THE EFFECT OF SUSTAINABILITY TRILOGY LEADERSHIP ON GREEN PERFORMANCE: THE MEDIATION ROLE OF ORGANISATIONAL SUPPORT AND DYNAMIC EXPLORATION CAPABILITY IN THE PERSPECTIVE OF LOCAL WISDOM

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Abstract: Change cannot be separated from education and science, followed by rapid technological developments influencing human attitudes and behaviour in daily activities, including organisational behaviour and leadership patterns. More research is needed related to the trilogy leadership and organisational training support. Researchers state that trilogy leadership has a positive effect on organisational training support, and some say it does not affect organisational training support. Objective: This research examines and analyses the influence of the sustainability trilogy leadership pattern on green performance with the moderating role of dynamic exploration capabilities as a perspective of belief in local wisdom on state-owned companies in Indonesia. The object of research on employees of state-owned enterprises was as many as 260 respondents in Yogyakarta. Purposive sampling was used to take samples using a questionnaire. The data collected were carried out through three tests: data test, model test, and hypothesis testing using AMOS. Findings indicate that the trilogy leadership significantly positively affects organisational training support and dynamic exploration capability. Organisational training support has a significant positive effect on dynamic exploration capability, and dynamic exploration capability has a significant positive effect on green performance. Limitations and future research are also discussed in this study.

Keywords: Dynamic exploration capability, green performance, organisation training support, sustainability trilogy leadership.

Introduction

The world has been changing in several aspects, including economic, social, cultural, and even political aspects. The change is inseparable from education and science, followed by rapid technological developments. This affects human attitudes and behaviour in daily activities [1]. Society is affected by its changes. People tend to move with the wave and follow the global circulation [2].

The regulation cannot be separated from the influence of technology, especially due to the encouragement of competitive factors. Several organisations actively adopt new technologies that create a superiority over competitors [3].

However, the most strategic policy may have a detrimental impact due to the neglect of local wisdom. It is not appropriate to understand technological developments simply and only for short-term interests while at the same time neglecting the socio-cultural conditions surrounding organisational activities [2], [3]. The pattern of thinking and policies taken to increase competitiveness and gain profits in various activities is not strange [4]. However, when efforts considered strategically to create competitiveness are not in line with local culture and wisdom, it will gradually leave large losses on a wide scale. Therefore, quantitative

performance is not the only measure of the success of organisations [5]. Performance must be measurable from both qualitative and quantitative perspectives [6]. Performance that is in line with local values will impact the organisation. In Indonesia, which has a large population of less than 260 million, there is an enormous opportunity for social, economic, cultural, and political contact [7]. Strategic policies and activities in carrying out their duties must not ignore social, cultural, political, and economic factors. Organisations must formulate an approach to create environmentally friendly performance [8].

Organisations must maintain a harmonious with their environment [9]. relationship Organisational performance must be able to create benefits not only within the organisation but also must be able to provide added value to the environment [3], [4]. The sustainabilityoriented leadership trilogy concept influences the behaviour of individual leaders. This means that the principle of sustainability leadership which is based on a focus on people, planet and profit, has the main goal of individual awareness in directing the sustainable development goals of an institution [5], [7], [8]. Gardner et al. [10] state that the trilogy leadership model has goals aligned with sustainability-based organisational performance. Sustainability principles are the main focus of implementing the Sustainable Development Goals (SDGs) program. Decisions and policies made by a leader are not only expected to influence the success of the organisation but also the behaviour of all its employees [11], [12]. Behaviour in this context emphasizes environmental awareness behaviour based on the triple bottom line [13]. So, the leadership trilogy of sustainability consists of leaders as role models, motivators, leaders providing independence, and leaders who are triple-bottom-line oriented. These four principles must be included in every organisational work program to generate employee loyalty [14], [15].

The best leadership for organisational members is to provide as much space as possible to increase their potential and then express it creatively and responsibly according to each member's abilities [12], [13]. This leadership pattern is contained in the principles of the sustainability leadership trilogy [11]. According to Okebiro and Nyakundi [16], sustainability leadership creates opportunities for positive environmental performance. Polong and Kimutai [17] also stated that a leadership pattern based on sustainability principles would create structured organisational focused performance. Mohammed [18] said the sustainability trilogy leadership pattern was introduced on a triplebottom-line basis to improve sustainability performance. Duong et al. [19] concluded in their research that the sustainability trilogy leadership pattern influences sustainability performance (economic, environmental, and social). A sustainability-based leadership pattern is the main demand for organisations today. Thus, this pattern will create harmony within the organisation internally and externally [16], [20].

Harmonisation of sustainability principles in leadership patterns is a current trend in organisations. Several studies have stated that the sustainability trilogy leadership pattern has a major impact on achieving green performance in hotels [21]-[23]. Other research states that trilogy leadership influences organisational performance achievements. Aboramadan and Karatepe [24] also stated that the sustainability leadership trilogy pattern positively affects green performance. Abbas and Khan [23] state that the leadership trilogy pattern significantly influences the achievement of sustainability and green performance. However, several other studies found different research results, namely that the trilogy leadership pattern did not influence organisational performance achievements [21], [22]. Nugroho et al. [12] found that sustainability-based leadership does not affect environmental performance. Nugroho [11] also said that the trilogy leadership pattern does not affect green performance. Based on the differences in research results, it is necessary to consider research again using the same research variables with different conditions in each country and company.

A firm's resources play a significant role in building environmental strategies (Hart, 1995). Moreover, Banerjee (2002) stated that green culture is a significant resource for organisations that might support green performance and competitive advantage. Researchers stated that it is probable that green cultural practices can lead to enhanced environmental performance (García-Machado & Martínez-Avila, 2019). Moreover, researchers have confirmed that green culture is most significant for organisations seeking competitive advantage (Gürlek & Tuna, 2018). Managerial teams and organisations have developed a culture to circulate values to direct firm objectives (Gao, 2017). In organisations, green culture supports environmentally friendly values and directs management to become aware of the utilisation of resources, energy consumption, and waste thus enhancing organisational produced, green performance (Wang, 2019). To increase sustainable performance, leaders who uphold ethical standards compatible with the company's ethical climate may promote workers' pro-environmental intentions future environmental-supportive behaviours (Chang et al., 2020; Xuecheng et al., 2022).

