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**Sustainability Literacy and Implementation
Intentions Among Business Study Students:
A Strategic Business Perspective**

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ABSTRACT:

This thesis examines the relationship between sustainability literacy in graduate students and how this translates into implementation intentions in a strategic business environment. Although sustainability education is gradually becoming part of higher education, a limited amount of information is available regarding how students transition beyond awareness to action, especially in a manner that is consistent with long-term strategic thinking. As the main theoretical framework, the Dynamic Capabilities Theory (DCT) is used to examine the way in which students can acquire sensing, seizing, and transforming capabilities concerning sustainability; the supporting theories are Theory of Planned Behavior (TPB) and Transformative Learning Theory (TLT).

The data were gathered by using semi-structured interviews with ten students in the master level in universities located in Vaasa, Finland. Thematical analysis indicated that students were highly aware (sensing) and increasingly motivated to incorporate sustainability in their careers (seizing), and were actually doing something to implement sustainable practices in their academic, personal, or professional environments (transforming).

Results indicate that sustainability literacy is a knowledge base and the source of capabilities development that can affect future strategic decision-making. The study becomes a valuable contribution to gaining deeper insight into the process of transforming students into sustainability-oriented professionals by merging DCT with behavioral and learning theories.

This study has practical implications to the universities that want to more actively promote sustainability education, as well as to businesses that want to produce future leaders who would have sustainability competencies. It also demonstrates the necessity of more amalgamated and considerate pedagogies which transcend theoretical teaching and promote practical implementation.

KEYWORDS: Sustainability Literacy, Dynamic Capabilities Theory, Graduate Students, Strategic Business, Implementation Intentions, Higher Education, Qualitative Research

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Abbreviations

HEIs	- Higher education institutions
ESD	- Education for Sustainable Development
ESG	- Environmental, Social, and Governance
TBL	- Triple Bottom Line
NRBV	- Natural Resource-Based View
CSR	- Corporate Social Responsibility
SL	- Sustainability Literacy
DCT	- Dynamic Capabilities Theory
TPB	- Theory of Planned Behaviour
TLT	- Transformative Learning Theory
SME	- Small & Medium Enterprises

1 Introduction

1.1 Background

One of the most urgent challenges of the world today is sustainability. The world is getting more and more in need of individuals and organizations being responsible and strategic in matters related to climate change and resource depletion, as well as increased inequalities (UNDP, 2016). As a reaction, higher education institutions are incorporating sustainability into their curriculum to enable students to become aware and skilled enough to help in sustainable development (Lozano, 2010).

Sustainability literacy described as the knowledge, skills, values and attitudes required to comprehend and intervene in matters of sustainability (Wiek et al., 2011, p.207) is one of the key concepts of this educational response. In this case, business students, especially, need this literacy. They will have to make strategic choices that will influence not only profit, but also people and planet as professionals in the future (Lozano et al., 2013).

Although there has been intense research on sustainability literacy as a curriculum design and learning outcome (Tilbury, 2011), limited has been done to examine how students actually transfer sustainability literacy into implementation intentions, the motivational and behavioural processes that convert knowledge into action. This is particularly significant in business, where strategic application of sustainability is a major skill in the future (Redman & Wiek, 2021).

This paper fills that gap, discussing the internalization of sustainability literacy as well as the intentions of graduate-level business students in Finland to use sustainability literacy in their studies, personal, and professional life. The question that leads to the research is the following one:

How do business students transform sustainability literacy into implementation intentions?

To respond to this, the research relies on the **Dynamic Capabilities Theory (DCT)** as the primary analytical tool that is then complemented by the **Theory of Planned Behaviour (TPB)** and the **Transformative Learning Theory (TLT)**. These views are combined in the thesis to explain why students feel the problem of sustainability, grab opportunities to act, and turn their knowledge into an action. The conclusions will be directed to the academic theory and also the practice enhancement in sustainability education.

1.2 Research Objectives

The paper examines the development of implementation intentions by graduate business students depending on sustainability literacy. The proposed study will utilize the Dynamic Capabilities Theory (DCT) as the main theory which will be backed by the Theory of Planned Behavior (TPB) and Transformative Learning Theory (TLT) to:

1. Examine how business students perceive and interpret sustainability challenges in both academic and practical contexts, reflecting their ability to sense sustainability-related opportunities and needs (DCT – sensing; TLT – perspective transformation).
2. Investigate how students recognize and act upon opportunities to apply sustainability knowledge across personal, academic, or professional settings, guided by motivational and normative influences (DCT – seizing; TPB – intentions and attitudes).
3. Explore how students translate sustainability literacy into practical, strategic actions, demonstrating adaptability and long-term thinking (DCT – transforming; TPB – perceived behavioral control).

This study changes the emphasis of just evaluating sustainability awareness of the students to the insight into what they plan to do to make their academic, professional, or personal lives more sustainable. Although many studies have focused on the quantification of knowledge, minimal focus has been directed to the transformation of the knowledge into deliberate and planning action. In order to fill this gap, the paper examines how business students identify and react to the opportunities and challenges as related to sustainability in their learning and career settings. In the Dynamic Capabilities Theory (DCT) by (Teece, 2007, p.1322), it entails the capabilities of sensing and seizing, i.e., how people discover important changes in the world around them and mobilize resources or intentions to react.

This research issue is especially topical in the area of strategic business development as organizations tend to recruit professionals with the ability to bridge sustainability and long-term business objectives. Nevertheless, the willingness of business graduates to put the principles of sustainability into practice is under-researched. This study also uses the Theory of Planned Behaviour (TPB), which elucidates how attitudes, social norms, and perceptions of control shape intentions, in understanding what drives or limits their intentions to be sustainable. Finally, Transformative Learning Theory (TLT) allows clarifying how a profound reflection and a reversal of the point of view lead to a permanent behaviour change.

Academically, the study is valuable in that it helps fill the gap between theory and practice in terms of researching behavioral effects of sustainability education, which scholars like Kopnina and Meijers (2014) and Ozdemir (2021) have emphasized the necessity to pay more attention to. In practice, the results provide implications to universities, teachers, employers, and policy makers. To the teachers, the research brings out the need to plan sustainability education that will not only promote awareness, but also willpower and social action. As a business, it offers valuable advice to help them attract and retain graduates who might be able to incorporate sustainability into their strategic processes. As a policymaker, the study highlights the importance of specific interventions that can assist learners in transforming the sustainability literacy into practical results.

The thesis is logically structured in order to serve the research purpose. Chapter 1 presents the problem, rationale and the structure of the study. Chapter 2 contains a specific literature review, wherein theories and gaps in research are explained. Chapter 3 provides a description of the methodology, such as qualitative data collection and thematic analysis. Chapter 4 will contain the findings that will be structured according to the DCT framework, whereas Chapter 5 will address these findings in relation to the existing theory and research. The thesis ends with evidence-based suggestions and conclusions on the future research.

2 Literature Review

The chapter provides a review of theoretical background and existing literature related to sustainability literacy and implementation intentions. It is concerned with the way people, especially graduate business students, can acquire sustainability knowledge and then bring it into practical implication. The review is constructed basing on three major theories: Dynamic Capabilities Theory (DCT), Theory of Planned Behavior (TPB), and Transformative Learning Theory (TLT). The theories present a complementary view of capability development, behavioral intention as well as personal transformation and are summarized in the table below.

Theory	Key Idea	Relevance to this study
Dynamic Capabilities Theory (DCT)	Organizations and individuals adapt to change by sensing opportunities, seizing them, and transforming resources or processes.	Used to explore how students develop the capability to recognize (sense), engage with (seize), and act on (transform) sustainability knowledge.
Theory of Planned Behaviour (TPB)	Behaviour is shaped by intention, which depends on attitude, social norms, and perceived control.	Helps explain the psychological and motivational factors influencing students' intentions to act sustainably.
Transformative Learning Theory (TLT)	People change their beliefs and behaviours through critical reflection and perspective shifts.	Helps understand how students internalize sustainability knowledge and undergo personal change toward action.

Table 1: Theory Summary Table

2.1 Sustainability Literacy in business education

Sustainability literacy means having knowledge, skills, values, and attitudes to deal with sustainability issues in personal, academic, and professional life (Sterling, 2001). Similarly, Tilbury in 2011 described sustainability literacy understanding, abilities and attitudes essential to engage in sustainable practices and handle complex global problems. It addresses skills including system thinking, proactive thinking, and teamwork (Wiek et al., 2011, p.207). These skills help people to see how social, economic and environmental systems are interdependent, forecast possible future events and act strategically to reduce hazards.

This concept is becoming more and more significant in the field of business education as companies are supported to be critical for reaching sustainable development objectives. Therefore, sustainability literacy in business education involves more than just environment awareness, it also includes knowledge of how sustainability fits into stakeholder engagement, ethics, and company strategy (Thomas, 2009). The students of business studies who are familiar with sustainability should be able to think critically about how business decisions affect the environment, society, and the economy. And they should be able to come up with responsible solutions. To do this student need to have a clear understanding about business models, circular economy principles, stakeholder theory, and long-term value creation (Benn, Edward & Williams, 2014)

According to research, students' knowledge and attitudes about sustainable practices can be significantly impacted when sustainability concepts are incorporated into business curricula (Lozano et al., 2015). The depth and consistency of this kind of education, however, differ widely among institutions. The ability of students to completely learn sustainability literacy is limited by the facts that some business schools only provide sustainability as optional or additional content, while others have integrated into the curriculum (Figueiro & Raufflet, 2015). Furthermore, learning theory is not just one aspect of sustainability literacy. According to Wiek, Withycombe & Redman (2011, 207), it is also including the development of skills like critical reflection, system thinking, and cooperative problem solving.

