Hungarian University of Agriculture and Life Sciences

JOB SATISFACTION AND PERFORMANCE OF EMPLOYEES AT SMALL AND MEDIUM-SIZED ENTERPRISES IN INDONESIA: THE ROLE OF GOING GREEN AND TECHNOLOGICAL ADAPTATION AFTER COVID-19

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List of Abbreviations

ACCA	Association of Chartered Certified Accountants
AI	Artificial intelligence
BI	Bank Indonesia
CeBIT	Centrum für Büroautomation, Informationstechnologie und Telekommunikation
CFA	Confirmatory factor analysis
CMB	Common method biased
CMIN	Chi-square value
C.R	Critical ratio
DF	Degree of freedom
DWLS	Diagonally weighted least squares
EC	European commission
EGB	Employee green behavior
EJS	Employee job satisfaction
EP	Employee performance
ETA	Employee technology adaptation
EU	The European Union
GFI	Goodness of fit index
GHRMPs	Green human resource management practices
GTL	Green transformational leadership
IBM	The International Business Machines
ITC	Information technology and communication
IT	Information technology
NFI	Normed fit index
NPAR	Number of parameters for each model
OECD	The Organization for Economic Cooperation and Development
P	Probability
PCLOSE	P-value for test of close fit
PGFI	Parsimony goodness of fit index
RFI	Relative fit index
RMR	Root mean square residual
RMSEA	Root mean square error of approximation
SAP	Systems applications and products
SDG	Sustainable development goals
SEM	Structural equation modeling
SMEs	Small and medium-sized enterprises
SPSS	Statistical package for social sciences
TLI	Tucker-Lewis index
UNIDO	United Nations Industrial Development Organization
US	The United States
UK	The United Kingdom
UKM	*Usaha kecil menengah*
WLS	Weighted least squares
WLSMV	Weighted least squares mean and variance

ABSTRACT

This study addresses the challenges related to the adoption of green and digital practices by leaders, human resource managers, and employees in small and medium-sized enterprises after the Covid-19 crisis. Its primary goal is to explore the relationships among green transformational leadership, green human resource management practices, employee green behavior, employee technology adaptation, employee job satisfaction, and employee performance. Built upon six hypotheses, which were further subdivided into 11 specific relationships, it examined cross-sectional primary data collected in South Sumatra, Indonesia, during the period of March to June 2023. 569 participants completed an online questionnaire distributed through social media. These respondents were affiliated with 119 small and medium-sized enterprises across various sectors, including manufacturing, services, and trade, located in the cities of Palembang, Lahat, and Lubuk-Linggau. The 6 variables, represented a total of 29 items. During the data analysis, one item was identified as invalid and excluded after a confirmatory factor analysis. Notably, a common method bias test did not reveal any significant bias in the data. The results from the structural equation modeling test, demonstrated that the tested models were well-fitting based on various fit indices. Out of the 11 tests examining the relationships between the 6 variables, four tests were supported. These findings confirmed that employee job satisfaction played a mediating role in the positive relationship between green human resource management practices and employee performance. Also, it was observed that employee technology adaptation had a positive relationship with employee job satisfaction. However, it did not act as a moderator either in the relationships between green transformational leadership and employee job satisfaction or between green human resource management practices and employee job satisfaction. This study underscores the importance of both sustainability and digitalization in the efforts of human resource managers and employees to enhance employee performance in small and medium-sized enterprises in the post-Covid-19 era.

Keywords: green transformational leadership; green human resource management practices; employee green behavior; employee technology adaptation; employee job satisfaction; employee performance; small and medium-sized enterprises

I. INTRODUCTION

1.1. Background

Studies on employee behavior have illuminated a range of factors that influence employee performance (EP), categorized into internal and external elements. Internal factors, originating from employees themselves, encompass work attitudes, while external factors encompass leadership styles and human resource management practices, among others. Scholars have explored various dimensions, including employee job satisfaction (EJS), mindfulness, involvement, and creativity as internal aspects, and leadership, human resource management practices, organizational culture, structure, and change as external components.

In recent years, the focus of employee behavior research has expanded to include environmental and technological considerations, which have emerged as global concerns for the future of organizations. Among these considerations, two internal perspectives—employee technology adaptation (ETA) and EJS—play pivotal roles, along with two external aspects—leadership styles and human resource management practices—in determining EP. Employees who can effectively adapt to technology and experience job satisfaction are more likely to deliver their best performance for the organization. Furthermore, leaders who influence employees with a green transformational approach and human resource managers who promote green practices are instrumental in achieving top-notch performance. This expansion in environmental research encompasses green approaches for leaders, human resource managers, and employees, demonstrating how green leadership and human resource management practices not only influence EP but also employee green behavior (EGB). In the technological domain, employee adaptation to technology has become a prominent focus in the study of employee behavior.

