



CREATIVE WORKFORCES FOR SUSTAINABLE FUTURES: AN EMPOWERMENT PERSPECTIVE

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Abstract

This research explores how social sustainable development (SSD) in the fast fashion textile industry can be affected by structural empowerment, psychological empowerment, and the creativity of employees in the industry mediated by artificial intelligence (AI). The study based on the Self-Determination Theory postulates that empowered workers have a greater intrinsic motivation to make contributions towards socially responsible and ethical workplace behaviours. An explanatory design of a quantitative nature was taken up, and 179 managerial and non-managerial employees were selected using a structured questionnaire. Direct and indirect relationships were tested by using Structural Equation Modelling (SEM). The results show that employee creativity and psychological empowerment have a significant and positive effect on social sustainable development. AI adoption is highly anticipated by structural empowerment, and this would also increase socially sustainable results. In addition, AI mediates the connections between dimensions of empowerment, creativity, and SSD, and it is possible to note that it is a strategic facilitator, but not a technological control mechanism. The research will add to the literature on sustainability and digital transformation by incorporating empowerment, creativity, and AI into the same structure. In practice, the findings imply that the social sustainability of textile companies can be long-term in terms of empowered and creative staff and responsible introduction of AI-based systems.

Keywords: Structural Empowerment, Psychological Empowerment, Employee Creativity, Artificial Intelligence, Social Sustainable Development, Self-Determination Theory

1. Introduction

The fast-fashion textile business has become one of the most dynamic and, at the same time, the most socially problematic branches of the global economy (Bonelli et al., 2024). Although it does play a great part in creating jobs, boosting the economy, and even expanding industries, it is also being labelled at the same time as labour exploitation, poor working conditions, and unsustainable social practices. The debate over the past few years has changed to economic sustainability to wider sustainability (Al Mahameed et al., 2025) notably social sustainable development (SSD) that focuses on fair labour relations, welfare of employees, ethical manufacturing systems, and creation of the long-term value to the society. Social sustainability in fast



fashion can be attained through compliance mechanisms and policy reforms, but it also needs internal organizational change that is led by employees who are empowered and creative and endorsed by technological improvement like artificial intelligence (AI).

Based on the Self-Determination Theory (SDT), where autonomy, competence, and relatedness enhance intrinsic motivation and optimum performance (Ye, Li et al., 2025), this research paper investigates the impact of structural empowerment, psychological empowerment, and employee creativity on social sustainable development, where artificial intelligence is used as an intermediary. SDT offers the strong theoretical background as it explains how the empowering organizational environments meet the key psychological needs of the employees, increasing motivation and active disposition towards socially responsible results.

Structural empowerment is the formal organizational process where employees are given access to information, resources, support and to make decisions. In the framework of the fast-fashion textile business, structural empowerment allows the employees to engage in operational decision-making and enhances the adherence to social norms (Macchion, 2024), as well as to fair labour practices. Institutional support and decentralized authority mean that the employees will tend to pursue initiatives leading to greater equality in the workplace, ethical sourcing and community-oriented production systems, which are the main elements of social sustainable development.

Psychological empowerment on the other hand is the internal conception of the employees on what they have to ride on, their capabilities, self-direction and influence in their job. The commitment of the psychologically empowered employees to ethical behaviour and social responsibility is even higher in a highly standardized manufacturing setting like the production of textiles. Their intrinsic motivation is consistent with SDT principles, since it motivates them to perform beyond the normal compliance, and also to help in achieving social sustainable goals in a meaningful manner (Duong, C. D., 2025). Psychological empowerment, therefore, turns employees into active agents of sustained organizational change as opposed to being passive agents.

This is further enhanced by the creativity of the employees. Within an industry that has been accused of fast production cycles and social pressure, the creatively minded staff members can come up with innovative solutions to fair labour schedules, accommodating workplace policies, and socially responsible supply-chain operations. Creativity encourages the development of adaptive solutions to problems and ethical innovation, which is critical to the reconciliation of the demands of fast production and the need to address social sustainability. Nevertheless, creativity might not always be converted into sustainable results except it is supported through relevant technological systems.

Artificial intelligence (AI) is one of the important mediating factors. Transparency is made more successful, human bias is minimized, and monitoring of labour conditions is made more data-driven with the help of AI technologies like predictive analytics, smart monitoring systems (Zong and Guan, 2025), automated compliance tracking, and information-based decision platforms. AI puts the ideas of the empowered employees into action by transforming the creative insights into measurable scalable and efficient practices towards sustainability. Regardless of monitoring overtime hours to guarantee equal distribution of wages and optimal allocation of resources, AI enhances the relationship between empowerment and social sustainability outcomes. AI, therefore, is a strategic facilitator that will convert individual motivation and creativity to institutionalized practices of sustainable development.