At first glance, the description above can be an afterthought in attitude and behaviour when making policies. Employees must be equipped with dynamic capabilities to harmonise their work with technological developments and environmental conditions of social, cultural, economic, political, and legal factors [25]. We want a harmonious and human relationship between the company and its stakeholders, who have local wisdom values but still have high competitiveness [26]. Efforts to improve the ability of employees to adapt dynamically cannot be separated from the organisation's support in improving their abilities, which can be done by adding insight into education, training, and development programs [27]. In improving employees' skills, the company must create the right strategy [28]. The leader plays a major role in improving the dynamic competence of employees. Leaders must be able

to set an example, build expectations, motivate appropriately, and provide encouragement so that the expected competencies are realised [29]. Sustainable leadership is a management approach that provides solutions for the world's environmental, social, and economic challenges. It acknowledges leadership as an influence process and deconstructs silos to make leaders work collaboratively for change and transformation [30], [31]. Sustainable leaders understand and embrace the world's growing complexity, making them more adaptable. Most significantly, long-term thinkers see people and the environment as integral parts of the business [24]. Guided by strong values, they undertake bold steps that prioritise the organisation's impact on future generations, not just the current quarter. With these qualities embedded in their management approach, sustainable leaders prepare the organisation for success and growth [32], [33]. According to the Value Reporting Foundation, we are already suffering the negative consequences of climate change. It is not hard to predict that environmental catastrophes will keep upsetting the world's supply networks and obstruct access to food and energy if organisations do not employ sustainable leadership in their business operations [34], [35]. Moreover, sustainable leadership is also important as businesses that respect sustainability increasingly attract top talent and customers. On the other hand, businesses that do not take reasonable action to meet sustainability goals are falling behind [3], [4]. Therefore, organisations must build new modes of operation that support the interdependent systems of business, humanity, and the global environment by cultivating decision-makers who share the qualities of sustainable leaders [10], [28].

The management's concern for an organisation's social environment, culture, and problems around it is, at least, necessary for the organisation and a reference in making strategic decisions [29]. Companies are facing pressure to be more environmentally friendly. As a result, companies must review their production

processes due to pressure from society and the government [32]. Therefore, organisations need serious efforts to improve green performance, which starts at the individual level and will then impact organisational green performance [22].

The driving force for green performanceoriented to local wisdom can at least be achieved through the ability to dynamically combine the development of science, technology, and local wisdom as an act of adaptation to the organisation's environment [34], [35]. The combination of the development of science with the values of local wisdom will create a green performance that will create harmony between the organisation and stakeholders [13]. Here, the pattern and style of leadership become very important in encouraging employees to achieve increasing degrees in the ability to dynamically combine science, technology, and local wisdom values [36].

Sustainability leadership reaffirms the importance of existing knowledge to expand our understanding of leadership and what it means to lead and implement sustainable outcomes. This section will examine the key findings from the sustainability leadership literature that best promote sustainability practices. The key findings ascertained include the following: (1) Taking action on sustainability values (including task and transactional leadership); (2) the importance of finding sustainable solutions demonstrating values, ethics, and care; (3) developing relationships that influence all stakeholders and creating opportunities to generate solutions (including relational and transformational leadership); (4) leading organisational change; and (5) organisational culture.

A leadership style can be a trigger for increasing green performance. Green Transformational Leadership has been empirically to increase Green proven Performance [21], [22]. In Indonesia, a theory of leadership was born earlier than the existing theory of leadership. The leadership of the Trilogy has long been conveyed by Ki Hadjar Dewantara [11], [12]. The Leadership Trilogy

characterises a leader's style in achieving organisational goals through example, building goals and motivation, and providing encouragement to subordinates to create strength to achieve common goals [25], [36].

Leadership style has proven its role in creating innovation capabilities as an adaptation effort [37]. However, there needs to be an enrichment of the framework of thinking that comes from creativity and the ability to think dynamically in exploiting and exploring all things related to human activities in organisations [14]. Creativity and the ability to think dynamically to create green performance must be consistent with the organisation's ideals [15].

Dynamic exploration capabilities rooted in local wisdom at least accommodate several dimensions, the physical, social, and cultural environment, norms, and noble values, as well as applicable laws or regulations [17], [18], [20]. Given the dimensions that must be considered in creating dynamic exploration capabilities, support is needed to improve the quality of the human capital. The quality of human capital will not increase without the encouragement of leaders in policies to improve the quality of knowledge and the skills of their subordinates [19]. However, some research results show that there is a controversy between the results of the trilogy and green performance. Several researchers state that leadership positively affects green performance [36], [38].

The sustainability leadership trilogy pattern is based on leadership theory [11]. Sustainability leadership patterns will contribute to preserving nature and the environment [12]. The focus of sustainability leadership is a mindset and leadership program that prioritises nature conservation and sustainability. Thus, this research explores the leadership pattern of the sustainability trilogy towards achieving a green performance of state-owned companies in Indonesia [37]. Green performance is the research objective because companies in Indonesia have been mandated in regulation to uphold a green economy-oriented vision and mission and emphasise that sustainability principles apply

in these government-owned companies [8]. This research examines and analyses the influence of the sustainability trilogy leadership pattern on green performance with the moderating role of Dynamic exploration capabilities as a perspective of belief in local wisdom [35].

Literature Review and Hypotheses

Sustainability Trilogy Leadership and Organisational Training Support

Leadership is a style that manages organisational resources with a clear indicator to achieve common goals most efficiently and effectively [39]. In Indonesia, a theory about leadership has been proposed, it is the leadership trilogy, which was expressed by Ki Hadjar Dewantara characterised by three indications [11], [12]. The first is a leadership style that provides examples to followers to unite attitudes and behaviours that must be done to achieve common goals [25]. The second is to build common goals by developing the motivation of subordinates to achieve shared goals, and the third is to provide support to strengthen enthusiasm and determination and provide support to increase knowledge, and skills and encourage behaviour to facilitate the achievement of organisational goals [37]. To improve abilities and skills, employees must receive training that follows their needs to eliminate the gap between the skills needed and the skills possessed by the employee. It is predicted that the increase in organisational support in training will improve the quality of employee performance [13], [14], [40].