The current research landscape concerning sustainability and digitalization cannot be disentangled from the backdrop of the Covid-19 crisis between 2020 and 2023. This crisis has ushered in a new way of thinking, where the coexistence of sustainability and digitalization has become the bedrock of contemporary business competitiveness (Ha et al., 2022; Pylaeva et al., 2022). Both challenges have emerged concurrently and have triggered changes in the realm of human resources within business organizations. Even

before the Covid-19 crisis disrupted the business world, these factors were already reshaping employee attitudes and behaviors. In the epoch, sustainability had found a place in company agendas, with expectations of environmentally friendly behavior in the workplace, and leadership from environmentally conscious leaders and human resource managers played a key role in facilitating this transition. Concurrently, digital companies had begun challenging traditional business models (Feroz et al., 2021). Undoubtedly, technology adaptation has been a crucial aspect of digitalization, significantly growing EJS, a reality that has gained prominence since the onset of the Covid-19 era. Digitalization is propelling companies toward greater sustainability (Chen et al., 2020).

Extant studies have unequivocally established a strong connection between industry 4.0 and sustainability. The widespread use and rapid advancements in electrical and electronic equipment, including cyber-physical systems and the Internet of Things, have resulted in the generation of significant electronic waste, depletion of natural resources, and increased emissions (Chen et al., 2020). The proliferation of information and communication technology hardware has contributed to emissions and led to unsustainable production and consumption patterns (Bieser & Hilty, 2018). However, digitalization holds immense potential to support a sustainable urban lifestyle (Ringenson et al., 2018). While the macroeconomics of digitalization can drive additional energy consumption, it is crucial to maintain the coupling of economic growth and energy demand at the macro scale (Santarius et al., 2020). Digitalization has the capacity to enhance environmental performance and promote sustainability (Ha et al., 2022). In the contemporary business landscape, sustainability and digitalization are two of the most pressing issues. They exert tangible impacts on the workplace, particularly through the leadership and management within companies. Employing the right leadership style and implementing effective human resource management practices within organizations are pivotal to success in addressing these two critical subjects.

1.1.1. Going green for people in small and medium-sized enterprises

Sustainability has emerged as a critical consideration for the global economy in the post-Covid-19 era. Environmental concerns have moved to the forefront of the global economic agenda, indicating that the next significant crisis may revolve around environmental challenges. Simultaneously, businesses face growing pressure to adopt

sustainable practices and embrace green initiatives. Success in this evolving landscape hinges on their ability to adapt to climate-induced impacts and align with shifting trends in consumption, production, and policy. The International Trade Center (ITC, 2021) underscores the importance of a green recovery strategy for businesses grappling with the aftermath of the Covid-19 crisis. Moreover, according to the Association of Chartered Certified Accountants (ACCA, 2021), sustainability can serve as a catalyst for fostering growth.

In the post-Covid-19 era, individuals within small and medium-sized enterprises (SMEs) should actively embrace sustainability by 'going green.' This entails green transformational leadership (GTL) and green human resource management practices (GHRMPs), along with EGB. SME leaders should adopt a green style to influence others within the organization to adopt environmentally responsible practices. Simultaneously, human resource managers must implement green practices aimed at managing and promoting green behavior among employees. Employees, in turn, are expected to exhibit environmentally responsible behavior in the workplace.

Over the past two decades, environmental scholars have emphasized that SMEs significantly contribute to overall emissions and have adverse effects on the environment. Consequently, these companies have attracted substantial interest from researchers and government agencies, leading to the development of policies, tools, and programs aimed at reducing their environmental impact (Yacob et al., 2018). While SMEs undoubtedly make positive contributions to economies and societies, they also generate negative environmental impacts. Critical environmental challenges, such as rising energy costs, resource and waste management for cost savings, and ensuring health and safety in the workplace, present substantial opportunities for these companies (Johnson & Schaltegger, 2016). However, SMEs face various barriers to proactively addressing environmental concerns, including the perception that their environmental impact is minimal, limited capacity to focus on environmental issues, and concerns regarding relatively minor environmental effects (Lawrence et al., 2006). Additionally, a lack of financial resources and time constraints can hinder SMEs from investing in environmental initiatives (Burlea-Schiopoiu & Mihai, 2019).

