

Sustainability Learning in Organizations: Integrated Model of Learning Approaches and Contextual Factors

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Abstract

Employee learning plays a vital role in corporate sustainability strategy. Past attempts to map sustainability learning (SL) in organizations have fallen short in explaining the interactions between key learning approaches and the dynamics within the learning environment. This paper is based on a study conducted to explore how employees learned sustainability in organizations and the contextual factors that facilitated their learning process. The study adopted the interpretivist qualitative approach in data collection. Semi-structured interviews were used as the main method, supported by participant observation and document analysis. The findings found evidence suggesting an interplay between several types of learning approaches in SL and highlighted important contextual factors that facilitated the learning environment. Based on the findings, this paper proposes an integrated model for sustainable learning that contributes to refining understanding of the SL process and can be used to assist organizations in enhancing their SL programs. This research addresses the dearth of studies on SL in the organizational setting. It also provides theoretical contribution by providing a clearer overview regarding how SL occurs among employees based on the perspectives of social, experiential, and transformative learning theories.

Keywords

sustainability learning, sustainability programs, learning approach, corporate sustainability strategy

Introduction

Business organizations are crucial in the global sustainability agenda (Ponte, 2020; Rendtorff, 2019). They are expected to balance their economic, social, and environmental goals (Hongming et al., 2020; Purvis et al., 2019), and address the needs of stakeholders (Freeman, 2010). The Triple Bottom Line (3Ps) (Elkington, 2018) is an important mechanism for evaluating corporate performance and reputation. As such, sustainability has become a strategic priority for many organizations (de Oliveira Claro & Esteves, 2020) that triggers the need for sustainability learning (SL) (Boström et al., 2018; Wijethilake & Upadhaya, 2020). Human resource (HR) is a pertinent function to turn employees into change agents (De Silva Lokuwaduge et al., 2020; Razali & Jamil, 2016). The outcomes centralize on the acquisition of sustainability knowledge, attitudes, and practices (KAP) (Salas-Zapata et al., 2018) through properly designed programs (Aboytes & Barth, 2020; Boström et al., 2018). Individual and organizational-level alignment ensures collective learning toward sustainability (Antonacopoulou, 2006; Jenkin, 2013).

The process in which individuals learn about sustainability is known as SL (Dzhengiz, 2020; Hansmann, 2010). Formal and informal learning programs can be implemented to expose employees to sustainability (Duarte, 2014; Garg, 2014). SL outcomes may involve a transformation of cognitive mindsets, acquisition of skills, and emotional changes that move people toward sustainable behaviors (Buckley & Michel, 2020; Moyer et al., 2014). An effective SL ensures employee learning transfer that helps in translating organizational sustainability strategy into reality. The study of SL in organizations has been scrutinized mostly from the macro-organizational level by looking at SL in relation to

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strategic management, organizational learning, or change management (Battistella et al., 2021; Hermelingmeier & Von Wirth, 2021; Senge et al., 2006; Wijethilake & Upadhaya, 2020). Exploring the perspectives of individual employees as learners has not received enough research attention. Studying SL at an individual level is necessary to enhance the design of sustainability programs.

A learning theory explains how people learn in terms of the process, function, and outcomes of learning. It helps instructional program designers embed key elements in a learning program for successful learning. The Experiential Learning Theory, Social Learning Theory, and the Transformative Learning Theory are three widely recognized theories associated with SL (Aboytes & Barth, 2020; Lankester, 2013; Moyer et al., 2014; Van Mierlo et al., 2020). D. A. Kolb's (1984, 2014) Experiential Learning views learning as a process in which individuals move between four learning modes, that is, concrete experience, reflective observation, abstract conceptualization, and active experimentation. According to Kolb, a learner should undergo all four stages to learn effectively. Whereas Bandura's (1977) Social Learning Theory suggests that learning occurs when learners observe and imitate other people's behaviors. Bandura emphasized the element of social environment in creating and reinforcing people's behaviors. He proposed several learning assumptions that highlight the importance of observations, consequences, behavioral changes, and cognitive conditions. The Transformative Learning Theory (Mezirow, 1997) considered learning as a constructivist process in which learners interpret and reinterpret their world experiences by transforming their "frames of reference" (i.e., existing beliefs, assumptions, values, feelings, and attitudes) which results in a new set of cognitive, conative, and emotional components. Transformative learning can be understood as an outcome of the experiential learning and social learning process, hence suggesting the interrelations of all three theories in SL (Aboytes & Barth, 2020).

Noticeable imbalance exists in the literature that explains SL in organizational and non-organizational settings. Much knowledge has concentrated mostly on educational and community-based contexts (Lankester, 2013; Warburton, 2003). Educational institutions have been the dominant platform because sustainability is considered a character development of young people (Bosevska & Kriewaldt, 2020; Noy et al., 2021; Reza, 2016; Tapia-Fonllem et al., 2017; Wamsler, 2020). Therefore, the established SL knowledge is based on studies in the educational settings (e.g., Dziubaniuk & Nyholm, 2021). Similarly, there is substantial SL research on community-based sustainability initiatives (Frantzeskaki & Rok, 2018; Tilbury & Wortman, 2008).

Educational institutions often collaborate with communities in sustainability programs (Menon & Suresh, 2020), hence contributing further to the overlapping SL literature derived from both contexts. In both settings, sustainability tends to focus on environmental initiatives (Aboytes & Barth, 2020; Wals, 2011). A similar coverage on SL in business organizational settings however is lacking.

Business organizations deal with learners, ecosystems, expectations, and cultural nuances that are distinctly different from those that present in educational and social communities. The present SL knowledge has mostly involved young learners and public citizens. Business organizations are usually profit-driven, sensitive to competition, and regulated by certain industry structures. The type of sustainability programs that organizations pursue is often dictated by organizational strategy. Therefore, the learning process that employees engage in SL may have been influenced by their job obligations. SL knowledge involving educational and community participants may not accurately reflect employees in organizations.

There have been attempts to explore learning theories in organizations (e.g., Boström et al., 2018; Lankester, 2013; Moyer et al., 2014). For instance, Moyer et al. (2014) found instrumental, communicative, and transformative learning domains in SL. Whereas, Lankester (2013) noticed the influence of collective learning and active experimentation in critical reflection on sustainability issues by employees. Despite their contributions, these studies have fallen short in explaining the involvement and interaction between different learning domains toward achieving SL outcomes. This gap highlights the need for more research to explore SL in organizational contexts.

