



University of Tehran Press

The Path to Sustainable Innovative Work Behaviour: Integrating Idea Implementation, Knowledge-Sharing Culture, and Cooperative Behaviour

Saleh Samimi Dehkordi^{1*} | Matej Černe² | Guido Bortoluzzi³ | Payam Partohafshejani⁴

1. Corresponding Author, DEAMS 'Bruno de Finetti', University of Trieste, Trieste, Italy. Email: saleh.samimidehkordi@phd.units.it
2. Department of Economics and Business, University of Ljubljana, Ljubljana, Slovenia. Email: matej.cerne@ef.uni-lj.si
3. DEAMS 'Bruno de Finetti', University of Trieste, Trieste, Italy. Email: guido.bortoluzzi@deams.units.it
4. Department of industrial engineering, Najafabad Branch, Islamic Azad University, Najafabad, Iran. Email: payamparto91@gmail.com

ARTICLE INFO

Article type:
Research Article

Article History:
Received 30 December 2024
Revised 28 June 2025
Accepted 19 August 2025
Published Online 20 February 2026

Keywords:
Sustainable innovative work behaviour,
Idea implementation,
Knowledge-sharing culture,
Cooperative behaviour.

ABSTRACT

Environmental and social challenges place additional pressure on businesses to achieve sustainable performance, which is crucial for organisational success. In this study, we first investigate the association between idea implementation and sustainable innovative work behaviour (SIWB), followed by an exploration of the moderating effect of cooperative behaviour and knowledge-sharing culture on such a relationship. The study is based on multi-source data collected from 189 employees and their supervisors across diverse units in the home appliances industry. Regression analysis confirmed a direct positive relationship between idea implementation and SIWB. While knowledge-sharing culture alone did not moderate the relationship between idea implementation and SIWB, a significant three-way interaction emerged among idea implementation, knowledge-sharing culture, and cooperative behaviour. The highest SIWB levels occurred when there was a strong presence of both knowledge-sharing and cooperation. We contribute valuable insights to the literature on sustainability and innovation by demonstrating how knowledge circulation and individual cooperation facilitate the transformation of ideas into sustainable innovative behaviour.

Cite this article: Samimi Dehkordi, S.; Černe, M.; Bortoluzzi, G. & Partohafshejani, P. (2026). The Path to Sustainable Innovative Work Behaviour: Integrating Idea Implementation, Knowledge-Sharing Culture, and Cooperative Behaviour. *Interdisciplinary Journal of Management Studies (IJMS)*, 19 (2), 281-298. <http://doi.org/10.22059/ijms.2025.387867.677275>



© The Author(s). **Publisher:** University of Tehran Press.
DOI: <http://doi.org/10.22059/ijms.2025.387867.677275>

Introduction

Rising pressure on firms to adopt sustainable initiatives and innovation has dominated customer and stakeholder demands, leading to strategic shifts toward organisational sustainability (Arabiun et al., 2025; Cillo et al., 2019; Ghobakhloo et al., 2021). Sustainability is no longer considered an optional pursuit and is instead regarded as essential for businesses to survive in the market (Adams et al., 2016; Chatterjee et al., 2023; Kapil & Rawal, 2023; Kushwaha & Kumar Sharma, 2017). Consequently, scholars have been increasingly integrating sustainability issues with innovation processes (Arabiun et al., 2025; Hofmann & Jaeger-Erben, 2020; Shafi et al., 2025).

Innovation processes start with individuals generating novel ideas, thinking creatively, and contributing to implementing novel solutions (AlEssa & Durugbo, 2022; Faghih Abdollahi et al., 2022; Kline, 1985; Woodman et al., 1993). Organisations rely on their employees' creative and innovative capacities to tackle various sustainability challenges (AlEssa & Durugbo, 2022). A similar logic also applies to sustainable innovation processes: sustainable ideas made tangible through (idea) implementation processes should generally result in sustainable innovative work behaviour (SIWB), which involves reducing the environmental and social impact of manufacturing, products, and processes (Samimi Dehkordi et al., 2024).

The innovation process typically consists of three phases: creativity for the generation of novel ideas (Austin et al., 2012; Samimi Dehkordi et al., 2025), idea implementation for the promotion and practice of new ideas (De Jong & Den Hartog, 2010), and innovation for the realisation of new processes or products (Amabile, 1996). In her book, "Componential Theory of Creativity," Amabile (2011) explains such a conceptual paradigm by outlining its key components. She argues that four elements are required for any creative response: three internal components within the individual, including domain-relevant skills, creativity-relevant processes, and intrinsic task motivation, and one external element, namely the social environment in which the individual operates. According to social learning theory, two vital factors pertaining to the individual, related skills and knowledge, can be developed by learning from colleagues (Bandura & Walters, 1977). While idea implementation is essential for transforming innovative ideas into innovative solutions, its success in sustainable innovation does not depend solely on individual efforts. Accordingly, the organisational factor—social environment—fosters individuals' knowledge and skills for innovation (Tajeddini et al., 2023; Von Krogh et al., 2012). A knowledge-sharing culture as an organisational factor thus plays a crucial role in the innovation process (Alshwayat et al., 2021; Zahedi et al., 2024).

The following realistic scenario aims to illustrate these links. In a shoe manufacturing company, Person A is known for their ability to implement both their own and their colleagues' innovative ideas. Their expertise in idea implementation allows them to evaluate the potential impact and feasibility of each idea, make necessary adjustments, or even generate new ideas that enhance environmental and social value. In this company, Person B comes up with a promising idea to reduce leather usage. However, they struggle to find a practical way to put their idea into practice. In this scenario, Person A, with their strong ability to implement novel ideas while considering sustainability, can help Person B to refine and execute the idea effectively, ensuring that the implementation process aligns with both environmental and social responsibility. Yet, whether Person A actually decides to help Person B also remains dependent upon team cultural factors.

The organisational context, particularly the culture of knowledge sharing, plays a crucial role in the effectiveness of innovation processes and idea implementation (Fiandrino et al., 2023). A strong knowledge-sharing culture ensures employees have access to relevant knowledge, best practices, and lessons learned from previous innovations (Lee et al., 2016), allowing them to refine their ideas and optimise implementation processes. Knowledge-sharing encompasses both the offering and collection of knowledge. Individuals share their knowledge and intellectual sources (De Vries et al., 2006) in return for conversation to solve a problem and obtain information (Darroch & McNaughton, 2002). Therefore, it can be said that a robust knowledge-sharing culture promotes knowledge circulation and the exchange of ideas (Peng, 2024), particularly sustainability-related ones, enhancing problem-solving capabilities and accelerating innovation (Fiandrino et al., 2023).

Nonetheless, the effectiveness of a knowledge-sharing culture relies on individuals' active participation and engagement. Individuals' enthusiasm to share their expertise, collaborate with others, consider team members' interests, and contribute positively to group efforts (Lu et al., 2013) ultimately

determines how effective the knowledge-sharing culture is within an organisation. Furthermore, cooperative behaviour facilitates a collaborative environment where individuals not only share their expertise but also actively engage in refining and improving sustainable ideas through collective efforts. Individuals' cooperative behaviour has been shown to enhance knowledge circulation within the team (Zhang et al., 2022) as well as individuals' innovative behaviour (AlEssa & Durugbo, 2022; Tu et al., 2014).

Social learning theory accordingly posits that individuals learn by observing and modelling their colleagues' behaviours, attitudes, and outcomes (Bandura & Walters, 1977). In doing so, the interaction of a knowledge-sharing culture with cooperative behaviour forms the basis for learning to innovate and translate sustainable ideas into sustainable innovation. Given these dynamics, knowledge-sharing culture potentially enhances individual capability as well as the required knowledge and skill for bridging the idea implementation to SIWB. Therefore, in environments with a robust knowledge-sharing culture, idea implementation is more likely to lead to sustainable innovations, as employees actively exchange insights that enhance the feasibility and sustainability of their innovations.