UNESCO (2017) claims that Education for Sustainable Development (ESD) seeks to enable students to make wise judgements and accountable actions. EDS highlights the need of including sustainability principles into every aspect of education in order to develop a strong knowledge of sustainable solutions. Nevertheless, these initiatives, the level of sustainability literacy differs greatly among professions. For example, students in environmental science usually scores higher marks than those who are doing business or engineering degrees (Cotton et al., 2016). This highlights the interdisciplinary approach for the sustainability education (Barth et al., 2007).

Important methods for evaluating sustainability literacy, such as sustainability literacy test call as Sulitest, have been quite helpful in pointing up areas of student ignorance on sustainability (Rieckmann, 2017). However, while these tools give significant measures, they often fail to address the practical application of sustainability concepts, which is crucial for bringing out behavioural change.

2.2 The role of Higher Education in advancing sustainability literacy

Over the past two decades, the integration of sustainability in to more higher education programmes have changed significantly. Initially concentrated on increasing awareness, modern approaches seek to include sustainability ideas into every aspect of education, including campus operations and curriculum development (Lozano et al., 2013). These days, universities encourage interdisciplinary education since they realize that sustainable development requires cooperation across multiple areas of study (Sterling, 2010).

As future professionals, especially in the business sector, students must prepare within the knowledge, skills and values necessary to handle complex sustainability issues. Universities are thus expected not only to provide knowledge but also to shape responsible global citizens capable of adopting sustainable practices in diverse organizational contexts (Cortese, 2003). Specifically, business sector graduate students reflect an essential demographic sustainability education. Their extensive knowledge and close connection

to professional roles help them to be positions to impact organizational strategies. Existing studies, however, show that many times sustainability education lack a practical focus and leaves students unprepared to use sustainable practices in their professions when they enter in to working industry (Kopnina & Meijers, 2014). By giving students, a real-world experience to apply their knowledge, experiential learning techniques include project base learning and community involvement has been demonstrated to close this gap (Kolb, 1984).

These developments encounter some difficulties. Research by Tilbury (2011) reveals that many institutes still treat sustainability as an optional add-on rather than a core component of education. This strategy reduces the possibilities of sustainable education for achieving significant transformations. Universities have to use more comprehensive and integrated planes to overcome these obstacles so that sustainability ideas reach every part of learning.

2.3 Linking Sustainability Knowledge to Action through Strategic Business Thinking

Sustainability has become a critical component of strategic business management, transforming from a secondary concern to a core business objective for organizations who seek long term success. More and more organizations are realizing that sustainability practices are good for the economy, society and the environment (Porter & Kramer, 2011).

Companies that incorporate sustainability into their core business operations strategically, not only avoid risk but create new opportunities for growth. For example, Unilever has embedded sustainability into its global strategy through the Unilever Sustainable Living Plan, aiming to reduce its environmental footprint while enhancing positive social impact (Unilever, 2021). Its approach demonstrates how large corporations can align profitability with sustainable development goals. Similarly, a famous apparel firm, Patagonia is widely recognized for promoting environmental activism and sustainable

production practices. The company uses recycled materials, promotes product repair and reuse, and actively advocates for climate and social justice policies (Wong, 2025). Another good example IKEA focuses on making sustainable living affordable and accessible. The company invests heavily in renewable energy, uses sustainable materials in its supply chain, and engages customers in circular economy practices (Inter IKEA Systems B.V, 2024). An example of how tech companies can be the leaders in terms of sustainability is Microsoft, which is carbon negative in 2030 and has invested 1 billion dollars in clean energy by investing its Climate Innovation Fund (Bishop, 2020). The Deepwater Horizon oil spill in Northern Gulf of Mexico (Makocha, Ete, & Saini, 2019) and the emission scandal in Volkswagen company outline how a lack of sustainability may cost the company billions of dollars and damage its image (Hotten, 2015). Sustainable practices are now expected by consumers and investors over time 73 percent of consumers choose sustainable products (Nielsen, 2018) and companies such as BlackRock encourage sustainability as a way to remain competitive in the long-term (Fink, 2022). There is also technology like blockchain, which enhances transparency in sustainable supply chains (Geissdoerfer et al., 2017) but SMEs remain in need of financial and training (Revell et al., 2010).

2.4 Influencing Factors and Enabling Environment in Business Education.

The development of sustainability literacy among business students is formed by a variety of influencing factors and enabling environment within higher education institutions. These factors collectively determine how effectively sustainable concepts are absorbed and turned into real world actions and implementation intentions.

Several personal, academic, and institutional factors affect the amount to which business students engage with the sustainable practices. On a personal level, previous knowledge, belief, attitudes and motivations plays important roles. Students who already hold pro-environment views or have been exposed to sustainability topics earlier in life tend to show a greater interest in and commitment to sustainability issues (Kagawa, 2007)

The learning outcomes of students are influenced by the method in which sustainability is integrated into the business curriculum. Students' understanding and intention to act are more significantly influenced by courses that incorporate sustainability in a practical and interdisciplinary manner as instead of considering it as an elective or standalone subject (Stubbs & Schapper, 2011). Engagement of students is also influenced by the expertise and commitment of the faculty. Instructors who are motivated and knowledgeable about sustainability can motivate students to consider sustainability as a fundamental business concern rather than an external issue. Students are strongly encouraged of the value of sustainability by the presence of it in institutional missions, campus operations, and leadership priorities (Lozano et al., 2013)

An enabling environment in business education refers to the structural, cultural, and pedagogical circumstances that facilitate students in learning about and interacting with sustainability. This covers curriculum design, teaching methods, leadership development, policy frameworks, and access to extracurricular activities and resources connected to sustainability.

Teaching methods can be extremely important. Active learning practices such as project-based learning, case studies, group discussions, and real-world sustainability issues, give opportunity for students build system thinking and problem-solving abilities (Wiek et al., 2011, p.207).

Behavioural transformation is fundamental goal for sustainability education. Ajzen's (2011, p.1115) Theory Planed Behaviour (TPB) provides a valuable framework for understanding how information and attitude influence behavioural intentions. According to TPB, attitudes towards behaviour, Subjective norms, preserved behavioural control collectively impact an individual intense and actions.

Though sustainability education is becoming more and more important, studies show a consistent value action gap where people's awareness of sustainability issues does not match the corresponding behaviour (Kollmuss & Agyeman, 2002). Often preventing this

change has been internal limitations such as cognitive dissonance and limited self-efficacy. Further complicating the application of sustainable techniques are external barriers such as social norms and organizational culture (Blake, 1999).

One solution to this problem has been suggested as transformative learning methods. Transformative learning promotes higher commitment to sustainable behaviour throughout the process of critical self-reflection and re-evaluation of values (Mezirow, 1997). To close the knowledge-action gap, experiential learning including case studies and internships also is quite important (Sterling, 2010). These strategies are especially helpful for business graduate students since they provide them the confidence and ability to carry out sustainability projects in the context of their job roles.

2.5 Linking Knowledge to Action

The implementation of sustainability strategies in businesses sometimes depend on strong theoretical background to ensure that methods are efficient and supportive of more general organizational objectives. Many fundamental ideas offer useful structures for understanding and guiding these initiatives. Triple Bottom Line, Natural Resource Based View, Stakeholder Theory, and Dynamic Capabilities Theory are key theories which offers valuable insights to achieve sustainability goals.

Teece, Pisano, and Shuen's **Dynamic Capability Theory** (1997) demonstrates the necessity of organizational agility in adopting to rapidly changing environments. This thesis has used DCT in explaining how graduate students can gain the skill of sensing sustainability concerns, grabbing the opportunity to act sustainably, and putting their learning into practice. The three capabilities (sensing, seizing and transforming) inform the analysis of student response to sustainability challenges.

For sustainability this theory indicates that corporations must continuously adopt their strategy and innovate to solve raising environmental and social concerns. Proctor & Gamble's (P&G) "Ambition 2030" plan illustrates the actual use of dynamic capabilities.

By investing in renewable energy, reduce plastic use, and creating sustainable product innovations, P&G has proved its capabilities to respond to growing consumer and regulatory needs (Proctor & Gamble, 2021). These efforts have positioned P&G as a leader in sustainable innovation while maintaining the competitive advantage.

The Triple Bottom Line (TBL) model is a theory that has been suggested by Elkington (1994) and emphasizes the need to keep the balance of the three key aspects of business, which are: profit, people and planet. TBL is not similar to traditional business models that emphasize financial prosperity, TBL encouraging the consideration of the company performance in the economic, social and environmental effects. The strategy will make sure that organizations create value to all stakeholders and enhance long-term sustainability. Examples of the TBL in action can be seen in the ecological farming projects of the Nestle brand, Instant Nestle. Through techniques that enhance soil health, conserve water and reduce greenhouse gas emissions. Nestle has not just done good to the environment, but also improved the lives of farmers and ensured that its supply chain is robust (Nestle, 2023). This approach indicates how firms can strike a balance between economic objectives, social and environmental objectives in order to ensure that they achieve profits in the long term.

Hart (1995) proposed the Natural Resource Based View (NRBV) theory. It reveals that a company's competitive advantage comes from its ability to manage natural resources in a way that doesn't harm the environment. The framework outlines three pathways. They are pollution prevention, product stewardship and sustainable growth. Companies that come up with new strategies in these areas can reduce cost, make their operations more efficient, and capture the market leadership. Apple's focus on renewable energy and material recycling is a good example of the NRBV in practice. Their commitment to eliminating carbon emissions across its supply chain by 2030 and investing in closed-loop material recovery systems, Apple has reduced its environmental effect while enhancing

operational efficiency (Apple, 2025). This approach highlights the potential for resource optimization to drive both sustainability and business success.