Learning is an adaptation process in behaviors and a socially embedded activity in a specific environment (A. Y. Kolb & Kolb, 2005). Therefore, contextual factors surrounding an organization, such as the external environment, internal ecosystems, and learners' characteristics, may affect SL (Dzhengiz, 2020; Wals & Rodela, 2014). External factors may include politics, social demography, technology, and legal structure can affect sustainability directions. An organization's internal environment refers to its underlying assumptions (i.e., culture, norms, and identity), strategy (rules, regulations, norms, codes of conduct, mission, vision, goals, and objectives), and artifacts (such as organizational design, structure, expected behaviors, expected performance, resource allocation, leadership, and reward) (Dauber et al., 2012; Hatch, 1993; Hatch & Cunliffe, 2006; Schein, 1985). At the employee level, trainee characteristics such as capabilities, personality traits, motivations, and values affect the overall learning process (Bell et al.,

2017). This literature shows that context may hinder or facilitate employee SL.

In a nutshell, although the literature has shed some light regarding SL, the knowledge is limited. Firstly, SL has been predominantly understood in educational and community-based sustainability initiatives therefore, the knowledge may not accurately reflect how SL is engaged by employees in organizations. Secondly, the scant literature on company-initiated SL is lacking details on the surrounding factors that may influence employees' process in acquiring sustainability outcomes. Therefore, SL research should consider relevant practices that shape an organization's sustainability strategy that affects employee SL. SL research should adopt a methodology, such as the case study design, that can simultaneously capture organizational and individual information on SL. Studying SL in a specific context may provide a holistic overview that can be converted into an SL model. Past literature recommends that formulation of an SL model needs to be based on empirical research in a specific organizational setting (Boström et al., 2018; Lankester, 2013; Pupphachai & Zuidema, 2017).

Against this backdrop, case study research was conducted to explore how employees learn sustainability in organizations and the contextual factors that influence the SL process. The study aimed to conceptualize a model on that shall contribute in two ways. It will highlight specific learning approaches engaged by employees that can improve the design SL programs such as in terms of program objectives, learning activities, contents, and background of learners. The model will also show relevant key factors to ensure learning transfer and sustainability. The SL model will benefit organizations in strategizing and achieving sustainability (Boström et al., 2018; Lankester, 2013; Pupphachai & Zuidema, 2017).

The remainder of the article is structured as follows. The next section elaborates on the research methodology. It is then followed by a thematic analysis of the data. The article then moves to a discussion section, then ends with sections on the conclusion, practical implications, research limitations, and further research.

Methodology

Research Design

The study adopted the interpretivist qualitative lens that views reality as a social construction process (Creswell, 2013). The case study approach was adopted for a holistic and in-depth exploration to answer the "how" and "why" questions (Baxter & Jack, 2008), hence fitted the study objective. As argued earlier, SL research that intends to develop SL model should explore both employee learning approaches and study its occurrence within a specific context. In this sense, SL occurs in

relation to relevant practices that shape an organization's sustainability strategy, internal environment, HR practices, and external environment. Therefore, the case study methodology would enable the researchers to simultaneously capture organizational and individual information. The approach is considered the most suitable research strategy when context is important (Meyer, 2001; Shakir, 2002). To mention, the research reported in this article was taken from doctoral research aimed to explore SL status, progress, and challenges in company-based sustainability programs. The research viewed both organizations and individuals as the units of analysis (Yin, 2014). The phenomenology or the grounded theory research approaches were not adopted as they tend to emphasize only the individuals and their lived experiences (Creswell, 2013), and would not sufficiently view them as part of the organization. Whereas, the grounded theory is adopted when basic theoretical foundation is obscure (Creswell, 2013).

Population and Sampling

The study population was sustainability-oriented organizations—referred as those that focused on advancing sustainability agenda in Malaysia. Malaysia was chosen given its relatively recent emphasis on sustainability has rendered the country an interesting bed for research. Under the New Economic Model that focused on building an inclusive and high-income nation, Malaysia pursued sustainability-related strategies such as the Local Agenda 21, National Policy on Environment, and the National Green Technology Policy (<http://www.nre.gov.my>). However, the sustainability progress at business organizations level was a challenge (Hami et al., 2014).

The multiple case design that involves having more than a single case was adopted in which the selection must be based on literal and theoretical replication (Yin, 2014). Theoretical replication is necessary in multiple case studies to ensure compelling and robust results reach (Ridder, 2017). Having multiple case design adds confidence, precision, validity, stability, and trustworthiness to findings (Miles et al., 2014; Yin, 2014). In deciding the number of cases, the concepts of appropriateness, adequacy, and the purposive sampling strategy (Patton, 1990 in Shakir, 2002) were observed.

Three organizations were chosen, a figure considered enough to fit the literal and theoretical replication criteria (Yin, 2014). Each case possessed established sustainability profiles required for data reliability. Several factors were considered in the case selection. Firstly, the chosen case must represent contextual factors that may provide interesting revelations on SL. Case A was chosen because it had the highest sustainability performance, a

long-term strategy toward the Sustainable Development Goals (SDGs), and targeted specific stakeholders/programs that related to its business. Case B, despite being one of the top sustainability performers, was chosen because its sustainability strategy focused on various stakeholders and programs. It would be interesting to explore if its external factors had strong influence on its employees' SL. Whilst Case C was an organization established to support the government's agenda. Therefore, its scope, target audience, and sustainability programs were bigger in reach and perhaps more complex that could affect its employees' SL. Secondly, the cases must have established sustainability practices and offered enough programs to employees to enable their reflection and learning. Therefore, each case represented a unique scenario that could provide meaningful discoveries on SL.

Following Yin (2014), interview participants were purposively selected. The technique could add credibility to the sample when the potential purposeful sample was too large (Creswell, 2013). The sampling criteria included having experience in attending company-initiated SL programs as the research question targeted data based on personal experience. This relates to the adopted epistemology and ontology philosophies that view reality as an output of individual experience in sustainability programs. Secondly, they were employees who have been working in the organizations for at least 2 years to ensure they had enough experience related to SL to provide reliable insights. Creswell's (2013) recommendations on sampling access, sampling frame, and consent were followed.