Although the research on sustainability and digital transformation is growing, there has been minimal empirical focus on the role of empowerment and creativity in interaction with AI to promote social sustainable development in the fast-fashion textile industry. Most of the available studies have used technology as a direct predictor, thereby overlooking it as a mediating mechanism to increase the human capabilities. To fill this gap, the current paper suggests a holistic model where structural empowerment, psychological empowerment, and employee creativity affect social sustainable development in a direct or indirect way via artificial intelligence. Combining SDT and perspectives of digital transformation, this study has the potential to bring a theoretical contribution to the literature on empowerment by expanding the scope of literature on



sustainability to the realm of AI-enabled sustainability. In practice, it provides strategic intelligence to textile companies operating to become socially responsible in a way that does not affect their competitiveness (Pranta et al., 2025). In this way, the research puts artificial intelligence in the role of not substituting human agency but rather triggering the ability of empowered employees to bring about social sustainable development in the fast-fashion textile industry.

2. Literature Review

Structural Empowerment and Social Sustainable Development

Structural empowerment refers to organizational policies and official mechanisms where employees have access to information, resources, support, and lines of participation in the decision-making process (Shin et al., 2025). In the fast-fashion textile industry, structural empowerment gains extra importance due to strict production cycles and high requirements in terms of labour. By being empowered, having open channels of communication, and being supported at an institutional level (Rita Men et al., 2022), employees will demonstrate a greater ability to be ethical and fair in labour practices.

Accountability is enhanced by availability of the relevant information and operational fairness, and safety are enhanced by the availability of sufficient resources. Ensured employees will therefore have more incentive to uncover and address social problems, such as inequality, unsafe workplaces, and workplace injustice. Structural empowerment by enhancing participation and accountability will provide a transformative platform over which socially accountable behaviour can be founded across organizational levels. Accordingly, positive frameworks facilitate the long-term improvements in the performance of social sustainability (Lewandowska et al., 2023).

H1: Structural Empowerment has a positive impact on Social Sustainable Development.

Psychological Empowerment and Social Sustainable Development

Psychological empowerment reveals the inner experience of meaning of the employees, their competence, autonomy, and influence in their working positions (Oliveira et al., 2023). Psychological empowerment should be encouraged in the workplace of textile manufacturing industry where repetitive tasks and routines are prevalent in order to maintain motivation and ethical involvement. When employees feel that their work has some meaning, the chances are higher that they are acting responsibly and are coordinating towards socially sustainable goals. Sense of competence helps to build confidence in overcoming challenges in the workplace, whereas autonomy contributes to seeking decisions independently (Rizvić, 2025).

Employees feel that they can be treated fairly, and safety is becoming improved, and ethical standards are being met when they feel that their efforts will make a difference. Intrinsic motivation is therefore reinforced by psychological empowerment hence translating to responsible organizational behaviour. It is this internal motivation that underlies the development of socially inclusive and equitable workplaces which are essential to sustainable development.

H2: Psychological Empowerment has a positive impact on Social Sustainable Development.

Employee Creativity and Social Sustainable Development

The concept of employee creativity is the capability to work out new and helpful concepts enhancing organizational operations and performance (Chaubey et al., 2022). Creative thinking is therefore needed in the fast fashion textile industry to trade efficiency with ethical labour practices. Creative staff will be able to develop new scheduling systems, new ways of production which are safer and other socially responsible supply chain. Their proficiency in finding new solutions assists in maintaining the workplace standards. Creativity also improves flexibility to changing social rules and requirements of the stakeholders. Through innovation, textile companies become more prone to providing solutions addressing issues of social well-being because innovation allows addressing them proactively instead of reactively (Ahsan et al., 2024). Employee creativity is therefore made an issue of concern in enhancing long-term social sustainable development results.

H3: Employee Creativity has a positive impact on Social Sustainable Development.

Artificial Intelligence and Social Sustainable Development



Artificial intelligence is the high-tech systems of analysis of big data, process automation, and objective decision-making (Verma et al.,2023). Within the textile sector, AI is able to observe the labour requirements, labour hours worked, non-compliance areas, and transparency. AI contributes to equal pay and safe working conditions by eliminating human mistakes and bias. It makes it possible to conduct the real-time monitoring and foreseeable insights that allow the organizations to avoid the social violation before it grows out of control. The resources can also be distributed more efficiently with the help of AI-driven analytics to help in making equitable and responsible operations. Since social sustainable development is a concept that demands some systemic control and responsibility, AI will be an effective strategic instrument in institutionalizing ethics. The intervention of AI technologies enhances the governance functions and enhances the performance of long-term social sustainability (Wang et al.,2025).