Freeman's Stakeholder theory (1984) highlights the necessity of satisfying the needs and expectations of all stakeholders including employees, consumers, communities and investors. This method developed trust, increases reputation of the company, and promote long term success by connecting cooperate goals with social values. Starbuck's sustainability initiative presents a great example of Stakeholder Theory in action. By sourcing from more than 400,000 farmers over 30 countries of its coffee ethically through its Coffee and Farmer Equity practices programme. Starbucks has created strong relationship with suppliers while achieving consumer expectations for ethical products (Starbucks, 2024). This strategy explains how to address the stakeholder expectations, and it may boost the brand loyalty and positive impact on society.

These theories collectively together provide a complete framework for adopting sustainability strategically. By implementing principles related to Triple Bottom Line, Natural Resourced Based View, Stakeholder theory and Dynamic Capability Theory, companies can associate their operations with environmental, social, and economical goals, which will ensure resilience and long-term success.

But more and more people are worried that strategic management frameworks don't always take sustainability constrains into account. Bansal et al. (2024) introduce the idea of a "ecological fallacy", arguing that conventional business strategies fail to account for environmental limits. They highlight necessity of integrating sustainability factors directly in to cooperate decision making rather than treating them as secondary concerns. This shift aligns with the urgent need for businesses to understand sustainability challenges as fundamental components of strategy rather than external influences. Companies such as IKEA have adopted to this viewpoint by embedding circular economy

principles into their business models, focusing on sustainable materials and waste management (Kral V. (2023).

Some authors argue that standard strategic frameworks need to be completely reworked to include sustainability. However, Foss and Klein (2014) explain that the strategic management tools that are already available are enough. They said that instead of completely changing business strategy, market-based approaches should be used to promote sustainability. This point of view says that companies shouldn't start using totally new models. Instead, they should improve the ones they already have by supporting sustainable innovation, regularity adoption, and market movements driven by consumers. Foss and Klein (2014) says that Toyota's hybrid vehicle strategy is an example of how well-known business models can include sustainability while continue to earn profit and stay competitive.

Although the Dynamic Capabilities Theory (DCT) offers a highly powerful platform on the analysis of how graduate students sense, seize, and transform sustainability knowledge, other theoretical perspectives can contribute to the comprehension of how such capabilities are constituted and acted. Specifically, the Theory of Planned Behaviour (TPB) and the Transformative Learning Theory (TLT) can provide a set of complementary insights into the psychological and cognitive mechanisms of sustainability intentions and behaviours.

According to the **Theory of Planned Behaviour (TPB)** formed by Ajzen (2011, p 1115) the behaviour of individuals is determined by three major factors, including attitudes toward the behaviour, subjective norms, and perceived behavioural control. Under the sustainability aspect, in this study, TPB is used to explain how students make intentions to act in a sustainable manner depending on their perceptions of what they believe and the influence of their peers and how they perceive that they can make a difference. As an examples, a student might have a motivation to decrease the use of single use plastics not only because he or she considers the behaviour to be right (attitude), but also

because other students approve of it (norm) and because he or she believes he or she can do it (control). The inclusion of TPB in this study will facilitate a further insight on the motivation factors underlying the seizing capability in DCT.

The **Transformative Learning Theory (TLT)**, which was proposed by Mezirow (1997), is concerned with the way in which individuals should critically examine the assumptions and experiences that they have in order to introduce permanent changes to their way of perceiving the world as well as in their practices. This thesis applies TLT in order to learn how learners should critically reflect on sustainability and change their minds towards long-term action. The theory assists in understanding the ways in which education can be more involved and personally changed to become more sustainable. This theory is specifically applicable in the context of sustainability education since it focuses on the individual change by means of reflective learning. With the introduction of the sustainability ideas, concepts, and problem oriented projects in the academic environment, it is possible to alter the previous understanding of the students, which will result in a change in values and changes in their behaviour on a lasting basis. TLT aids the transforming component of DCT to describe how deep learning results in action in accordance with internalized values of sustainability.

2.6 Distinguishing Sustainability Literacy from Sustainability Competence

When considering the sustainability literacy, people are just referring to the knowledge and awareness of sustainability concepts of a person. However, that is not true of sustainability competence which is all about the practical skills and attitudes you need in order to actually put sustainable solutions into practice. Clearance of that line is important in research and in class design. Wiek, Withycombe, and Redman (2011, p.207) suggest that sustainability competence brings together knowledge, expertise, and attitudes that enable individuals to address sustainability issues in real time. They singled out the five competencies in sustainability. They are system thinking, anticipatory, normative, strategic, and interpersonal competence. On the contrary, sustainability literacy

is everything to do with understanding what sustainability is, staying in the loop with both global and local issues and understanding why sustainable development matters. It is a necessary starting point of what graduates are supposed to know, yet only having that knowledge does not necessarily associate to action.

2.7 Theoretical Framework

2.7.1 Introduction to the Theoretical Framework

This study built using in the Dynamic Capabilities Theory (DCT), which is commonly used in strategic management to explain how people or organizations adopt to change (Adom, Hussen, & Agyem, 2018). In simple terms this theory supports to understand how individuals notice change or challenges in their environment, decide what to do about them, and then take actions to adjust accordingly.

In the context of this study, utilize the Dynamic capabilities theory to explain how business students deal with the sustainability. The idea is that just having knowledge about sustainability is not enough, it also about how students make use of that knowledge in real life.

Dynamic Capabilities Theory offers three core actions that supports to frame this process.

Sensing: this is about awareness, and students recognize sustainability problems or opportunities in their environment, whether at school or in workplace.

Seizing: once they recognize the issues, are they prepared and able to take advantage of opportunities to act sustainably?

Transforming: Finally, do they actually change their behaviour or taking meaningful actions based on their awareness and intentions.

Although DCT provides a structured and strategic perspective to examine implementation intentions, two additional theories have also been incorporated to enrich the analysis and offer a clearer picture of the cognitive and behavioural processes at individual level.

Theory of Planned Behaviour (TPB) by Ajzen (2011) TPB describes the way people develop intentions regarding their attitudes, perceived social norms and perceived behavioural control. In this analysis, TPB will be helpful in developing the idea on how students develop sustainability-related intentions and how their motivation is generated by external influence and internal beliefs.

Transformative Learning Theory (TLT) by Mezirow (1997) TLT emphasises the ways people can learn profoundly and undergo a personal shift due to their reflection and critical thinking. It applies specifically to sustainability education, wherein exposure to complicated world matters tends to dismantle the students already formed beliefs and spur the long lasting behavioural change based on values.

Collectively, the theories present a multi layered approach in explaining the way graduate students perceive sustainability, become motivated, and make actions towards sustainability. DCT provides a structure depending on capabilities, TPB describes the way the intentions are created and TLT emphasizes the way learning contributes to the personal and behavioural change. This pluralistic method enables a more holistic perception of the intentions in sustainability implementation in an educational setting.

Through the implementation of these theories, researcher expect to gain a deeper understanding of how students move from simply learning about sustainability to actually making sustainable choices and behaving accordingly. This framework focus on the process of change, it is not just the knowledge itself.

In this study, it is not about knowing only the sustainability theories. Main focus is to explore, how that knowledge turns into real intentions and actions.

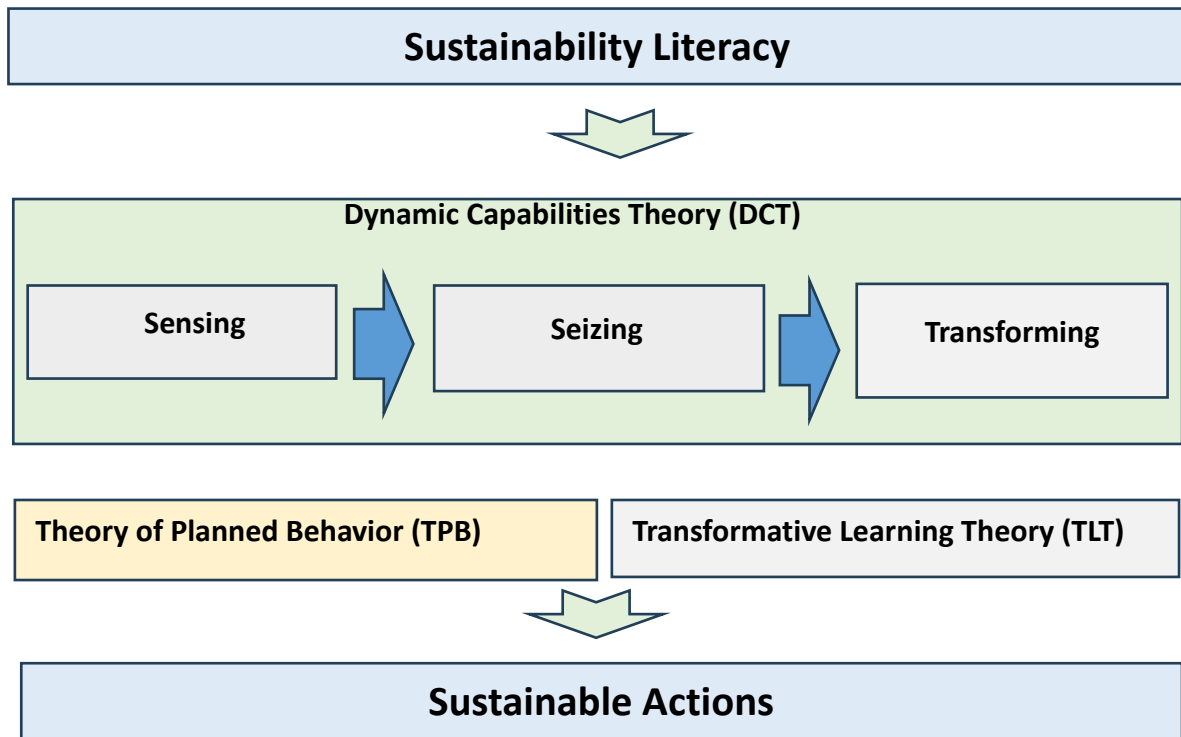


Figure 1 : Theoretical Framework

3 Research Methodology

This chapter explains about how the study was implemented according to the overall plan, the research design, how the data is collected, and the analysis of data. The purpose was to find out how business students, especially those who have learned about sustainability, use this in their real-life situations. The study is based on Dynamic Capabilities theory and describes how students recognized, seize and turn their intentions for sustainability into action.