Interview Protocol

The semi-structured interview was the main method for data collection, supported by other data sources for triangulation purpose (Creswell, 2013; Yin, 2014). These include participant observations (made during sustainability programs), and documents review (on sustainability reports, websites, and relevant photographs on company-initiated sustainability initiatives). The study comprised of twenty employees, based on the purposive sampling method explained earlier. The figure is considered an acceptable number (Creswell, 2013; Mason, 2017), and was finalized upon reaching the theoretical saturation (Mason, 2017). The breakdown is as follows: Company A (7), Company B (7), and Company C (6). Their age ranged from 24 to 51 years old, and they possessed an A Level to master degrees.

An interview protocol was used as a general guideline and built based on the interview protocol refinement (IPR) (Castillo-Montoya, 2016). The IPR involves four steps. Firstly, the protocol was aligned with the research question. Secondly, it was structured and constructed

Table 1. Interview Questions.

1.0 How employees learn sustainability in organizations?	
–	Are you familiar with the term sustainability?
–	If the respondent answer yes... next questions is: What sustainability means to you?
–	If the respondent answers no... next question is: Why are you unfamiliar with the term?
–	How did you learn about sustainability practices (researcher also use other word or statement to refer to this, for example, recycling, social responsibility, power saving) and its implementation?
–	What kind of sustainability training or programs have you attended so far?
–	What have you learnt from the programs?
–	How does the training programs help you to know about sustainability?
–	Why did you attend the training programs in the first place?
–	How does it benefit you? In what way?
–	If you are required to attend the programs again, would you be willing to do so, and why?
–	Why?
–	What do you expect from the sustainability programs after this?
2.0 How contextual factors influence the SL process?	
–	In your point of view, why sustainability is important to you personally?
–	Why did you want to learn about sustainability?
–	How does your company help you to learn/know about sustainability?
–	Subsequent questions are based on respondent's answer on the organization's influence.

based on an ordinary conversation, using terms and language that reflect the research questions. For example, for the research question "How employees learn sustainability?", participants were asked instead "how did you learn about sustainability practices? what kind of programmes have you attended? what have you learnt from the programmes? and how do they benefit you?". The questions were also guided by provisional themes gathered through the literature review. Step 3 involved getting feedback on the interview protocol from two content experts in the management field, and step 4 involved piloting the interview protocol. These steps ensured that the protocol was valid and sufficient as a guideline in the semi-structure interview. The interview protocol is presented at the end of the article (Table 1).

Since the study used the semi-structured approach, the pre-formulated questions in the protocol were not strictly followed (Myers, 2009). Following the iterative interview process (Mason, 2017), new questions were added as they emerged during the interview sessions. Situated questioning technique (Mason, 2017) was used that required the participants to respond, relate and reflect based on their actual experience attending SL programs. The session began with a conversation on participants' knowledge and ideas on sustainability. To explore their learning

approaches, a backward view process was applied by first exploring the outcomes or changes that they had experienced from attending the programs. Then, the questions focused on excavating details on relevant aspects regarding their learning process and contextual factors. Each interview lasted between 1 and 2 hours. The longest interview session was 2 hours, while the shortest interview was 1 hour. The cumulative interview hours were around 30 hours.

Data Analysis

Data was analyzed based on the interpretative analysis approach that required researchers to completely immerse themselves in the data and view it from each participant's lens. The thematic content analysis technique was used to analyze the interview data, supported by input from observations and secondary documents (Miles & Huberman, 1994). The interviews were audio-recorded, verbatim transcribed, and analyzed in the Nvivo software. The software was used to perform cognitive mapping that helped in illustrating data nodes to produce emerging themes (Myers, 2009). Memos, taken during the fieldwork, were used as a starting point in the data analysis. The memos described the researcher's thinking, feeling, and doing at a certain time (Myers, 2009). The data was both analyzed in terms of within-case and cross-case analysis based on the emergent themes (Yin, 2014). Both inductive and deductive data codes were considered in the data analysis. For this study, the researcher organized the data coding by categorizing them into themes, sub-themes, and codes. The categorization was deemed sufficient based on the aim of the study and upon reaching a reasonable explanation (Yin, 2014).

Results

Background of Cases

Case A belonged to the telco sector and was one of the champions in sustainability performance in the country. It was one of the earliest that began to subscribe to the UN SDG since 2016. Sustainability strategy was formally formulated and well-governed across various organizational levels including the Board, management, departments, and working groups. The strategy was monitored by the corporate affairs Office. It had implemented many initiatives to share sustainability values with its workforce. One of its signature commitments was to reduce inequalities by providing meaningful access of internet services for all Malaysians. The organization had won several local awards in sustainability. Whereas, Case B was one of the top three companies in Malaysia with the highest sustainability performance. It was a top local

bank with an equally strong presence in the Asian market. Sustainability strategy was emphasized in organizational values and core business. Yearly, it conducted between 80 and 110 activities on various sustainability areas including community empowerment, education, healthy living, environmental diversity, and arts and culture. Its flagship sustainability program required employees to get involve in volunteering activities with the underprivileged. Between 2016 and 2018, the employees had spent 108,863 to 134,718 of total volunteer hours. Case C was an organization established to support the government's agenda. Its roles were to promote, initiate, and improve sustainability-related education to various stakeholders in Malaysia. These include corporate entities, societies, and educational institutions. It had actively organized sustainability-related programs such as carnivals, camps, and roadshows. The organization was particularly committed in green technology and practices holding programs throughout Malaysia. Through participation in these programs, employees at Case C also engaged in SL themselves.

Data Analysis

The data analysis raised two themes and several sub-themes that explain the approach and context of employees' SL (Figure 1).

Theme 1: How Employees Learned Sustainability

Sub-theme: Transformative Learning. The findings found that all participants showed "sustainability awareness." They mentioned reasons such as to enable their organizations to "move forward," "to be strong," and to shape public image ("we want all customers and consumers to recognise this company as a bank of heart"). They recognized sustainability for its impact on staff, that is, "... company giving back to the community ... is one way of instilling a goodness in the staff," and for its altruism purpose "the world having problem we need to find a new way or alternative resources." The findings suggested that their perceptions were predominantly made from the organizational lens.