H4: Artificial Intelligence has a positive impact on Social Sustainable Development.

Structural Empowerment, Artificial Intelligence, and Social Sustainable Development

Structural empowerment increases the availability of employees to technological instruments, training, and digital facilities that are required to adopt AI successfully (Shin et al.,2025). Formal support and decentralized authority within organizations are associated with enhanced chances of the employees to use AI systems to control labour standards and enhance transparency. Employees with empowerment will be more motivated to work with technological innovation and implement AI in sustainability practices. AI is able to convert structural support into quantifiable sustainability results through the automated checking of compliance and enhancing reporting systems. In this way, structural empowerment increases the use of AI that improve social sustainability performance. In this way, AI is one of the tools that can be used to convert empowered organizational systems in organized and consistent sustainable practices. (Zavrazhnyi, 2024).

H5: Artificial Intelligence mediates the relationship between Structural Empowerment and Social Sustainable Development.

Psychological Empowerment, Artificial Intelligence, and Social Sustainable Development

Employees who are empowered psychologically have greater motivation and receptiveness to digital innovation (Hanafy et al.,2025). Employees can be more certain when adopting AI-based systems and using technological knowledge responsibly when they feel competent and autonomous. Their internal drive helps in maximizing quality of AI implementation so that they employ digital tools to maximize fairness, transparency and accountability. Directed by employees with empowerment, AI systems become more efficient in the promotion of ethical labour management and compliance monitoring. Psychological empowerment, in turn, empowers the AI engagement, which, in its turn, improves social sustainable development. The systematic and sustainable organization practices are translated into internal motivation of employees through the introduction of AI (Najam et al.,2025).

H6: Artificial Intelligence mediates the relationship between Psychological Empowerment and Social Sustainable Development.

Employee Creativity, Artificial Intelligence, and Social Sustainable Development

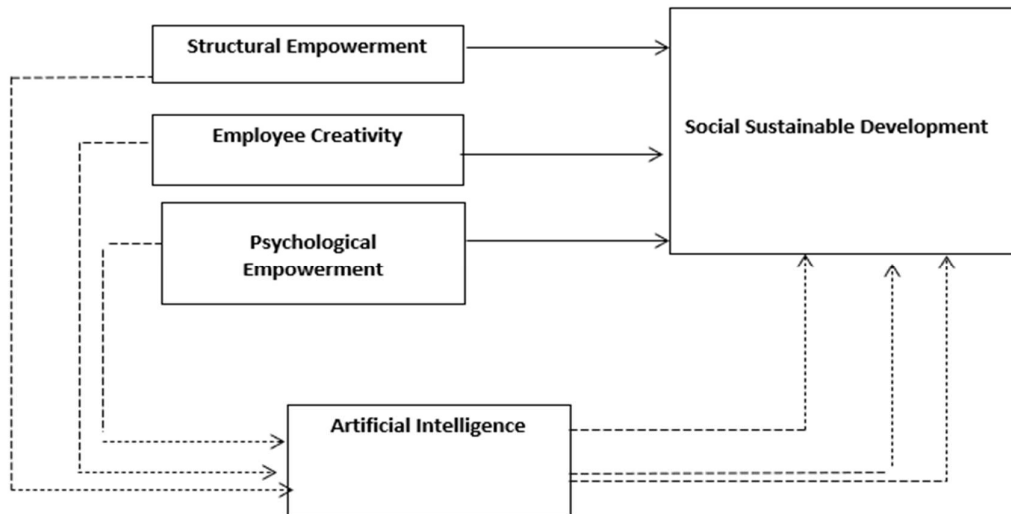
Creativity by employees leads to development of novel ideas that are meant to enhance social and operational processes (Amoozegar et al.,2025). Nevertheless, creative ideas might not deliver sustainable results unless implemented in a structured manner. Artificial intelligence offers the support that can be used to implement and scale these innovations. Creative understanding is converted into quantifiable sustainability programs through AI powered by automation, predictive analytics and smart monitoring. Improved labour systems can be designed by creative employees, and the performance of AI will guarantee their stability and regular implementation. The synergy improves transparency, efficiency, and fairness in the operations of the textile. Thus, AI enhances the influence of creativity institutionalization through the creation of inventive solutions that foster social sustainability in the long run. (Agboola, O. P. 2024).