3.1 Research Approach

This study uses a **qualitative research approach**, which is best suitable for understanding human experiences, thoughts, behaviours in depth. Qualitative research is mainly used when the goal is not to test a hypothesis with numbers, but to gain rich and detailed insights into how people understand and make senses of their world (Creswell & Poth, 2018). In this case, research aim to explore how business students convert their sustainability knowledge into action. And how their sustainability literacy become part of their behaviour and decision making. Since this study involves in personal understanding and motivation; qualitative approach is more appropriate than quantitative research method. According to Denzin and Lincoln (2018), qualitative research “involves an interpretive, naturalistic approach to the world”, meaning researchers examine objects in their natural environments and try to understand how people interpret their experiences.

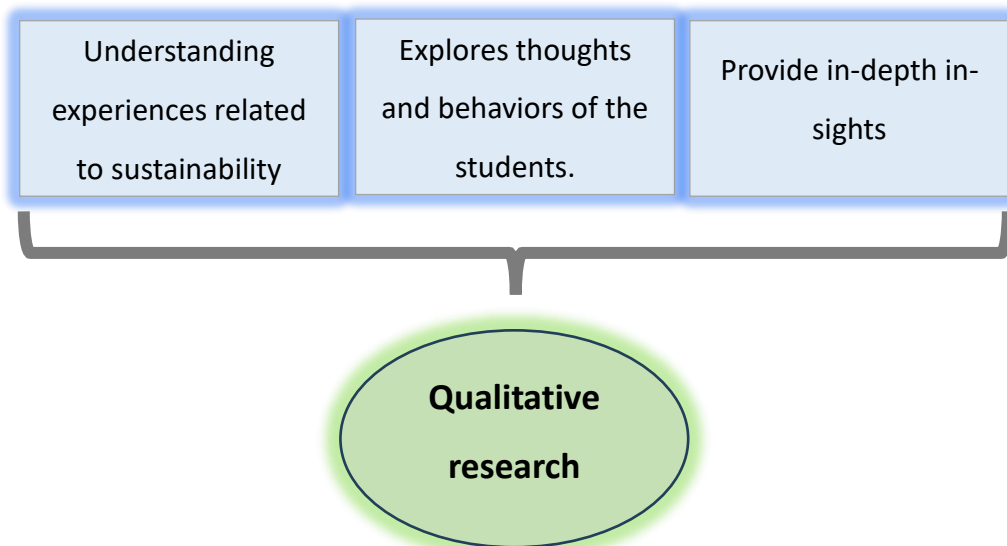


Figure 2: Qualitative research approach

Using a qualitative research method can be especially beneficial for this thesis, as it aims to learn how business students apply sustainability knowledge in real life situations through a view of Dynamic Capabilities theory. This theory highlights the processes of sensing, seizing, and transforming in reaction to environmental changes, which are complex and highly context dependent. A qualitative method allows for a richer, deeper knowledge of how individuals interpret and act on sustainability literacy within their academic and professional environments.

3.2 Sampling

The research uses **purposive sampling**, a non-probability sampling technique where participants are selected based on their relevance to the research topic (Patton, 2002). In this study, participants are mostly selected from **Master -level business students** from Universities which are in Vaasa. Specially University of Vaasa, Universities of Applied Sciences (VAMK) and (NOVIA). It is expected that these students will present well informed viewpoints on the practical applications of sustainability knowledge.

This sampling method is chosen because it allows the researcher to concentrate on cases with plenty of information. The objective is to better understand particular behaviours, ideas, experiences rather than generalizing results to all students (Campbell et al., 2020). The goal is to interview approximately **8 to 10 students**, which is thought to be enough to achieve data saturation, the point where no new significant information emerges from additional interviews (Guest, Bunce & Johnson, 2006). Due to the narrowness of the study topic, the quality of each interview, and the focus of the theoretical models (DCT, TPB, TLT) encourage that 10 respondents can be valuable enough to be included in this research.

3.3 Data Collection Methods

Semi-structured interviews will be used to gather data for this study. This approach balance flexibility and structure. List of structured questions will be raised, and which covers all the significant topics related to DCT theory and literature review. However, researcher provides freedom for participants to express their ideas and their experiences. And also, to explain things in their own words, and raise concepts that might not have considered.

Key themes from the Dynamic Capabilities theory will be the subject of the interview, specifically how students:

Sense sustainability related challenges, **seize** opportunities to apply their knowledge and **transform** that knowledge into real action

Depending on what is most convenient for the participants, each interview is anticipated to run between thirty and forty-five minutes, **either in person or through online platforms** like Teams, Zoom or WhatsApp.

Online interviews will be recorded with their concern and short notes can be taken throughout the interview, which will support the data accuracy and competencies. Also if the students willing to express their answers through writeups, that also can be accepted. All data will be used only for the academic purposes. Because the questions will be open ended, students will be encouraged to think critically and freely share their opinions.

This approach is perfect for understanding how people experience and apply sustainability knowledge in unique and complex ways. It assist in exposing the true obstacles, incentives, and possibilities that students encounter aspects that straight forward yes/no questions could never fully capture.

3.4 Data Analysis Techniques

A thematic analysis approach, which is frequently used in qualitative research to find, examine, and interpret patterns of meaning within data, was used to analyze the data in this study (Braun & Clarke, 2006). This approach was ideal for investigating how students comprehend and use sustainability literacy in real-world situations, particularly when viewed through the prism of Dynamic Capabilities Theory, which places a strong emphasis on identifying, capturing, and transforming capacities. Semi-structured interviews were conducted, and the data were exactly recorded and subjected to multiple stages of manual analysis. In order to fully understand each participant's overall narrative, the researcher first performed familiarization by reading the transcripts several times. Initial thoughts and important concepts were recorded in the margins throughout this process. Initial codes were then created by underlining text passages that demonstrated the students' capacity to apply sustainability knowledge in practical contexts (transforming), identify sustainability challenges (sensing), and intend to take action (seizing). The researcher was able to stay open to new themes that emerged directly from participant responses because these codes were both theory-driven (inspired by the Dynamic Capabilities framework) and data-driven. Associated codes were categorized into more general themes that complemented the study's goals, especially those pertaining to how students' strategic thinking and behavioural intentions reflect sustainability literacy. After that, these themes were refined by going over each transcript to make sure they were consistent and unique.

The study was able to generate significant insights into how students' understanding of sustainability translates into strategic action thanks to its inductive yet theoretically informed methodology. It also made it easier to comprehend how, in the context of sustainability, individual capacities for perceiving, grasping, and changing influence implementation intentions.

3.5 Quality of the Data

The concepts of credibility, dependability, confirmability, and transferability which are analogous to validity and reliability in quantitative research are closely related to guaranteeing the quality of data in qualitative research (Eriksson & Kovalainen, 2016; Saunders et al., 2019). These standards, which place a high value on openness, reflection, and ethical rigorousness throughout the research process, support in encouraging confidence in the results. This study was designed to be transparent in the selection of participants, the collection of data through semi-structured interviews, and the interpretation process in order to increase credibility. The goal of the study was explained to participants in detail beforehand, and they were free to leave at any time. Because the interviews were open-ended, participants were able to freely express their opinions, which decreased interviewer bias and improved the data's quality. A strict commitment to confidentiality and anonymity promoted honesty and trust throughout the interviews (Saunders et al., 2019).

The research process was thoroughly documented in order to address reliability. To provide an audit trail of important choices, code definitions, and theme development, notes were kept during the data collection and analysis process. The researcher's changing interpretations were monitored through reflexive journaling, which assisted in separating participant viewpoints from personal presumptions (Eriksson & Kovalainen, 2016). Additionally, whenever feasible, participants carefully examined the interview transcripts a process called member checking which boosts the veracity of the interpretations (Yin, 2018).

Efforts were made to ground findings in the actual words and experiences of the participants in order to ensure confirmability and lessen the impact of the researcher's subjective opinions. By comparing responses from a wide range of participants with various backgrounds, triangulation was used to increase the study's contextual richness. Although statistical generalization is not the goal of qualitative research, transferability was bolstered by thick descriptions of the participant context and research setting, which enabled others to assess the findings' relevance to comparable circumstances (Lincoln & Guba, 1985).

3.6 Methodological Considerations and Limitations

The primary weakness is the use of **self-reported data**. Since the results are only founded on the personal description of the participants, there may be a **social desirability bias**, whereby the participants may have described themselves in a more positive or acceptable way, when discussing about sustainability related issues. Despite the attempts to establish a relaxed interview atmosphere, such a possible bias is a limitation to the methodology.

Also, **data triangulation**, including the analysis of coursework finalizations, faculty evaluation, or observational data, was not part of the research. The lack of such sources was due to time and the inability to access institutional resources. Nevertheless, the interviews provided enough depth and saturation to address the objectives of exploring the research.

