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# **Adoption of social sustainability practices in an emerging economy: Insights from handicraft organizations of Vietnam**

Thi Ha Uyen Trana,\* , Kwok Hung Laub , Chin Eang Ong b

## **Abstract**

With globalization of supply chains, the adoption of social sustainability practices (SSP) becomes urgent for improving sustainable development of individual organizations in emerging economies. Yet, a comprehensive research on SSP adoption by handicraft organizations of Vietnam is scarce. Therefore, this study takes an integrated supply chain perspective to examine holistically the critical factors affecting SSP adoption by Vietnamese handicraft organizations. Data were collected from a countrywide survey of 310 handicraft organizations with SSP adoption in Vietnam. Partial least squares structural equation modeling was employed to test the hypotheses. The findings reveal that organizational behavior and readiness impact directly on SSP adoption, whereas stakeholder pressures show some indirect impacts. The results also validate the mediating roles of organizational behavior and readiness in the adoption of SSP. By combining the technology-organization-environment framework with the institutional theory, this study successfully explains the diverse SSP adoption behaviors in Vietnamese handicraft organizations. It is the first attempt to explore the critical role of internationalization readiness in SSP adoption. The research outcomes provide insights and references for sustainability practitioners and policymakers to promote SSP adoption that extends across the entire supply chain.

**Keywords:** Social sustainability practices, Critical factors, Innovation adoption, Internationalization readiness, Emerging economy, Handicraft organizations

## **1. Introduction**

With globalization of supply chains, social sustainability incidents in organizations of emerging economies have drawn much attention from various stakeholders (Govindan et al. 2020; Nakamba et al. 2017). Such incidents are extensively reported as consequences of unsocial labor-based practices and violations of human rights. Examples include the collapse of the Rana Plaza in Bangladesh (Huq & Stevenson 2020), abuse of workers by Nike's contractors in Vietnam (Bain 2017), and repeated suicides of workers at Foxconn in China (Klassen & Vereecke 2012). These observations reveal that adoption of social sustainability practices (SSP) in emerging economies is unsatisfactory, and the factors affecting such adoption are not fully understood. As such, a holistic investigation is required to better understand SSP adoption in emerging economies to promote such adoption across supply chains.

SSP are widely adopted as management innovations, representing actions and procedures that organizations take to promote their social responsibilities in the pursuit of sustainable development (Klassen & Vereecke 2012; Sellitto et al. 2020). They help improve the safety and welfare of individuals, while advancing the development of communities (Majumdar et al. 2020; Shafiq et al. 2014). SSP adoption benefits organizational performance in many ways, including reduced costs (Gadenne et al. 2009), boosted revenues (Yuen et al. 2017), enhanced reputation (Agarwal et al. 2018), and strengthened customer and employee satisfaction (Mani et al. 2020; Schönborn et al. 2019), thereby leading to sustained competitive advantage. For emerging economies, an increased level of SSP adoption by organizations helps attract foreign investments in terms of direct investment and outsourcing to the country, hence promoting its sustainable economic development (Lee et al. 2017).

Many studies have been conducted to investigate SSP adoption from the integrated supply chain perspective (Govindan et al. 2020; Nguyen et al. 2021). Starting with a focal organization, this perspective promotes SSP adoption in the entire supply chain through active collaboration among stakeholders and fundamental improvements in their socially sustainable behaviors (Ahmad et al. 2016; Yawar & Seuring 2017). Such a perspective has become important due to increased globalization, where multinational corporations (MNCs) from developed countries can leverage their purchasing power to drive suppliers in developing countries to adopt SSP (Huq & Stevenson 2020). The MNCs are usually compelled by public awareness, association pressures, and stringent government regulations to accelerate SSP adoption in multi-tier supply chains (Mani & Gunasekaran 2018). The integrated supply chain perspective is considered to be very important because a unified effort by all supply chain members can be the most effective way to promote SSP adoption (Yawar & Seuring 2017).

Using the integrated supply chain approach to promote SSP adoption in emerging economies has gained much attention (Govindan et al. 2020; Shete et al. 2020). Research has identified a wide range of critical factors for SSP adoption. Nevertheless, a holistic view of how these critical factors affect SSP adoption in emerging economies has not been explored. First, no study has examined the relationship between internationalization readiness and organizational readiness to adopt SSP. There are diverse and fragmented views on the interrelationships between organizational behavior, stakeholder pressures, and organizational readiness but empirical evidence is limited. These inadequacies demand a comprehensive study on SSP adoption in emerging economies using a quantitative method.

As one of the fastest emerging economies, Vietnam has witnessed considerable growth in handicraft organizations which ranked third worldwide for total export volume (USAID 2009). Sustainable development of handicraft organizations in Vietnam is significant due to its critical contribution to the national economy (VIRI 2015). These organizations provide millions of jobs

in rural areas under the national poverty mitigation program, generating an annual export value of more than USD 2 billion, preserving national culture, and facilitating tourism development (UNIDO 2013). Numerous initiatives have been implemented to promote SSP adoption in Vietnamese handicraft organizations from the integrated supply chain perspective (UNIDO 2013; VIRI 2015).

Like many other emerging economies, SSP adoption amongst handicraft organizations in Vietnam is hampered by the presence of child labor, poor working environments, and unfriendly environmental manufacturing processes (VIRI 2015). This discouragement can be explained by the abundance of micro- and small-scale organizations that usually lack the required resources for adopting SSP (UNIDO 2013). Export-oriented Vietnamese handicraft organizations are more socially responsible than domestic-oriented ones (Tran et al. 2018). All these considerations create an urgent need for a timely investigation of SSP adoption in Vietnamese handicraft organizations to better encourage such adoption. Nevertheless, few studies have examined SSP adoption in Vietnamese handicraft organizations in a holistic manner, giving us the impetus for this current study.

To address this research gap, we propose a comprehensive model with hypotheses depicting the relationships between various critical factors affecting SSP adoption by handicraft organizations in Vietnam. The model is built on the technology-organization-environment (TOE) framework underpinned by institutional theory. Data were collected from 310 Vietnamese handicraft organizations to test the hypotheses using partial least squares structural equation modeling (PLS-SEM). The findings shed light on how sustainability practitioners and policymakers can improve SSP adoption along integrated supply chains.

The remainder of this paper is structured as follows. A literature review is first presented in Section 2 together with and the development of hypotheses. The research methodology is then provided in Section 3. This leads to the results reported in Section 4 and the discussion and

implication analyzed in Section 5. Finally, Section 6 concludes the paper with a summary of the study, limitations, and directions for future research.