Despite the growing integration of sustainability into organisational innovation processes, there is still limited understanding of how individual behaviours and organisational contexts jointly shape the translation of sustainable ideas into practical innovations (Samimi Dehkordi, 2025). Specifically, the mechanisms through which idea implementation leads to SIWB, and how these mechanisms are influenced by team elements, remain underexplored. Drawing on the componential theory of creativity (Amabile, 2011) and social learning theory (Bandura & Walters, 1977), we explore how organisational and individual-level factors foster or hinder sustainable innovation at the employee level. Our research seeks to address the following question: How does the interaction between knowledge-sharing culture and cooperative behaviour shape the relationship between idea implementation and sustainable innovative work behaviour?

This integration enhances our understanding of how individual and organisational factors interact to shape sustainable innovative behavior. The present study makes significant contributions to the literature on the intersection of innovation and sustainability, two increasingly interconnected domains in contemporary business research.

First, we extend the componential theory of creativity and innovation (Amabile, 2011) into the sustainability domain by demonstrating that the SIWB process operates through mechanisms that are parallel to general innovation behaviour (Samimi Dehkordi et al., 2024). Our approach bridges an important gap by simultaneously considering both individual capabilities (skills and knowledge) and organisational context (knowledge-sharing culture) as drivers of SIWB, whereas previous studies have often examined these factors separately.

Second, we enrich theoretical understanding by integrating the componential theory with social learning theory (Bandura & Walters, 1977). This synthesis reveals how employees develop sustainability-focused innovation capabilities through observational learning and social interaction within their organisational environment. We particularly emphasise how this learning process is enhanced by two key contextual factors: a supportive knowledge-sharing culture (Alshwayat et al., 2021) and cooperative behaviour among team members (Lu et al., 2013). This theoretical integration provides new insights into the social mechanisms underlying sustainable innovation.

Third, our findings offer practical value for organisations seeking to foster sustainability-oriented innovation. By empirically examining how knowledge-sharing cultures and cooperative behaviours interact to promote SIWB, we provide actionable guidance for creating organisational environments where SIWB can thrive. These insights help translate theoretical understanding into practical approaches for embedding sustainability into daily organisational practices and innovation processes.

Through this multifaceted contribution, our work not only expands academic knowledge in sustainability and innovation research but also provides a foundation for developing more effective organisational strategies to support sustainable innovation behaviours. The study's framework and findings offer valuable tools for both researchers studying the microfoundations of sustainable innovation and practitioners aiming to cultivate it within their organisations.

Theoretical Background and Hypotheses Development

Organisations that prioritise sustainability innovation gain advantages such as enhanced innovation, improved sustainability performance, and a stronger competitive edge (Cillo et al., 2019; Sajuyigbe et al., 2024). Despite growing interest in sustainable innovation, the individual-level mechanisms driving it remain underexplored. Most prior studies have focused on firm-level or team-level sustainability strategies, overlooking how individual employees contribute to sustainability through their innovative behaviours. Moreover, organising innovation, particularly sustainable innovation, at the organisational level can be challenging. By examining its micro-level foundations from a behavioural perspective, this study addresses the gap in research on SIWB and provides actionable insights for managers to mitigate implementation risks and complexities.

SIWB construct, formally established by Samimi Dehkordi et al. (2024), is a key driver of sustainability within organisations, bridging individual creativity and idea implementation with broader environmental and social objectives. SIWB refers to employees' proactive efforts to integrate sustainability principles into their innovative work, thereby minimising negative environmental and social impacts. It extends beyond traditional innovative behaviour by ensuring that new ideas, products, and processes align with sustainability goals.

SIWB is conceptually different from related constructs like IWB. While both share common elements, such as innovation, sustainability, and individual behaviour, SIWB uniquely combines these elements at the individual level, with a focus on both innovation and sustainability in work-related tasks. Although both SIWB and IWB involve generating, promoting, and implementing new ideas (De Jong & Den Hartog, 2010), SIWB integrates sustainability into each of these stages. In SIWB, sustainability is not only considered during the idea generation phase but is also embedded in how ideas are promoted and implemented, ensuring that the entire innovation process aligns with sustainable principles.

Employees engaged in idea implementation play a crucial role in transforming concepts into concrete solutions, making necessary adjustments to ensure feasibility and alignment with sustainability objectives (AlEissa & Durugbo, 2022; Faghih Abdollahi et al., 2022). A knowledge-sharing culture—where employees openly exchange expertise, experiences, and insights to facilitate collective learning and innovation (Lee et al., 2016)—is particularly vital for sustainability-oriented innovations. Employees need access to specialised knowledge on environmental practices, regulatory compliance, and social impact (Alshwayat et al., 2021; Zahedi et al., 2024). Additionally, cooperative behaviour—employees' willingness to collaborate, support team efforts, and contribute to shared goals (Lu et al., 2013)—enhances knowledge circulation within teams, ensuring the effective implementation of sustainability-related ideas (De Vries et al., 2006). Employees who engage in cooperative behaviour actively exchange insights on best practices, regulatory requirements, and potential challenges, strengthening the link between idea implementation and SIWB. The interaction between cooperative behaviour and a knowledge-sharing culture creates a dynamic environment where employees continuously learn and refine their sustainable innovation capabilities (Darroch & McNaughton, 2002).

Idea Implementation and Sustainable Innovative Work Behaviour

Innovation is more than just the generation of novel and useful ideas; it also depends on how these ideas are implemented (Amabile, 1988). Idea implementation may be seen as a bridge between conceptualisation and tangible outcomes (Perry-Smith & Mannucci, 2017) and is an essential phase of the innovative work behaviour process, playing a key role in shaping innovation (De Jong & Den Hartog, 2008; De Jong & Den Hartog, 2010; Škerlavaj et al., 2014). Therefore, idea implementation is a step between idea generation and innovation, whereas implementing creative ideas in the organisation is a step required to achieve innovation (De Jong & Den Hartog, 2008; Ghasemzadeh et al., 2022). It is reasonable to assume that more ideas being implemented within the organisation correlates with an elevated level of innovative work behaviour. We argue that something similar occurs in the SIWB process.

However, the individuals who generate innovative ideas are often not the same as those who implement them (Valtonen et al., 2023), meaning that individuals can contribute to only one part of the innovation process. Some may only participate in sustainable idea generation, which seeks to mitigate the negative and harmful effects of manufacturing and processes on society and the environment (Samimi Dehkordi et al., 2024), while other individuals put the ideas into practice,

regardless of who generated them, which is imperative for driving sustainable innovation.

The SIWB process is thus not different from the innovative work behaviour process. These two steps are intricately connected given that translating ideas into action is essential for realising sustainable outcomes. This leads us to state our first hypothesis as follows:

H1: Individual idea implementation is positively related to sustainable innovative work behaviour.

The Moderating Effect of Knowledge-Sharing Culture on the Relationship Between Idea Implementation and Sustainable Innovative Work Behaviour

A knowledge-sharing culture involves the transfer of knowledge and information among individuals and within teams (Alshwayat et al., 2021; Peng, 2024). A knowledge-sharing culture contains both donating, which entails the sharing of personal intellectual capital, and collecting knowledge, that is seeking information from others (Alshwayat et al., 2021; De Vries et al., 2006; Lee et al., 2016). Such a culture is critical for innovation (Usman et al., 2024), as underscored by the componential theory of creativity (Amabile, 1988), which identifies knowledge as a foundational driver of novel ideas. Furthermore, social learning theory (Bandura & Walters, 1977) suggests that employees develop innovative behaviours by observing and modeling peers, particularly in environments where knowledge flows freely. Empirical research supports this, indicating that knowledge-sharing cultures enhance organisational performance, streamline communication, and amplify idea generation (Fiandrino et al., 2023; Von Krogh et al., 2012; Zahedi et al., 2024).

As mentioned above, the individual who implements an idea is not always its originator (Valtonen et al., 2023). In line with a knowledge-sharing culture, when idea generators share their novel and beneficial ideas with those capable of implementing them, an individual's innovation behaviour is enhanced. Individuals who implement the ideas promote SIWB, particularly when these ideas aim to address the adverse impacts of production and processes on society and the environment (Samimi Dehkordi et al., 2024), by facilitating access to contextually relevant sustainability knowledge, aligning expectations between generators and implementers, and creating feedback loops to refine ideas during execution. Knowledge sharing therefore potentially fosters the relationship between an individual's idea implementation and SIWB. Therefore, the second hypothesis is presented as follows:

H2: A knowledge-sharing culture positively moderates the relationship between idea implementation and sustainable innovative work behaviour.