The other supporting theory of the current research study is the stakeholder theory which assumes that a company is liable to address various stakeholders' interests in all activities to guarantee effective achievement on the business front (Barter, 2011). Employees, owners, communities, and the environment are examples of key stakeholders. Secondary stakeholders include organisations representing trade and industry, governmental agencies, people involved in the supply chain, the media, and rival businesses. It specifies that

responsible leadership significantly influences an organisation's sustainable performance through actions, guidance, attitude, and belief. Additionally, according to social learning theory, responsible leaders also have an impact on the organisation's sustainable climate by building confidence and modelling their behaviour (Wang & Lin, 2017; Yuriev & Sierra-Baron, 2020). The social learning theory concept explicitly states that a leader's responsible behaviour gives rise to an organisation's epistemic motivation, which encourages staff to take part in environmental advocacy actions like utilising eco-friendly materials, reducing energy consumption, and motivates others to engage in sustainable practices (Duschl, 2008).

The concept of the sustainability leadership trilogy emerged because of the demands of the government's vision and mission which prioritises the principle of sustainability (triple bottom line) in an organisation or government [18]. Government-owned [15],industries (SOEs) are no exception. The sustainabilitybased trilogy leadership pattern has strong principles for achieving environmentally friendly organisational goals and strengthening social relations. SOES's sustainability concept is to smarten social life and preserve the universe by reducing carbon emissions, promoting energy efficiency, conserving water and electricity, and preserving the environment through green programs [19]. Based on research, Wakefield [13] states that the sustainability leadership trilogy pattern can influence organisational policies to improve training and increase the company's green performance achievements. Sharma et al. [22] also stated that sustainability leadership could improve green performance by placing training on environmental sustainability as the main goal of government-owned company operations. Sustainability leadership influences organisational policies to conduct sustainability training to achieve the company's sustainabilityoriented vision and mission [10].

Several studies have shown that several leadership styles can improve employees' ability to contribute positively to the organisation. The transformational sustainability leadership style is related to organisational support for employee performance when there is a gap in employee competence, and investing in appropriate learning will have a highly trained workforce [36].

H₁: The higher the sustainability trilogy's leadership style, the higher the organisational support for training programs.

Organisational Training Support and Dynamic Exploration Capability

Generally, green innovation is also called ecological, environmental, or sustainable innovation [34]. Unlike traditional innovation, green innovation is an application activity that achieves economic growth, resource conservation, and environmental protection through new ideas and technologies [27]. From the system theory perspective, green innovation combines industrial innovation system theory and green economy theory, involving green products and processes [35]. It generally refers to introducing any new or significantly improved product, process, organisational change or marketing scheme to reduce the consumption of natural resources and the emission of harmful substances in the product life cycle [36]. Specific to the pollution industry, it means the optimal allocation of green innovation elements under the constraints of resources and environmental policies. Relevant research has also pointed out that the green innovation system is not only directly affected by resources and environmental policies. Besides, a policy will indirectly impact the system through external factors such as foreign direct investment and enterprise technology introduction. There are also large differences in the degree of impact between different companies [37]. The process of green innovation in polluting industries is a complex network system with multiple elements and paths interacting [38]. Therefore, this study holds that green innovation in pollution industries is the sustainable innovation of balancing "economic

quality and efficiency increase" and "reducing resource consumption and environmental pollution" based on the perspective of resources and the environment.

Global challenges can be overcome with an open mind, not stuck in a routine. Global challenges require the ability to think about a problem from various points of view. Creative thinking is obtained from the integration of science, it is a critical need for human resources in the current global era [41]. The concept of dynamic exploration capability is based on the theory of ambidexterity and the concept of dynamic capability. Ambidexterity shows two sides of activity: Exploration and exploration [23], [42]. The theory of dynamic capabilities, as expressed by Zhou et al. [41], is that the ability to maintain competitiveness is done through increasing, combining, protecting, and reconfiguring the company's intangible assets, such as reconfiguring workforce capabilities.

Dynamic Exploration Ability is dynamic acquiring scientific and adaptability in technological developments by integrating the organisational environment [43]. In integrating the organisational environment, the perspective of local wisdom is the main consideration in this study [39]. Organisations must be able to organise training programs that polish workers' abilities and develop the competencies needed in the workplace and not ignore social values, culture, and local wisdom around the organisation [35], [44]. The following is presented in Figure 1 to clarify the birth of the concept of dynamic exploration capability:

From this description, it can be concluded that the training support provided by the organisation will increase the dynamic exploration ability of employees combined with local wisdom values.

H₂: The higher the degree of employee perception of the training support provided by the organisation, the higher the dynamic exploration ability of employees.

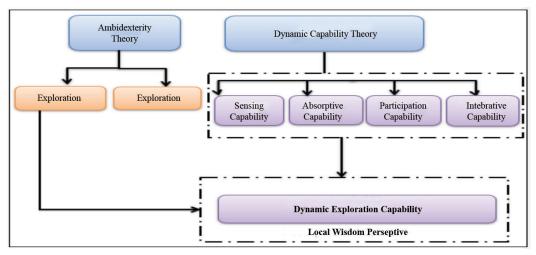


Figure 1: Synthesis of the concept of dynamic exploration capability

Sustainability Trilogy Leadership and Dynamic Exploitation Capabilities

Dynamic Exploration Capabilities bridge the influence of trilogy leadership and organisational training support on green performance, at least providing a new perspective [33]. Dynamic Exploration Capability is seen as a very important concept because it combines adaptability and at the same time modifies innovation capabilities without leaving local wisdom [34]. With the increase in Dynamic Exploration Capability, it is hoped that there will also be an increase in green, performance-oriented local wisdom. Local wisdom is an entity's wealth and will be a valuable resource when managed properly because local wisdom has its power [10]. Psychological empowerment has been the focus of much research recently, where it has been defined as the psychological aspect of the process by which people, organisations, and communities take greater control over their affairs [11], [12]. The empowerment of local wisdom must respond to changes in the organisational environment due to the rapid development of science and technology [13].

Several studies found that a sustainabilityoriented trilogy-based leadership pattern has a close relationship with dynamic exploitation capabilities [40]. This relationship occurs psychologically, influencing individuals to follow the path of leadership with an awareness of environmental sustainability and social harmonisation. Sustainability leadership can direct individual dynamic abilities towards improving performance. The research results in Mohammed [18] found that sustainability leadership influences a person's dynamic exploitation capabilities. Duong *et al.* [19] also found that the leadership of the sustainability trilogy leads to achieving organisational dynamic exploitation. Thus, organisational achievements will be reflected in the leadership pattern that oversees programs to create dynamic exploitation capabilities in employee performance [13], [37].