## **2. Literature Review**

SSP have increasingly become management innovations that must be integrated and coordinated throughout the entire supply chain (Klassen & Vereecke 2012; Sellitto et al. 2020). They can be grouped into eight categories: labor conditions, human rights, working environments, community development, diversity support, ethical behavior, product responsibilities, and supply chain responsibilities (Khan et al. 2018; Mani et al. 2020). Based on a comprehensive literature review and in-depth discussion with sustainability practitioners, SSP can further be classified into 42 sub-categories as summarized in Appendix.

A number of studies have been conducted on SSP adoption by organizations in emerging economies taking the integrated supply chain perspective (Mani et al. 2020; Munny et al. 2019). With different foci, these studies have identified a wide range of critical factors affecting SSP adoption under three main streams: behavior-based research, pressure-based research, and readiness-based research. Behavior-based research examines organizational behavior in promoting SSP adoption, including organizational awareness (Hasan 2016), attitude (Hasan et al. 2020), and commitment (Aboelmaged & Hashem 2019; Nejati et al. 2017). Pressure-based research identifies stakeholder pressures for SSP adoption, such as government pressures (Li et al. 2019), labor pressures (Nejati et al. 2017; Zhang et al. 2020), market pressures (Mani & Gunasekaran 2018), and supplier pressures (Kausar et al. 2017). Readiness-based research recognizes the required resources in determining organizational readiness for SSP adoption, namely financial readiness (Shete et al. 2020) and human readiness (Aboelmaged & Hashem 2019; Kausar et al. 2017). Table 1 summarizes the major studies on SSP adoption in emerging economies categorized by these three research streams.

**Table 1. Summary of SSP adoption-related studies in emerging economies**

Study	Stream									Theory	Research approach
	Behavior			Pressure				Readiness			
	AWA	ATT	COM	GOV	LAB	MAR	SUP	FIN	KNO		
Roxas and Coetzer (2012)	x	x	x	x		x				Institutional	Survey
Diabat et al. (2014)	x			x	x	x				None	Expert opinion
Huq et al. (2014)	x	x	x		x	x	x	x	x	Transaction cost economics	Case study
Hasan (2016)	x	x	x	x	x	x				None	Survey and interview
Kausar et al. (2017)	x		x	x	x	x	x		x	None	Expert opinion
Nejati et al. (2017)	x		x		x	x	x			Stakeholder	Survey
Mangla et al. (2018)	x	x	x			x	x		x	None	Expert opinion and case study
Mani and Gunasekaran (2018)			x	x		x				Stakeholder and institutional	Survey
Morais and Silvestre (2018)	x	x		x		x	x			None	Case study
Aboelmaged and Hashem (2019)			x						x	Natural resource-based view	Survey
Li et al. (2019)			x	x		x		x	x	Institutional, natural resource-based view, and upper echelons	Survey
Malik and Abdallah (2019)		x		x	x	x	x			Activity	Interview
Munny et al. (2019)			x		x	x				None	Expert opinion and case study
Huq and Stevenson (2020)	x	x	x		x	x	x	x	x	Institutional	Case study
Kumar et al. (2020)	x		x	x	x	x				None	Delphi
Shete et al. (2020)	x		x	x	x	x		x	x	None	Expert opinion
Shibin et al. (2020)		x	x	x		x			x	Resource-based view and institutional	Survey
Zhang et al. (2020)	x	x	x	x	x	x			x	TOE framework	Survey
Gao et al. (2021)	x		x	x		x	x	x	x	Resource-based view and upper-echelon	Survey
Nguyen et al. (2021)	x			x	x	x				Stakeholder and resource-based view	Case study

Note: Behavior – Behavior-based research, Pressure – Pressure-based research, Readiness – Readiness-based research

AWA – Organizational awareness; ATT – Organizational attitude; COM – Organizational commitment; GOV – Government pressures; LAB – Labor pressures;

MAR – Market pressures; SUP – Supplier pressures; FIN – Financial pressures; KNO – Knowledge pressures

If organizational behavior, stakeholder pressures, and organizational readiness are viewed as groups of critical factors affecting SSP adoption, Table 1 shows that organizational readiness is less investigated among the three groups, thus calling for more studies in this category. For example, little is known about internationalization readiness in predicting organizational readiness, which subsequently impacts on SSP adoption. Internationalization readiness is linked to the potential transition from a purely domestic market-based organization into an international market-based one (Tan et al. 2007). Extant studies have found that international market-based organizations are more proactive in adopting SSP than purely domestic market-based organizations (Ayuso & Navarrete-Báez 2018; Li et al. 2019). Whether the same would be observed in organizations under transition remains unclear. This study argues that internationalization readiness might contribute its part in enabling organizational readiness for SSP adoption.

Table 1 also shows that only limited studies have examined at the same time all three groups of critical factors affecting SSP adoption. Furthermore, none of the studies are empirical in nature. There is a need to further investigate the interaction among organizational behavior, stakeholder pressures, and organizational readiness from a holistic perspective and provide empirical evidence to validate the interrelationships. Findings of previous studies are mixed and inconclusive (Agarwal et al. 2018). For example, Mangla et al. (2018) and Mani and Gunasekaran (2018) argue that stakeholder pressures are directly linked to and more impactful on SSP adoption. In contrast, several other studies claim that the influence of stakeholder pressures is indirect (Li et al. 2019; Shibin et al. 2020). Shibin et al. (2020), for instance, contend that organizational behavior is required to mediate stakeholder pressures on SSP adoption. A common characteristic of these studies is that they investigate organizational behavior, stakeholder pressures, and organizational readiness in a piecemeal manner. Furthermore, it remains unclear whether organizational behavior has any indirect impact on SSP adoption through organizational readiness in emerging economies. To supplement these inadequacies,



this study aims to holistically examine the various critical factors affecting SSP adoption by handicraft organizations in Vietnam using a quantitative approach.

### *2.1. Theoretical model*

To depict the interrelationships between organizational behavior, stakeholder pressures, and organizational readiness in SSP adoption, this study develops a theoretical model applying the TOE framework underpinned by the institutional theory. The TOE framework is an organizational-level theory frequently used to examine the adoption of SSP innovations (Zhang et al. 2020). It states that SSP adoption is determined by technological, organizational, and environmental contexts (Depietro et al. 1990). The three contexts in the TOE framework align well with the three groups of factors affecting SSP adoption discussed in the previous section. In adapting the TOE framework for the current study, the technological, organizational, and environmental contexts are replaced with organizational behavior, stakeholder pressures, and organizational readiness contexts.