H7: Artificial Intelligence mediates the relationship between Employee Creativity and Social Sustainable Development.



Figure 1

Conceptual Framework



3. Methodology

The research design of the study is a quantitative explanatory study that addresses the effect of structural empowerment, psychological empowerment, and employee creativity on social sustainable development, incorporating the artificial intelligence as a mediating variable in the fast fashion textile industry. The explanatory design is suitable since the study will be designed to test theoretically based hypotheses and be able to make causal relationships between variables. The data will be collected through a cross-sectional survey approach to measure data at one point in time and test directly and indirectly all aspects of the proposed conceptual framework based on the Self-Determination Theory.

The target population will be the managerial and non-managerial employees of the fast fashion textile firms. The choice of these employees is due to their potential inclusion in the operational processes and decisions about work, as well as the use of technologies that allow them to be good respondents to measure the practices of empowerment, creativity, use of AI, and social sustainability. To begin with, there is identification of textile companies that use the fast fashion model. Second, the employees work in the production, human resource, compliance, and technology departments are approached. The stratified random sampling method will be used to guarantee the coverage of the various levels of an organization to reduce the sampling bias and increase the generalizability.

The structured questionnaire is used to collect the data based on the five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire will be based on the measurement scales that have been previously tested and modified to the textile industry scenario. The items that measure structural empowerment are those that are used to assess access to information, resources, support, and decision-making opportunities. Psychological empowerment is evaluated based on the dimensions of meaning, competence, autonomy and perceived impact. Items that measure the creativity of employees include those that assess the ability to generate ideas, innovative solution of problems, and proactive suggestion behaviour. Measurement of artificial intelligence is done based on indicators of AI usage, digital monitoring, data-driven decision-making, and automation of sustainability activities. The social sustainable development is evaluated based on the items of fair labour practices, safety at work, social equity, employee well-being, and ethical compliance. Before the actual data collection, a pilot study is carried out so as to determine the clarity, reliability and contextual relevancy of the instrument.

A number of statistical processes are followed in order to achieve reliability and validity. The internal consistency reliability is assessed based on values of Cronbach alpha and composite reliability where a value of 0.70 and above is acceptable. Convergent validity is checked in terms of factor loadings and average



variance extracted (AVE) that it passes the value that is higher than recommended standards. The Fornell-Larcker criterion and the cross-loading test will be used to evaluate the discriminant validity to ensure that each of the constructs is different. The common method bias is reduced by guaranteeing anonymity to the respondents, disaggregating measurement items, and statistical tests, which include the single-factor test created by Harman.

Structural Equation Modelling (SEM) is a method of data analysis that enables the simultaneous analysis of the measurement and structural models.

SEM should be used in testing the complicated mediation models and multiple relationships in one setup. The data is analysed in two steps. The measurement model is initially evaluated to ensure that it is reliable and valid in constructs. Second, structural model is tested to examine both direct and indirect association of variables. Path coefficients, t-values and levels of significance are investigated to help in determining that the hypothesis is supported. The testing of the mediating position of artificial intelligence is conducted through bootstrapping procedures that deliver strong estimates of the indirect effects. The decision to use partial or full mediation will depend on the relevance of the indirect paths and the change in the direct effect with the introduction of the mediator.

When conducting the research, ethical considerations are highly upheld. This will be done on a voluntary basis, and informed consent will be taken out of all respondents. To promote honesty and minimize the problem of response bias, confidentiality and anonymity is guaranteed. Information is only employed on academic grounds.

On the whole, such a methodological approach will allow conducting an empirical test of the proposed model in a rigorous manner. The study incorporates the empowerment dimension, creativity and artificial intelligence into a single analytical model where they will be evaluated in direct and mediated impacts on social sustainable development in the fast fashion textile industry. The instruments used are validated, the sample used is carefully done, and the statistical tools are powerful, which enhances the reliability, validity, and generalization of the research findings.

4. Results

Demographic Analysis

Table: 1

Demographic Analysis

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	98	54.7
	Female	81	45.3
Age	20–30 years	64	35.8
	31–40 years	71	39.7
	41–50 years	32	17.9
	Above 50 years	12	6.7
Education	Intermediate/Bachelor	69	38.5
	Master's	84	46.9
	MPhil/PhD	26	14.6
Work Experience	Less than 5 years	58	32.4
	5–10 years	73	40.8
	Above 10 years	48	26.8
Job Level	Operational	74	41.3
	Supervisory	61	34.1
	Managerial	44	24.6

The demographic profile of the respondents who took part in this study is shown in table 1 and it has a total of 179 employees working in the fast fashion textile industry. The gender representation is fairly balanced, and there are 54.7 males and 45.3 females among the respondents, which was a good inclusion of



both sexes into the analysis. Concerning age, most of the respondents (39.7) are aged between 31 and 40 years, then 35.8 years suggesting that the sample is comprised majorly of those in their active and productive career phase.