Dynamic Exploration Capability is an answer to acquiring the development of science and technology integrated with local wisdom [40], [41]. Three dimensions characterise the Leadership Trilogy. They are role models, and cultivating or awakening future dreams and giving strength to subordinates to achieve common goals is a great power as an effort to create Dynamic Exploration Ability [39], [43], [45]. Based on this description, the following hypothesis is proposed:

H₃: The higher the sustainability trilogy leadership degree, the higher the employee's Dynamic Exploration Ability.

Dynamic Exploration Capability and Green Performance

Many studies have tried to prove the concepts that affect green performance. The research by Khan *et al.* [42] focuses on green performance in production process innovation, for example, in selecting environmentally friendly materials and easily reprocessed materials. Other studies that discuss green performance were carried out by Martins *et al.* [36], proving that innovation in China's manufacturing industry shifts to green innovation and increasingly contributes to green growth.

This study looks at the other side of green performance, which is closely related to social, cultural, and prevailing norms, especially in developing countries such as Indonesia [11]. Green performance is friendly with ethics and norms and under Indonesian social culture [13], [45]. Dynamic Exploration Capability is an individual's ability to collaborate with the system and the method used in doing his work by considering the physical and non-physical environment. Dynamic Exploration Capability is seen from the perspective of local wisdom, for example, social relations between humans that have been filled with the influence of technology and foreign cultures but must still not abandon local wisdom [11], [12], [25]. Seeing the possible role of Dynamic Exploration Capability in

increasing green performance-oriented to local wisdom, a hypothesis is drawn as follows:

H₄: The higher the dynamic exploration ability of employees with the perspective of local wisdom, the higher the green performance oriented to local wisdom.

Empirical Research Model

Based on the hypothesis that has been proposed above, the Empirical Research Model (ERM) can be described in Figure 2.

The Empirical Research Model (ERM) above describes the causal relationship between the variables in the study. The empirical research model (ERM) explains that trilogy leadership is an exogenous variable as a predictor for endogenous variables, either endogenous as an intervening variable or a dependent variable.

Research Methodology

Population

The population in this study are employees at the State-Owned Enterprises (SOEs) office of the Republic of Indonesia. The reason for taking the population in SOEs is to prove the role of the new theory or concept proposed and the dynamic exploration ability in improving the green performance of SOE employees. State-

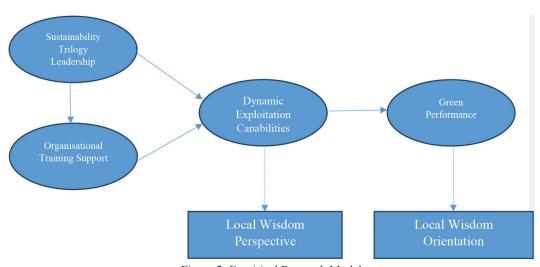


Figure 2: Empirical Research Model

owned enterprises (SOEs) such as PT. Telkom, PT. POS, and PT. KAI is very much needed by the Indonesian and the international community to meet the needs of its services, so it is hoped that it will be able to provide pleasant, socially and culturally friendly services without leaving local wisdom behind.

Sample

The samples taken are 250 respondents. The method is a representative sample, using Stratified Random Sampling. Stratified Random Sampling would follow the population's condition, where the population has class levels.

Data Collection

Data was obtained by distributing a list of questions (questionnaires) containing questions on the variables in the research model. The data collected and processed are 157. As many as 157 of the data met the provisions in data processing using SEM [16].

Measures

The questionnaire used in this study is in the form of questions with the content of choices 1 to 10. Number 1 indicates the perception of the question with the lowest score, and 10 is the research variable's highest value. If the choice is related to agree and disagree, then the smaller choice means strongly disagree, and if the choice is bigger, it means strongly agree. To measure employee perceptions of the Sustainability Leadership Trilogy variable consists of four indicators as sources of questionnaire statements [10], namely (1) leaders as role models, (2) leaders as motivators (3) leaders can provide independence for employees, and (4) leaders are oriented towards the triple bottom line. To measure the degree of Training Support by Organisations the statements are [20]: (1) The company provides facility support for training programs, (2) The company provides support to implement new work methods based on the results of the training, (3) The company conducts training programs regularly, (4) The company motivates employees to participate in

training programs actively, and (5) The company provides awards for employee achievements in implementing the training results.

To measure the degree of employee ability on the Dynamic Exploration Capability variable in the perspective of local wisdom, five statement items are used [35]: (1) I work on assignments using information technology in line with applicable values, (2) I pay attention to consumers, even though work activities use a lot of IT, (3) I have developed my work methods several times, (4) The use of IT in my work does not reduce my friendliness in dealing with customers, and (5) The use of IT in my work does not reduce my empathy for stakeholders. To measure the degree of green performance, five statement items are used [36]: (1) I always use environmentally friendly information technology in carrying out my in line with local values, (2) always duties prioritise environmentally friendly information technology, (3) the probability of using information technology is very high, (4) value green information technology more than nongreen information technology, and (5) i always give high value to employees who use green information technology.

Data Analysis Method

The data that has been collected is then filtered to obtain data that can later be processed and included in the SPSS. Furthermore, the structural Equation Model (SEM) is used as an analytical tool to answer the proposed hypothesis. The reason for using SEM is its ability to analyse, starting from testing data quality and analysing hypotheses comprehensively. In addition, SEM will clearly show indicators in the model and the size of its role.

Results

Validity and Reliability

The validity of the data collected for each variable is taken from the output of the Standardised Regression Weights text, presented in Table 1.

Variable	Indicator	Validity		Reliability
Contain ability Tuils and Londonship	STL1	.688	Valid	
Sustainability Trilogy Leadership	STL2	.764	Valid	
	STL3	.687	Valid	0.965
	STL4	.732	Valid	
Organizational Traning Support	OTS1	.775	Valid	0.963
Organisational Traning Support	OTS2	.738	Valid	
	OTS3	.687	Valid	
	OTS4	.755	Valid	
	DEC1	.721	Valid	0.961
Dynamic Exploration Ability	DEC2	.741	Valid	
11011119	DEC3	.774	Valid	
	DEC4	.652	Valid	
Consum Danfaron	GP1	.687	Valid	0.962
Green Performance	GP2	.739	Valid	
	GP3	.671	Valid	
	GP4	.788	Valid	

Table 1: Instrument validity and reliability test results

Normality

Meanwhile, to determine the normality of the data on the indicators in this study was taken from the text output of the AMOS Assessment of normality, which is presented in Table 2.