All participants demonstrated some "understanding of sustainability." They associated sustainability with phrases such as "continuous," "long term impact," "to achieve balance in life," "perpetual self-fulfilling/self-running (of resources)," and "do something that lasts." Sustainability was described in relation to the CSR concept, although the participants seemed to be more familiar with the latter. Sustainability was seen "like CSR, but not so deep," and evolved from CSR—"it's just like how CSR ... initially ... then, we move on to sustainability." Another respondent opined that "... sustainability is a very big word ... not ready to use the word yet ...," and instead suggested that

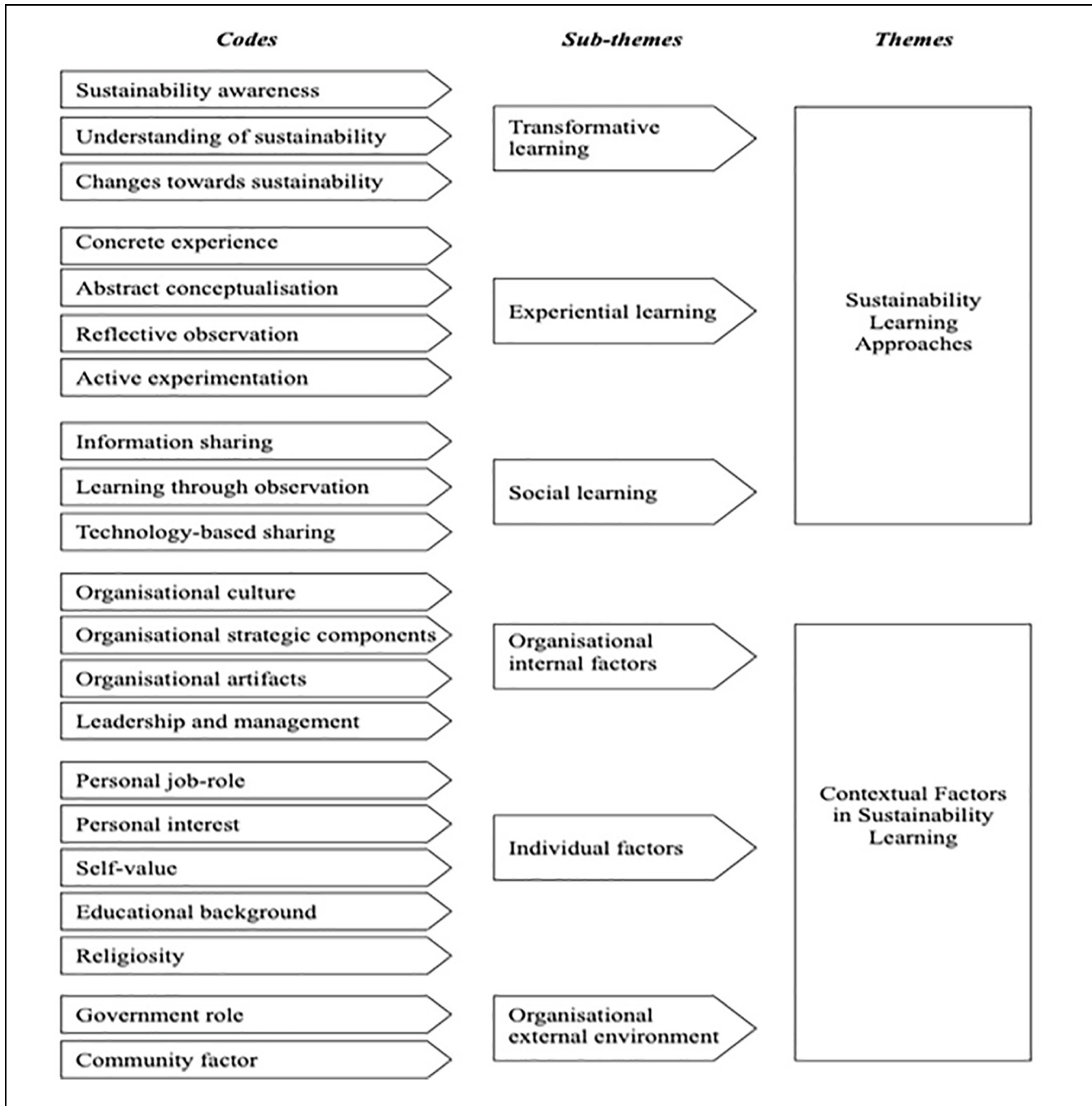


Figure 1. Thematic analysis.

“... *prospect (efforts/journey) towards sustainability ...*” that mattered. As shown in Table 2, organizational sustainability practices seemed to be the key source of their understanding. Interestingly, the pronoun “we/us” instead of “I” was often used suggesting the close organizational-individual linkage in the perceptions.

Gaining such awareness and understanding toward sustainability had translated into certain “changes toward sustainability.” Most participants acquired knowledge

about sustainability practices (e.g., recycling and urban farming), and reported affective outcomes that resulted them to be more conscious about their societal roles. Some participants made remarks such as: “... *when we are in their shoes, we feel (their problems) ...*,” “... (the programme) *change my view towards life ...*,” and “... *this (programme) makes me realise we should be thankful for whatever we have ...*” The findings showed that these lessons were transferred beyond their work setting into their

Table 2. Sustainability to the Participants.

Sustainability is...

“sustain-ability”

“...our (the company’s) model of sustainability look at 4 areas...”

“...at this company sustainability is very broad topic... it includes the four pillars...”

“...at this company, we tight it up with our mission and branding...”

“...sustainability means, when we say from the perspective of this company ... For us, to maintain, it refers to our mission.... our customer... our products.”

“...after coming to this company, my understanding of sustainability is much deeper now”

“I think sustainability means, how we maintain resources that we have. As I am concerned, (sustainability) involves three aspects...”

personal and social lives. The following quotes illustrated this observation: “... sustainability not only for work, even at home, as a family, as a person, that makes you a better person ...”; “so, all this thing for me, make me realise and pass on to my kids, my family and nephews ...”; and “... this company gave me an exposure to go to this people and help them ... in the future, when I retire, I’ll do it by my own. I’ll be a volunteer ...”; and “... this company is the one who make me very CSR person” These findings showed evidence that to a certain extent TL had occurred within the participants, and this translated in behavioral changes toward their work practices.

Sub-theme: Experiential Learning. The EL approach was also evident in the findings. Participants were exposed to “concrete experience” through self-involvement and participation in company-initiated sustainability initiatives such as CSR programs, sustainability workshops, and volunteering projects. Some participants remarked that it was a new and eye-opening experience. The evidence of “reflective observation” was recorded as they engaged in self-questioning and self-reflection on preconceived notions toward sustainability as reflected in the following example:

... (reflecting on his experience participating in a recent programme with visually-impaired) ... I learned ... the simple thing ... I figured out even addressing ‘blind’ people is wrong, actually, you should address them as ‘VIP’... This is a real thing ... and small thing that I learn and it is kind of exciting to know all of this ...