Regarding education level, the majority of the interviewees have a Master-degree (46.9%), with 38.5 having middle and bachelor education indicating a fairly educated workforce with the potential to comprehend the processes of empowerment and sustainability. The data provided with work experience indicate that 40.8 percent of the respondents have 5-10 years of experience, and 32.4 percent have less than five years of experience, which is a combination of the employees in the early stages of their careers and those who are experienced. In addition, job-level distribution indicates that majority of the respondents work at the operational level 41.3% and the rest in supervisory and managerial level 34.1 and 24.6, respectively. On the whole, the demographic profile proves the age, experience, education, and organizational position diversity, which contributes to the increased validity and generalizability of the research results.

Construct reliability and validity

Table 4.2 reveals the findings of construct reliability and convergent validity of all the study variables, such as Artificial Intelligence (AI), Employee Creativity (EC), Psychological Empowerment (PE), Structural Empowerment (SE), and Social Sustainable Development (SSD). The results indicate high internal consistency in all the constructs with Cronbach alpha of between 0.797 and 0.854 which is higher than the acceptable limit of 0.70. In the same way, composite reliability values (0.80 and 0.89) of all constructs are greater than 0.80, and this implies that there is satisfactory reliability of the measurement items and that the measurement items do capture the latent variables they are intended to capture. The Average Variance Extracted (AVE) is used in the evaluation of convergent validity. Constructs AVE values are above the minimum acceptable of 0.50, as well as report 0.506-0.626. This shows that both constructs explain greater than half the variance of its indicators, which validates sufficient convergent validity. Altogether, these findings prove that the measurement model is reliable and valid, which would form a solid basis in the further structural model analysis and hypothesis testing.

Table 2

Construct reliability and validity

Variables	Cronbach's alpha	Composite reliability (rho a)	Composite reliability (rho c)	Average variance extracted (AVE)
AI	0.834	0.841	0.883	0.601
EC	0.854	0.903	0.885	0.506
PE	0.819	0.833	0.873	0.580
SE	0.797	0.811	0.859	0.551
SSD	0.851	0.854	0.893	0.626

Heterotrait-monotrait ratio (HTMT)

Heterotrait-Monotrait ratio (HTMT) was used to evaluate the discriminant validity in the study constructs. In accordance to the recommendation, which was made by Henseler et al. (2015), the values of HTMT that are lower than 0.90 are sufficient evidence of a good discriminant, whereas the values lower than 0.85 are more conservative. The findings indicate that, all the HTMT values in the model are less than the critical rate of 0.90 that establishes satisfactory discriminant validity among the constructs. Structural Empowerment (SE) and Employee Creativity (EC) have the highest value of 0.863 that is within the acceptable range which means that despite the relationship between the constructs, they are distinct in their empirical values. The rest of the construct pairs have HTMT values that are far less than 0.85, including PE-AI (.170) and EC-AI (.398), once again confirming construct uniqueness. All in all, these results prove that all the constructs have a separate theoretical concept, so there is no need to worry about multicollinearity. As a result, the measurement model meets the requirements of discriminant validity, which will permit one to interpret structural relationships in the further analysis.

**Table 3***HMTM*

Variables	Heterotrait-monotrait ratio (HTMT)
EC <-> AI	0.398
PE <-> AI	0.170
PE <-> EC	0.285
SE <-> AI	0.517
SE <-> EC	0.863
SE <-> PE	0.293
SSD <-> AI	0.272
SSD <-> EC	0.694
SSD <-> PE	0.518
SSD <-> SE	0.556

Outer loadings

The outcome of the outer loading results shows that the indicator reliability of all the constructs included in the measurement model is satisfactory. Outer loadings above 0.70 are suggested as indicators of the presence of strong representation of the latent constructs by the indicators as recommended in PLS-SEM literature. Most of the items on Artificial Intelligence (AI), Psychological Empowerment (PE), Structural Empowerment (SE), Employee Creativity (EC) and Social Sustainable Development (SSD) have loadings above the recommended threshold (or nearly) and this confirms the strong reliability of the items. All AI indicators depict strong loadings of between 0.752 and 0.798 demonstrating a measure consistency of the construct. Equally, PE, SE, and SSD items show an acceptable to high loading with a majority of the values of the scales being above 0.70 indicating high convergent validity. Some EC items (EC2 and EC4) and some chosen empowerment indicators have relatively smaller loadings, but since the theoretical importance of these items is high and construct reliability and overall AVE scores are acceptable, they were kept. The maintenance of these indicators and allows content validity without detracting the measurement model. On the whole, the outer loading assessment proves that the indicators are sufficient to reflect their underlying constructs. Measurement model is found to have acceptable levels of indicator reliability and convergent validity, which gives it a good foundation in structuring model analysis and testing hypothesis.