Hypothesis Testing

The results of the proposed hypothesis are shown in Table 3.

Discussion

The sustainability leadership trilogy has a significant positive effect on organisational training support. The culture of setting an example for subordinates is very important. Employees must be able to behave and be used as role models by subordinates [10], [11]. In addition, it must be able to provide hope for the future. It shows that the future is very promising if employees can work earnestly. Of course, hope is logical and can be accepted by common sense. In line with research conducted

by Agus *et al.* [25], their research shows that the behaviour of company leaders greatly affects their subordinates. If the leader is creative and innovative, his subordinates are even more active in making improvements [12]. We are happy to provide input on the behaviour of creative and innovative leaders [45].

Organisational training support significantly positively affects dynamic exploration capability [46]. The creation of new methods must always be cultivated either by the leadership or by the employees themselves [20]. Creativity and innovation arenecessary to support new ways of working. Of course, the new method will becostefficient [38]. Regular and systematic training greatly increases employee productivity [32]. Employees can work above the targets set by the company [31]. This can happen if employees get positive motivation from the leadership. Motivation can be in the form of rewards, promotions, or others. In line with the research conducted by Errichiello and Pianese [29], their findings state that positive motivation greatly

Tabel 2: Normality data

Variable	min	max	skew	c.r.	kurtosis	c.r.
OTS4	5.000	10.000	.130	.840	164	529
OTS3	5.000	10.000	096	621	381	-1.229
OTS2	5.000	10.000	.193	1.243	226	731
OTS1	5.000	10.000	003	019	262	847
STL4	5.000	10.000	004	023	365	-1.177
STL3	5.000	10.000	009	060	382	-1.232
STL2	5.000	10.000	050	321	261	843
STL1	5.000	10.000	.036	.235	409	-1.319
DEC4	5.000	10.000	.020	.126	150	485
DEC3	5.000	10.000	.111	.718	040	130
DEC2	5.000	10.000	.068	.437	262	845
DEC1	5.000	10.000	.093	.598	181	584
GP4	5.000	10.000	154	995	374	-1.206
GP3	5.000	10.000	065	418	337	-1.087
GP2	5.000	10.000	004	024	432	-1.394
GP1	5.000	10.000	093	601	384	-1.240
	Multivariate			70.523	23.230	

Table 3: Regression weights

Hypothesis			Estimate	S.E.	C.R.	P	Description
Sustainability Trilogy Leadership	\rightarrow	Organisational Training Support	.368	.084	4.392	***	Accepted
Organisational Training Support	\rightarrow	Dynamic Exploitation Capabilities	113	.075	-1.506	.132	Rejected
Sustainability Trilogy Leadership	\rightarrow	Dynamic Exploitation Capabilities	.286	.082	3.502	***	Accepted
Dynamic Exploitation Capabilities	\rightarrow	Green Performance	.224	.079	2.817	.005	Accepted

determines dynamic exploration abilities. Thus, it is very important for leaders to always give awards to employees who achieve achievements above the target [30].

The sustainability leadership trilogy has a significant positive effect on dynamic exploration capability. Competence for employees to improve company performance is

very important [10], [12]. It is the competence of employees that determines the progress and development of an organisation. Leaders who can manage and place employees according to their respective competencies [11]. If this can be done, organisational performance can increase [37]. Leaders must be able to motivate employees, Wakefield [13] always increases

motivation to achieve to benefit both parties, the organisation and the employees. In line with the research conducted by Abbas [21], their research states that human resources determine the progress or decline of an organisation. Therefore, companies must give serious attention to their employees [47].

The next four decades will be the most important in human history because we face a global environmental crisis. In the face of this enormous obstacle, we need decisive, thoughtful action, and we need individuals who understand what leadership should look like in the face of multifaceted challenges [48], [49]. The government's focus on making SOEs a supporter of the economy aims to develop sustainability programs in various sectors. Basically, sustainability in an organisational context refers to an organisation's ability to maintain good performance in the long term while managing resources wisely, paying attention to its social impact, and adapting to changes occurring around it [27], [28]. In this context, sustainability leadership plays a very important role. The relevance of sustainability leadership in the modern era is crucial [8], [30]. Leaders who focus on sustainability deeply understand the complexity of environmental and social issues and can lead organisations by involving aspects of sustainability in every decision and strategy taken [31], [46]. Moreover, if sustainable leadership is combined with the leadership trilogy theory initiated by Indonesian leadership figure Ki Hajar Dewantara, then the company's leadership pattern will be complete, especially leading government-owned in organisations or institutions [11], [12].

The Leadership Trilogy concept provides guidance or role modelling and provides an easy path for people organised in formal organisations to achieve predetermined goals [10]. The best leadership trilogy concept for organisational members is to provide as much space as possible for them to increase their potential and then express it in creative and responsible ways following the abilities of each member. The Sustainability Leadership Trilogy also responds

to the increasing demands and expectations of various stakeholders, including employees, customers, society and regulators [11]-[13]. Organisations that can practice the sustainability leadership trilogy concept effectively will gain long-term benefits in the form of sustainability and competitive advantage and gain greater trust and support from stakeholders [47].

sustainability leadership The trilogy pattern influences Organisational Training Support, meaning that leadership programs with sustainability implementation tend to have narrower and well-defined leadership training pathways, most likely because this is a traditional leadership training area and sustainability has only recently been added as a training pathway [17], [18], [20]. These programs - typically offered to current professionals - focus more on self-reflection, communication, and specific skills related to leadership, assuming that participants or employees have achieved basic sustainability literacy. 62% of these programs highlight systems thinking; transformational leadership is commonly taught [38].

The sustainability leadership trilogy pattern influences Dynamic Exploitation Capabilities, meaning that in facing competition in the era of globalisation, SOEs as government-owned companies, are required to abandon the resource-based paradigm [50]. Competitiveness, where organisations considered superior and competitive have complete production factors such as capital, land, labour, buildings, and location, is using the knowledge-based competitiveness paradigm as a new foundation for exploitation and management. Knowledge is available in every human resource and technology to achieve excellence and competitiveness at the most optimal level [5], [7].