Similarly, “abstract conceptualization” was evident in the interview data as the participants contextualized their personal experience to form their own understanding of sustainability. The following quote illustrates this:

Q: ... how did you come up with the (sustainability) definition?

A: Emm ... it’s from my own definition ... from my own observation of all this ... so it’s basically from my own observation (about sustainability) ... that is why I called it perpetually self-sustainable initiative ...

Lastly, the phase “active experimentation” completed the EL cycle as the participants were given opportunities to personally apply newly-learned sustainability ideas by performing hands-on activities (e.g., urban farming activity, recycling, cybser safety, etc.) in the fields.

Sub-theme: Social Learning. The findings discovered socialization aspect in the learning process. “Information sharing” had occurred through informal and formal conversations, sharing sessions, and gatherings on sustainability issues, practices, and achievements. These were done throughout the organizations, that is, amongst participants, with peers, superiors, and subordinates. The sharing helped in strengthening sustainability knowledge and changes as reflected here: “... when I sat down with the team, I became to understand, why the company does this programme ... I understand these are the statistics ... hence, I learned ... (why sustainability is important).” The participants also shared their SL with their family/social circles that further helped in reinforcing SL, that is: “... when I go home I tell to my parent, siblings (about the sustainability) ... then we practice it,” and “we applied this concept and shared it with our (colleagues) ... then, they tell their friends, so that, the knowledge will be expanded.” “Learning through observations” was also reported as social learning could help elevate SL interests. It was remarked: “... learning in group, it will be much better and fun to learn ... rather than you go alone without your friends.” The programs conducted by the organizations utilized a lot of hands-on activities. These activities had allowed participants to observe and model others’ behaviors.

The participants reported learning through “technology-based sharing.” The case organizations utilized tools such as web portals, emails, e-bulletins, electronic videos, and social media platforms to disseminate sustainability messages. The participants considered them effective to keep them up-to-date about latest issues. Platform like Facebook encouraged them to respond (sharing, like, and comment) on sustainability news. Technology-based sharing was considered an “easier,” “faster,” “wider,” and “cheaper” way to engage with more people. As noted by a participant: “... we have few videos of information about the green technology. ... eventually they also shared it with others, so it (knowledge) will be viral. ... I think social media especially Facebook is a very powerful tool.” In summary, the findings suggested that the socialization aspect had naturally occurred across the organizations and contributed to the participants’ SL process.

Theme 2: Influence of Contextual Factors in SL. The findings revealed that the participants' SL were influenced by a certain contextual factor categorized into three sub-themes: organizational internal factors, individual factors, and organizational external factors. Out of these three, the organizational internal factors were the most evident.

Sub-theme: Organizational Internal Factors. The findings found four organizational internal factors had influenced SL: organizational culture, organizational strategic components, organizational artifacts, and leadership and top management.

A majority of the participants highlighted the influence of "organizational culture" in their SL. Their SL occurred gradually within an organizational setting through consistent emphasis and promotion of sustainability elements in their daily work activities. Sustainability was perceived as "a way of working," "way of life and doing business," and "DNA" in the companies. They remarked that sustainability had been "internalized" and become "automatic" where "everybody gets used to it." The culture inspired them to learn more about sustainability, eased the learning process, and made them felt belong to the organizational sustainability efforts. As one participant highlighted: "... the work culture and environment allows us (to learn sustainability) ... so, when you realise, it's something important to the company, we do it you get inspired by the culture ... and ... to be part of it."

Overwhelming evidence was found suggesting the influence "organizational strategic components" on SL. "Mission" and "vision" were frequently mentioned. Maintaining the organizations' position was considered important: "I like to support the vision and mission of this organisation ... so I must have the same view ...," therefore, "when something is important to the company, we do it." The shared vision was perceived in a business sense: "... when we all practise the same vision of giving ... we connect to our customers." Organizational core values also influenced the SL in guiding their responsibilities as employees. It was remarked: "... this company set the core values, we have to portray ourselves to that core values ... so once we understood the responsibility as a worker of this company, I think all those things (to practice sustainability) are not issues."

Sustainability was perceived as a business strategy. They used the words "business model," "strategy," and "customers." Consistently, phrases such as "for us to make business," "sustainability is a branding," and "sustainability is a business" were expressed. Each case had branding taglines to reflect their public image on sustainability. Despite the strong business case for adopting sustainability, some participants denied that it was only

about the cash flow. Rather, sustainability strategy was about doing a good business by simultaneously fulfilling all the 3Ps obligations. Sustainability was seen as a concept that could kill two birds with one stone, in the sense that customers would tend to support moral organizations.

The findings also found the role of rules and regulations in the SL. Employees engaged in SL because their "company policies," "corporate governance," and "code of conducts" mandated such behavior. Although these could be externally imposed by the government on their organizations, the participants translated them as their personal work obligation. The following quote reflected this attitude: "... we have to attend (sustainability programme) because (it is) compulsory ... if can't attend, we must provide a valid reason."

Forms of "organizational artifacts" consisting of organizational design and operation systems also influenced SL. The companies created dedicated sustainability departments and positions in the organizational structures. The SL seemed to follow chains of command whereby instructions and information trickled down from the top. This structure was also followed when assigning sustainability initiatives, as a participant remarked: "(sustainability initiative) goes by small unit first, then it works for the entire sector and then the whole entire organisation ... so it has three stages." Accordingly, key performance indicators (KPIs) were created as illustrated here: "we have performance review (on sustainability)," "... we track KPIs," and "(KPIs) need to be reported." Consistently, rewards and incentives were established to encourage SL and learning transfer:

"... we (track and evaluate KPIs, and give) marks and rewards ... let say there are reduction in water and electricity bill, it shows staff commitment on it. We can assume that, employees have learned, understand, and internalise the sustainability practice."

Leadership and top management were also found as the influencing factor to SL. However, their roles were explained in the context of organizational culture, strategies, and artifacts. Leaders functioned as the role models, to "walk the talk" and "go to the ground and drive together" sustainability efforts. For instance, it was mentioned: "... (leadership is important because) a (sustainability) culture need to be driven by management." Another quote below further illustrates this influence:

"... I like to support the vision and mission of this organisation ... it is from the CEO himself. He (CEO) has a view, so I must have the same view as him, we should align the vision and mission. So, that the objective where we are heading will be reached. If possible, I want to achieve all the (company's sustainability) objectives. I need to support my boss, ... help

Table 3. Individual Factors Influencing SL.