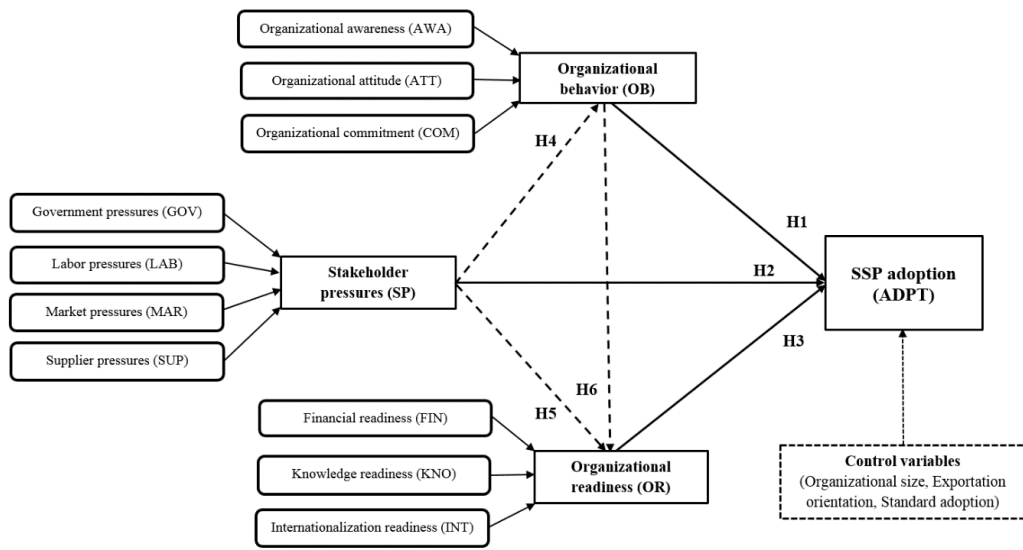
Organizational behavior refers to organizational perceptions that underscore the fundamental characteristics of SSP (Aboelmaged 2018). For example, if organizations perceive that SSP possess a relative advantage characteristic, they tend to adopt SSP with the expectation of gaining benefits for their business (Hwang et al. 2016; Zhang et al. 2020). Among many characteristics, relative advantage is the most prominent in driving SSP adoption (Aboelmaged 2018). Therefore, relative advantage is conceptualized as organizational awareness under organizational behavior in the theoretical model. This study contends that, in emerging economies, organizational awareness alone is inadequate in predicting organizational behavior for SSP adoption. As such, a combination of organizational awareness, attitude, and commitment is required to predict organizational behavior.

Stakeholder pressures can affect SSP adoption (Depietro et al. 1990) and are well aligned with the principle of the institutional theory, which examines how different stakeholders can exert fundamental pressures on SSP adoption (Dimaggio & Powell 1983). These pressures, categorized into coercive, mimetic, and normative aspects, create institutional rules and norms to which organizations should respond to achieve legitimacy and survival (Li et al. 2019; Shubin et al. 2020). Coercive pressures stem from existing laws, regulations, and governmental policies that require organizations to become more socially sustainable (Li et al. 2019). Mimetic pressures come from industry standards primarily set by competitors in the marketplace and followed by organizations trying to seek similar success (Marshall et al. 2015). Normative pressures are related to societal, cultural, and professional conditions imposed by employees, the public, professional associations, customers, peers, investors, and suppliers (Agarwal et al. 2018; Huq & Stevenson 2020). Overall, organizations are expected to behave in a socially sustainable manner to manage these pressures.

Organizational readiness can facilitate SSP adoption (Depietro et al. 1990). Financial readiness (Hwang et al. 2016) and knowledge readiness (Aboelmaged & Hashem 2019; Shete et al. 2020) collectively determine organizational readiness for SSP adoption. This study argues that internationalization readiness is an essential component of organizational readiness, which, in turn, activates SSP adoption.

As shown in Fig. 1, organizational behavior, stakeholder pressures, and organizational readiness are structured as three key interrelated elements to influence SSP adoption. The TOE framework functions as the primary theory to explain the observed behavior. Given the dynamic and complicated institutional environment in which business organizations of emerging economies are operating, the institutional theory is leveraged as a complementary theory to account for the sources of stakeholder pressures on SSP adoption. The use of multiple theoretical lenses to investigate the phenomenon provides a holistic view of SSP adoption in

emerging economies. To depict the interrelationships between the factors, six hypotheses are proposed.



Note: Dashed lines indicate mediating paths

**Fig. 1.** Theoretical model of social sustainability practices (SSP) adoption with hypotheses.

## 2.2. Hypotheses

Organizational behavior (OB) is the conduct of organizations in the forms of awareness (AWA), attitude (ATT), and commitment (COM) to SSP adoption (ADPT). Organizational awareness refers to the perceived advantages for business operations and processes when SSP are adopted, such as increasing revenue, reducing costs, enhancing quality, improving market share, strengthening reputation, and boosting customer and employee satisfaction (Sellitto et al. 2020; Zhang et al. 2020). Organizational attitude represents an organization's feeling (satisfaction and responsibility) and belief (compatibility, and usefulness) towards SSP adoption (Yuen et al. 2017). Organizational commitment integrates social initiatives into business policies and strategies through top management support, goal alignment, sustainability culture, and stakeholder involvement (Munny et al. 2019; Schönborn et al. 2019). Organizational awareness,

attitude, and commitment play major roles in exhibiting a supportive organizational behavior for SSP adoption (Agarwal et al. 2018; Huq & Stevenson 2020).

Organizational behavior is critical to stimulating SSP adoption by Vietnamese handicraft organizations. This observation is rooted in the fact that organizational behavior promotes a sustainable stance in every decision and action in organizations (Nejati et al. 2017). Such a sustainable stance is only achieved when organizations fully understand the benefits, forming an optimistic view, and/or integrating their social efforts into organizational processes and operations (Mangla et al. 2018; Roxas & Coetzer 2012). Existing studies have confirmed the separate roles of organizational awareness, attitude, and commitment in predicting organizational behavior for SSP adoption. What is missing is a comprehensive focus on organizational behavior, a composition of organizational awareness, attitude, and commitment. This leads to the following hypothesis:

**H1.** Organizational behavior, as formed by awareness, attitude, and commitment, positively impacts on organizations' SSP adoption.

Stakeholder pressures (SP) are organizations' concerns about stakeholders' expectations of and requirements for SSP adoption (Shafiq et al. 2014). Pressures emerging from the government (GOV), laborers (LAB), market (MAR), and suppliers (SUP) are embedded in the environment in which organizations conduct their businesses (Huq & Stevenson 2020; Klassen & Vereecke 2012). Government pressures refer to organizations' concern about the government's expectations of and requirements for adopting SSP. They are manifested in three aspects: severity of violation, active push, and intensification (Mani & Gunasekaran 2018; Shete et al. 2020). The severity of violation relates to the strict penalties and fines imposed by the government for non-compliance with laws and regulations-related SSP (Kumar et al. 2019). The active push is about the initiatives-related SSP implemented by the government, such as legal environments, financial support, and training and education programs (Khan et al. 2018).