The Three-Way Interaction of Idea Implementation, Knowledge-Sharing Culture, and Cooperative Behaviour Impacts Sustainable Innovative Work Behaviour

Active collaboration among individuals means sharing insights, perspectives, and expertise, which fosters the knowledge-sharing process (Zhang et al., 2022). In this collaborative environment, a culture of knowledge sharing emerges, enabling the circulation and exchange of novel and valuable ideas among team members (Alshwayat et al., 2021; Carmeli et al., 2013; Darroch & McNaughton, 2002). These interactions among individuals within the organisation, coupled with the process of knowledge sharing, align with the principles of social learning theory (Bandura & Walters, 1977). This theory states that individuals learn from one another through the observation and modelling of behaviours, which in turn provide relevant knowledge and create feedback which increases their innovation behaviour. Individuals within an organisation can hence learn from their peers' experiences, approaches, and successes in generating and implementing ideas. Moreover, cooperative behaviour strongly facilitates a knowledge-sharing attitude, resulting in a strong knowledge-sharing culture (Serenko & Bontis, 2016). This argument applies equally to sustainable ideas.

In Scenario 1, interactions among employees and knowledge sharing are plentiful due to the high knowledge-sharing culture and cooperative behaviour. High cooperation (Zhang et al., 2022) benefits individuals by taking advantage of the robust circulation of knowledge, ideas, and experience within the team (Carmeli et al., 2013) to boost their skills and knowledge in innovation, as explained by the componential theory of creativity and innovation. Therefore, as suggested by social learning theory (Bandura & Walters, 1977), they learn how to promote sustainable ideas into sustainable

innovation from each other. In this scenario, one may expect a strong direct association between idea implementation and SIWB.

Figure 1 provides a visual representation of the three distinct scenarios, offering insights into the complex dynamics of sustainable innovative work behaviour factors and their interplay.

	High Knowledge-Sharing Culture	Low Knowledge-Sharing Culture
High Cooperative Behavior	<p>Scenario 1: Highest SIWB</p> <ul style="list-style-type: none"> • Strong interaction and knowledge circulation • Ideal conditions for sustainable innovation 	<p>Scenario 3: Medium SIWB</p> <ul style="list-style-type: none"> • High cooperation compensates for limited knowledge sharing • Moderate knowledge exchange occurs
Low Cooperative Behavior	<p>Scenario 2: Medium SIWB</p> <ul style="list-style-type: none"> • Knowledge-sharing culture supports innovation • Limited cooperation restricts SIWB 	<p>Scenario 4: Lowest SIWB</p> <ul style="list-style-type: none"> • Lack of both cooperation and knowledge sharing • Minimal interaction and innovation potential

Fig. 1. Three Scenarios of the Moderating Effect of a Knowledge-Sharing Culture and Cooperative Behaviour on the Relationship Between Idea Implementation and Sustainable Innovative Work Behaviour

In Scenario 2, when only the knowledge-sharing culture is at a high level, there is a lower level of interaction and knowledge circulation within the team. If there is a high level of knowledge-sharing culture and a low level of cooperative behaviour, the absence of team member cooperation would be a setback for knowledge circulation among the team. This means that individuals' knowledge and skills for innovation would increase, albeit only slightly.

In Scenario 3, in contrast to the previous one, where the knowledge-sharing culture is low and cooperative behaviour is high, strong cooperation among individuals assists in achieving innovation, while learning and developing skills are limited due to a low level of knowledge-sharing culture. In both cases, a relatively strong relationship between idea implementation and SIWB is hence predictable.

Finally, Scenario 4 describes a situation where both knowledge-sharing culture and cooperative behaviour are lacking in the team. Here, there is no knowledge transfer among individuals, and they refuse to cooperate. There is accordingly a low amount of interaction and knowledge circulation, leading to a lack of learning from one another, expanding skills, and cooperating to achieve innovation. Therefore, the relationship between idea implementation and SIWB is at its weakest. Accordingly, we state the third hypothesis as follows:

H3: The three-way interaction of idea implementation, knowledge-sharing culture, and cooperative behaviour has a positive impact on sustainable innovative work behaviour.

Figure 2 illustrates the comprehensive model of this study, along with the hypotheses derived from the theoretical framework.

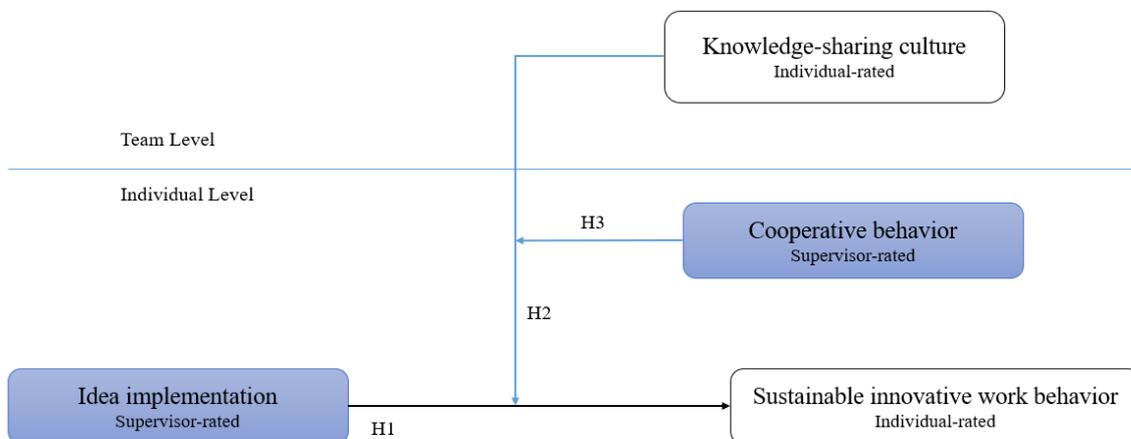


Fig. 2. Research Model with Hypotheses

Methodology

Sample and Data Collection

We employed a multi-source, cross-sectional survey design to collect data between December 2023 and January 2024 from employees and supervisors in five organisations based in Isfahan, Iran—including four home-appliance manufacturing firms and one industrial training institute. We used a nonprobability purposive sampling technique to target teams and departments engaged in environmentally and socially responsible practices. Within each organisation, HR departments and unit managers assisted in identifying teams known for engaging in sustainability or innovation activities. This resulted in the selection of 34 distinct teams or units, covering functional areas such as production, information technology, finance, programming, and R&D.

To reduce common method bias, we implemented a two-source data collection process: Employees responded to self-reported measures related to idea implementation, perceived knowledge-sharing culture, and cooperative behaviour. Supervisors assessed employees' SIWB and cooperativeness, providing an external evaluation.

Each participant was assigned a unique identification code to ensure precise matching of employee-supervisor responses. Out of 215 distributed paired questionnaires, 189 complete and matched dyads were obtained (88% response rate). The final sample consisted of 189 employees, of whom 57% were male. In terms of age, 52% were between 30 and 39 years old. A total of 65% had less than 10 years of work experience, while 78% held, at least, a university degree. This diverse demographic representation supports variability across responses and enhances the richness of the data.

Measures

All items were measured using established, validated scales, translated into Persian using a double-translation and back-translation process to ensure linguistic and conceptual equivalence. All responses were scored on a 7-point Likert scale ranging from 1 (never) to 7 (always).

Sustainable innovative work behaviour (SIWB) was measured using a 10-item scale (Samimi Dehkordi et al., 2024). A sample item is: "To reduce the negative influence of manufacturing/processes on the environment and society, I attempt to convince people to support an innovative idea" (Cronbach's $\alpha = .94$).

Idea implementation was assessed by supervisors using three items developed by De Jong and Den Hartog (2008). Example: "This employee contributes to the implementation of new ideas" ($\alpha = .73$).