Codes	Examples of quotes
Personal job role	I learned sustainability because: "...it's my responsibility" "(it's) my role" "(it's) my job" "... before I can communicate to others, I need to understand what sustainability means."
Personal interest	"... if the programme matches with my interest, (then) I would venture more and like to know more."
Self-values	"... as a person you should do (sustainability practices) ... the way you think must be different, (sustainability) is not only for work, but it makes you a better person. Even at home, as a family, <u>as a person..</u> makes you a better person"
Educational background	"I took environmental course management. So even since at school level I've involved in event or activity that related to environmental and sustainability. At school, I learned too ... I used to involve with related activity. So am quite knowledgeable about environmental issues."
Religiosity	"In the perspective religion, changes in human itself, God already showed us, if you help others, it considers as donation that will help you in hereafter ... Basically, this (sustainability) is a religious concept"

this organisation in playing its role as one of the forefront of this (sustainability) ... as a champion in green technology.

Sub-theme: Individual Factors. This study identified several individual factors that influenced employees' SL (Table 3). Consistent to the other findings, personal job role was as a major factor in influencing SL. As shown earlier, the participants attributed their involvement in SL to their job. It was simply perceived as their job obligation. Personal interest was also mentioned, as they would be more motivated to learn if they liked the sustainability programs or cause, therefore would make the learning "interesting" and "enjoyable." Positive self-values influenced behavioral and affective changes toward sustainability. Other factors such as educational background and religiosity were also found, but the data was not as evident. Generally, participants who had prior knowledge or experience in a sustainability cause found SL more relatable and easier. SL that involved in "helping others" and "caring for future generation" had been considered a religious obligation.

Sub-theme: Organizational External Environment. Two external factors emerged from the data that could inhibit or encourage SL in organizations, that is, government

role, and community factors. The influence of "government role" was consistent with the earlier findings on organizational rules and regulations. The government functioned to "standardise," "monitor," and "enforce" policies, rules and regulations toward sustainability. In Malaysia, the sustainability agenda is predominantly a government-led initiative. The participants mentioned that certain ministries were involved in promoting sustainability activities. Surprisingly, the government's role could also be in the opposite direction. One participant mentioned that an environmental cause was halted because it was "against" certain authorities and interests.

"Communities" influenced SL, in motivating or discouraging employees. The participants mentioned about community readiness and sustainability needs. Sustainability programs depended on the "local demand," and "mindset." One of the participants remarked:

... when we go to rural area, the (community) minded are different ... some of them not seeing the (sustainability) issues as something that important ... (After sustainability programme) we can see, they still burning the garbage not bury it. so, it's quite difficult to educate (them).

When such situation occurred, the participants felt as if they were "alone (in sustainability efforts, while) others (community) seem not care about it" and being "ignorant." Another participant suggested that "... it will be good, if we (relevant authorities) can enforce ..." sustainability changes in the community and introduce "punishment" to make sure that they did not "get back to (their) old practice."

Table 4 depicts a summary of within-case and cross-case analysis based on the emergent themes that incorporated inductive and deductive codes derived from the interviews, supported by data from participant observations (made during sustainability programs), and documents review. The table shows that most data codes were found in each case organization, suggesting a convergence of the study findings.

Discussions

The study was conducted to explore how employees learned SL in organisations. It had found evidence suggesting an interplay between experiential, social and transformative learning approaches in the SL process. By participating in company-initiated programs, the employees went through D. A. Kolb's (1984, 2014) four modes in experiential learning. The organizations had created platforms through specific programs that exposed the employees toward sustainability (i.e., concrete experience). This experience triggered them to question and reflect (i.e., reflective observation) on issues that

Table 4. Mapping of Cross-case Analysis.

Sub-themes	Codes	A	B	C
Theme 1: Sustainability learning approaches				
Transformative learning	Sustainability awareness	✓	✓	✓
	Understanding of sustainability	✓	✓	✓
	Changes toward sustainability	✓	✓	✓
Experiential learning	Concrete experience	✓	✓	✓
	Abstract conceptualization	✓	✓	✓
	Reflective observation	✓	✓	✓
	Active experimentation	✓	✓	✓
Social learning	Information sharing	✓	✓	✓
	Learning through observation	✓	✓	✓
	Technology-based sharing	✓	✓	✓
Theme 2: Contextual factors in SL				
Organizational internal factors	Organizational culture	✓	✓	✓
	Organizational strategic components	✓	✓	✓
	Organizational artifacts	✓	✓	✓
	Leadership and management	✓	✓	✓
Individual factors	Personal job-role	✓	✓	✓
	Personal interest	✓	✓	✓
	Self-value		✓	✓
	Education background	✓		✓
	Religiosity		✓	
Organizational external environment	Government role		✓	✓
	Community factor		✓	✓

necessitated sustainability, and led them to form own ideas (i.e., abstract conceptualization). Self-involvement in the programs then allowed them to apply their learning (i.e., active experimentation) in real settings that enabled a natural feedback mechanism on their personal impact on the sustainability cause. This cycle continued and reinforced SL. The study supported the strengths of experiential learning in sustainability programs (Marican et al., 2018; Su & Cheng, 2019).

The study revealed that the employees also engaged in the social learning approach (Bandura, 1977) when they collectively shared, observed, imitated, and reflected on their learning with people inside, and to a certain extent outside, the organizations. Communication, cooperation, leadership, and collective actions are critical elements in SL (Dlouha et al., 2013; Su & Cheng, 2019; Wals, 2011). The top management leveraged on positions to share information with subordinates, hence signaling a strong mandate to learn about sustainability. The sharing was also done with outside networks that helped in strengthening SL, and indirectly benefited other recipients. The study further found an extensive use of technology-based communication and social media in information sharing that eased SL. These natural and deliberate socialization processes engaged by the employees facilitated in enculturating SL.

The transformative learning (Mezirow, 1997) had occurred as an outcome of the SL process. Transformative learning involved a shift in perceptions,

understanding, attitudes, and behaviors toward sustainability (Law et al., 2017). Transformed habits-of-the-mind is the essence of transformative learning (Leal Filho et al., 2018). The study suggested that the employees had acquired cognitive and affective changes, to a certain extent, translated into sustainable behavioral changes in work practices. However, the transformation seemed to be limited within the organizational boundary. Lack of evidence was found to suggest that the cognitive and affective transformations had fully resulted into sustainable behavioral changes outside work. Ideally, transformative learning needs to result an enduring change in the whole person in terms of thoughts and actions toward sustainability (Moyer et al., 2014). A carefully designed sustainability program, built upon the experiential learning foundation and nurtured through a conducive social environment, can result in transformative learning. In other words, the combination of these three learning approaches characterized the SL process among employees.

