milhão doados a ONG Gerando Falcões.

Source: Search data (2022)

The actions related to the Peace dimension are directly linked to SDG 16 - Peace, justice and strong institutions (TABLE 04). This SDG is mentioned in all the sustainability reports of the companies analyzed, being represented by a code of ethics and structures that guide, monitor and apply measures for the effectiveness of the order and compliance with the rules established by the company, so as to propagate harmony among employees, partners, stakeholders and society in general. In addition to this point, policies are observed with guidance for anti-corruption practices and illicit activities, thus contributing to a fairer world and favorable to peace (United Nations, 2016).

Table 04: Actions of assessed companies, related to the Peace dimension of the ODS.

<table>
<thead>
<tr>
<th>EMPRESAS</th>
<th>Ações: dimensão Paz</th>
<th>ODS relacionados</th>
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<tbody>
<tr>
<td>A</td>
<td>- Código cultural que orienta crescimento e diferenciação no mercado; - Combate ao trabalho infantil, forçado ou análogo ao escravo.</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>- Possuem um Comitê de Ética; - Busca pela construção de uma verdadeira cultura de paz, onde todos desempenham com dedicação o seu papel social é a base que sustenta a empresa; - Oferece conforto, em sua mais profunda definição, com um olhar carinhoso para o mundo, respeitando a natureza e a diversidade de vozes da sociedade.</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>- Prática anticorrupção; - Código de Ética e Conduta que rege a forma com a qual os colaboradores e representantes da empresa devem se portar junto às partes interessadas; - Material que orienta os colaboradores a seguirem o código de Ética interna.</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>- Comitê de Ética para propor ações relacionadas à disseminação, treinamento, revisão e cumprimento do Código de Conduta da empresa; - Canal de Ética para apurar qualquer irregularidade; - Manual de Fornecedores; - Gestão da ética entre todos os públicos de relacionamento da Companhia; - 100% das operações auditadas sobre aspectos de direitos humanos.</td>
<td></td>
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<tr>
<td>E</td>
<td>- Estrutura de governança; - Comitê multidisciplinar, responsável, juntamente com todas as áreas da empresa, por mapear os processos de cada área e promover ações de melhorias, a fim de garantir que todos estejam em compliance com a lei; - Valores, princípios, padrões e normas de comportamento.</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>- Código de Conduta, estabelece e formaliza os princípios e diretrizes de conduta que devem nortear as ações, decisões e relacionamentos; - Departamento de Auditoria Interna,</td>
<td></td>
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</table>
responsável pela determinação das sanções, medidas disciplinares e/ou providências previstas no Código de Conduta para casos de infração; - “Canal de Ética” para a denúncia de práticas que violem os princípios da empresa.

Source: Search data (2022)

The actions linked to the Partnership dimension, represented by SDG 17 - Partnerships for the achievement of goals are shown in Table 05. In this context, only companies A and D highlight in the report their compliance with SDG 17, although in all reports analyzed it is possible to observe the establishment of partnerships that contribute to the achievement of goals. Such partnerships are made primarily with suppliers, associations and organizations that develop actions related to the company's activity. In addition, some innovative initiatives go beyond the behavioral patterns of this productive sector, such as the case of partnerships made by companies D and F to enable the reverse logistics of the product after use for the production chain, as well as the partnership of company F with emphasis on the circular economy.