Dynamic Exploitation Capabilities influence green performance, and this means that most program leaders refer to a definition that goes beyond simply "conserving" resources which refers to restoration and improving the quality of life [35], [46]. For example, one interviewee called sustainability "a successful

world" while another stated that sustainability is "not just about the status quo, but about making things better than before." Finally, one program director stated that sustainability is about "reaching the human potential of this planet and helping us all grow." 44% of program directors include action orientation or time orientation in their sustainability framework, demonstrating the active nature of the concept to program leaders [39], [44], [45].

Exploitation Capabilities Dynamic encourage green performance achievement in Indonesia's SOEs in this condition. Achieving green performance is one of the biggest hopes for SOEs because it is required to create a situation that leads to sustainable development [51], [52]. One of the sustainable development programs is green economics [23]. This achievement will be successful if a sustainable system and strong environment-based management in SOEs support it. Exploitation dynamically influences green performance because, in the context of this research exploitation is about building human resources that are established and aware of the preservation of the earth for the future and remain sustainable [21], [22], [36]. Climate change and carbon emissions are the biggest challenges for the sustainability of Indonesian SOEs, so through sustainability programs, we will be able to increase the company's capability to become both economically, socially, and culturally sustainable [53].

Most programs define leadership as engaging people and utilising group skills (more than 50% of respondents). The most interesting comments regarding this form of leadership include: "It does not matter whether you are a prostitute or a prime minister, and everything in between, everyone has the potential to be a leader in sustainability." One program director emphasised harnessing the power of groups, "the ability of individuals to create more change than they could through their efforts alone... whenever a person can take advantage of their time and get others to follow their example or take on efforts that they would not otherwise undertake rather, by actually utilising their thinking and effort."

Other words that frequently appear in leadership definitions include "process," "collaboration," "facilitation," and "engagement," indicating the change orientation and group dynamics valued by program directors.

Sustainability leaders ensure sustainability becomes an integral part of the organisation's strategy [10]. They identify and integrate sustainability goals in strategic plans, ensure that sustainability is considered in decisionmaking, and measure progress in achieving those goals [11]. Integrating sustainability in organisational strategy enables organisations to manage risk, create long-term value, and achieve success. Sustainability-oriented sustainable leaders have a long-term, sustainable vision that provides direction and inspiration for the organisation [54]. They develop sustainabilityoriented values, such as integrity, responsibility, collaboration and innovation. These values shape an organisational culture prioritising sustainability and creating an environment where employees feel engaged, motivated and committed to achieving sustainability goals [43]. Leaders with sustainability principles encourage innovation that focuses on sustainable solutions. They motivate employees to think creatively, find new ways to reduce environmental impact, increase operational efficiency, and create sustainable products and services [3]. In addition, sustainability leaders also promote organisational adaptation to environmental and social changes that occur [2]. They build flexible organisations ready to face new challenges and seize emerging opportunities to innovate and grow [23].

Conclusions, Implication, and Recommendation Conclusions

The Sustainability leadership trilogy significantly positively affects organisational training support and dynamic exploration capability. Leaders should always be able to set a good and valuable example for employees. Subordinates will imitate leadership behaviour. In addition, leaders must be able to provide reasonable expectations

for employees. It can motivate employees to achieve glorious peak performance. The spirit from within the employees will grow by itself, not because of the leadership's coercion. To achieve that, the leaders must provide facilities and dynamic working conditions. High motivation of employees, balanced with adequate facilities, can produce maximum performance.

Organisational training support does not affect dynamic exploration capability. Leaders must provide programs that are appropriate and beneficial to employees. The level of employee performance can measure the effectiveness of the training program. In this case, the higher the employee's performance, the more effective the training program. This maximum employee performance can benefit customers in terms of service. Consumers get satisfactory service; in the end, customer satisfaction is more profitable for the company.

Dynamic exploration capability has a significant positive effect on green performance. Innovation and creativity will determine green performance. Thus, it is necessary to explore local wisdom that can be raised nationally and internationally. In addition, the use of information technology also determines work effectiveness which can improve green performance. An effort is made to improve green performance. This can be done by giving sincere attention to customers with a friendly attitude and service.

Implication

The results of the study provide a clear direction supported by empirical evidence, including both the accepted and rejected hypotheses. The implication is that green performance will not be achieved without increasing dynamic exploit capabilities. Meanwhile, the dynamic exploration ability will increase when it is influenced by sustainability trilogy leadership as a mediating variable.

Recommendation

The recommendations that can be provided to managers, especially at the managerial level, are those efforts to improve green performance, including improving indicators of dynamic exploration capabilities. Dynamic exploration indicators will increase in quality when there is a strong push from the organisation initiated by the Sustainability trilogy leadership.

Limitations and Future Research

Limitation

The limitation of this research is that it only involves samples taken from SOEs without involving business companies outside of SOEs. The number of variables used in the empirical research model is limited. Limited variables greatly affect the results of the analysis of the hypothesis.

Future Research

Due to the limitations in this research on the number of research objects limited to SOEs, future research can consider adding research objects to business companies outside of SOEs. Furthermore, enriching the perspective to improve green performance will be more adequate if several antecedent variables are developed. As for the hypothesis that predicts the influence of trilogy leadership on dynamic exploration ability which is rejected, it becomes a space for future research, looking for something that causes this hypothesis to be rejected or proposing a new theory that can answer why this hypothesis is not proven.

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Conflict of Interest Statement

The authors declare that they have no conflict of interest.