The study discovered that SL was facilitated by three contextual factors, that is, organizational internal factors, individual factors, and organizational external factors. Organizational factors may enable or limit the success of any change initiatives, including sustainability efforts (Young et al., 2015). Internal factors comprise of culture, strategy, artifacts, and leadership (i.e., Dauber et al., 2012; Hatch & Cunliffe, 2006). Culture stimulated SL by guiding and nurturing employees toward

sustainability. This points to the importance of shared assumptions and beliefs among members for a successful sustainability strategy and HR role in driving sustainability culture (Bertels et al., 2015; Galpin et al., 2012). Organizational strategy (comprised of mission, vision, core values, rules, and regulations) emerged strongly in the thematic analysis. The participants consistently referred to their organizations as a source of their SL. This highlights the importance for organizations in establishing specific objectives and aligning its decisions to produce focused strategy execution (Baumgartner & Ebner, 2010; Hengst et al., 2020). Specific rules and regulations conditioned employees to portray expected conducts to support the strategy. This finding relates the notion that a company's sustainability performance is an outcome of complex decisions and behaviors of its employees (Lulfs & Hahn, 2014), and that employee ownership is important for a successful sustainability strategy (Bhattacharya, 2019). The study showed that a good strategy must be supported with appropriate organizational artifacts (organizational design and operation components) with a clear chain of command, specific departmentalization, performance standards, reward systems, and other supporting mechanisms to create a holistic internal ecosystem for SL. The study also emphasized leadership in influencing SL (Eide et al., 2020; Pantouvakis & Vlachos, 2020). Employees' SL depended on leaders' behaviors (commitment, encouragement, and role modeling) toward sustainability issues. Hence, organizations that embarked on sustainability need transformative leaders to actualize the vision and mission.

The study discovered that individual factors (i.e., personal job role, personal interest, self-values, educational background, and religiosity) influenced SL. Employees would learn sustainability if expected by their jobs, suggesting a conformity culture often found in the Malaysian society (Abu Bakar et al., 2018). Personal interests in the sustainability cause motivated participation and eased SL transfer, hence this finding agrees with the role of interests in training effectiveness (Gegenfurtner et al., 2020). Having self-values for altruistic purpose could ease learning and openness to sustainability experience, and influenced the extent of sustainability changes. The literature acknowledges that altruism values support sustainability efforts (Florea et al., 2013; Guinot et al., 2016). Learning about sustainability was considered a religious obligation and was supported by past literature (e.g., Bratton, 2020). In terms of external factors, the study found evidence suggesting the influence of government's role and communities that could encourage or inhibit employees SL. National policies, rules and regulations enforced on organizations played a role in pushing the national sustainability agenda to the employees. Whereas community

factors concerning their readiness and needs for sustainability indirectly influenced employees SL. Being a key stakeholder and an ultimate recipient in sustainability initiatives, the study participants believed that the communities must first have the right sustainability mindset.

Based on the analysis, an integrated model of SL in organizations is proposed (Figure 2) that explains how employees engage in SL and its surrounding contextual factors. Organizational strategy is the principal and preliminary drive in SL due to its prominence in the study findings. Strategy serves as the key source and overall direction in employees' SL. It guides the design of formal and informal company-initiated learning programs based on the principles of experiential learning and social learning theories. Experiential SL programs provide a concrete experience that enables employees to reflect, conceptualize and experiment sustainability practices. Concurrently, a conducive social learning environment helps in enculturating SL through communication, social networking, and cooperation among organizational members. The experiential and social learning approaches will consequently influence transformative learning that may result cognitive, behavioral and affective outcomes toward sustainability. Contextual factors comprising of individual, organizational and external factors are placed at the heart of the model to acknowledge their integral role in facilitating SL.

The study contributions are three-fold. Firstly, this study extends understanding on the experiential, social, and transformative learning approaches by identifying its structure and roles in the SL process. It shows that to produce the desired transformative changes, programs must incorporate the experiential approach, and the social environment needs to be concurrently established to nurture and reinforce the changes. Furthermore, it proves that the learning theories, more prevalent in sustainable educational setting (Bosevska & Kriewaldt, 2020; Wamsler, 2020) are also applicable in business organizations involving adult learners. Secondly, exploration of the contextual factors has refined the SL process by identifying the nature in which they can facilitate the employees' SL. Past studies (Dlouha et al., 2013; Henry, 2009; Lankester, 2013) have offered a fundamental overview about SL, but most has fallen short in capturing the dynamics of important factors to properly promote SL in organizations. The study discovers three categories of contextual factors, the most influential being organizational strategic dimensions that act as the key source, sense of direction, and reasoning in employee SL. Thirdly, the study suggested that business organizations are an important and effective medium in pushing national sustainability agenda. Through properly designed programs, organizations may develop employees into sustainability change agents who may gradually