A mixed-methods design or the use of more than one data source would be useful in future research to corroborate and enrich the results. A further analysis with qualitative interviews as well as document analysis, project reviews, or faculty feedback would provide a more comprehensive and objective perspective of the way sustainability literacy turns into implementation intentions.

Furthermore, the research was carried out in a rather small area (universities in Vaasa) and sample size (10 individuals), which influences the transferability of the results.

Lastly, the present thesis minimally used AI-based applications, namely the ChatGPT of the OpenAI platform, to support in writing English grammatically and proofreading. Also, some support with reference.

4 Findings

4.1 Overview of Data Collection and Participants

Ten graduate students from the University of Vaasa, VAMK University of Applied Sciences, and Novia University of Applied Sciences participated in semi-structured interviews to gather real-world data for this study. The goal of the discussions was to find out the students' level of sustainability knowledge and how they intended to apply the three components of the Dynamic Capabilities Theory sensing, seizing, and transforming.

All of the participants were enrolled in business or business engineering-related courses, such as International Business, Finance, Industrial Management, Strategic Business Development, and Engineering Project Management. It was simple to observe how both academic and professional experiences can influence knowledge and concepts regarding sustainability because the participants had a diverse range of study and work experiences. The interviews were conducted from July 28, 2025, to September 4, 2025. Depending on the participant's schedule, they have done through online platform (Zoom). Each interview followed a standard interview guide (see Appendix 1) and lasted approximately 20 to 30 minutes. Prior to recording, participants' informed consent was obtained and their privacy was guaranteed. and every one agreed to share the recorded interviews and their names with my thesis supervisor. Every interview was assigned a code ranging from 1 to 10 (P1 to P10) for research and reporting purposes.

The following sections' analysis of the interview data is informed by Teece's (2007, p.1322) definition of the three fundamental components of the Dynamic Capabilities Theory (DCT) such as sensing, seizing, and transforming. These dimensions offer a theoretical framework for exploring graduate students' ideas about sustainability. The participants' capacity to identify sustainability-related problems and opportunities in their academic areas and future careers is reflected in their sensing capability. Their motivation, strategic goal, and the significance of incorporating sustainability into future decision-making are all examined by the seizing capability. Their real efforts and willingness to put sustainability knowledge into practice through strategic or behavioral change are

captured by the transform-ing capability. Throughout the study, direct quotations are used to guarantee that the opinions of participants are accurately represented.

The table below displays each participant's basic data.

Table 2: Overview of Interview Participants

Code	Student Name	University Name	Study programme attended	Current Work-place (if any)	Interview Date
P1	Pabash Priyankara	VAMK University	Engineering project management	Job seeker	28/07/2025
P2	Catherine D'Costa	University of Vaasa	Strategic Business Development.	Summer trainee, Hitachi Energy	29/07/2025
P3	Chamodi Rupasinghe	University of Vassa	International Business	Cleaner, ISS Palvelut Oy	29/07/2025
P4	Janaka Rukmal Rajapaksh	Novia University of Applied Sciences	Industrial Management	Project Engineer, ABB	06/08/2025
P5	Miyuranga Millewa	Novia University of Applied Sciences	Industrial Management	Construction Field	15/08/2025
P6	Hirushi Shiraz	University of Vaasa	Strategic Business Development.	ERP Consultant, Platned consulting.	22/08/2025
P7	Ayodhya Perera	University of Vaasa	Finance	Student	24/08/2025
P8	Dakum Jayamanne	University of Vaasa	Finance	On-call Student Trainee, Wärtsilä	24/08/2025
P9	Shymala Nadishani	University of Vaasa	Industrial Management	Student	26/08/2025
P10	Hashini Nadishani	VAMK University	Internation Business	On-call trainee, Wärtsilä	04/09/2025

4.2 Sensing Capability: Awareness and Recognition of Sustainability

This segment covers the sensing skills of the participants. In the contexts of the Dynamic Capabilities Theory, explains their ability to recognize and sense challenges and opportunities regarding sustainability. It shows how graduate students think about sustainability, their understanding of sustainability, and how their studies or life experience have increased their awareness of this issue. All the individuals who were involved in this study talked about their interpretation of sustainability in their own unique way and not only have some common topics but also managed to share some of their own views. The results indicate that graduate students are sensitive and the level and extent of their level of awareness depend on the program they study in college, experience in the job and personal interests.

The majority of participants have shown a general knowledge of sustainability, and could define it in a manner that indicates a clear understanding of how it relates to business, society, and the environment. As an example, P1 said, "Running a business to make a profit while thinking about the future, long term, and caring for people and the environment by reducing waste" (P1). This opinion is the reflection of strategic awareness, in line with the concept of triple bottom line, in which business decisions must take into account the environmental, social, and economic impact. Equally, P2 observed, "sustainability in business is about balance - between profit, people, and the environment. It is about taking decisions that would not harm the future generations"(P2). Also P2 expressed the personal view stating that "Businesses are really looking at the economic sustainability first and if they achieve that, then they may be looking into the environmental and social sustainability". This answer demonstrates that not all students are limited by the situation they live in now and pay attention to the consequences of business operations on the future generation.

The participants also related their concept of sustainability to accountability and fairness. P5 explained that it is about "operating a business without damaging the environment and making a difference in the society" (P5). This remark brings out the ethical aspect of

sustainability whereby businesses are not just expected to do no harm but also do good. “Sustainability means operating in a way that balances profitability with environmental and social responsibility” (P7). With that P7 highlighted the importance of making business choices by stating that, business choices have consequences to think about the effects they have on people and the planet. This reflects an assumed assumption that sustainability is not merely a business approach but rather a value system that must be considered in every decision making model.

Some participants said that their understanding of sustainability was influenced by their university classes. P3 explained that “sustainability is ensuring that what we do today does not restrict us to possibilities in the future” (P3) and then proceeded to talk about how she improved her learning about CSR (Corporate Social Responsibility) and ESG (Environmental, Social, and Governance) practices by participating in field visits to ABB and Wärtsilä which have changed her perception on this topic. P6 reflected on what she learned and said that “our Innovation course touched on sustainability as a force behind new business types. That really stayed with me” (P6). These reactions indicate that higher education can greatly contribute to building the capacity of students to perceive matters relating to sustainability, particularly when the subject is cross-cutting and spans multiple courses such as strategy, innovation, ethics, or supply chain.

Interestingly, there were participants who were in a position to relate the concepts of sustainability to their fields of interest. To illustrate this point, P8, who is interested in finance, said, “Businesses should not only think about profit but also about environmental and social objectives” (P8). his quote is consistent with recent developments in sustainable finance, including the increased prominence of ESG in investment and lending choices. P9, who’s intention is to find a job in an operations department of a company, stated that companies need to consider the impact of their choices on society and the environment. She also cited instances in her course work regarding sustainable logistics and product life cycles where she demonstrated a practical approach to sustainability in operation systems.

P10 provide a more forward-looking view, saying, " the businesses are mainly focussing on increasing their profit and creating value to their stakeholders. So, in that context, sustainability is really important because if we consider nowadays, we see a lot of environmental changes and also a lot of environmental disasters. Those happens mainly due to the companies that do not do their businesses responsibly" (P10). It is having an understanding of how your decisions today impact tomorrow. It is concerning not causing harm and adding lasting value. Her perspective incorporates long-term thinking with the requirement that businesses should add value without negative impacts. Likewise, P4 provided a moderate perspective and stated, " how to use the resources wisely and reduce waste and how to manage resources which we have and reduce wastage and things" (P4). This shows how the students are becoming aware of sustainability not as a trade-off but as a component of good business practice.

Even though everyone who responded was conversant with the concept of sustainability, some cited that they had received unequal exposure in their degree programs. Courses about sustainability covered it in detail whereas some covered it in a shallow way or not at all. This discrepancy indicates that although the topic of sustainability is being presented in universities, it may not be taught in a comprehensive or consistent manner. Nevertheless, the results demonstrate that participants could build their sensing ability by formal education as well as informal experience including group work, internship, and reading independently.

All ten participants showed that they were able to feel and perceive sustainability in effective ways. As their responses reveal, graduate students are becoming more conscious of the expanded responsibilities of business in the modern world. The level of awareness was between being aware of the fundamental concepts of environmental and social responsibility and being aware of how sustainability strategically applies to business innovation, operation, and finance. This high level of sensing can be seen as a foundation to the succeeding two dynamic capabilities of seizing and transforming, which concern the

require to do something to be sustainable and the competence to bring knowledge into the effort.

4.3 Seizing Capability: Motivation and Strategic Intentions Toward Sustainability

The second concept of the Dynamic Capabilities Theory is the seizing capability, which is the capacity to mobilize resources, make strategic decisions, and exploit an opportunity when it is detected. Within the framework of this research, the concept of seizing capability is associated with the desire and intent of graduate students to use their knowledge of sustainability in actual business scenarios. It examines student intentions to apply their perspective on sustainability to make future career choices, steer business operations, and support strategic value creation over the long term. In the ten interviews, it emerged that the vast majority of people, in addition to knowing what sustainability is and what sustainability is about, were keen to take action on sustainability. They saw sustainability not as a scholarly issue or a fad but as something they would incorporate into their career in the future. A number of students clearly indicated that they wanted to consider sustainability as part of their work.