References

- [1] Gigauri, I. (2020). Organisational support to HRM in times of the COVID-19 pandemic crisis. *Eur. J. Mark. Econ.*, *4*(1), 16-30.
- [2] Tavitiyaman, P., So, C. Y. A., Chan, O. L. K., & Wong, C. K. C. (2022). How task technology fits with employee engagement, organisational support, and business outcomes: Hotel executives' perspective. *J. China Tour. Res.*, 18(6), 1212-1238.
- [3] Cop, S., Alola, U. V., & Alola, A. A. (2020). Perceived behavioral control as a mediator of hotels' green training, environmental commitment, and organisational citizenship behavior: A sustainable environmental practice. *Bus. Strateg. Environ.*, 29(8), 3495-3508,
- [4] Manzoor, U., Irfan, A., Baig, S. A., Sajjad, I., Ullah, A., & Khalid, N. (2021). The relationship between perceived training and development and employee retention: The mediating role of work attitudes and the moderating role of organisational support. *J. Public Value Adm. Insight*, 4(3), 232-250.
- [5] Ridwan, M., Mulyani, S. R., & Ali, H. (2020). Improving employee performance through perceived organisational support, organisational commitment and organisational citizenship behavior. Syst. Rev. Pharm., 11(12).
- [6] Tóth, B., Lippai-Makra, E., Szládek, D., & Kiss, G. D. (2021). The contribution of ESG information to the financial stability of European banks. *Public Finan. Q.*, 66(3), 429-450. doi: 10.35551/PFQ_2021_3_7.
- [7] Wen, J., Huang, S. S., & Hou, P. (2019). Emotional intelligence, emotional labor, perceived organisational support, and job satisfaction: A moderated mediation model. *Int. J. Hosp. Manag.*, 81, 120-130.

- [8] Syahruddin, S., Hermanto, H., & Wardini, A. K. (2020). The influence of communication, training, and organisational culture on employee performance. J. Organ. dan Manaj., 16(2), 171-181.
- [9] Varaniūtė, V., Žičkutė, I., & Žandaravičiūtė, A. (2022). The changing role of management accounting in product development: Directions to digitalisation, sustainability, and circularity. *Sustain.*, *14*(8). doi: 10.3390/su14084740.
- [10] Gardner, W. L., Lowe, K. B., Meuser, J. D., Noghani, F., Gullifor, D. P., & Cogliser, C. C. (2020). The leadership trilogy: A review of the third decade of the leadership quarterly. *Leadersh. Q.*, 31(1), 101379.
- [11] Nugroho, S. (2021). Ki Hadjar Dewantara leadership development and its effect on sustainable shareholder value moderated by it and business strategy alignment. *J. Data, Inf. Manag.*, *3*(2), 97-107.
- [12] Nugroho, S., Nimran, U., Al Musadieq, M., & Solimun, S. (2020). Ki Hadjar Dewantara leadership concept development as a sustainable shareholder value driving force. *J. Asian Financ. Econ. Bus.*, 7(11), 563-573.
- [13] Wakefield, V.-N. T. (2023). Leadership characteristics as predictors of Juran Trilogy Principles and influence on leaders' business decisions. *J. Leadership, Account. Ethics*, 20(3).
- [14] Katou, A. A., Kafetzopoulos, D., & Vayona, A. (2023). Investigating the serially mediating mechanisms of organisational ambidexterity and the circular economy in the relationship between ambidextrous leadership and sustainability performance. Sustainability, 15(10), 7937.
- [15] Al Faruq, M. S. S., Rozi, M. A. F., & Sunoko, A. (2023). Implementation of the Juran Trilogy in improving the quality of Islamic Higher Education. *Al-Hayat J. Islam. Educ.*, 7(2), 668-680.

- [16] Okebiro, G. N., & Nyakundi, A. K. (2022). Ethos of diversity, equity and inclusion in leadership strategy for sustainable quality and standard education in Higher Ed Institutions in Kenya. In *Leading with diversity, equity and inclusion: Approaches, practices and cases for integral leadership strategy* (pp. 357-378). Springer.
- [17] Polong, N. S., & Kimutai, G. (2022). Leadership and customer focus on sustainability of small holder dairy farming projects in Kajiado County, Kenya. *Bus. Adm. Manag. Res. Journal*, *3*(2), 291-304.
- [18] Mohammed, R. R. (2023). The effect of transformational leadership style on the sustainable performance of manufacturing industry in Iraq: The mediating role of social responsibility. *J. Econ. Dev. Environ. People*, 12(2), 65-82.
- [19] Duong, K. D., Truong, P. H., Van Nguyen, D., & Le, A. N. N. (2023). The trilogy between CEO overpower, green credit, and core competence: Evidence from commercial banks in Vietnam. *Heliyon*, *9*(10).
- [20] Pawłowicz-Szlarska, E., Forycka, J., Harendarz, K., Stanisławska, M., Makówka, A., & Nowicki, M. (2022). Organisational support, training and equipment are key determinants of burnout among dialysis healthcare professionals during the COVID-19 pandemic. J. Nephrol., 35(8), 2077-2086.
- [21] Abbas, J. (2020). Impact of total quality management on corporate green performance through the mediating role of corporate social responsibility. *J. Clean. Prod.*, 242, 118458.
- [22] Sharma, S., Prakash, G., Kumar, A., Mussada, E. K., Antony, J., & Luthra, S. (2021). Analysing the relationship of adaption of green culture, innovation, green performance for achieving sustainability: Mediating role of employee commitment. J. Clean. Prod., 303, 127039.

- [23] Abbas, J., & Khan, S. M. (2023). Green knowledge management and organisational green culture: An interaction for organisational green innovation and green performance. *J. Knowl. Manag.*, 27(7), 1852-1870.
- [24] Aboramadan, M., & Karatepe, O. M. (2021). Green human resource management, perceived green organisational support and their effects on hotel employees' behavioral outcomes. *Int. J. Contemp. Hosp. Manag.*, 33(10), 3199-3222.
- [25] Agus, C., Cahyanti, P. A. B., Widodo, B., Yulia, Y., & Rochmiyati, S. (2020). Cultural-based education of Tamansiswa as a locomotive of Indonesian education system. *Univ. as Living Labs Sustain. Dev. Support. Implement. Sustain. Dev. Goals*, 471-486.
- [26] Lee, H., & Chui, J. (2019). The mediating effect of interactional justice on human resource practices and organisational support in a healthcare organisation. *J. Organ. Eff. People Perform.*, 6(2), 129-144.
- [27] Jehanzeb, K. (2020). Does perceived organisational support and employee development influence organisational citizenship behavior? Person–organisation fit as moderator. *Eur. J. Train. Dev.*, 44(6/7), 637-657.
- [28] Al-Khasawneh, A. L., Eyadat, H. M., Alrawad, M., Almaiah, M., & Lutfi, A. A. (2022). The impact of organisational training operations management on job performance: An empirical study on Jordanian government institutions. *Glob. Bus. Rev.*, 09721509221133514.
- [29] Errichiello, L., & Pianese, T. (2021). The role of organisational support in effective remote work implementation in the Post-COVID era. In *Handbook of research on remote work and worker well-being in the post-COVID-19 era* (pp. 221-242). IGI Global.