Klewitz & Hansen (2014) have identified five distinct strategic sustainability behaviors exhibited by SMEs, each representing a different approach to sustainability. These behaviors include:

1. Resistant SMEs: These businesses tend to ignore environmental pressures and expectations, often neglecting sustainability considerations.
2. Reactive SMEs: These companies respond to external stimuli, such as governmental regulations or external stakeholder pressures, driving them to adopt sustainability practices.
3. Anticipatory SMEs: These businesses strategically time their innovation efforts to anticipate future sustainability opportunities.
4. Innovation-based SMEs: These proactive companies actively seek innovative solutions to environmental and social challenges, leveraging sustainability as a means to gain a competitive edge.
5. Sustainability-rooted SMEs: These businesses build their entire business models around the interplay of environmental, social, and economic factors. They are dedicated to contributing to the sustainable development of markets and society by promoting sustainability-oriented innovations in both niche and mass markets.

Current studies have delved into the green activities undertaken by individuals within SMEs, underscoring the urgency of environmental concerns within the workplace. However, there is a research gap in combining the 'green' concept with technological adaptation to drive the success of SMEs. While research has explored the relationship GTL, GHRMPs, and EGB, there remains a dearth of literature on the role of GTL and GHRMPs in influencing EP, a crucial work behavior. This presents an opportune research context, particularly for SMEs, where GTL and GHRMPs can potentially determine not only EGB but also EP.

Numerous studies have explored the relationship between transformational leadership, human resource management practices, and EGB, which, in turn, influences EP. Transformational leadership has been found to be closely related to EJS, a key determinant of EP (Draj & Saed, 2023; Muhajir et al., 2022; Ningsih et al., 2023). Similarly, various human resource management practices, including training, performance appraisal, and compensation, have been identified as significant factors impacting EJS (Hassan & Mohamed, 2023). Despite this extensive research, a notable research gap is the separation between studies focusing on EGB and those addressing EP, as depicted in Figure 1.

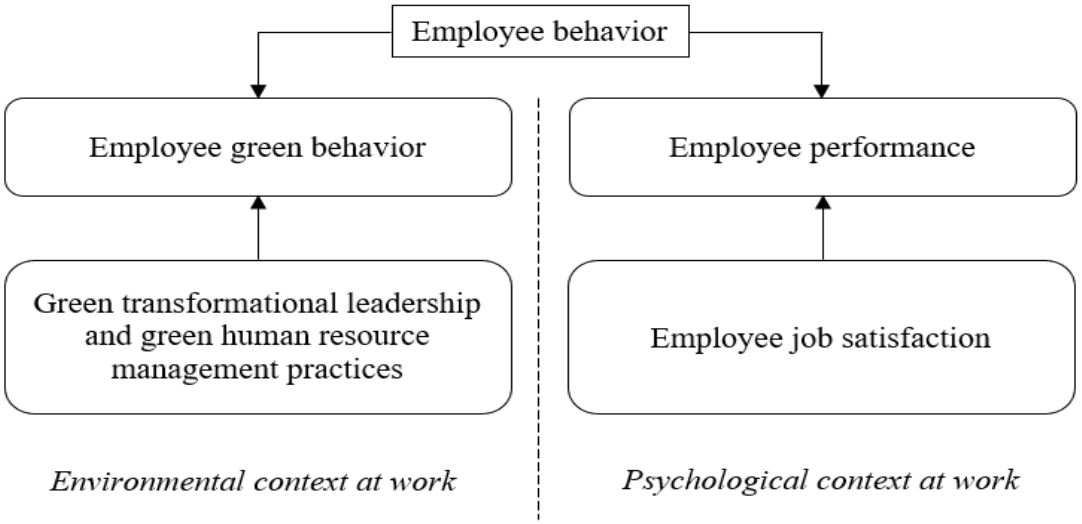


Figure 1. The gap between the environmental and psychological contexts in the study of employee behavior

Source: Author's own research

1.1.2. Going digital for employees of small and medium-sized enterprises

It is also crucial to recognize the importance of technological adaptation in the relationship. Technological adaptation is a significant factor that supports the research framework, particularly in the context of the Covid-19 crisis. It has brought about increased anxiety, stress, stigma, and discrimination among employees due to the abrupt changes in work routines (Bulińska-Stangrecka & Bagieńska, 2021). Consequently, there has been a notable surge in job migration towards digitalization (Kniffin et al., 2021). Encouragingly, the overall experience of the crisis has been positive, with remote work proving to be satisfying, and employee engagement levels on the rise (Ancillo et al., 2021). The intervention of technology adaptation appears to affect GTL, GHRMPs, and EJS. This intervention is becoming increasingly essential for SMEs, given the ongoing technological changes, as employees need to adapt to digital demands to maintain their performance. Many studies have discussed changes in EJS across three distinct eras: pre-Covid-19, during the Covid-19, and post-Covid-19 crises. It is important to recognize that the predictors of job satisfaction, such as leadership style and human resource management practices, are intertwined with the influence of technological adaptation, especially in the post-Covid-19 era.