Knowledge-sharing culture was measured employing a four-item scale developed by Alshwayat et al. (2021), with sample items such as: "My teammates and I reciprocally share knowledge with one another" ($\alpha = .87$).

Cooperative behaviour was measured by supervisors using five items developed by Lu et al. (2013). A sample example is: "This employee can usually consider multiple views while handling tasks" ($\alpha = .86$).

Analytic Strategy

We first conducted confirmatory factor analysis (CFA) using AMOS 24 (Arbuckle, 1997) to assess the validity and distinctiveness of the constructs. Reliability and descriptive statistics were also evaluated. To test the study's hypotheses, we used regression-based moderation analyses using PROCESS macro models 1 and 3 (Hayes, 2018) in SPSS 24. This analysis examined both main and interaction effects.

Results

Table 1 presents the descriptive statistics and correlation coefficients for the study variables. The correlation analysis reveals significant positive relationships between all key variables. Notably, the correlation between SIWB and idea implementation ($r = 0.406$, $p < 0.01$) is positive and statistically significant, suggesting that employees who actively engage in implementing ideas are also more likely to exhibit SIWB. Furthermore, cooperative behaviour indicates a strong positive correlation with SIWB ($r = 0.549$, $p < 0.01$) and idea implementation ($r = 0.329$, $p < 0.01$), highlighting the importance of teamwork and collaboration in fostering innovation. Similarly, knowledge-sharing culture is significantly correlated with SIWB ($r = 0.322$, $p < 0.01$) and cooperative behaviour ($r = 0.486$, $p < 0.01$), reinforcing the role of shared expertise and collaboration in driving sustainable innovation.

Additionally, Table 1 presents the Cronbach's alpha values for all four variables, each exceeding 0.7, indicating high internal consistency and reliability of the measures. The average variance extracted (AVE) values further support the construct validity of the measurement model. The results of the confirmatory factor analysis (CFA) indicate an acceptable model fit (CFI = 0.89, RMSEA = 0.088, RMR = 0.118, $\chi^2 = 504.874$, $df = 203$, $p < 0.00$), confirming the structural validity of the measurement model. The item loadings for each variable in the CFA are presented in Appendix B.

Table 1. Descriptive Statistics and Correlations

Variables	SD	M	AVE	1	2	3	4
1 SIWB	1.19	5.25	0.61	(0.94)			
2 Idea implementation	1.06	5.37	0.59	0.406**	(0.73)		
3 Cooperativeness behavior	1.07	5.54	0.48	0.549**	0.329**	(0.88)	
4 Knowledge-sharing culture	1.05	5.75	0.65	0.322**	0.195**	0.486**	(0.87)

The Results of Regression Analysis

Idea Implementation – Sustainable Innovative Work Behaviour

The linear regression analysis results indicate a significant relationship between idea implementation and SIWB (R square = 0.165, $F=36.93$, $Beta= 0.406$, $SE= 0.075$, $sig = 0$), suggesting a direct and positive association between a sustainable attitude and SIWB.

The Moderating Effect of Knowledge-Sharing Culture on the Relationship Between Idea Implementation and Sustainable Innovative Work Behaviour

To assess whether a knowledge-sharing culture moderates the relationship between idea implementation and sustainable innovative work behaviour (SIWB), we conducted a regression analysis using Model 1 in the PROCESS macro. The overall model was significant ($p < 0.01$), indicating that the predictor variables collectively explain a meaningful portion of the variance in SIWB. However, as shown in Table 2, the relationship between idea implementation and knowledge-sharing culture ($\beta = -0.032$, $p = 0.61$) was not statistically significant. This suggests that a knowledge-sharing culture does not significantly moderate the relationship between idea implementation and SIWB.

Table 2. The Results of Regression Analysis for Model 1 (Knowledge-Sharing Culture Moderating the Relationship Between Idea Implementation and SIWB)

Model summary						
R	R-sq	MSE	F	Df1	Df2	P
0.47	0.22	1.116	18.15	3.00	185.00	0.00
Model 1						
Effect	Estimate values	Standard error	95% confidence interval		P	
			Lower limit	Upper limit		
Fixed effects						
Constant	05052	1.937	-3.316	4.327	0.794	
Idea implementation	0.5859	0.371	-0.147	1.319	0.116	
Knowledge-sharing culture	0.4525	0.333	-0.205	1.110	0.176	
Idea implementation \times knowledge-sharing culture	-0.032	0.063	-0.156	0.092	0.610	

The Three-Way Interaction Among Idea Implementation, Knowledge-Sharing Culture, and Cooperativeness Behaviour Impacting Sustainable Innovative Work Behaviour

The outcomes of model 3 in the PROCESS macro analysis are displayed in Table 3, indicating a significant support (R-sq = 0.437, $p < 0.05$) for the three-way interaction among idea implementation, knowledge-sharing culture, and cooperative behaviour in predicting SIWB. The conditional effects for various levels of knowledge-sharing culture and cooperative behaviour are presented in Table 4, demonstrating that the three-way effect is statistically significant in three out of nine situations and marginally significant in two out of nine circumstances. This highlights the role of team dynamics in fostering sustainable innovation. While knowledge-sharing culture and cooperative behaviour are essential, their combined effect does not uniformly enhance SIWB across all conditions.

Table 3. The Results of Regression Analysis of the Three-Way Interaction of Organisational Sustainability Strategy, Team Collaboration, and Sustainable Attitude in Predicting SIWB

Model summary						
R	R-sq	MSE	F	Df1	Df2	P
0.66	0.43	0.83	20.07	7.00	181.00	0.00
Model 3						
Effect	Estimate values	Standard Error	95% confidence interval		P	
			Lower limit	Upper limit		
Fixed effects						
Constant	-10.258	5.690	-21.486	0.969	0.073	
Idea implementation	3.602	1.199	1.234	5.969	0.003	
Knowledge-sharing culture	1.715	1.191	-0.636	4.067	0.151	
Idea implementation × knowledge-sharing culture	-0.552	0.235	-1.016	-0.087	0.020	
Cooperative behaviour	2.259	1.081	0.124	4.393	0.038	
Idea implementation × cooperative behaviour	-0.574	0.224	-1.018	-0.130	0.011	
Knowledge-sharing culture × cooperative behaviour	-0.2531	0.214	-0.675	0.169	0.238	
Idea implementation × knowledge-sharing culture × cooperative behaviour	0.0929	0.042	0.0097	0.176	0.028	

Table 4. Conditional Effects on the Value of Ambidexterity and Digital Technology Readiness on the Team Level as Moderators

Moderators		Estimate	Standard Error	p	Conclusion
Knowledge-sharing culture	Cooperative behavior				
Low	Low	0.392	0.098	0.000	Significant
Low	Medium	0.232	0.101	0.023	Significant
Low	High	0.099	0.154	0.522	Not significant
Medium	Low	0.213	0.117	0.069	Not significant
Medium	Medium	0.192	0.070	0.006	Significant
Medium	High	0.175	0.120	0.146	Not significant
High	Low	0.106	0.156	0.498	Not significant
High	Medium	0.168	0.087	0.055	Not significant
High	High	0.221	0.135	0.105	Not significant

Figure 3 offers a visual representation of the results of the three-way interaction among idea implementation, knowledge-sharing culture, and cooperative behaviour in predicting sustainable innovative work behaviour. The results suggest that the highest levels of SIWB occur when there are high levels of both knowledge-sharing culture and cooperative behaviour. Moreover, although the moderating effect of knowledge-sharing culture was not significant, in scenarios where there exists a high level of knowledge-sharing culture and a low level of cooperative behaviour, there are higher levels of SIWB compared to the other two conditions.