- [30] El-Kassar, A.-N., Dagher, G. K., Lythreatis, S., & Azakir, M. (2022). Antecedents and consequences of knowledge hiding: The roles of HR practices, organisational support for creativity, creativity, innovative work behavior, and task performance. J. Bus. Res., 140, 1-10.
- [31] Imran, M. Y., Elahi, N. S., Abid, G., Ashfaq, F., & Ilyas, S. (2020). Impact of perceived organisational support on work engagement: Mediating mechanism of thriving and flourishing. J. Open Innov. Technol. Mark. Complex., 6(3), 82.
- [32] Amrutha, V. N., & Geetha, S. N. (2021). Linking organisational green training and voluntary workplace green behavior: Mediating role of green supporting climate and employees' green satisfaction. J. Clean. Prod., 290, 125876.
- [33] Mikalef, P., Krogstie, J., Pappas, I. O., & Pavlou, P. (2020). Exploring the relationship between big data analytics capability and competitive performance: The mediating roles of dynamic and operational capabilities. *Inf. Manag.*, *57*(2), 103169.
- [34] Rialti, R., Marzi, G., Ciappei, C., & Busso, D. (2019). Big data and dynamic capabilities: A bibliometric analysis and systematic literature review. *Manag. Decis.*, *57*(8), 2052-2068.
- [35] Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92, 102061.
- [36] Martins J. M., Aftab, H., Mata, M. N., Majeed, M. U., Aslam, S., Correia, A. B., & Mata, P. N. (2021). Assessing the impact of green hiring on sustainable performance: Mediating role of green performance management and compensation. *Int. J. Environ. Res. Public Health*, 18(11), 5654.

- [37] Agus, C., Saktimulya, S. R., Dwiarso, P., Widodo, B., Rochmiyati, S., & Darmowiyono, M. (2021). Revitalisation of local traditional culture for sustainable development of national character building in Indonesia. *Innov. Tradit. Sustain. Dev.*, 347-369.
- [38] Han, J. W., Nguyen, T. T. M., Hua, S. M., & Pham, T.-H. (2023). Organisational learning through training effectiveness: Evidence from the hospitality industry in Vietnam. *Learn. Organ.*, 30(5), 532-553.
- [39] Ghosh, S., Hughes, M., Hodgkinson, I., & Hughes, P. (2022). Digital transformation of industrial businesses: A dynamic capability approach. *Technovation*, *113*, 102414.
- [40] Słupska, U., Drewniak, Z., Drewniak, R., & Karaszewski, R. (2022). Building relations between the company and employees: The moderating role of leadership. *Sustainability*, *14*(14), 8840.
- [41] Zhou, S. S., Zhou, A. J., Feng, J., & Jiang, S. (2019). Dynamic capabilities and organisational performance: The mediating role of innovation. *J. Manag. Organ.*, 25(5), 731-747.
- [42] Khan, O., Daddi, T., & Iraldo, F. (2020). Microfoundations of dynamic capabilities: Insights from circular economy business cases. *Bus. Strateg. Environ.*, 29(3), 1479-1493,
- [43] Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Plann.*, 52(3), 326-349.
- [44] Mikalef, P., van de Wetering, R., & Krogstie, J. (2021). Building dynamic capabilities by leveraging big data analytics: The role of organisational inertia. *Inf. Manag.*, 58(6), 103412.
- [45] Jiang, Y., Ritchie, B. W., & Verreynne, M. (2019). Building tourism organisational resilience to crises and disasters: A dynamic

- capabilities view. Int. J. Tour. Res., 21(6), 882-900.
- [46] Santoro, G., Thrassou, A., Bresciani, S., & Del Giudice, M. (2019). Do knowledge management and dynamic capabilities affect ambidextrous entrepreneurial intensity and firms' performance? *IEEE Trans. Eng. Manag.*, 68(2), 378-386.
- [47] Saputra, K. A. K., Subroto, B., Rahman, A. F., & Saraswati, E. (2023). Mediation role of environmental management accounting on the effect of green competitive advantage on sustainable performance. *J. Sustain. Sci. Manag.*, 18(2), 103-115. doi: 10.46754/jssm.2023.02.008.
- [48] Saputra, K. A. K., Subroto, B., Rahman, A. F., & Saraswati, E. (2022). Eco-efficiency and energy audit to improve environmental performance: An empirical study of hotels in Bali-Indonesia. *Int. J. Energy Econ. Policy*, 12(6), 175-182. doi: 10.32479/ijeep.13565.
- [49] Saputra, K. A. K., Manurung, D. T. H., Rachmawati, L., Siskawati, E., & Genta, F. K. (2021). Combining the concept of green accounting with the regulation of prohibition of disposable plastic use. *Int. J. Energy Econ. Policy*, 11(4), 84-90. doi: 10.32479/ijeep.10087.

- [50] Atmadja, A. T., Saputra, K. A. K., Tama, G. M., & Paranoan, S. (2021). Influence of human resources. *J. Asian Financ. Econ. Bus.*, 8(2), 563-570. doi: 10.13106/ jafeb.2021.vol8.no2.0563.
- [51] Saputra, K. A. K., Atmadja, A. T., Koswara, M. K., & Tama, G. M. (2021). Examining the role of village funds in village Sustainable Development Goals (SDGs). South East Asia J. Contemp. Business, Econ. Law, 24(6), 45-51.
- [52] Saputra, K. A. K., Subroto, B., Rahman, A. F., & Saraswati, E. (2023). Sustainability performance in hospitality industry: Interaction of strategic sustainability management and Sat Kerthi culture. *J. Ilm. Akunt. dan Bisnis*, 18(1), 147. doi: 10.24843/jiab.2023.v18.i01.p10.
- [53] Ponte, S. (2020). Green capital accumulation: Business and sustainability management in a world of global value chains. *New Polit. Econ.*, *25*(1), 72-84. doi: 10.1080/13563467.2019.1581152.
- [54] Abbas, J., Raza, S., Nurunnabi, M., Minai, M. S., & Bano, S. (2019). The impact of entrepreneurial business networks on firms' performance through a mediating role of dynamic capabilities. *Sustainability*, 11(11), 3006.