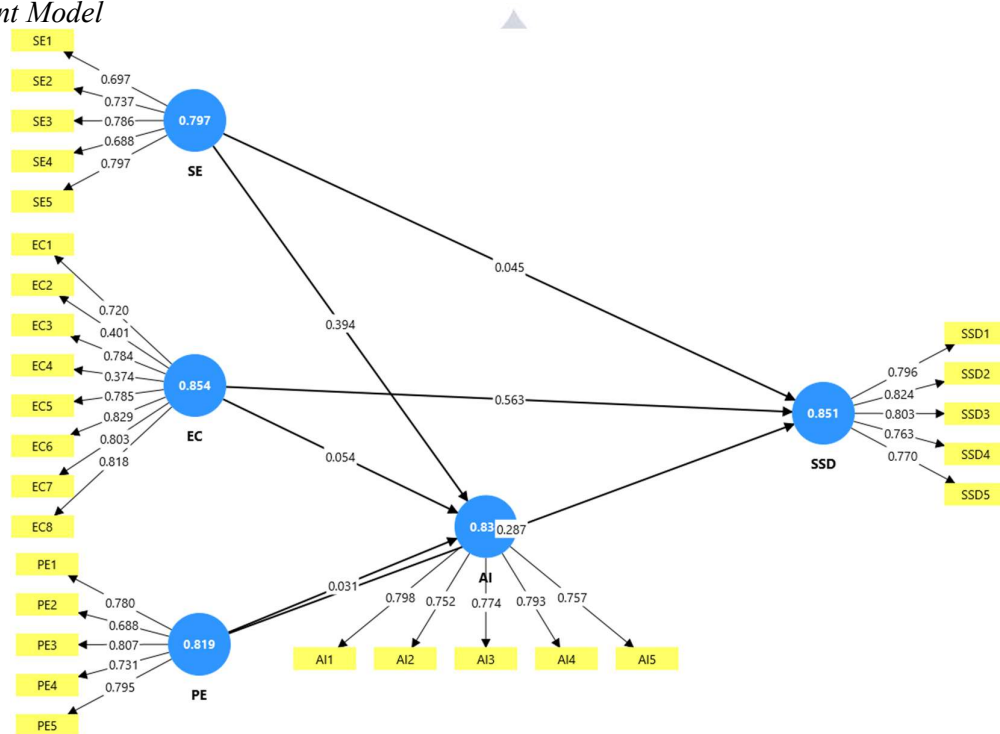
Table 3**Outer Loadings**

Items	AI	EC	PE	SE	SSD
AI1	0.798				
AI2	0.752				
AI3	0.774				
AI4	0.793				
AI5	0.757				
EC1		0.720			
EC2		0.401			
EC3		0.784			
EC4		0.374			
EC5		0.785			
EC6		0.829			
EC7		0.803			
EC8		0.818			
PE1			0.780		
PE2			0.688		



Items	AI	EC	PE	SE	SSD
PE3			0.807		
PE4			0.731		
PE5			0.795		
SE1				0.697	
SE2				0.737	
SE3				0.786	
SE4				0.688	
SE5				0.797	
SSD1					0.796
SSD2					0.824
SSD3					0.803
SSD4					0.763
SSD5					0.770