The intensification refers to the social efforts increased by the government in promoting SSP adoption (Mani et al. 2018). Labor pressures refer to organizations' concern about employees' expectations of, requirements for, and relationships to SSP adoption (Shafiq et al. 2014). Market pressures refer to organizations' concern about the expectations and requirements of various external forces toward SSP adoption (Agarwal et al. 2018). They are exerted by the public, associations, customers, competitors, peers, and investors (Mani & Gunasekaran 2018; Yuen et al. 2017). Supplier pressures refer to organizations' concern about the expectations, advances, business continuity, and partnership with key suppliers toward SSP adoption (Gadenne et al. 2009; Majumdar et al. 2020). Government, labor, market, and supplier pressures are integral parts of stakeholder pressures that motivate organizations to align social goals with their businesses and supply chain partners (Agarwal et al. 2018; Mangla et al. 2018).

Stakeholder pressures play a positive role in driving Vietnamese handicraft organizations to adopt SSP. This role has been addressed by Roxas and Coetzer (2012), who reveal that government pressures are crucial stakeholder pressures for organizations to meet the legal obligations by incorporating SSP-based laws and regulations into specific organizational policies and strategies. This line of reasoning is further supported by Mangla et al. (2018), who argue that supplier pressures are a useful component of stakeholder pressures in advising organizations about the choices of technologies and processes-related SSP. Mani and Gunasekaran (2018) assert that SSP adoption is strongly influenced by stakeholder pressures emerging from market expectations. The above discussion leads to the following hypothesis:

**H2.** Stakeholder pressures from government, labor, market, and supplier positively impact on organizations' SSP adoption.

Organizational readiness (OR) refers to organizations' preparedness in relation to adequate financial, knowledge, and internationalization resources, representing financial (FIN), knowledge (KNO), and internationalization (INT) readiness for SSP adoption respectively.

Financial readiness comprises the availability of financial resources, including access to finance from financial institutions and investors, for implementing, maintaining, and upgrading (Roxas & Chadee 2012). Knowledge readiness relates to the human resource capabilities, experience, adequate training, and inhouse expertise availability for SSP adoption (Huq & Stevenson 2020; Yuen et al. 2017). Internationalization readiness is derived from the preparedness of required organizational resources for conducting export, which is integrated into market readiness, resources readiness, and top management readiness (David & Cariou 2014; Tan et al. 2007). Financial, knowledge, and internationalization readiness are hypothesized to be facilitators of organizational readiness in SSP adoption.

Organizational readiness is one of the strongest predictors of SSP adoption by Vietnamese handicraft organizations that requires abundant organizational resources from various supply chain partners to achieve effective SSP strategies (Hwang et al. 2016; Yuen et al. 2017). In the context of emerging economies, inadequacies of financial and knowledge resources are usually major impediments to SSP adoption (Hasan et al. 2020; Malik & Abdallah 2019). Existing literature shows that financial readiness and knowledge readiness are most crucial in influencing organizational readiness (Hwang et al. 2016; Zhang et al. 2020). However, no prior study has examined the role of internationalization readiness in predicting organizational readiness for SSP adoption. Based on the arguments presented above, the following hypothesis is proposed:

**H3.** Organizational readiness in finance, knowledge, and internationalization positively impacts on organizations' SSP adoption.

Although a direct relationship between stakeholder pressures and SSP adoption is expected, this study argues that there is an indirect impact of stakeholder pressures on SSP adoption by Vietnamese handicraft organizations via organizational behavior and organizational readiness. Not all stakeholders could translate their pressures into organizations' specific actions and

procedures to improve SSP adoption. For example, government pressures tend to be ineffective due to corruption and lack of law enforcement (D'Souza et al. 2020; Huq & Stevenson 2020). Further, labor pressures are usually weak owing to lack of capabilities-related SSP by employees (Hasan 2016; Huq et al. 2014). Therefore, the impact of stakeholder pressures on SSP adoption is only realized through organizational awareness, attitude, and commitment. Similarly, this impact is greater when organizations have prepared adequate financial, knowledge, and internationalization readiness for SSP adoption. Based on the above arguments, this study proposes the following hypotheses:

**H4.** Organizational behavior, as formed by awareness, attitude, and commitment, significantly mediates between stakeholder pressures and organizations' SSP adoption.

**H5.** Organizational readiness in finance, knowledge, and internationalization significantly mediates between stakeholder pressures and organizations' SSP adoption.

This study further contends that organizational behavior impacts indirectly on SSP adoption by Vietnamese handicraft organizations. A few studies argue that this impact is more indirect, via organizational readiness, than direct (Gao et al. 2021; Lee et al. 2019). For instance, Lee et al. (2019) suggest that organizational awareness motivates financial readiness, which, in turn, enables SSP adoption. What is lacking from these studies is a holistic view of organizational behavior and readiness. Hence, the current study expects that the impact of organizational behavior, pertaining to organizational awareness, attitude, and commitment on SSP adoption, is strengthened in the presence of organizational readiness across three fronts, including financial, knowledge, and internationalization readiness. Taking all these factors into account, the following hypothesis is proposed:

**H6.** Organizational readiness in finance, knowledge, and internationalization significantly mediates between organizational behavior and organizations' SSP adoption.

Using a similar conceptualization for elements in the TOE framework recommended by Zhang et al. (2020), organizational behavior, stakeholder pressures, and organizational readiness are second-order formative constructs established by their associated reflective first-order constructs (see Fig. 1). A formative conceptualization is appropriate if any change in a first-order construct may not lead to changes in others (Becker et al. 2012). It usually helps achieve model parsimony, avoid bandwidth-fidelity dilemma, and eliminate collinearity among formative constructs (Sarstedt et al. 2019).

Control variables in this study include organizational size, exportation orientation, and standard adoption. Organizational size measures the total number of full-time employees (Marshall et al. 2015). Exportation orientation examines whether organizations conduct export activities. Standard adoption refers to the uptake of SSP standards, such as Business Social Compliance Initiatives, the International Organization for Standardization 26000, and Fair Trade (Agarwal et al. 2018; Hasan 2016). This study seeks to explore the roles of organizational size, exportation orientation, and standard adoption in predicting SSP adoption by Vietnamese handicraft organizations.