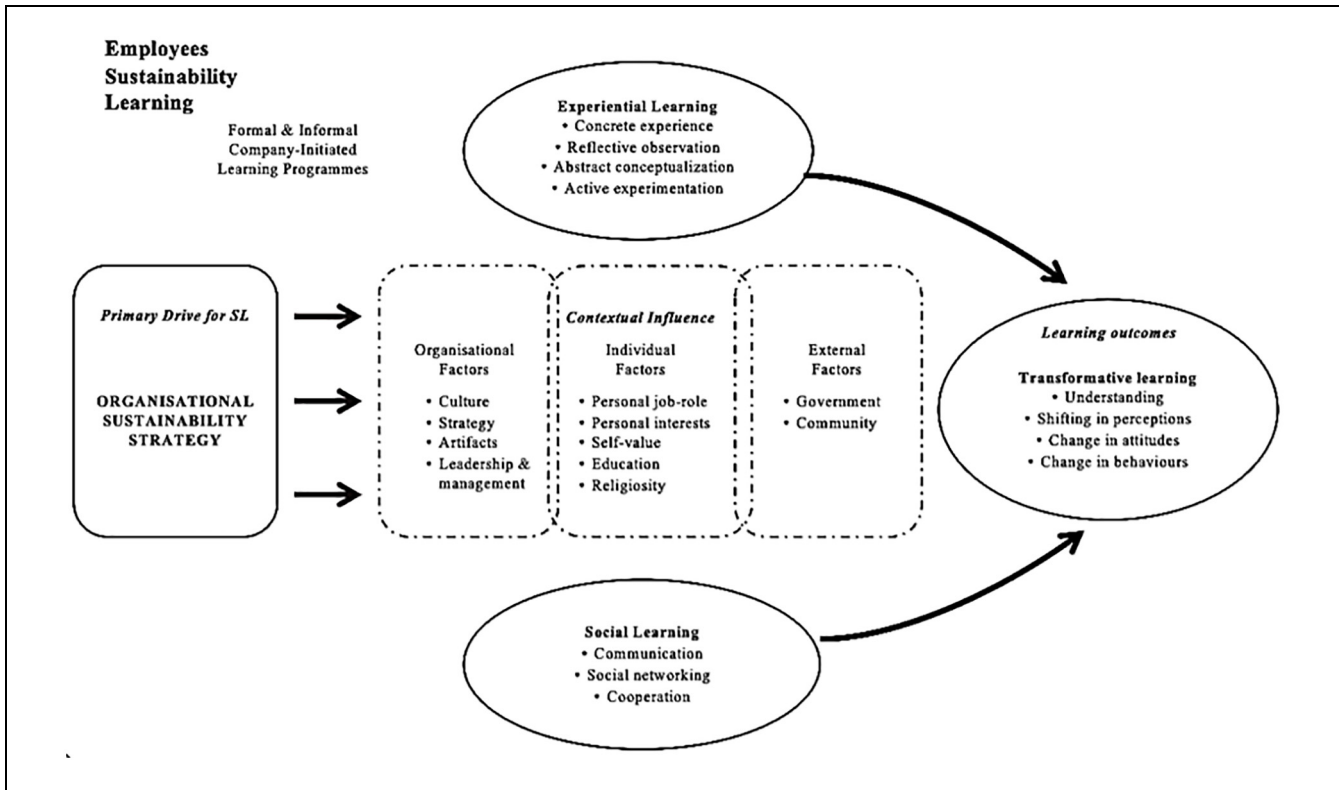


Figure 2. Integrated model of employees' SL in organizations.

activate positive impacts in the society (De Silva Lokuwaduge et al, 2020). The study found a clear cascading effect and macro-meso-micro alignment (Boeren, 2019) within the organizational layers originating from the national level sustainability agenda. While the study had found cognitive and affective changes toward sustainability, limited evidence was discovered to suggest the achievement of transformative behavioral outcomes outside organizations, needed for a real and lasting sustainability impact (Brown, 1982; Kaivo-oja et al., 2014). This further pointed to the need for stronger collaborative efforts between stakeholders.

The discovery about employee SL helps in connecting and describing the link between corporate sustainability strategy and financial performance (Lassala et al., 2017; Lo & Liao, 2021). Literature agrees that it is no longer about whether sustainability pays, but on “how” and “when” it pays (Grewatsch & Kleindienst, 2018; Orlitzky et al., 2011). As such, various research efforts are underway to determine factors that can alleviate or reinforce the sustainability-financial performance link (e.g., Hermelingmeier & von Wirth, 2021; Maletić et al., 2021). A myriad of factors has been proposed such as the firm's characteristics, stakeholder engagements, leadership, industry structure, and innovation. In general, these factors tend to look at sustainability from strategic or top-

down perspectives. Scant attention has been paid to the importance of SL process at the individual employee level. The research findings highlight the relevant learning theories and the key factors that facilitate employees' SL that may improve the ways SL programs are designed and implemented in organizations. This knowledge piece helps in strengthening sustainability efforts that may contribute toward financial performance.

Conclusion and Implications

Promoting sustainability agenda requires people to learn and embrace sustainability. The study suggested that employees learned sustainability by engaging in the experiential, social, and transformative learning approaches. However, before transformative outcomes could be fully attained, the SL process required the presence of contextual factors resided within their organizations, external environment, and self. Organizational internal factors were the most significant in shaping and nurturing SL. The study observed that employees' knowledge on sustainability was strongly influenced by their organizations. The findings proved that most of the participants' understanding of sustainability related to their organizational practices. This signals that employees' knowledge on sustainability is mostly triggered by

the organizational efforts toward sustainability. This discovery points to the significant role that business organizations play through sustainability strategy, carefully designed learning programs, and HR function. The proposed integrated model contributes by refining the understanding of SL process and its contextual factors.

This research contributes to the theoretical understanding of SL. It portrays utilization and simultaneous interaction of surrounding factors behind experiential, social, and transformative learning theories in organization based SL. Previous studies on SL have not only concentrated mostly in education setting but are limited in explaining how individuals engage in certain learning approaches. This research has filled these gaps by highlighting the nature of the three learning theories as the basis for SL among employees in organizations. Identifying the contextual factors is theoretically valuable because SL process needs to be understood, hence, designed as a holistic intervention by embedding the relevant organizational, individual, and external elements to motivate employees to learn sustainability. The proposed model provides a clear framework to understand SL among employees in an organization.

The research provides some implications to relevant departments. To ensure SL effectiveness, HR needs to design programs that incorporate cognitive and practical engagement with employees. More sustainability-related events need to be organized as a platform for experiential learning for SL. Companies need to emphasize collaboration and teamwork and gain support beyond its boundary such with community stakeholders. Stakeholder collaboration helps in sustaining employees' sustainability outcomes. The creation of a shared vision to drive employees toward sustainability is needed to ensure the strategy is delivered successfully to employees. The enforcement of rules and regulations related to sustainability practices can be enhanced in ensuring the process of SL happens accordingly. Since employees see their personal-job role as an important factor in SL, top management needs to embed sustainability elements in employees' job descriptions. Personal interest in sustainability may influence employees' SL. Therefore, top management can ensure interest or basic knowledge as a base level requirement in the recruitment and selection process in the company.

Limitations and Further Research

The study may be limited in its methodology. Although multiple methods and data sources were used, the findings were predominantly informed by interview data. Further research should consider extending the research design to include more samples from different types of organizations. Future efforts to understand SL can adopt the quantitative survey method on

employees to test the proposed SL model and measure the factors. Another limitation may come from the chosen study context, that is, Malaysia, a country who is relatively young in sustainable development journey. The study has provided localized insights on how organizations can move forward with sustainability strategy, and how the government can leverage on them to support the national agenda. Further research may examine countries with more advanced sustainability efforts to discover how SL in their setting.


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