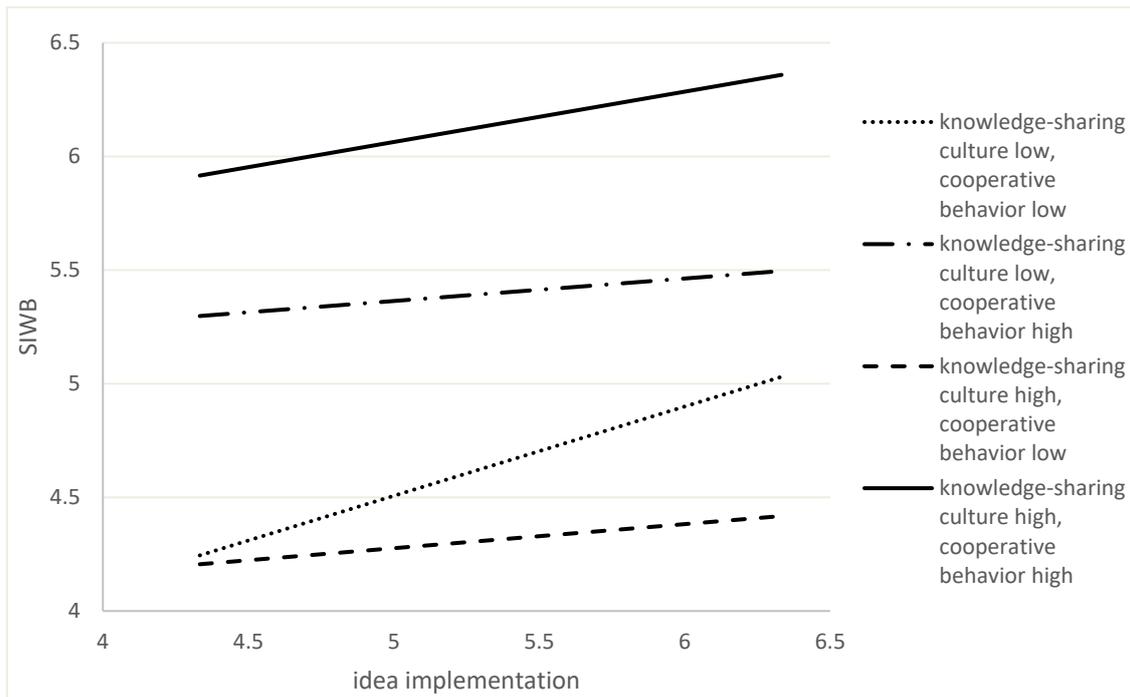


Fig. 3. The Three-Way Interaction of Idea Implementation, Knowledge-Sharing Culture, and Cooperative Behaviour in Predicting SIWB

Discussion

Consistent with conceptualising the innovation process as comprising the three phases of creativity, idea implementation, and innovation (Amabile, 1996; Austin et al., 2012; De Jong & Den Hartog, 2010), we hypothesised that a positive association exists between idea implementation and SIWB. The results of our empirical study supported our hypothesis, which generally aligns with prior findings on innovative work behaviour (De Jong & Den Hartog, 2010), while also contributing to the literature by confirming this relationship in the context of sustainability.

Moreover, following the componential theory of creativity and innovation (Amabile, 2011), which states that related knowledge is essential for both, we believed that it was reasonable to argue that a knowledge-sharing culture can enhance the relationship between idea implementation and SIWB. While early research predominantly emphasised knowledge-sharing culture as a universal catalyst for innovation (e.g., Alshwayat et al., 2021), recent research reflects a more balanced perspective. For instance, Usman et al. (2024) found no direct association between knowledge-sharing and innovation outcomes, suggesting contextual boundaries to earlier claims. Our findings extend the emerging consensus by demonstrating that the efficacy of knowledge-sharing depends on coexisting cooperative behaviour, a team-level dynamic that has only gained attention since 2020 (e.g., Zhang et al., 2022).

This evolution mirrors broader trends in sustainability-innovation research. Initial studies (e.g., Chen, 2020) often treated sustainability as an additive component to innovation processes, whereas contemporary research (including ours) examines their integration through behavioural and social lenses. Specifically, our focus on knowledge circulation within teams (rather than mere knowledge-sharing) aligns with recent calls to study how sustainability permeates daily work interactions (Samimi Dehkordi et al., 2024). Methodologically, earlier reliance on cross-sectional designs has given way to complex interaction modelling, as exemplified by our three-way analysis of individual, cultural, and behavioural factors. When categorised by theoretical approach, studies leveraging componential theory (e.g., Chen, 2020) have typically reported stronger individual-level effects, while social learning-based research (e.g., Zhang et al., 2022) emphasises team dynamics. Our study bridges these categories by testing interactions across both levels.

Furthermore, following the insights of the componential theory of creativity and innovation (Amabile, 2011) and social learning theory (Bandura & Walters, 1977), we argued that the interaction of a knowledge-sharing culture with individual cooperative behaviour might enhance the relationship

between idea implementation and SIWB. The moderating effect of knowledge-sharing culture on the relationship between idea implementation and SIWB, was not supported. This partially deviates from Zhang et al.'s (2022) research, as they reported the positive moderation effects in more open and collaborative organisational cultures. The discrepancy might be caused by contextual factors specific to the sample employed in this study, which focuses on the home appliances industry in Iran.

In this setting, organisational structures may remain relatively hierarchical or siloed, limiting the practical effect of a team-level knowledge-sharing culture unless it is accompanied by strong cooperative behaviour from individuals. Cultural factors, such as high-power distance or risk aversion, may also inhibit open sharing or the translation of shared knowledge into action, especially when employees feel uncertain about how their contributions will be received or rewarded. Therefore, while knowledge-sharing culture is conceptually important, its effectiveness in enhancing SIWB may be contingent on both individual-level behaviours and the broader organisational and cultural context in which it is embedded.

The empirical results supported hypothesis 3, indicating that individuals with a high level of cooperative behaviour benefit more from knowledge sharing within the organisation. This finding is consistent with social learning theory (Bandura & Walters, 1977) and prior research (Lu et al., 2013), which emphasised that individuals with proactive, collaborative tendencies are more likely to engage with and learn from their peers. The same is suggested by Serenko and Bontis (2016), who explained that higher cooperative behaviour enhances knowledge sharing within the firm and helps individuals to benefit from circulated knowledge. This means that in an organisation with a high level of knowledge-sharing culture, not all employees benefit equally from the circulated knowledge. Individuals who actively collaborate with others, consider team members' interests, and contribute positively to group efforts are therefore more likely to participate in knowledge circulation. In line with social learning theory, these individuals are more capable of learning from their environment and colleagues. Consequently, this finding extends existing knowledge by clarifying that cooperative behaviour is not only a desirable organisational value but also a necessary behavioural factor that allows employees to effectively translate shared knowledge into sustainable innovative work behaviours.

To illustrate the implications of our study, let us review the workplace scenario introduced initially. Our research findings reinforce the key insight from this scenario: both individual capabilities and a collaborative work environment play a crucial role in helping individuals transform sustainability-driven ideas into actionable innovations. While previous studies (Alshwayat et al., 2021; Chen, 2020) predominantly emphasised either organisational or individual factors in isolation, our study demonstrates that it is their interaction, especially the synergy between cooperative behaviour and knowledge-sharing culture, that most effectively enhances sustainable innovation. The findings highlighted that employees' ability to implement ideas—when supported by a workplace culture that encourages knowledge-sharing and cooperation—can significantly enhance sustainable innovation. This dynamic becomes even more relevant as organisations face increasing market and stakeholder pressures to adopt environmentally and socially responsible practices.

Conclusion

This study underscores the complexity of fostering sustainable innovation in organisations, highlighting that while idea implementation directly contributes to SIWB, its impact significantly depends on individual and contextual factors. Particularly, it reveals that cooperative behaviours at the individual level are crucial factors, determining how effectively employees leverage a knowledge-sharing culture within teams. Therefore, rather than viewing knowledge-sharing practices or cooperative behaviour in isolation, organisations should strategically cultivate both simultaneously to maximise sustainable innovation outcomes. Practically, this suggests that managers should foster cooperative environments and encourage collaborative attitudes among employees, ensuring that knowledge sharing translates effectively into actionable and impactful sustainability initiatives.