### **3. Methods**

#### *3.1. Instrument development*

To test the proposed hypotheses, this study employed a quantitative approach to collect the relevant data from a countrywide survey of handicraft organizations in Vietnam. The survey instrument (see Supplementary Information) consists of close-ended questions arranged in three sections. Section A consists of questions relating to the participants and their respective organizations. Section B contains 42 items in 8 categories of SSP, measuring levels of SSP adoption on a scale of 1 to 3, with 1 'not adopted', 2 'partially adopted', and 3 'fully adopted'. The mean value of each category is used to measure ADPT. Section C comprises 42 items



measuring AWA (7 items), ATT (4 items), COM (4 items), GOV (3 items), LAB (3 items), MAR (6 items), SUP (4 items), FIN (4 items), KNO (4 items), and INT (3 items) on a 5-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'.

Although the survey instrument is firmly grounded in the literature, its validity and reliability in the study context need to be tested prior to deployment. A pre-test with 10 sustainability practitioners and 12 top managers was undertaken to refine the content validity of the survey instrument. It was followed by a pilot test involving 35 senior executives of Vietnamese handicraft organizations to ensure the measures used in the questionnaire were appropriate and reliable.

### *3.2. Data collection and preliminary data analysis*

The survey was administered between March and September 2019 using a simple random sampling technique. The sampling frame consists of 1,500 Vietnamese handicraft organizations compiled from online databases. Participants of this survey are owners or managers of selected organizations. Telephone calls and follow-up emails were used to invite participants, who were introduced by supporting associations in Vietnam, such as Vietnam Rural Industries Research and Development Institute, Handicraft and Wood Industry Association of Ho Chi Minh city, and Vietnam Association of Craft Villages.

This survey used multiple options for responses, including telephone-based and paper-based, to improve the response rate. The total number of organizations agreeing to participate was 325, yielding a valid response rate of 21.67%. A preliminary data analysis was performed to address missing values, outliers, and normality. This analysis led to the deletion of 15 responses due to the presence of outliers. Finally, 310 complete responses were retained for use in the analysis. Of these, 156 organizations provided responses via telephone. Responses from the remaining

154 organizations were collected via face-to-face meetings at the respondents' offices, handicraft trade fairs, or conferences.

Non-response bias test was then conducted by comparing the demographic data of telephone-based and paper-based participants. The results show that responses do not differ significantly across the two groups in organizational size ( $t = 0.012, p = 0.991$ ), exportation orientation ( $t = 0.672, p = 0.502$ ), and standard adoption ( $t = -1.274, p = 0.204$ ). Therefore, non-response bias is not a major issue in the dataset.

The use of cross-sectional survey data is susceptible to the threat of common method bias (CMB) (Podsakoff et al. 2003). Several measures were used in this study to minimize the variance associated with CMB. For instance, participants were provided some reassurance about their anonymity and confidentiality, which could help address the issue of social desirability responses (Morais & Silvestre 2018). Different Likert scales were used to measure dependent (section B) and independent (section C) variables, thereby minimizing the concern about cognitively correlated variables (Agarwal et al. 2018). Harman's single-factor test was also performed, showing that one factor extracted from the exploratory factor analysis explains 49.36% of the overall variance, less than the acceptable threshold of 50% (Yuen et al. 2017). This outcome indicates that CMB is not detected from the Harman's single-factor test. All measures have demonstrated that the survey data is free from CMB.

The sample demographics are shown in Table 2. They reveal that 92.3% of participants (286 out of 310) are senior executives who have the required knowledge and experiences in SSP adoption to provide the relevant information for this study. Statistics on organizational size show that 27.7% of participants work in micro-scale firms (< 10 employees), 51.6% in small-scale (10–100 employees), and 20.6% in medium- and large-scale organizations (> 100 employees). There are 169 organizations with export sales, accounting for 54.5% of the surveyed organizations. Surprisingly, only 34.8% of them have adopted SSP standards.

**Table 2**

Profile of participants and organizations.

Information	Characteristics	Frequency (n=310)	Percentage (%)
Respondent position	Owner/Chief Executive Officer	201	64.8
	Department manager	85	27.4
	Others	24	7.7
Organizational size	< 10 employees	86	27.7
	10–100 employees	160	51.6
	> 100 employees	64	20.6
Exportation orientation	Non-exporter	141	45.5
	Exporter	169	54.5
Standard adoption	Non-adopter	202	65.2
	Adopter	108	34.8

#### 4. Results

The study uses a two-stage PLS-SEM approach in data analysis. The first stage evaluates the measurement model employing the repeated indicator approach recommended by Becker et al. (2012) in two steps: (a) evaluation of first-order reflective constructs, and (b) evaluation of second-order formative constructs. The second stage is to assess the structural model.

##### 4.1. Measurement model analysis

To evaluate the properties of the first-order reflective constructs, convergent validity, internal consistency reliability, and discriminant validity were examined (Hair et al. 2017). The results show that “Reduced costs” (AWA2), “Investor pressures” (MAR6), and “Diversity support” (ADPT5) should be excluded from further analysis due to their low loadings (< 0.7) at 0.412, 0.456, and 0.333, respectively. Table 3 shows the results of convergent validity and internal consistency reliability of all constructs upon the exclusion. All the average variance extracted (AVE) values are greater than 0.5. All the constructs meet the acceptable Cronbach’s alpha ( $\alpha$ ) and composite reliability (CR) thresholds of 0.7. These results suggest that convergent validity and internal consistency reliability of all the reflective constructs are ensured.

Discriminant validity was examined using the Fornell-Larcker criterion (Hair et al. 2017). As shown in Table 3, AVE's square root on the diagonal for any construct are larger than all off-diagonal inter-construct correlations displayed in the rows and columns indicating that all reflective constructs exhibit substantial discriminant validity (Fornell & Larcker 1981).

**Table 3**  
Measurement evaluation of first-order constructs.

Construct	$\alpha$	CR	AVE	1	2	3	4	5	6	7	8	9	10	11
1. ADPT	0.94	0.94	0.69	<b>0.83</b>										
2. ATT	0.89	0.89	0.67	0.69	<b>0.82</b>									
3. AWA	0.93	0.93	0.68	0.71	0.78	<b>0.82</b>								
4. COM	0.90	0.90	0.69	0.67	0.77	0.78	<b>0.83</b>							
5. FIN	0.92	0.93	0.76	0.54	0.64	0.60	0.80	<b>0.87</b>						
6. GOV	0.83	0.83	0.62	0.46	0.59	0.64	0.71	0.55	<b>0.79</b>					
7. INT	0.91	0.91	0.77	0.69	0.68	0.74	0.78	0.70	0.57	<b>0.88</b>				
8. KNO	0.92	0.92	0.75	0.76	0.70	0.72	0.76	0.73	0.56	0.84	<b>0.86</b>			
9. LAB	0.90	0.90	0.75	0.53	0.61	0.57	0.71	0.66	0.58	0.77	0.63	<b>0.87</b>		
10. MAR	0.91	0.91	0.66	0.55	0.60	0.63	0.72	0.72	0.67	0.62	0.62	0.65	<b>0.81</b>	
11. SUP	0.95	0.95	0.83	0.58	0.54	0.61	0.68	0.67	0.56	0.67	0.66	0.64	0.65	<b>0.91</b>

AVE's square root on the diagonal; All inter-construct correlations are significant at the 0.001 level.

