

Beyond the bricks: examining the role of LEGO in education and sustainability challenges – constructing solutions or just playing with ideas?

Ziyodulla Abdullaev

University of Northumbria

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Abstract

The main aim of the essay is to investigate the persistent challenges associated with obtaining a quality education as a part of the United Nations Global Sustainable Development programme specifically SDG 4. Despite global efforts aimed at ensuring inclusive and equitable education for all, systemic challenges such as economic disparities, resource misallocation and inadequate infrastructure continue to hinder the progress and making an already difficult task of addressing these issues more complicated. By analysing LEGO's strategic initiatives aimed at developing more inclusive education this essay evaluates the company's actions with regards to its commitments.

Introduction

Education can be considered as the foundation of economic growth as it equips individuals with necessary skills and expertise needed to drive innovation in a knowledge-driven economy (Dao, 2014). In many instances, the level of education and skills an individual possesses determines their prosperity as well as the social benefits they can acquire, and this dependency has steadily grown over time.

There are many examples of the benefits of education extending beyond personal prosperity such as better health and employment (Lleras-Muney, 2005), lower crime rates (Lochner, 2004; Lochner & Moretti, 2004) and, increased economic productivity (Sweetman, 2002). People with basic skills such as numeracy and literacy have been known to consistently produce a “wage premium” — meaning that individuals possessing these fundamental skills tend to earn higher wages compared to those lacking these skillsets regardless of their country of residence (Vignoles, 2016).

However, despite seemingly endless benefits of education, researchers observed persistent educational inequality between developed and developing countries over past several decades (Checchi, 2001; Ferreira & Gignoux, 2014; Bloome et al., 2018). One of the barriers identified by Ferreira & Gignoux (2014) is the inefficient allocations of resources, including inadequate school funding and a shortage of qualified teachers, which continues preventing access to formal education in many parts of the world.

Recognising this, the United Nations has included Quality Education as part of the Sustainable Development Goals (specifically SDG 4) which is aimed at “Ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations, 2016). This inclusion highlights the role that education plays

in bringing down the inequality, fostering the sustainable economic development as well as the necessity of equipping individuals with skills needed to navigate through the complex environment.

This is the overarching aim of this essay — to investigate persistent challenges associated with the lack of quality education globally and the importance of investigating the current topic. Also, this essay will explore a case study of LEGO—a multinational corporation's role in bridging the education gap, by assessing its impact and the corporate alignment with the global SDG 4. By analysing both positive corporate social responsibility efforts of LEGO on its sustainable initiatives as well as more hidden criticism of how the company might inadvertently be contributing to the current problem, the essay aims to paint a clearer picture whether the company is truly committed to bridge that gap or reinforce existing inequalities.

The Persistent Challenges of Education Inequality: Causes and Implications

As the driving force behind social, cultural, economic, and human development, with immediate effects on science and technology—education remains a critical issue for governments around the globe (Bakhtiari & Shajar, 2011). Despite numerous efforts by individual states and the United Nations, disparities in educational access, systemic inequality, and education quality concerns persist to this day, particularly in low-income and marginalised communities. For instance, according to estimates by the United Nations (2023), even in the best-case scenario, if the current global education participation trends continue, by 2030—the end of the current Sustainable Development Goals (SDG) programme, approximately 84 million children will be out of school, leaving 300 million students without basic numeracy and literacy skills. These alarming figures highlight persistent challenges in achieving equitable and inclusive education, particularly for those living in poverty, as limited access to education contributes to the vicious cycle of economic and social disadvantage (Khethiwe, 2023). Identifying a single root cause of this education inequality remains challenging, since different countries face their unique challenges influenced by the complex socio-economic and environmental factors specific to the region, however, several factors have been mentioned in the literature as contributors to current educational inequality.

As discussed before, one of the main contributors to the ongoing educational inequality across regions is the prevalence of poverty. First, it limits access to attend quality primary and secondary education (Buchmann, 1999). This limited access, in

turn, exacerbates already prevalent vicious cycle, where a lack of education perpetuates poverty (Khethiwe, 2023). This issue is particularly severe in low-income countries and communities where many families struggle to afford basic necessities required for education such as educational materials, fees and uniforms. As a result, Chikoko and Mthembu (2021) note that children coming from the impoverished background are often compelled to prioritise labour to contribute the family income. Khethiwe (2023) elaborates further that when children are subjected to early labour practices, they are exposed to exploitative working conditions, leaving them emotionally and physically exhausted. The researcher additionally asserts that this often leaves them disengaged from education, significantly affecting their academic progress and increasing the risk of dropping out. Consequently, this further hinders their ability of securing a higher paying job to lift themselves out of poverty, perpetuating the cycle of economic disadvantage (Blanden et al., 2022).