Participants including P1, P2, and P3 emphasized their individual cause to ensure the sustainability in their future employment. P1 remarked that “in future I want to participate in the decision making and strategy, especially in a company where sustainability is a key priority. My idea is to propose something that will help to save energy or less waste” (P1). In his quote, it is evident that motivation is closely related to lasting business participation. P2 replied, “Whatever position I have tomorrow I want it to be sustainable. I will consider ways of making my work environmentally and socially responsible, even in a job involving finance” (P2). The fact that she has a perspective illustrates that she can apply sustainability objectives into various business operations, not only within the field of environmental science or management. Likewise, P3 had a very good intention to make theory into action. She said, “in our courses we had studied about CSR and ESG, and she wanted to work in a company that practices it. I do not want to be in a place

where everyone is talking about sustainability, but these are not applied” (P3). This quote suggests that the students are starting to weigh up employers and workplaces on ethical and sustainability grounds and this reveals that their ability to seize extends beyond personal values and into wise career choices.

P4, who is at present an engineering worker, explained how technical people can impact sustainability practices. According to him, he had already attempted to recommend energy conservation at the workplace. “I would like to be in some leadership position in the future where I would be able to make decisions about technology and design that are more sustainable” (P4). His quote is about his opinion on how professional development should lead to sustainability and technical skills can help in a system that is green. P5 had the same ideas, but in the construction and industrial management perspective. He said, “I would like to participate in site level decisions where I can propose improved waste management or green materials. I feel there should be increased human resource in construction that is aware of the environmental impact” (P5). The fact that he wanted to apply to the construction industry is indicative of the larger sustainability leadership needed in more resource-heavy industries.

Other participants had specialized interests in business sectors they could apply sustainability. P6 pointed out that even with ERP and consulting, professionals can make a difference. “Given a chance to work in the sustainability department of a company or in a position where I can develop digital tools to monitor sustainability, I would accept it. I believe it has nothing to do with the job title, it is what you do with your job position to assist” (P6). Her answer gives an example of how students are creatively considering including sustainability in different job positions.

Both P7 and P8 are part of finance courses and exhibited a strategic thinking approach towards the opportunities presented by sustainability. P7 stated, “in case of working in investment or corporate finance, I would like to have ESG criteria in my estimates. It is no longer all about making money. Responsibility is also sought by the investors” (P7).

P8 explained that “I would like to work in the area of financial reporting or auditing. Should I get a chance to assist companies in quantifying their environmental and social impact, I believe that I would do a satisfying job” (P8). These remarks indicate that the students in the field of finance not only know about sustainability, but they understand that it can be one of the competitive advantages in their business positions.

P9 developed a high level of responsibility to environmental and social objectives. “When I consider my occupation, I would want to work in a place that appreciates the earth and humanity. I will insist on it, even if it is a minor provision, such as waste reduction or certified materials” (P9), she says. Her intent is to demonstrate that going green does not require big steps to attain sustainability that it can begin with our daily choices. P10, with an interest in entrepreneurship, discussed applying sustainability as one of the foundational principles of her future business. She said, “one day I would like to own my own company. Since the outset, I will strategize on the fair labour, sustainable materials and support to the community. It is not going to be only a profit question it must be a solution to actual difficulties” (P10). She is able to see sustainability as a moral framework and a business strategy as her vision shows.

Besides career goals, many of the participants noted a need to keep learning and participating in sustainability in the workplace. They talked of attending conferences, certification, or networks of sustainability. This prospective orientation also confirms their capacity to seize by the fact that they are ready to invest in networks and knowledge that can facilitate sustainable action. The barriers that they could encounter were also discussed by some of the participants. As an example, P2 and P6 stated that not every company cares about sustainability, and they may be forced to compromise at the beginning of their careers. They were however positive that they could instigate change internally with time and experience. Such realistic perspective gives depth to the seizing capability as it recognizes the motivation as well as the strategic patience in executing change. the interviews reveal that graduate students are not simply sensitive to the issues of sustainability but they also feel the need to take action with regard to it. Their ability to

seize is influenced by an individual value system, education, work experience and an ideology that the business is supposed to be of long term benefit to the human being and the environment. These students are getting ready to make sustainability part of their professional experiences, whether in corporate jobs or entrepreneurship or technical innovations. This proactive nature is a good indication that in the future business leaders will not only feel that sustainability is necessary, but will also take the initiative to introduce it in a meaningful and measurable manner.

4.4 Transforming Capability: Turning Sustainability Knowledge into Practice

Transforming capability is the third and the last dimension of the Dynamic Capabilities Theory. This means the ability to change, to revive, or to redesign current practices, systems, and practices in light of new opportunities or challenges. Transforming capability in this context of this study is concerned with the application of graduate student sustainability knowledge in practice. It examines whether they have acted, shaped other people or been involved in sustainability related initiatives at school or the work environment. This section utilizes the responses of interviewees to point out that participants are starting to translate their vision of sustainability into practice. Most of them presented concrete examples of where they got the chance to put sustainability knowledge into practice. These included university based campaigns and classes project, internships and part-time employment. P1, as an example, explained that they were assigned a group task in which they developed a business model based on the reduction of electronic waste. "We needed to create a sustainable method of collecting and reusing previous phones. It got me to thinking that something simple could be a great thing to do, as long as it is done correctly" (P1), he explained. This example demonstrates how practical academic assignments can transition students between theory and practice.

P2 had experience as a summer trainee at Hitachi Energy where she was exposed to sustainability activities in the corporate environment. "We were required to adhere to certain energy consumption rules and be part of a group, she said, that was investigating

the circles of the economy. It was fun to be involved in something that really counted” (P2). Her example demonstrates that internships may be valuable testing and practice grounds of classroom knowledge. P3 also created a practical application to a project on ESG reporting. He remembered, “we also did an analysis of the sustainability reports of a company and identified some of the gaps. I proposed some improvements in accordance with what we had been taught in the classroom on transparency and accountability”. This shows that students can critically analyse the systems that are in place and suggest improvements which is one of the key elements of transforming capability.

P4, who works in the engineering field, stated that he already began to make suggestions related to sustainability at the workplace. “In one part, I saw that much energy was going to waste, and I suggested the application of another kind of sensor. My boss liked it, and it is under test” (P4). This demonstration indicates that under the right specific circumstances, students will be able to bring about changes in real-life situations with the help of their technical skills. P5 also supported with a sensitization program spearheaded by the university to encourage the use of reusable materials in building. He said that “we wanted to lessen single use plastics on campus. I assisted in creating posters and I created a small workshop. Having done something practical and to see people react was good” (P5). This demonstrates how a little project can make a difference to students to gain confidence in converting sustainability values into practice.

P6, who is in a less sustainability-oriented role, explained how she developed a prototype dashboard to monitor sustainability KPIs in the course of her coursework. “It was in the name of a simulation project but I saw that this could be of great use to companies. It made me open my eyes on what digital tools are capable of doing” (P6). Her example suggests that it is possible to transform digitally to aid sustainability even in its indirect or complementary roles. P7 also discussed about her experience in a student investment club that reviewed companies according to ESG ratings in the field of finance. She replied, “we disagreed which companies were greenwashing and which were responsible. I began to realize how complex it is, yet how significant it is to pose questions” (P7). Her

reflection demonstrates the critical attitude that favours long term change, particularly, the strategic and analytical functions.

P8 got an opportunity to prepare an audit report as an internship at Wärtsilä and where sustainability indicators were incorporated.” We were forced to examine whether the company complied with some social and environmental standards. I could not believe that these issues have begun to play such a significant role in business reporting” (P8). This remark shows that sustainability progressively becomes the part of working practice where students can really have the chance to contribute to the change. P9 told about a sustainability related innovative competition held at her university. Her team formulated another packaging solution to help minimize food waste. “We developed a modular food container that could be used or modified to portion sizes. It was simply an idea but the judges found it practical” (P9). It demonstrates how innovative thinking can mean a lot in creating changes as well. P10 said about her experience at a hackathon where her group developed a digital tool to monitor the emissions of the lifecycle of products. She explained that “it was the first time I thought about the use of technology in sustainability. Now I would like to begin to do this more seriously”. Her case shows how students can be encouraged by being exposed to the work of multidisciplinary teams to think outside of the limitations of their academic setting.

One of the themes that were common to all participants was the need to do more than simply talk in a classroom and make a real change. Even though not everyone could implement sustainability knowledge to formal workplace, they were engaged in university activities, student initiated programs or coursework projects that provided them with challenges that simulated the real world. These experiences show that the transforming capability already assumes its form as the graduate students begin to approach problems more differently, cooperate with other people, and develop innovative solutions. Moreover, most interviewees stressed that change is not necessarily big scale projects. It may begin with personal action, which can be building awareness, modifying individual habits, or peer pressure. P6 remarked, “even reminding my members of staff to minimize

printing or carry reusable water bottles is like a success. It's a start." (P6) This view indicates that change may also be incremental, which is guided by values and everyday activities.

4.5 Coding Table Based on Dynamic Capabilities Theory

To facilitate the analytic transparency, the table below provides some of the selected quotes of the participants that were coded within the framework of the Dynamic Capabilities Theory. The quotations show the interpretation of sensing, seizing and transforming capabilities based on the interviews.