In evaluating the properties of the second-order formative constructs, the multicollinearity and significance of outer weights were examined (Hair et al. 2017). Multicollinearity can be assessed using the variance inflation factor (VIF). As shown in Table 4, all VIF values range between 1.652 and 3.176 which are well below the cutoff value of 5 and are therefore considered acceptable (Hair et al. 2017). As such, multicollinearity is not an issue in the model. Table 4 also indicates that all outer weights from the bootstrapping procedure are highly significant, demonstrating that the first-order reflective constructs explain their respective second-order formative constructs well. The collective evidence from the first stage indicates that the proposed measurement model is valid.

**Table 4**

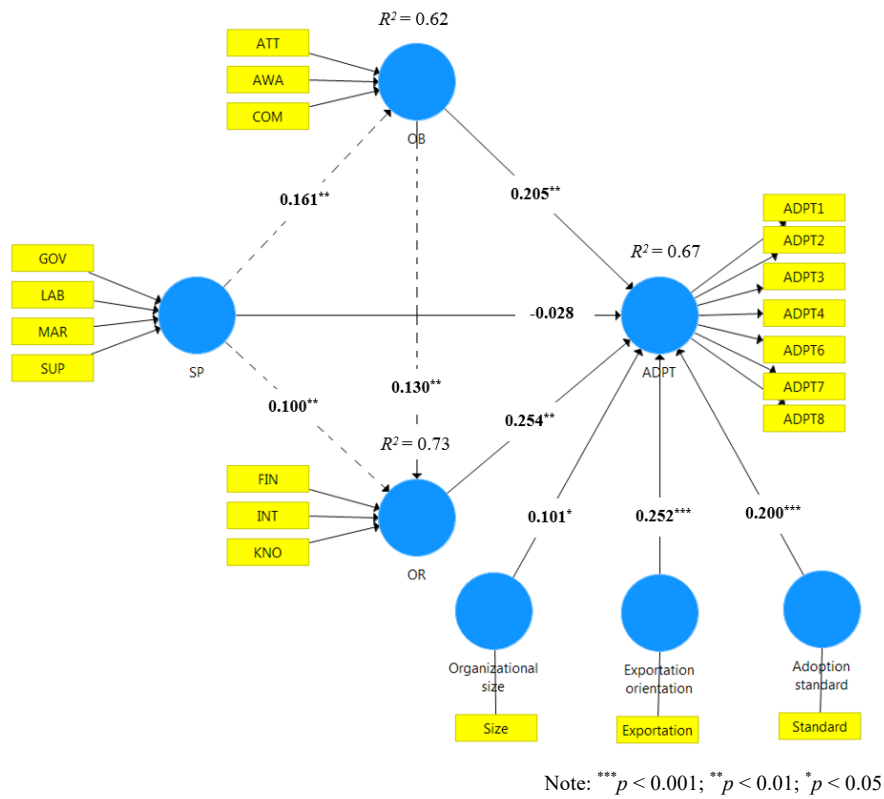
Measurement evaluation of second-order constructs.

Second-order construct	First-order construct	Weight	p-value	VIF
OB	AWA	0.352	0.000	2.643
	ATT	0.300	0.000	2.376
	COM	0.441	0.000	3.176
SP	GOV	0.249	0.000	1.652
	LAB	0.317	0.000	1.828
	MAR	0.306	0.000	2.042
	SUP	0.340	0.000	1.863
OR	FIN	0.329	0.000	2.512
	KNO	0.393	0.000	3.084
	INT	0.388	0.000	3.174

#### 4.2. Structural model analysis

The structural model analysis was performed using the computed second-order construct scores resulting from the repeated indicator approach, the PLS algorithm, and bootstrapping of 5,000 subsamples with a two-tailed 0.05 significance level (Hair et al. 2017). The first step of the structural model analysis is to evaluate the multicollinearity among dependent variables ADPT, OB, and OR. The results indicate that all VIF values range between 2.091 and 4.326 (<5 critical value), suggesting that multicollinearity is absent in the structural model. Model fit indices include standardized root mean residual (SRMR) = 0.042 (<0.08), unweighted least squares discrepancy ( $d_{ULS}$ ) = 0.368 (<0.95), geodesic discrepancy ( $d_G$ ) = 0.307 (<0.95), Chi-square = 493.2, and normed fit index (NFI) = 0.907 (>0.9), demonstrating an adequate model fit (Henseler et al. 2016).

Fig. 2 presents the analytical results of the structural model. The results show that OB positively impacts ADPT ( $\beta = 0.205, p = 0.006$ ), supporting **H1**. In addition, OR positively impacts ADPT ( $\beta = 0.254, p = 0.001$ ), supporting **H3**. However, there is insufficient evidence to support hypothesis **H2** as SP are shown to be insignificant for ADPT ( $\beta = -0.028, p = 0.652$ ).



**Fig. 2.** The validated structural model.

The mediating impact was examined using the approach of Zhao et al. (2010). Results shown in Fig. 2 indicate that OB significantly mediates between SP and ADPT ( $\beta = 0.161, p = 0.006$ ), thereby **H4** is supported. Furthermore, OR significantly mediates between SP and ADPT ( $\beta = 0.100, p = 0.002$ ), supporting **H5**. The insignificant direct relationship between SP and ADPT determines a full mediation for **H4** and **H5**. Meanwhile, OR significantly mediates between OB and ADPT ( $\beta = 0.130, p = 0.001$ ), which means **H6** can be supported. The direct relationship between OB and ADPT is significant, suggesting a partial mediation.

All control variables are found to have a significant relationship with ADPT. As demonstrated in Fig. 2, organizational size ( $\beta = 0.101$  and  $p = 0.023$ ), exportation orientation ( $\beta = 0.252$  and  $p = 0.000$ ), and standard adoption ( $\beta = 0.200$  and  $p = 0.000$ ) all play important roles in predicting ADPT.