Another contributing factor to educational inequality is the poor governance, which often leads to poor resource allocation and mismanagement of funds disproportionately affecting students (Khethiwe, 2023; Buchmann, 1999; Tikly, 2011). According to Transparency International (2024), many low-income countries experience the persistence of resource mismanagement including corruption and bureaucratic inefficiencies all of which contribute to ineffective distribution of the limited resources. As a result, leaving schools and education sector competing for necessary funds needed for the sustainable growth.

This inevitably have consequences on the teaching practice itself, as classrooms become overcrowded due to severe disparities in the availability of essential resources needed for education such as desks, chairs and textbooks (Tikly, 2011).

Furthermore, shortage of qualified teachers or teachers in general further exacerbates the gap in education, disproportionately affecting people in underprivileged areas (Chikoko & Mthembu 2021). This lack of qualified teachers, whereby in many instances they are forced to teach out of their subject areas invariably affecting the quality of the delivered lessons, with students often struggling to understand the fundamental concepts (Hughes, 2010). Consequently, education in these regions is often inaccessible, ineffective and unaffordable with significant concerns about the overall quality (UNESCO, 2008).

These compounding factors— namely the shortage of qualified teachers, lack of basic amenities including desks and chairs, insufficient and often outdated learning materials, all contribute to the system that disadvantages students leaving them without necessary skills and knowledge and keeping them in the vicious cycle of poverty as discussed earlier. Thus, UNESCO (2008) concluded that this poor governance often has consequences for communities and society as whole; however, the poor and impoverished are often the ones who bear the consequences.

Recommendations for Addressing Education Inequality

Of course, there is no single solution that could work for everyone when addressing the issue of the inequality in the education sector, but several recommendations have been suggested that can help with mitigating this issue. First and foremost, Michaelowa (2001) suggests funding to be allocated to the professional development and training as well as retaining qualified teachers. Her research indicates that this can have significant impact on the quality of lessons being taught, thereby significantly improving the students' achievements. Additionally, teachers can play a crucial role in fostering a more inclusive teaching environment (Bosu et al., 2011).

Further suggestions to tackle this problem include forming more transparent policies as well as fostering constructive dialogue between different government entities and interest groups including teachers, parents and local communities. For example, Tikly (2011) suggests that education inequality can be tackled when all stakeholders participate in the discussion. This is highlighted by the fact that often key stakeholders, including teachers and their unions, have often been actively discouraged from the policy making discussions, yet their experience offer valuable perspectives, particularly as direct agents (Tikly, 2011).

Furthermore, researchers emphasise the need for more monitoring and evaluation of education quality by developing more effective assessment tools (Unterhalter, 2012). By systematically developing such tools, it becomes easier to gain deeper understanding of the root causes of inequality and monitor the progress of educational reforms (Barrett, 2009). Smith and Barret (2010) further suggest the

inclusion of students' backgrounds in the assessment process to provide more insight into determinants of the quality.

Of course, these are a few suggestions researched for this essay; the problem of education inequality goes beyond changing policy and is deeply rooted in broader issues. Factors including historical economic disparities and cultural and ethnical biases all contribute to the ongoing education disparity. While the issue of educational inequality is complex, it is important to explore how companies like LEGO are responding to the challenges through their strategic initiatives.

LEGO's commitment to inclusive education

This section is mainly concerned with evaluating how responsibly LEGO's strategic direction has addressed the education inequality from the perspective of its key stakeholders over the past decade. Corporate social responsibility extends beyond financial performance and includes a company's commitment to social, environmental, and ethical practices, for example CSR has been described as the commitment of an organisation to contribute to more sustainable economic development with its key stakeholders in mind (WBCSD, 2002). Thus, researchers conclude that the fundamental priority of the organization should be to strive towards meeting the needs of their stakeholders (Donaldson, 1982). This perspective closely aligns with LEGO's sustainability and social impact initiatives, which focus on expanding access to quality education, fostering creativity, and promoting inclusive learning opportunities. The company has actively invested in educational programs and partnerships aimed at reducing educational disparities. For instance, LEGO's stated mission to "inspire and develop the builders of tomorrow" (LEGO, 2022) reflects its commitment to leveraging play-based learning and innovative teaching approaches to address gaps in education, prioritising a broad set of stakeholders including children, teachers and communities as a whole.

LEGO has been developing educational tools for many years used in stimulating play and creativity in students (Moore & O'Sullivan, 2023). Recognizing its potential as a global toy manufacturer, the company's educational endeavours, such as LEGO Education, have played a significant role in making learning more accessible through hands-on and play-based initiatives focused on enhancing critical thinking and problem-solving skills (LEGO, 2024). As a result, governments worldwide, including

those of the United States, Singapore, and Peru, have adopted the LEGO Education program (Nisa et al., 2023). There are many examples of LEGO being used in the classroom settings helping to develop a STEM education (Casler-Failing, 2018; Boulter et al., 2022; Disseler & Mirand, 2017). Furthermore, in its annual sustainability report LEGO (2024), the company notes that LEGO Education programme has extended its reach beyond traditional classroom environment by collaborating with educators and organisations around the world to integrate play-based learning into their curriculum.