Figure 2
Measurement Model



Statistical Path Analysis

The results of the structural model are provided in table, which show path coefficients, t-statists, and p-values of the hypothesized direct relationships. In general, the results show good empirical evidence on the significance of empowerment and employee creativity in determining the adoption of artificial intelligence and social sustainable development in the fast fashion textile sector. Employee Creativity (EC) and Artificial Intelligence (AI) have a positive path coefficient ($= 0.054$), which implies that the more creative one is, the more they tend to be involved in AI. The direction of the relationship is positive, though the effect size is rather low, indicating that creative employees are more accepting and approachable to the AI-driven work processes. More to the point, EC has a significant and statistically significant positive impact on Social Sustainable Development (SSD) (0.563 , $t = 5.725$, $p < 0.001$), which demonstrates employee creativity as one



of the major drivers of socially sustainable practices. This finding highlights the significance of innovative thinking towards enhancing the wellbeing of the employees, fairness and ethical results. There is also a positive correlation between Psychological Empowerment (PE) and AI ($= 0.031$), which means that the more empowered employees are, the more they are willing to embrace AI. Although this relationship is small, it still indicates how intrinsic motivation plays a supportive role within the technological setting. In addition, PE contributes to SSD positively and significantly ($= 0.287$, $t = 5.196$, $p < 0.001$) thus proving that psychologically empowered employees will play a positive and active role in the social sustainability by acting responsibly and adopting a value-driven behaviour.

A particularly impactful predictor of AI adoption is Structural Empowerment (SE) ($= 0.394$, $t = 4.773$, $p = 0.001$) that suggests that the availability of resources, information, and support is a significant predictor of AI use. The direct impact of SE on SSD is relatively smaller ($= 0.045$), but the positive sign shows that structural empowerment is indirectly related to social sustainability, which could be mediated by a series of other factors, such as creativity. On the whole, these results can be attributed to the theoretical framework and prove the importance of empowerment and creativity to contribute to an improvement of the AI integration and social sustainable development in the fast fashion textile business.

Table 4*Direct Effects*

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
EC → AI	0.054	0.053	0.100	0.538	0.000
EC → SSD	0.563	0.573	0.098	5.725	0.000
PE → AI	0.031	0.035	0.073	0.423	0.000
PE → SSD	0.287	0.286	0.055	5.196	0.000
SE → AI	0.394	0.403	0.083	4.773	0.000
SE → SSD	0.045	0.037	0.091	0.492	0.000

Indirect Effects

The results of the mediation analysis demonstrate the indirect effects of employee creativity (EC), psychological empowerment (PE), and structural empowerment (SE) on social sustainable development (SSD) through artificial intelligence (AI). The findings indicate that AI serves as an important explanatory mechanism linking empowerment and creativity with socially sustainable outcomes in the fast fashion textile industry.

The indirect path from Employee Creativity to Social Sustainable Development through AI (EC → AI → SSD) shows a positive coefficient ($\beta = 0.054$), suggesting that creative employees contribute to social sustainability by facilitating the effective use of AI-driven systems. Although the magnitude of the indirect effect is modest, its positive direction highlights the role of creative problem-solving in leveraging AI for socially responsible practices. Similarly, the indirect effect of Psychological Empowerment on SSD via AI (PE → AI → SSD) is positive ($\beta = 0.031$), indicating that intrinsically motivated and autonomous employees are better positioned to utilize AI technologies in ways that enhance employee well-being and ethical standards. This finding supports the view that psychological empowerment strengthens the social impact of technological adoption.

Notably, the indirect relationship between Structural Empowerment and SSD through AI (SE → AI → SSD) is comparatively stronger ($\beta = 0.394$, $t = 4.773$), emphasizing that access to resources, information, and organizational support significantly enhances AI utilization, which in turn contributes to social sustainable development. Overall, these results confirm the mediating role of artificial intelligence, demonstrating that empowerment and creativity influence social sustainability not only directly but also indirectly through technology-enabled work environments.



Table 5

Indirect Effects

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
EC -> AI->SSD	0.054	0.053	0.100	0.538	0.000
PE -> AI->SSD	0.031	0.035	0.073	0.423	0.000
SE -> AI->SSD	0.394	0.403	0.083	4.773	0.000

5. Discussions

The results of this research can be strongly supported with the empirical evidence to the contribution of employee empowerment and creativity to the process of social sustainable development in the fast fashion textile business. In line with the self-determination theory, the findings indicate that structural and psychological empowerment do positively conduct to the social sustainability results both directly or indirectly in the sense that they increase the sense of autonomy, competence and meaningful involvement of employees (Deci and Ryan, 2000). Psychological empowerment was significantly directly related to social sustainable development which implies that ethically responsible and socially supportive behaviours are more likely among employees who believe that their work is important and effective.

This observation is consistent with the fact that the research that is done in the past has reported the significance of intrinsic motivation in ensuring a sustainable workplace (Zhou et al., 2024). The creativity of the employees was a specific strong predictor of social sustainable development, which identified the importance of creativity as a key behavioural mechanism by which the empowerment can be converted into socially responsible performance. This is in line with the previous research findings that consider creativity as a source of innovation as well as a factor in enhancing employee well-being, inclusion, and ethical-problem-solving among labour-intensive sectors (Gilson et al., 2024). Beautiful workers seem to be in a better position to present innovative solutions to the long-standing societal problems, including unhealthy working conditions and unfair practices.