Table 3: Coding Table Based on DCT

#	Quote	Code	DCT
P1	"We can't just learn from books; real-life projects made me feel how sustainability works in actual business."	Real-life learning experience	Sensing
P1	"I hope to run my own business in Finland and will not use papers, plastic, especially harm things to environment because without protecting environment, a business will not sustainable"	Career intention	Seizing
P2	"Whenever we were doing some kind of case-work or something, we had to take sustainability into account"	Focus on learning	Sensing
P2	"I want to bring sustainability into my career decisions... I'm already trying to push it in my current work."	Career integration of sustainability	Seizing

P2	“I did the Demolar project, which was also related to sustainability, because they were using LED lights, using minimum energy.”	Innovative project	Transforming
P3	“I also noted that some challenges in the companies so one of the challenges is reducing carbon emissions that means environmental sustainability”	Awareness on Sustainability of industry.	Sensing
P3	“Even though I work in cleaning, I try to minimize waste. I believe even small actions matter.”	Applying in current job	Transforming
P4	“I learned about sustainable construction and using waste materials, this helped me to see how I can apply it.”	Education influencing mindset	Sensing
P4	“we are trying to build a optimal systems for energy monitoring and managing systems.”	Innovation in reality	Transforming
P5	“Sustainability is practiced in Finland everywhere. That motivates me. I want to do the same in my work.”	Environmental influence (Finland)	Sensing
P5	“I participated in designing a sustainable forest concrete drainage system”	Long term plan to sustain environment	Transforming
P6	“I have the learning to back me up to identify the sustainability practises, like I said, to identify if a company's supply chain practises are sustainable or not”	Learning and awareness	Sensing
P6	“We offer green procurement and paperless options to clients through ERP systems. That’s our sustainable action.”	Work-driven green innovation	Seizing
P7	“Coursework and the research projects have helped me to understand the impact of sustainability on firm value and investment strategies.”	Focus on learning	Sensing

P7	"I feel responsible to address climate change. That motivates me to bring sustainability into financial decisions."	Personal ethical drive	Seizing
P7	"I would like to integrate sustainability considerations into financial decision making to ensure that profitability aligns with environmental and social impact"	Intention of integrating sustainability	Seizing
P8	"I've heard some people saying that global warming is not real so, when you have that kind of a mindset it's super challenging"	Exposure and awareness of society	Sensing
P8	"At the bank, I worked with green bonds. That showed me how finance and sustainability can align."	Sustainable finance experience	Transforming
P9	"In the rubber industry, I follow practises for efficiency certification mainly which ensures that products come from responsibly managed plantations and forests"	Exposure and awareness of industry.	Sensing
P9	"In the glove factory, we used biodegradable materials. It helped me understand real business application."	Experience with sustainable materials	Transforming
P10	"And also it is kind of a marketing tool nowadays that helps to build companies' reputation."	brand value and strategic positioning	Seizing
P10	"I'm planning to open a business and I'll apply sustainability from the beginning, like using eco-friendly suppliers."	Entrepreneurial application	Transforming

5 Discussion

5.1 Discussion of the findings

The present section addresses some of the main study findings in reference to the existing literature and the theoretical framework which was used **Dynamic Capabilities Theory (DCT)**. The research examined sustainability literacy and implementation intentions among graduate students with a particular emphasis on their sense, seize and transform sustainability-related knowledge and values. The findings of ten semi-structured interviews indicate that the majority of interviewees displayed an excellent conceptual knowledge of sustainability, they were driven to apply the idea of sustainability to their professional practice and they already started to use their knowledge in university projects, internships, and workplace programs. The results are consistent and complementary to the existing studies about sustainability education and dynamic capabilities in the context of higher education.

Participants sensing capability was usually developed well. The majority of the students were capable of defining sustainability in the manner that resonated with the triple bottom line model which focuses on the environmental, social and economic balance (Elkington, 1997). An example is that P1 defined sustainability as a “decision that is not only to get profit now, but to take care of the environment and society” P2 viewed sustainability as “balance among profit, people, and the planet”. These thoughts echo the works of Sterling (2001) and Barth et al. (2007) that focus on the need to use critical thinking and understanding of systems in sustainability education. P3 and P5 explained on this to connect sustainability with intergenerational equity and responsible use of resources. P6 pointed out that “ethical profit making is important because it should be said that the way companies make profit also counts” and P10 has related sustainability with value creation and marketing advantage. Technical and finance students were also exhibiting definite sensing capacity, P4 mentioned energy efficiency initiatives in his work in engineering, P8 and P7 talked about measuring sustainability by means of ESG indicators and carbon footprint. P9 relied on the experience of quality assurance and

knowledge of environmental compliance. These cases demonstrate that the sensing abilities of students were not only developed through the formal education but also dependent on personal values, professional conduct and cultural background.

In respect of seizing capability, the participants showed a high motivation to apply sustainability to their professions, which aligns with the interest in strategic decision making in DCT (Teece, 2007, p.1322). P1 stated that she would like to participate in strategy formulation and decision making as a way of enhancing sustainability. P2 and P3 said that they would find the employers who realize sustainability and not just talk of it. P3 specifically had a focus on the need to match values and workplace practices. P4 and P5, an engineer and construction graduate respectively, emphasized their desire to be able to make a contribution towards green operations, providing realistic suggestions, including energy system optimization or the encouragement of green building materials. P6 required to make sustainability indicators a part of digital tools in ERP systems, which implies that even support functions can be useful. P7 and P8 envisaged practicing the ESG analysis in their future careers in finance, and P9 and P10 hoped to employ their jobs to promote sustainable politics and entrepreneurship. The promise that the participants made actually substantiates the argument of Lozano (2010) that good sustainability education is the one that motivates action, not merely awareness. Moreover, there was a recognition of the resistance that these participants might experience in specific industries, yet still long term plans to effect change - indicative of strategic resilience and realistic goal setting.

The transforming effect has also been realized in the results especially in the academic project of students, internship and extracurricular activity. P1 discussed how to come up with a business model of electronic waste minimization. P2 explained how she was engaged in a circular economy initiative when she was a Hitachi Energy intern. P3 reviewed sustainability reports and provided recommendations as to how it can enhance transparency. P4 described a time when he offered to implement new sensors to minimize energy waste in the workplace an idea, which was agreed to test. P5 facilitated a campus-

wide movement to diminish single-use plastics, and P6 developed a sustainability KPI dashboard as an assignment as a course. Such instances are consistent with the body of literature on organizational learning and change (Zollo and Winter, 2002; Teece, 2009) that underlines experimentation and adaptive routines. P7 and P8 explained that they had taken part in student investment clubs and audit teams and were critically evaluating ESG factors. P9 and P10 participated in innovation challenges and hackathons and used their knowledge to innovate to develop sustainable packaging and carbon tracking tools, respectively. Such varied experiences indicate that participants already had sustainability practices in place that would increase to the level of organizational change on a bigger scale in the future.

Especially, a good number of students added that change starts with the little things. P6, in particular, talked about inspiring the colleagues to minimize waste production by paper and employing reusable bottles, which he viewed as a small victory. It is indicative of the gradual aspect of change-students are starting to internalize sustainability concepts and use them in their daily decision making. Although not everyone had yet got a role that would enable them to make large scale changes, their willingness and creativity indicates that the groundwork towards change is already laid.

This research demonstrates that graduate students are becoming more conscious of the sustainability issues and are also more willing to become sustainable in their studies, personal lives and in their future careers. This research was guided by the Dynamic Capabilities Theory (DCT) and, in particular, the sensing, seizing, and transforming capabilities, which is the concept that has been used to examine the mechanisms of converting sustainability literacy into implementation intentions. Nevertheless, the **Theory of planned behaviour (TPB)** and **Transformative Learning Theory (TLT)** are also used as sources of further interpretation, enriching the conversation.

The respondents showed strong sensing skills, where they indicated that they are able to detect sustainability challenges concerning their study area and the society.

Indicatively, students of finance and engineering showed sensitivity regarding the utilization of resources, environmental hazards and business conduct. These connections correspond with the sensing role in DCT and can be further elaborated by the fact that **TPB** focuses on **attitudes** and **normative beliefs**. A lot of students were positive about sustainability, and some were affected by partners, professors or social expectations which indicated the influence of subjective norms on intentions.

The ability to seize was clearly inbuilt within the motivation of the participants to literally practice what they have learned. Others were imagining sustainability as part of their future work, and others just wished to implement greener activities at their present or future working places. This capturing mood can also be interpreted in the sense of perceived **behavioural control** of TPB, as an example the participants were confident that they could change something, both in minor daily habits and in bigger, more long-term career related plans.

The third component of DCT, which is transforming capability, is also supported by findings. There were evidences of student level thinking and behavioural shifts, which were affected by their exposure to sustainability discussions, projects, and real world issues. This can be well explained using **Transformative Learning Theory (TLT)** students that experienced **critical reflection** and discomfort on facing sustainability issues usually reported their **values and practice to be changed permanently**. As an example, the participants of group sustainability projects or international programs also noted a change in their attitude towards the environmental and ethical issues.

Combinations of the DCT, TPB, and TLT have given a complete picture of how sustainability literacy becomes intention and action. DCT offers the strategic conceptualization of capability development. TPB describes the process of intention formation and TLT emphasizes the process of deep learning that results in a real change. This theoretical diversity is likewise the positive of the impact of this thesis both to the sustainability writing and strategic business development material.

The results of this study can be used in business strategy discussions, proving that the given issue can transform any individual student who is going to work in these companies into a change agent inside the company. Their developing capacities based on values, knowledge, and critical learning may have a future impact on policy, practices in the workplace, and innovation. The capability of connecting micro level awareness to meso-levels strategic influence is one of the major observations of this research.

The results contribute to the current debates on business strategy by demonstrating how people, as future professionals who are about to become, can possibly become internal change makers within its companies. Their ability to create policies, build companies, and innovate in the future may be developed by the increasing skill sets which the company applied based on values, knowledge and critical thinking. One of the key lessons of the study is being able to connect a micro level awareness with a meso-level strategic impact. In short, the change between micro and meso-level influences strikes us directly when we enter the labour market. We can make unsustainable practices visible, we can initiate new processes or propel sustainability strategies to the extent that we can positively transform how our respective teams or businesses operate. The study suggests that sustainability literacy and competence is what we have developed at university and that it can be used to transform the organizational culture, responsible leadership, and long-term strategy and maintain them on the track of eco-friendly objectives.