Theoretical Contributions

This study contributes to the literature in two main ways. First, we bring the componential theory of creativity and innovation (Amabile, 2011) into the sustainability literature and show that the process of SIWB does not vary, theoretically speaking, from that of innovative work behaviour. This result is

theoretically relevant as it supports the idea that the creative mechanisms underlying individuals' innovative behaviour operate in a similar, if not identical, manner when human creativity is focused on specific objectives such as sustainable innovation. This addresses the lack of theoretical support for sustainability-oriented innovative behaviour in the sustainability literature by clarifying that SIWB follows the same psychological mechanisms proposed in innovation studies (De Jong & Den Hartog, 2008; Valtonen et al., 2023). Still, such results cannot be taken for granted due to the specific aspects which emerge when human beings think and act sustainably, likely driven by factors other than the ability to implement ideas.

Second, we shed light on how individual and team factors influence individuals' sustainable innovation. We especially clarify the underlying mechanisms driving SIWB, which consist of implementing ideas by aiming to reduce the negative effects of manufacturing and processes on environment and society, resulting in sustainable innovation, as well as the organisational elements that contribute to such processes. In particular, drawing on the interplay of the componential theory of creativity and innovation (Amabile, 2011) as well as social learning theory (Bandura & Walters, 1977), we helped advance the literature on innovation and sustainability by providing a clearer understanding of knowledge circulation within teams (Zahedi et al., 2022; Zhang et al., 2024). This was achieved by exploring how individuals benefit from the knowledge that circulates within the team, put their knowledge and skills into practice, and participate in a sustainable innovation process. We offered a more profound comprehension of the way sustainability can be incorporated into the innovation processes and promote sustainability within teams (Chen, 2020) by underscoring the interaction between the culture of knowledge sharing within teams (Alshwayat et al., 2021) and cooperative behaviour (Lu et al., 2013).

These research findings suggest that while a knowledge-sharing culture alone does not moderate the relationship between idea implementation and SIWB, its interaction with individual cooperative behaviour does significantly moderate this relationship. In line with social learning theory (Bandura & Walters, 1977), individuals who engage in higher levels of cooperation with their colleagues learn more from one another and benefit better from exchanging knowledge and ideas within the team. By providing support to the interaction effect between individual cooperative behaviour and a knowledge-sharing culture on the relationship between idea implementation and SIWB, our study deepens theoretical understanding of how internal and external contextual factors jointly shape sustainable innovative behaviour. Beyond that, our findings highlight the significance of a three-way interaction in shaping SIWB. This suggests that sustainable innovation is not solely a function of personal initiative or team dynamics but is influenced by the combined effects of individual behaviours, team culture, and the broader organisational environment.

Practical Implications

Several managerial implications arise from this study. The results of the study revealed the link between idea implementation and SIWB. Leaders and managers can accordingly engage individuals with sustainable innovation by encouraging and motivating them to implement their ideas and those of other employees. Implementing recognition programs that reward innovative ideas can further motivate employees to participate actively in sustainable innovation. Regular training sessions on sustainability can also keep employees informed and engaged. By doing so, sustainability and sustainable innovation would spread within the organisation and strengthen the organisation's competitive advantage, which is vital for its endurance and survival.

These findings are particularly relevant for industries aiming to embed sustainability into their core business models, such as manufacturing, energy, or consumer goods. For instance, sustainability-focused firms can create structured pathways that not only encourage idea generation but ensure that these ideas are systematically evaluated and implemented. Embedding sustainability metrics into employee performance reviews or integrating innovation challenges into corporate social responsibility initiatives can drive broader participation. This not only nurtures a culture of continuous improvement but also aligns employee contributions with long-term strategic goals, enhancing both environmental and organisational resilience.

Moreover, our results demonstrate that a knowledge-sharing culture is not enough in the teams to enhance the individual's SIWB. As was previously hypothesised and supported by the results,

individuals' cooperative behaviour interacts with the team's knowledge-sharing culture, which boosts individuals' SIWB. Encouraging team-building activities and fostering a supportive work environment can further boost cooperative behaviour. Managers should also lead by example, displaying cooperation and knowledge-sharing in their actions. Therefore, we recommend that managers actively promote both cooperative behaviour and a knowledge-sharing culture by implementing sustainability-focused workshops, facilitating cross-departmental, sustainable knowledge-sharing initiatives, organising sustainability challenges for individuals, and establishing sustainability mentorship programs. These managerial actions provide suitable conditions for enhancing collaboration and the effective circulation of knowledge (Zhang et al., 2022), ultimately fostering sustainable innovation.

In practice, sectors that rely heavily on team-based problem-solving, such as technology, healthcare, and professional services, benefit significantly from these insights. For example, in technology companies with rapid innovation cycles, fostering cooperative behaviour along with structured knowledge-sharing platforms (e.g., internal sustainability hackathons or collaborative digital workspaces) can drive more effective and inclusive sustainable innovation.

Beyond organisational benefits, our findings have meaningful societal implications. By fostering SIWB through structured idea implementation programs and cooperative knowledge-sharing initiatives, companies can simultaneously improve employee wellbeing and industry-wide sustainability standards. For instance, embedding sustainability metrics into performance reviews (e.g., tracking collaborative green idea submissions) not only drives innovation but also enhances workers' sense of purpose, linking daily tasks to broader environmental and social outcomes. Industries with hierarchical structures (e.g., manufacturing) may particularly benefit from mentorship programs that pair junior employees with sustainability champions, while dynamic sectors such as technology could leverage hackathons to democratise participation. These practices, grounded in our demonstrated interaction effects, offer a blueprint for aligning individual behaviours with global sustainability goals. Our results further suggest that trade associations and policymakers could amplify impact by certifying SIWB-friendly workplaces or incentivising cross-company knowledge-sharing platforms.

Limitations and Future Research Directions

While this study makes some valuable contributions to the literature on innovation in the context of sustainability, it also consists of certain limitations. Focusing on a specific industry presents several limitations. First, industry-specific dynamics, such as regulatory frameworks, market competition, and organisational structures, may influence SIWB differently than in other sectors. As a result, the findings may not fully capture variations in sustainable innovative work behaviour across industries with different operational challenges, resource availability, or innovation priorities. Future research should extend this investigation to multiple industries to identify common trends and industry-specific factors that shape SIWB, providing a more holistic perspective. Hence, conducting the same research but from a broader view on SIWB in a wide range of industry sectors would provide valuable understandings of other industries. Additionally, conducting research based on the same framework by investigating different organisational variables (such as leadership styles, organisational culture, and employee engagement) as moderators could lead to a deeper understanding of how exactly SIWB happens in various sectors.

Unfortunately, due to the nature of our study design, its theoretical framework, and the use of cross-sectional data, definitive causal relationships could not be established. Therefore, more research is warranted to investigate and elucidate the causal impact of sustainable attitudes on SIWB. Longitudinal studies or experimental designs could provide more robust evidence of causality, helping to understand the long-term effects of sustainability initiatives on innovative behaviour. Furthermore, this research was conducted in Isfahan, Iran, and the findings may vary in developed countries due to different economic, cultural, and organisational contexts. Future studies should include a more diverse range of geographical locations to ensure the findings are globally applicable and account for regional differences in sustainability practices. Finally, new research could explore how sustainable innovation behaviours evolve in hierarchical or high-power-distance cultures and identify effective interventions to promote cooperative, knowledge-sharing environments in these settings.