The model has a high explanatory power with coefficient of determination ( $R^2$ ) values of 0.67, 0.62, and 0.73 for ADPT, OB, and OR, respectively. These findings suggest that 67% of the

variance in SSP adoption is explained by organizational behavior, stakeholder pressures, and organizational readiness, together with the control variables. Further, 62% of the variance in organizational behavior is explained by stakeholder pressures, while 73% of the variance in organizational readiness is explained by stakeholder pressures and organizational behavior. It further reveals that OB exerts a small effect on ADPT ( $f^2 = 0.029$ ) and a large effect on OR ( $f^2 = 0.371$ ). SP shows no effect on ADPT ( $f^2 = 0.001$ ), a large effect on OB ( $f^2 = 1.634$ ), and a medium effect on OR ( $f^2 = 0.219$ ). Meanwhile, OR has a small effect size on ADPT ( $f^2 = 0.049$ ).

Predictive relevance ( $Q^2$ ) and  $q^2$  effect size values are further used to evaluate the model's quality (Hair et al. 2017). Results show that the  $Q^2$  value of ADPT is 0.484, significantly larger than zero (Chin 1998). While both OB ( $q^2 = 0.016$ ) and OR ( $q^2 = 0.019$ ) have small predictive relevance, SP exhibits no predictive relevance on ADPT. Overall, the model predictive relevance on ADPT is supported.

## **5. Discussion and implication to theory and practices**

The empirical evidence shows that organizational behavior has a positive impact on SSP adoption by Vietnamese handicraft organizations (**H1**). This finding is consistent with those of previous studies (see Yuen et al. (2017); Agarwal et al. (2018); Shete et al. (2020)), which support the idea of operationalizing organizational behavior for SSP adoption with organizational awareness, attitude, and commitment. This finding corroborates the use of the TOE framework to underpin the study. When Vietnamese handicraft organizations effectively develop a comprehensive understanding of SSP adoption-related benefits, they are likely to behave in a socially sustainable manner, leading to the more successful uptake of SSP (Gadenne et al. 2009; Mani et al. 2020). However, organizational awareness alone is not impactful enough to induce organizational behavior for SSP adoption. Long-term innovation sustainability solutions executed with a high level of financial and knowledge resources are required from an integrated supply chain perspective. These are impediments for most organizations in emerging

economies, including handicraft organizations in Vietnam. The study results indicate that organizational attitude and commitment should be incorporated into organizational behavior, particularly when organizational commitment is revealed to be most crucial for activating organizational behavior. Only when Vietnamese handicraft organizations have made a transition from perceptions, feelings, and beliefs into specific social efforts toward SSP, can they truly embrace SSP adoption.

The study further shows an insignificant direct role of stakeholder pressures in driving SSP adoption (**H2**). This outcome is contrary to those of many previous studies (Hasan 2016; Mani & Gunasekaran 2018). It also contradicts the underlying assumptions of both the TOE framework and the institutional theory. One possible explanation is that some stakeholders, such as government, laborers, and associations, are not powerful enough in pressurizing SSP adoption in emerging economies (D'Souza et al. 2020; Majumdar et al. 2020), leading to uninfluential overall stakeholder pressures. Another reason is that the effect of stakeholder pressures on SSP adoption is fully mediated by organizational behavior (**H4**) and readiness (**H5**). This means that stakeholder pressures improve SSP adoption indirectly by driving Vietnamese handicraft organizations to behave socially sustainable on three fronts, namely awareness, attitude, and commitment. Furthermore, stakeholder pressures activate SSP adoption indirectly through the sufficient preparedness of financial, knowledge, and internationalization resources. A plausible explanation for such full mediation could be that stakeholder pressures are the pre-condition for enabling SSP adoption but are not sufficient by themselves. For example, Agarwal et al. (2018) claim that the existence of market pressures is sufficient for organizational commitment but insufficient for establishing SSP adoption. Another explanation for such full mediation could be due to the small and medium scale of organizations in emerging economies. They often seek support from government agencies, NGOs, industrial associations, and developed country counterparts to overcome challenges associated with SSP adoption (Liu et al. 2020; Majumdar et al. 2020). In essence, these findings



align with the rationale behind the TOE framework and the tenet of the institutional theory that shapes SSP adoption by handicraft organizations in Vietnam.

Consistent with expectations from the TOE framework, organizational readiness exerts the greatest direct influence on SSP adoption by Vietnamese handicraft organizations (**H3**). This result is consistent with the findings of other studies (see Ahmad et al. (2016); Hwang et al. (2016); Zhang et al. (2020)) in which organizational readiness is more influential than stakeholder pressures and organizational behavior in achieving SSP adoption. A likely explanation is that Vietnamese handicraft organizations mostly lack the organizational resources required to adopt SSP across their supply chains. As a result, increasing financial, knowledge, and internationalization readiness enhances organizations' confidence and capabilities to adopt SSP. Among all three aspects of readiness, organizations perceive knowledge readiness to be most critical. This outcome signifies the requirements for human resources at both strategic and operational levels to deal with a variety of SSP-related management innovations across multi-tier supply chains (Huq & Stevenson 2020; Hwang et al. 2016).

This study also supports the mediating role of organizational readiness in the relationship between organizational behavior and SSP adoption by Vietnamese handicraft organizations (**H6**). Even though SSP adoption in developed economies is well established, a high level of organizational awareness cannot guarantee SSP adoption unless organizations have prepared sufficient organizational resources (Lee et al. 2019). In this regard, the same is expected for organizations from emerging economies, such as Vietnam, where SSP adoption is still evolving (Govindan et al. 2020). A possible explanation might be that without top management support, formulation and enforcement of organizations' policies to acquire the financial and human resources required for SSP adoption would not be taken seriously (Zhang et al. 2020). Another possible explanation is that close intra- and inter-organizational relationships with supply chain

members are fundamental for the preparedness of sufficient resources (Hwang et al. 2016; Shete et al. 2020).

### *5.1. Implications to theory*

This study has a unique contribution to sustainability theory in several potential ways. First, it sheds a holistic view of the interrelationships among organizational behavior, stakeholder pressures, and organizational readiness. This outcome highlights the appropriateness of extending the TOE framework by integrating it with institutional theory to fully explain SSP adoption embedded in the institutional context of Vietnam. This is an important contribution to the body of knowledge, as such integration remains scarce in the extant sustainability research.

This study advances knowledge of a complete set of organizational behavior for SSP adoption. It sheds new insights into the use of the TOE framework for SSP research, in which organizational awareness might not be sufficient for organizational behavior. In the institutional background of Vietnam, organizational attitude and commitment should be incorporated with awareness to capture entirely organizational behavior towards SSP adoption.