<table>
<thead>
<tr>
<th>EMPRESAS</th>
<th>Ações: dimensão Parceria</th>
<th>ODS relacionados</th>
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<tbody>
<tr>
<td>A</td>
<td>- Mantém parceria com várias associações que desenvolvem trabalhos voltados para a sustentabilidade, responsabilidade social e desenvolvimento de competências necessárias ao fortalecimento da organização, dos stakeholders e da sociedade; - Os fornecedores passam por um processo de triagem através de uma homologação; - Convênio para o atendimento psicológico, convênios com clínicas e laboratórios.</td>
<td>SDG 17</td>
</tr>
<tr>
<td>B</td>
<td>- Participação em associações; - Parceria com o Instituto Brasileiro de Tecnologia do Calçado (IBTeC), para criar uma Cartilha de Substâncias Restritas.</td>
<td>SDG 17</td>
</tr>
<tr>
<td>C</td>
<td>- Participação em associações; - Projeto científico para desenvolver um calçado que atenda às necessidades de pessoas com deficiência, desenvolvido em parceria com uma profissional da área da saúde; - Mantém parceria com ONG’s, associações e outras empresas para desenvolver projetos sociais que alcance as comunidades locais e a sociedade brasileira.</td>
<td>SDG 17</td>
</tr>
<tr>
<td>D</td>
<td>- Modelo de Governança construído para aprimorar o desempenho da empresa, proteger as partes interessadas, manter uma atuação transparente com equidade de tratamento entre os acionistas e assegurar a prestação de contas; - Parceria com outras empresas para ampliar a internacionalização do negócio; - Parceria com empresas para disponibilizar coletor de produtos pós uso para retornar a cadeia produtiva.</td>
<td>SDG 17</td>
</tr>
<tr>
<td>E</td>
<td>- Parceria com associações, ONG’s e outras organizações para promover oficinas de sensibilização com os colaboradores sobre a importância do descarte adequado do óleo de cozinha, realização de ações sociais, testagem de materiais e produtos, entre outras ações.</td>
<td>SDG 17</td>
</tr>
<tr>
<td>F</td>
<td>- Parceria com empresas para logística do produto pós uso; - Parceria com brechó online para estimular a circularidade do produto; - Parceria com empresas para oferecer benefícios aos colaboradores; - Parceria com o “Doutor em Qualidade Ambiental” para criar produtos com menores impactos ambientais.</td>
<td>SDG 17</td>
</tr>
</tbody>
</table>

Source: Search data (2022)
Furthermore, despite the efforts in terms of partnerships, no approximation was identified between companies in the same sector, which are not from the same group. These partnerships are concentrated among companies with complementary activities. We noticed an effort in the information report to explore all the company's actions that correspond to sustainability, however, none of these companies mentioned developing activities in collaboration with other companies from the same sector that act in parallel.

As for the seal attributed to each of these companies, they all hold diamond certification, that is, they are classified with the maximum level, according to the evaluation criteria established in the five dimensions: sustainability management, economic, environmental, social and cultural (Sustainable Origin, 2022). These certifications are valid for two years, and need to be evaluated periodically, fulfilling the biannual cycle.

In summary, it was observed that the footwear producing industries analyzed in this study are implementing strategic actions that meet the SDGs and contribute to the achievement of the 2030 Agenda. It is worth mentioning that the reports analyzed describe the practices of these organizations and some are at a higher level of maturity as to sustainability practices. In any case, an important advance can be seen in the adoption of sustainable strategies that demonstrate the evolution of these companies, and it is important to highlight such practices so that they can be replicated in other companies in this productive sector.

5 FINAL CONSIDERATIONS

This study aimed at analyzing the actions of the Brazilian footwear industry focused on the introduction of innovations with emphasis on sustainability. To this end, the sustainability reports of the companies producing footwear certified by the Sustainable Origin seal were analyzed. The practices of these companies and their contribution to achieving the SDGs included in the 2030 Agenda were observed.

The results point to an evolution regarding the adoption of strategies that converge towards sustainability, with higher performance in the People dimension; in this dimension, the actions prevail in the SDGs related to health, well-being and quality education. In the Environment dimension, there is a predominance of practices aimed at solid waste management, however, actions to reduce water and energy consumption and the search for clean energy sources are quite expressive.

Still in the Environment dimension, all the companies report their strategies for the use of sustainable materials, some with more advanced actions such as the case of company C that uses several types of recycled inputs in the manufacturing of their products, and company D with 100% recyclable and vegan products. Regarding the innovation factor, companies C, D, and F show better results, investing in research and development of new products from sustainable materials, fostering the use of technology and digital transformation, and promoting management policies with emphasis on sustainability.

In the dimensions Prosperity, Peace and Partnership, the companies present actions that are transversal to the main business activity, which contribute to the achievement of the objectives linked to these dimensions. In the Prosperity dimension, the actions are highlighted for the reduction of social inequality, in the Peace dimension, all the companies recognize the code of ethics and transparent management as the main action for this purpose, and, in the Partnership dimension, agreements and collaboration between companies and organizations with complementary activities prevail.

This research reinforces previous studies as to the predominance of sustainable practices focused on solid waste management, however, it is possible to notice new actions being highlighted, such as the management of the responsible use of water and clean energy, in addition to investments in research and development of products based on more sustainable
materials. These results contribute to academic studies with evidence of changes in the production practices of the footwear industry.

The limitations of the study consist in the restriction of the research regarding the evaluated universe, only six industries. Therefore, this limitation converges to an opportunity to deepen the investigation and extend the research to other industry profiles. However, the result is satisfactory, since the study demonstrated that innovations aimed at sustainability consist mainly in the creation of new sustainable materials, use of technologies and management models based on the pillars of sustainability.

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