References

- Adams, R., Jeanrenaud, S., Bessant, J., Denyer, D., & Overy, P. (2016). Sustainability-oriented innovation: A systematic review. *International Journal of Management Reviews*, 18(2), 180-205. <https://doi.org/10.1111/ijmr.12068>
- AlEssa, H. S., & Durugbo, C. M. (2022). Systematic review of innovative work behavior concepts and contributions. *Management Review Quarterly*, 72(4), 1171-1208. <https://doi.org/10.1007/s11301-021-00224-x>
- Alshwayat, D., MacVaugh, J. A., & Akbar, H. (2021). A multi-level perspective on trust, collaboration and knowledge sharing cultures in a highly formalized organization. *Journal of Knowledge Management*, 25(9), 2220-2244. <https://doi.org/10.1108/JKM-05-2020-0354>
- Amabile, T. (2011). *Componential theory of creativity*. Harvard Business School Boston.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, 10(1), 123-167.
- Amabile, T. M. (1996). *Creativity and innovation in organizations* (Vol. 5). Harvard Business School Boston.
- Arabian, A., Hosseini, E., Ziyae, B., & Tahami, S. M. (2025). The impact of entrepreneurial orientation and digitalization on performance sustainability with the mediation of knowledge management in digital start-ups. *Interdisciplinary Journal of Management Studies (IJMS)*, 18(1), 33-53. <https://doi.org/10.22059/ijms.2024.365165.676191>
- Austin, R. D., Devin, L., & Sullivan, E. E. (2012). Accidental innovation: Supporting valuable unpredictability in the creative process. *Organization Science*, 23(5), 1505-1522. <https://doi.org/10.1287/orsc.1110.0681>
- Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Englewood cliffs Prentice Hall.
- Carmeli, A., Gelbard, R., & Reiter-Palmon, R. (2013). Leadership, creative problem-solving capacity, and creative performance: The importance of knowledge sharing. *Human Resource Management*, 52(1), 95-121. <https://doi.org/10.1002/hrm.21514>
- Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2023). Creating organizational value and sustainability through green HR practices: An innovative approach with the moderating role of top management support. *Business Ethics, the Environment & Responsibility*, 34(1), 17-31. <https://doi.org/10.1111/beer.12569>
- Chen, M. F. (2020). The impacts of perceived moral obligation and sustainability self-identity on sustainability development: A theory of planned behavior purchase intention model of sustainability-labeled coffee and the moderating effect of climate change skepticism. *Business Strategy and the Environment*, 29(6), 2404-2417. <https://doi.org/10.1002/bse.2510>
- Cillo, V., Petruzzelli, A. M., Ardito, L., & Del Giudice, M. (2019). Understanding sustainable innovation: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, 26(5), 1012-1025. <https://doi.org/10.1002/csr.1783>
- Darroch, J., & McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210-222. <https://doi.org/10.1108/14691930210435570>
- De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19(1), 23-36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>
- De Jong, J., & Den Hartog, D. N. (2008). Innovative work behavior: Measurement and validation. *EIM Business and Policy Research*, 8(1), 1-27.
- De Vries, R. E., Van den Hooff, B., & De Ridder, J. A. (2006). Explaining knowledge sharing: The role of team communication styles, job satisfaction, and performance beliefs. *Communication Research*, 33(2), 115-135. <https://doi.org/10.1177/0093650205285366>
- Faghieh Abdollahi, H., Shahbandarzadeh, H., & Mirzaee, K. (2022). Introducing strategic drivers of innovative ideas in active small and medium-sized enterprises of different technological fields using a fuzzy cognitive map. *Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management Studies)*, 15(4), 773-791. <https://doi.org/10.22059/ijms.2021.319975.674462>
- Fiandrino, S., Gromis di Trana, M., Tonelli, A., & Rizzato, F. (2023). Metagovernance forms for enhancing sustainability-oriented innovation in a knowledge ecosystem. *Business Ethics, the Environment & Responsibility*, 34(1), 215-230. <https://doi.org/10.1111/beer.12635>
- Ghasemzadeh, K., Bortoluzzi, G., & Yordanova, Z. (2022). Collaborating with users to innovate: A systematic literature review. *Technovation*, 116, 102487. <https://doi.org/10.1016/j.technovation.2022.102487>
- Ghobakhloo, M., Iranmanesh, M., Grybauskas, A., Vilkas, M., & Petraitė, M. (2021). Industry 4.0, innovation, and sustainable development: A systematic review and a roadmap to sustainable innovation. *Business Strategy and the Environment*, 30(8), 4237-4257. <https://doi.org/10.1002/bse.2867>
- Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85(1), 4-40. <https://doi.org/10.1080/03637751.2017.1352100>
- Hofmann, F., & Jaeger-Erben, M. (2020). Organizational transition management of circular business model innovations. *Business Strategy and the Environment*, 29(6), 2770-2788. <https://doi.org/10.1002/bse.2542>

- Kapil, S., & Rawal, V. (2023). Sustainable investment and environmental, social, and governance investing: A bibliometric and systematic literature review. *Business Ethics, the Environment & Responsibility*, 32(4), 1429-1451. <https://doi.org/10.1111/beer.12588>
- Kline, S. J. (1985). Innovation is not a linear process. *Research Management*, 28(4), 36-45. <https://doi.org/10.1080/00345334.1985.11756910>
- Kushwaha, G. S., & Kumar Sharma, N. (2017). Factors influencing young entrepreneurial aspirant's insight towards sustainable entrepreneurship. *Iranian Journal of Management Studies*, 10(2), 435-466. <https://doi.org/10.22059/ijms.2017.224885.672467>
- Lee, J.-C., Shiue, Y.-C., & Chen, C.-Y. (2016). Examining the impacts of organizational culture and top management support of knowledge sharing on the success of software process improvement. *Computers in Human Behavior*, 54, 462-474. <https://doi.org/10.1016/j.chb.2015.08.030>
- Lu, S., Au, W.-T., Jiang, F., Xie, X., & Yam, P. (2013). Cooperativeness and competitiveness as two distinct constructs: Validating the cooperative and competitive personality scale in a social dilemma context. *International Journal of Psychology*, 48(6), 1135-1147. <https://doi.org/10.1080/00207594.2012.743666>
- Peng, M. Y.-P. (2024). Breaking down barriers: Exploring the impact of social capital on knowledge sharing and transfer in the workplace. *Humanities and Social Sciences Communications*, 11(1), 1-12. <https://doi.org/10.1057/s41599-024-03384-9>
- Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. *Academy of Management Review*, 42(1), 53-79. <https://doi.org/10.5465/amr.2014.0462>
- Sajuyigbe, A. S., Ayeni, A. W., Inegbedion, H. E., Ighomereho, S. O. & Peter, A. O. (2024). Green human resource management practices and environmental performance: The mediating effect of organizational culture. *Interdisciplinary Journal of Management Studies (IJMS)*, 17 (4), 1155-1172. <https://doi.org/10.22059/ijms.2024.343182.675108>
- Samimi Dehkordi, S., Radevic, I., & Bortoluzzi, G. (2024). Unveiling sustainable innovative work behavior: Scale development & microfoundations investigation. In *Academy of Management Proceedings* (Vol. 2024, No. 1, p. 16267). Academy of Management. <https://doi.org/10.5465/AMPROC.2024.16267abstract>
- Samimi Dehkordi, S. (2025). Sustainable innovative work behavior: Conceptualization and the interplay of individual, team, and organizational dynamics [Doctoral dissertation, Università Degli Studi Di Trieste]. ArTS Archivio della ricerca di Trieste. bitstream/11368/3107011/2/Thesis%20-%20Saleh%20Samimi%20Dehkordi.pdf
- Samimi Dehkordi, S., Radević, I., Černe, M., Božič, K., & Lamovšek, A. (2025). The three-way interaction of autonomy, openness to experience, and techno-invasion in predicting employee creativity. *The Journal of Creative Behavior*, 59(1), e679. <https://doi.org/10.1002/jocb.679>
- Serenko, A., & Bontis, N. (2016). Negotiate, reciprocate, or cooperate? The impact of exchange modes on inter-employee knowledge sharing. *Journal of Knowledge Management*, 20(4), 687-712. <https://doi.org/10.1108/JKM-10-2015-0394>
- Shafi, S. I., Khan, M. I., & Rehman, S. U. (2025). The Role of green financing and technological innovation in enhancing corporate environmental performance among manufacturing companies in India. *Interdisciplinary Journal of Management Studies*, 18(4), 685-704. <https://doi.org/10.22059/ijms.2025.381518.676987>
- Škerlavaj, M., Černe, M., & Dysvik, A. (2014). I get by with a little help from my supervisor: Creative-idea generation, idea implementation, and perceived supervisor support. *The Leadership Quarterly*, 25(5), 987-1000. <https://doi.org/10.1016/j.leaqua.2014.05.003>
- Tajeddini, K., Budur, T., Gamage, T. C., Demir, A., Zaim, H., & Topal, R. (2023). Impact of diversity management on innovative work behavior: Mediating role of human resource management and affective commitment. *Journal of Management Development*, 42(1), 29-53. <https://doi.org/10.1108/JMD-06-2022-0154>
- Tu, C., Hwang, S.-N., & Wong, J.-Y. (2014). How does cooperation affect innovation in micro-enterprises? *Management Decision*, 52(8), 1390-1409. <https://doi.org/10.1108/MD-07-2013-0388>
- Usman, M., Chan, S., Utami, S., Harmen, H., & Fadhilah, F. (2024). Empirical evidence: Comparing innovation, knowledge sharing behavior, islamic work ethic and entrepreneurial orientation between more innovative and less innovative public sector agent. *Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management Studies)*, 17(3), 855-873. <https://doi.org/10.22059/ijms.2023.344245.675155>
- Valtonen, A., Kimpimäki, J. P., & Malacina, I. (2023). From ideas to innovations: The role of individuals in idea implementation. *Creativity and Innovation Management*, 32(4), 636-658. <https://doi.org/10.1111/caim.12577>
- Von Krogh, G., Nonaka, I., & Rechsteiner, L. (2012). Leadership in organizational knowledge creation: A review and framework. *Journal of Management Studies*, 49(1), 240-277. <https://doi.org/10.1111/j.1467-6486.2010.00978.x>

- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293-321. <https://doi.org/10.5465/amr.1993.3997517>
- Zahedi, M., Akhavan, P., & Naghdi Khanachah, S. (2024). Evaluation of knowledge sharing and its role in organisational innovation using structural equation modelling: A case study of Civil Aviation Organisation. *Technology Analysis & Strategic Management*, 36(4), 692-706. <https://doi.org/10.1080/09537325.2022.2051475>
- Zhang, Y., Chen, H., Liu, E., He, Y., & Cheng, E. (2022). Impacts of cooperative and competitive personalities on tacit knowledge sharing among Chinese employees. *Journal of Knowledge Management*, 26(1), 45-69. <https://doi.org/10.1108/JKM-09-2020-0713>

Appendix A

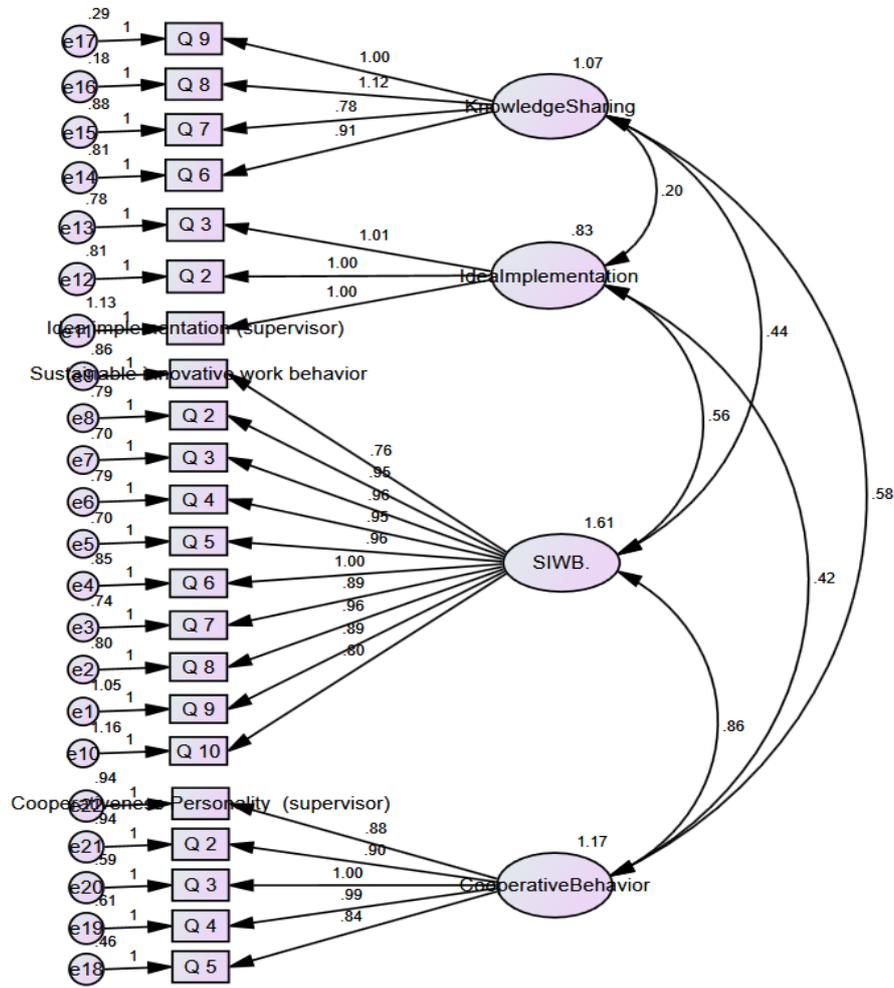
This survey is designed to collect data for analysis in new product development. This questionnaire will be administered to a large number of workers with different levels of work experience in different occupations.

Your answers to these questions will help us know if the sustainability has been considered in manufacturing. Therefore, it is very important to answer these questions accurately. Please read each question carefully and mark your answer.

Gender: Female Male Age: 18-29 30-39 40-49 50-59 60+
 Education: High-school Bachelor/ college degree Master degree PhD degree
 Working experience (years): 0-5 5-9 10-14 15-20 20+

	Statements	1 to 5 (Never to always)
	sustainable innovative work behavior	
1	Environmental/social issues are integral to my approach to innovation.	
2	I make suggestions to improve current products or services, to reduce the negative influence of manufacturing/processes on the environment and society.	
3	When I generate new ideas, I look also at ways for reducing negative environmental and/or social effects.	
4	I search out new technologies, processes, techniques and/or product ideas, which are not harmful for the environment and/or society.	
5	I produce ideas to improve work practices to reduce the negative influence of manufacturing/processes on the environment and society.	
6	I generate original solutions for problems, to reduce the negative influence of manufacturing/processes on the environment and society.	
7	I contribute to the implementation of new ideas to reduce the negative influence of manufacturing/processes on the environment and society.	
8	I actively contribute to the development of new products or services to reduce the negative influence of manufacturing/processes on the environment and society.	
9	Addressing environmental/society issues is important to me regarding making changes to my task processes.	
10	To reduce the negative influence of manufacturing/processes on the environment and society I attempt to convince people to support an innovative idea.	
	Knowledge-sharing Culture	
11	Reciprocal willingness to share information/knowledge with colleagues and others	
12	Reciprocal sharing of learning with colleagues and others	
13	Reciprocal sharing of skills with colleagues and others	
14	Reciprocally keeping colleagues informed of the work I am doing	
15	Mentorship from more experienced colleagues	
	Cooperativeness Personality (Supervisor-Rated)	
16	At work this employee would usually consider the interests of both parties. .	
17	this employee can usually consider multiple views when he/she handles tasks. .	
18	At work, this employee can usually stand in other team members' shoes to consider their interests.	
19	When working together with team members, this employee is willing to listen to others' opinions often, even though she/he might not agree with them. .	
20	When working with others on a communal task, this employee is able to integrate the views of others.	
	Idea implementation (Supervisor-Rated)	
21	Employee systematically introduces innovative ideas into work practices.	
22	Employee contributes to the implementation of new ideas.	
23	Employee puts effort in the development of new things.	

Appendix B



Confirmatory factor analysis item loading for each variable

Items	SIWB	Cooperative Behavior	Idea Implementation	Knowledge Sharing
SIWB1	0.722			
SIWB2	0.806			
SIWB3	0.823			
SIWB4	0.806			
SIWB5	0.823			
SIWB6	0.81			
SIWB7	0.796			
SIWB8	0.807			
SIWB9	0.741			
SIWB10	0.685			
CB1		0.699		
CB2		0.71		
CB3		0.815		
CB4		0.81		
CB5		0.802		
II1			0.65	
II2			0.712	
II3			0.721	
KSH1				0.723
KSH2				0.652
KSH3				0.939
KSH4				0.886