This study provides a thorough understanding of stakeholder pressures to account for SSP adoption. It confirms the appropriateness of combining the TOE framework and institutional theory for proving the institutional perspective of adopting management innovations. This combination in a single model offers a richer theoretical basis for explaining stakeholder pressures, consisting of government, labor, market, and supplier pressures. The findings empirically suggest that stakeholder pressures could only transmit their indirect impacts via organizational behavior and readiness to promote SSP adoption throughout supply chains. These outcomes are important contributions to the sustainability literature as they add to the ongoing debates over the insignificant roles of stakeholder pressures on SSP adoption commonly witnessed in emerging economies.

Another significant implication of this study relates to a holistic view of organizational readiness, which covers financial, knowledge, and internationalization readiness. This outcome adds to a growing body of evidence suggesting that organizational readiness has the strongest impact on SSP adoption. On this premise, the TOE framework is expanded to include internationalization readiness under organizational readiness for examining SSP adoption. Internationalization readiness is confirmed as a new critical factor in the sustainability literature, explaining why organizations in emerging economies targeting overseas markets tend to be more proactive in addressing SSP under globalization. This study also advances knowledge of the mediating role of organizational readiness in the relationship between organizational behavior and SSP adoption. From a theoretical perspective, the indirect role of organizational readiness highlights the interplay among the elements in the TOE framework to account for SSP adoption in an emerging economy.

### *5.2. Implications to practices*

The findings of this study have practical implications for sustainability practitioners and policymakers, specifically for micro-, small-, and medium-scale organizations in emerging economies, which might increase their chances of legitimacy and survival in dynamic markets through SSP adoption. They suggest approaches that can be established by sustainability practitioners and policymakers to improve SSP adoption from an integrated supply chain perspective. For example, sustainability practitioners and policymakers could prioritize organizational readiness over organizational behavior and stakeholder pressures, as organizational readiness is found to be the most vital enabler and a facilitator to transmit the impact of organizational behavior on SSP adoption. It is of paramount importance for sustainability practitioners and policymakers to prepare sufficient financial, knowledge, and internationalization resources for a successful SSP adoption in the entire supply chain. Most

importantly, they should strive for internationalization readiness through aligning exporting with SSP adoption in overall organizational policies and strategies.

Sustainability practitioners and policymakers could also put more effort into ensuring a comprehensive understanding of the benefits, shaping a favorable attitude, and generating specific social solutions toward SSP adoption. Such effort involves a transformation toward long-term investment and active collaboration with supply chain members to pursue social proactiveness. Finally, sustainability practitioners and policymakers would need to fully realize the expectations and requirements generated by all kinds of stakeholders. Meanwhile, they could actively engage in and allocate adequate organizational resources to respond effectively to these pressures.

## **6. Conclusion**

Through the use of the TOE framework and the institutional theory to develop a theoretical model for SSP adoption, this study has comprehensively examined the relationships between various critical factors of SSP adoption by organizations in an emerging economy, where social responsibilities have increasingly led to management innovations for sustainable development. Using the Vietnamese handicraft industry as the research background, data were collected from 310 organizations with SSP adoption for analysis using PLS-SEM to test certain hypotheses on the interrelationships between the factors. The findings reveal that organizational behavior and readiness have direct positive impacts on SSP adoption, while stakeholder pressures play an insignificant direct role in driving SSP adoption. The effect of stakeholder pressures on SSP adoption is fully mediated by organizational behavior and readiness. It is also revealed that organizational readiness in finance, knowledge, and internationalization mediates between organizational behavior and its SSP adoption.

Nevertheless, the study findings should be interpreted in light of **some limitations** that pave the fruitful avenues for future research. First, this study concentrates on the critical factors affecting SSP adoption and their interrelationships without considering explicitly their impacts on organizational performance, which can be the focus of future research. For example, it would be a valuable advancement in the resource-based view theory (Barney 1991) and SSP research to test how internationalization readiness can moderate the relationship between SSP adoption and organizational performance. This would be useful to utilize valuable and rare resources achieved from export-oriented strategies to facilitate SSP adoption, leading to the overall sustained organizational performance.

Furthermore, given the fact that the SSP adoption investigated in this study is undertaken in an institutional environment which can be unique to the country, care should be taken when generalizing the findings of this study to other emerging economies. Thus, comparative studies should be undertaken to help modify and validate the theoretical model under different institutional environments. The comparative studies can be across multiple countries or industries to enlarge the base of comparison for improving generalization.

**Appendix.** An overview of SSP.

<b>Category</b>	<b>Description</b>	<b>Practice</b>	<b>References</b>
Labor conditions	The welfare and fair working conditions for employees (Nakamba et al. 2017)	Fair wages and benefits	Yawar and Seuring (2017)
		Fair working hours	
		Contract labor	
		No child labor	
		No forced labor	
		Training and education	
		Formal policies and procedures	
Human rights	The rights inherent to individual employees irrespective of their status (Yawar & Seuring 2017)	Freedom of association and collective bargaining	Nakamba et al. (2017)
		No discrimination	
		No sexual harassment	
		Training and educating employees	
		Formal policies and procedures	
Working environments	The provision of a healthy, safe, hygienic, and non-hazardous workplace (Hasan 2016)	Healthy working environment	Shafiq et al. (2014); Hasan (2016)
		Safe performance of duties	
		Clean areas for relaxation	
		Clear signs for safety	
		Training and education	
		Formal policies and procedures	

Community development	The engagement and contribution to communities where an organization is located (Shafiq et al. 2014)	Transparent relationships with local government officials	Hasan (2016); Schönborn et al. (2019)
		Participating in associations	
		Consulting local communities on production issues that affect them	
		Supporting charitable initiatives	
		Sponsoring educational and cultural activities	
		Providing vocational training	
		Using local suppliers	Author/expert developed
Diversity support	The development of minority groups and people (Morais & Silvestre 2018)	Purchasing from marginalized enterprises	Morais and Silvestre (2018)
		Employing marginalized people	
		Supporting gender equality	
Ethical behavior	The achievement of fair and reasonable operations in organizations (Mani & Gunasekaran 2018)	Purchasing through the fair-trade movement	Hasan et al. (2020)
		Using eco-friendly manufacturing processes	
		Formal policies and procedures on the protection of the environment	
Product responsibilities	The safety and welfare of customers (Shafiq et al. 2014)	No breaches of marketing regulations	Shafiq et al. (2014)
		Customer health and safety	
		Good customer service	
		Product traceability	
Supply chain responsibilities	The positive social conduct at suppliers' locations (Govindan et al. 2020)	Cooperating with big customers	Shafiq et al. (2014)
		Setting social standards for suppliers	
		Fair working conditions for employees at suppliers' locations	
		Safe and healthy working environments for employees at suppliers' locations	
		Regular auditing quality of raw materials	
Cooperating with key suppliers			

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