In addition, the findings indicate that artificial intelligence has a significant mediating position, particularly, between structural empowerment and social sustainable development. It means that the empowerment of organizational structures helps to effectively use AI that can lead to transparency, efficiency, or fairness in workplace processes. The given findings are an extension of the current literature as they show that AI in the context of empowering practices can be beneficial to social sustainability and does not have to harm the well-being of the employees (Mohiuddin et al., 2024). In general, the research contributes to the body of sustainability by incorporating empowerment, creativity, and artificial intelligence in the same structure, which can be of great benefit to managers who want to balance technological progress and social responsibility in the fast fashion textile business.

Practical Implications

This research study can have various significant practice implications to managers and policymakers in the fast fashion textile sector. To begin with, structural empowerment should be emphasized by organizations giving their employees and access to pertinent information, sufficient resources, and a decision-making process. These practices not only contribute to successful adoption of artificial intelligence, but also provide socially sustainable outputs, such as fairness, transparency, and employee well-being.

Second, psychologically empowered employees, who are enhanced by meaningful work design, autonomy, and recognition, would become responsible and ethically aware, which would enhance their intrinsic motivation. To foster empowerment at any organizational levels, managers ought to invest in leadership development programs in which they encourage supportive and participative leadership styles. Moreover, training programs, open communication lines, and incentives should be used to promote creativity regarding the employees as opposed to only permitting the use of productivity indicators.



The findings also indicate that AI is to be applied as a support device but not as a controlling mechanism. By enhancing the safety of working places, optimizing the workloads, and increasing the level of transparency in the assessment of performance, organizations can use AI to strengthen the social sustainability. These insights can also be applied by policymakers and industry regulators in developing guidelines that are rational technology development and less human-centred. On the whole, the consideration of empowerment solutions and AI implementation can assist fast fashion companies to achieve a balance between competition and social responsibility in the long term.

Limitations & Future Directions

Although it has made contributions, this study has its limitations, which are to be noted. To begin with, the cross-sectional research design does not allow determining the causal relationship of the empowerment, creativity, artificial intelligence, and social sustainable development. The future studies may be conducted in the form of longitudinal or experimental studies to reflect the changes that change with time. Second, self-reported questionnaires were used to gather data, and this could be subject to common method bias and social desirability. Even though statistical remedies were used, it could be beneficial to use multi-source data in future research, e.g., supervisor ratings or objective performance measures. Third, the analysis was only limited to the fast fashion textile industry, which can restrict the extrapolation of the results to other industries. The proposed model should be tested in various industries and culture settings to improve the external validity in future research. Also, the artificial intelligence is considered a moderating mechanism in the study; future research might address individual applications of AI or juxtaposition of human-centred and control-oriented AI systems. It is also possible to examine other possible mediators including ethical climate or a cultural organization to have a more in-depth notion about social sustainability. These limitations will be tackled to enhance theoretical understanding and make practical implications.

6. Conclusion

This paper will be a detailed analysis of how structural empowerment is connected to psychological empowerment, employee creativity, artificial intelligence, and social sustainable development within the fast fashion textile industry. The results indicate that the power and innovation are important organizational processes that lead to socially sustainable results (both directly and indirectly). Creativity of employees and psychological empowerment were found to be good predictors of social sustainable development, and this demonstrates the relevance of intrinsic motivation and creative thinking in solving complicated social problems.

Furthermore, the article demonstrates that artificial intelligence is a significant mediating factor, especially in enhancing the effect of structural empowerment on social sustainability. These findings fight the idea of AI as a strictly efficiency-oriented device and highlight the possibility of facilitating ethical, fair, and people-centred practices in the workplace when paired with empowering organizational models. Combining the self-determination theory with modern technological views, this study contributes to the literature on sustainability and provides a comprehensive approach to the comprehension of social sustainability in the sphere of labour-intensive business. To conclude, regulation and technology alone cannot be used to attain sustainable development in the fast fashion industry. It involves empowered employees, innovative involvement, and accountable utilization of artificial intelligence. Companies that invest in them are in better positions to attain social and organizational sustainability in the long-term.

Author Contributions

All authors participated in ideation, development, and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this article.

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Informed Consent

Informed consent was obtained from all participants.

Data Availability

The datasets generated during and analysed during the current study are available from the corresponding author on reasonable request.

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