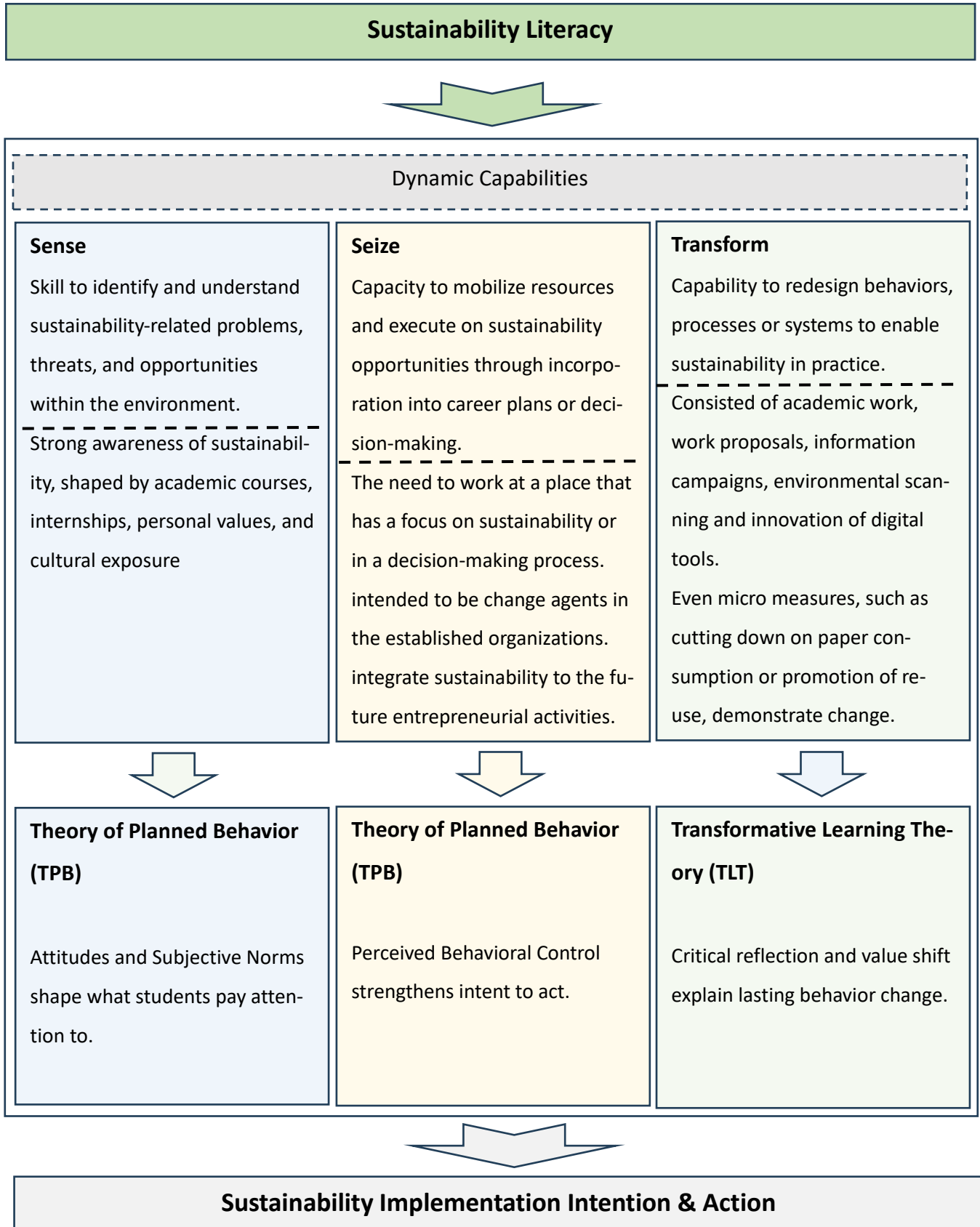


Figure 3 : Empirical Framework

5.2 Conclusion

This paper aimed to investigate the sustainability literacy levels and intentions of graduate students regarding its implementation through a theoretical framework of the Dynamic Capabilities Theory. It was aimed at learning how students feel sustainability issues and opportunities and how they act on them with motivation and strategic intent and translate their knowledge into practice. According to the semi-structured interviews with ten graduate students of different disciplines and universities, the results indicate that graduate students are becoming more prepared with the knowledge, motivation and pragmatism necessary to enhance sustainability in their future professions.

All ten participants demonstrated a well-developed sense of sustainability, describing it as a balance between environmental, social, and economic values. Their awareness was shaped by university education, internships, and personal values. This sensing capability forms the foundation for long-term sustainability thinking. Beyond awareness, students also showed strong seizing capabilities. They were eager to contribute to sustainability through their work, whether by joining ethically responsible companies, influencing internal decision-making, or launching their own sustainability-focused businesses. This motivation suggests that students are not only knowledgeable but also ready to take action.

Transforming capabilities also have positive results in the study. The participants provided practical examples of how they already started using the knowledge of sustainability, either in course projects, work based innovations, student controlled movements, or digital tools. These are tiny yet significant steps to the initiation of a transition towards passive learning to active leadership on sustainability.

Besides DCT, researcher believe that the introduction of the Theory of Planned Behaviour (TPB) and Transformative Learning Theory (TLT) are truly beneficial to create a more comprehensive picture of how students behave. TPB helps to understand that graduates have the intentions of living in a sustainable way influenced by attitudes, social pressures,

and a feeling of control, in particular, when they attempt to seize opportunities. On the other hand, TLT emphasizes the way critical thought and transformative learning experiences can change us personally and give rise to the real actions, which contribute to the transforming component.

Combining these frameworks, researcher believe that the study does add something to the literature on sustainability education and strategic management, as they demonstrate how the skills that individuals develop transform to strategic behaviours. The combination of theories also allows graduates to explore more deeply the cognitive, motivational and behaviour processes involved in the formation of sustainability intentions.

All in all, it appears that graduate students are becoming key agents of change who are connecting sustainability expertise to actual organizational performance. It is a combination of both theory and action, which makes us a necessity in motivating the next generation of greener workplaces and industries.

5.3 Limitations and suggestions for future research

Although this research provides some informative information about the emergence of sustainability intentions among graduate students, there are a number of limitations that can be mentioned. These shortcomings provide avenues to future research too.

To begin with, the study is entirely reliant on **self-reported interviews**, which brings about the potential of **social desirability bias**. There is the possibility that participants would have described their knowledge and actions in sustainability in a more favourable manner than they do in real life. Even though the interview-based design was suitable in terms of the collection of personal views, the following research must take into account the **data triangulation**, which will enhance the validity. Indicatively, course assessment, project outputs that are sustainability oriented or faculty feedback would be more objective in building the sustainability capabilities of students.

The study is also **cross-sectional**, which is another limitation. It recorded the level of the attitudes and experiences of the participants at a given time. Nonetheless, sustainability literacy and capabilities can change with time, particularly, as students advance their professions. The **longitudinal research** may assist in following the progression of sensing, seizing and transforming abilities and their insertion into practice during the years.

Thirdly, the **sample size was only ten individuals in universities in Vaasa**, Finland. The sample, though a mix of various disciplines and nationalities, might not be a good representation of the experiences of the students in other areas and educational institutions. Transferability would be enhanced by increasing the sample, both geographically and institutional type.

Lastly, although the **Dynamic Capabilities Theory (DCT)** also offered the structured viewpoint on the analysis of sensing, seizing, and transforming capabilities, other approaches like the **Theory of Planned Behaviour (TPB)** and **Transformative Learning Theory (TLT)** were also introduced in this study with the purpose of completion. Future studies may go further to examine how the theories intersect and in this case, more behavioural or psychological theories may be added to add depth to the analysis.

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7 Appendices

Appendix 1. Interview Guidelines

Introduction: Thank you for participating in this interview. The purpose of this discussion is to better understand how students like you perceive sustainability and how this knowledge might influence your future actions or career strategy. Your responses will remain confidential and your identity anonymous. You are free to skip any question or stop at any time

Section 1: General And Background information

1. Name :
2. Name of the University:
3. Your current Job position (if any):
4. Employer (if any):
5. Have you had any formal education or training on sustainability topics during your studies?
6. Do you feel sustainability is relevant to your academic field or future profession? Why or why not?

Section 2: Sensing Capability (Sustainability Literacy)

7. What does “sustainability” mean to you in a business context?
8. Can you explain some sustainability challenges businesses face today?
9. To what extent do you feel confident identifying sustainable business practices?
10. How has your university education helped you understand sustainability in your field?

Section 3: Seizing Capability (Intentions & Strategic Importance)

11. Do you think sustainability is important for long-term business success? Why?
12. Have you ever thought about applying sustainability principles in your future career or business? Can you give an example?
13. What motivates or encourages you to consider sustainability in your decision-making?

14. Do you see any challenges or barriers in integrating sustainability into business strategy?

Section 4: Transforming Capability (Action & Application)

15. Have you ever participated in a project or activity that involved sustainability? What was your role?
16. If you had to design a sustainability strategy for a company, where would you start?
17. Do you think business students are ready to take real action on sustainability once they graduate? Why or why not?
18. What skills or support do you think you need to effectively implement sustainable practices in your future work?

Section 5: Final Reflections

19. In your opinion, how could universities better prepare students to act on sustainability issues in the real world?
20. Is there anything else you'd like to share about sustainability and your role in promoting it as a future business leader?

Thank You.....