In addition, to direct investments into the classroom settings, LEGO has made efforts to integrate teaching of digital technologies into its learning platforms. Programmes such as LEGO SPIKE and LEGO Mindstorms are designed specifically to encourage students to explore and develop digital skills, such as coding and robotics, which are crucial digital literacy skills, helping children to prepare for the digital future in a fun and play-based environment (The LEGO® Group, n.d.). Furthermore, the company has been developing products and learning materials with the emphasis on inclusivity, to cater to children with diverse needs. For example, LEGO has been developing sets aimed at visually impaired children called LEGO Braille Bricks (LEGO, 2024) ensuring equal educational opportunities accessible to all children despite their disabilities. These initiatives demonstrate the company's commitment into positioning itself as a leader in equitable and inclusive education by integrating social responsibility into its core business strategy expanding its influence beyond traditional toy manufacturing.

Contradictions in LEGO's commitment to educational equity

Regardless of these efforts, challenges remain in ensuring that LEGO Education programmes are accessible on a larger scale in developing countries where limited resources can have significant challenges in accessing education as discussed before. Additionally, there are ongoing discussions that go beyond LEGO sustainability commitments. For example, Palmer (2014) notes that the company "...exploits children's emotional vulnerabilities in the name of profit". A quick look at LEGO's online store paints a revealing picture where even the most basic toy plastic sets are prohibitively expensive for low-income and marginalised communities where the average daily income is \$ 2.15 USD (World Bank, 2024) This inevitably raises the question of whether multinational corporations like LEGO, despite their publicly visible commitment to sustainable development, can truly uphold responsible management principles in a shareholder-driven economy where competition and profit dominate the agenda. This highlights the existing contradictions in the corporate world, reinforcing a paradox between sustainability commitments and a for-profit business model.

While LEGO's commitments to become more inclusive towards impoverished and marginalized communities are evident, the LEGO Education—despite its praiseworthy efforts around the globe—operates in only a handful of countries, the fact which they themselves recognise (The Lego Foundation, n.d.). This might be explained by economic constraints, poor infrastructure, and perhaps a lack of

qualified teachers in those regions, all of which inevitably limit the company's ability to meet its global objectives. Furthermore, despite the company's commitments to provide educational resources, the excessive cost of its products means large population in these regions may not benefit from the LEGO Education programme, further exacerbating the gap in access to quality education.

Whilst it is unwise to expect LEGO to resolve the systemic issues contributing to the educational inequality single-handedly, as a global toy manufacturing company, the company is in a unique position to potentially leverage its resources to make a meaningful impact. Moreover, LEGO can expand its influence to advocate for broader systemic changes within education sector, if the company is truly committed to provide more inclusive education around the globe. Ultimately, as a multinational corporation, the company holds broader responsibilities not only towards maintaining shareholder value, but towards society as a whole (Perego & Kolk, 2012). This goes beyond offering innovative educational materials, it also encompasses more proactive engagement about the future of education and how to address the existing inequalities.

Reflection and Conclusion

This essay builds upon my university research project into the sustainable business strategy and practices of the LEGO Group. As a Danish toy manufacturer, LEGO has built its global reputation for its commitment to quality, durability, creativity and innovations in its product line. However, beyond the commercial success of its main business operation of manufacturing plastic toys, the company constantly tries to position itself as the sustainability leader not only among other toy manufacturers but also within the broader corporate space (LEGO, 2024). With ambitious aims of significantly reducing their emissions as a part of the decade long plan ending in 2032, with the goal of achieving a net-zero emissions by 2050. (LEGO, 2020)

On a personal level, the question of quality education is something I deeply care about, and I hold strong position on the importance of developing it. I believe that the quality education is not only the fundamental right of anyone regardless of their social and political background but also a powerful tool for breaking the cycle of poverty, fostering innovation and driving economic growth of the region. As someone who has experienced first hand the lack of quality education in my country where resources are allocated to a few organisations in the country capital, I have witnessed the stark disparities in attaining a quality educational opportunity between major cities and smaller regions. Most of the students in the underprivileged areas lack basic amenities such as desks and chairs, with classrooms being overfilled due to shortage of qualified teachers— a direct confirmation of the challenges identified

by researchers discussed before. Additionally, both students and teacher are often forced to pick cotton to fulfil the government quotas and thus, perpetuating the cycle of generational disparities.

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