SMEs have garnered increased attention from scholars in the wake of the crisis. These businesses are pivotal for countries worldwide in the era of globalization. The current state of the global economy has provided SMEs with opportunities for long-term growth through the use of smartphone applications. However, the crisis also presented significant challenges for them in numerous countries and industries (Rakshit et al., 2021). They keenly felt the economic repercussions of the crisis. Digitalization had already begun taking place within SMEs before the crisis, and its importance only grew during the crisis. According to the ITC (2018), digital platforms have opened up new opportunities for SMEs in terms of exporting their products. These platforms have significantly transformed the SME business ecosystem, impacting information sharing, financial transactions, and logistics, necessitating that they adapt to ongoing technological changes. Major online platforms, including Amazon, eBay, Facebook, and Alibaba, have provided SMEs with services such as matchmaking, information and communication technology, logistics and delivery, market information, transactions, quality signaling, and certification (ITC, 2018), as outlined in Table 1.

Table 1. Services provided by major online platforms

Service	**Platform**			
	Amazon	**eBay**	**Facebook Marketplace**	**Alibaba**
Matchmaking	Amazon Business (Allows SMEs to get business offers on products, or inputs, that are much cheaper than personal Amazon account)	Marketplace	Facebook Marketplace	Marketplace
Information and communications technology	Amazon Cloud (Amazon Web Service)			Alibaba Cloud
Logistics and delivery	Multiple courier partners (Amazon	Offers different services through UPS, FedEx		Alibaba Logistics

	transport services, FedEx), Track Your Package, Amazon Packaging + Fulfilment by Amazon (program that lets sellers outsource shipping)			
Market information	Customer feedback, ratings, Amazon advertising, matching customer requests with sellers' products, Amazon Global Selling	Customer reviews	Facebook pages, Facebook ads	In addition to customer reviews, Alibaba provides trade info such as import duties, top sellers sorted by region, community (discussion forums, trade intelligence, answers)
Transactions	Amazon Pay, credit/debit card transactions	PayPal, PayPal Credit, credit or debit card processed through seller's internet merchant account, cash on delivery, Fraud Protection Program		E-checking, telegraphic transfer, credit card secured by Alibaba.com's anti-fraud system
Quality signaling and certifications		Verified rights owner program allows the owners of intellectual property rights and their authorized		Trade assurance, business identity (verification)

		representatives to report listings that may infringe on those rights		

Source: ITC (2018)

The crisis, which had started a global economic impact in 2020, had a more pronounced effect on SMEs compared to larger corporations. As businesses transitioned to digital methods in the first half of the year, there was a substantial increase in data volume. However, this surge in data was not met with a corresponding increase in the number of data centers or their geographic distribution. Consequently, they faced challenges related to limited data availability and significantly higher costs for managing data on their premises.

Figure 2 provides a visual representation of the proportion of the impact of the crisis on various business operations, categorized by the size of the businesses, during that year. The survey respondents were asked to assess how their business operations were affected by the crisis, and they also provided information about the number of full-time employees in their respective businesses. The businesses in the survey were grouped into four categories:

1. Micro-enterprises with a maximum of 4 employees.
2. Small enterprises with 5-19 employees.
3. Medium-sized enterprises with 20-99 employees.
4. Large enterprises with 100 or more employees.

The survey collected data from 2,170 businesses across 121 countries between April 21 and June 2, 2020. The findings of the survey revealed that a majority of these businesses experienced significant impacts due to the crisis. The extent of these impacts varied across different countries and regions. Notably, 50 percent of SMEs reported that they had experienced an impact as a result of the crisis, which was a higher proportion compared to larger companies. In contrast, only 1 percent of medium-sized companies indicated that they were not affected. In essence, businesses of all sizes, ranging from micro-enterprises to large corporations, felt the impact of the crisis to varying degrees. However, it was particularly challenging for a significant proportion of SMEs, which bore the brunt of the crisis.

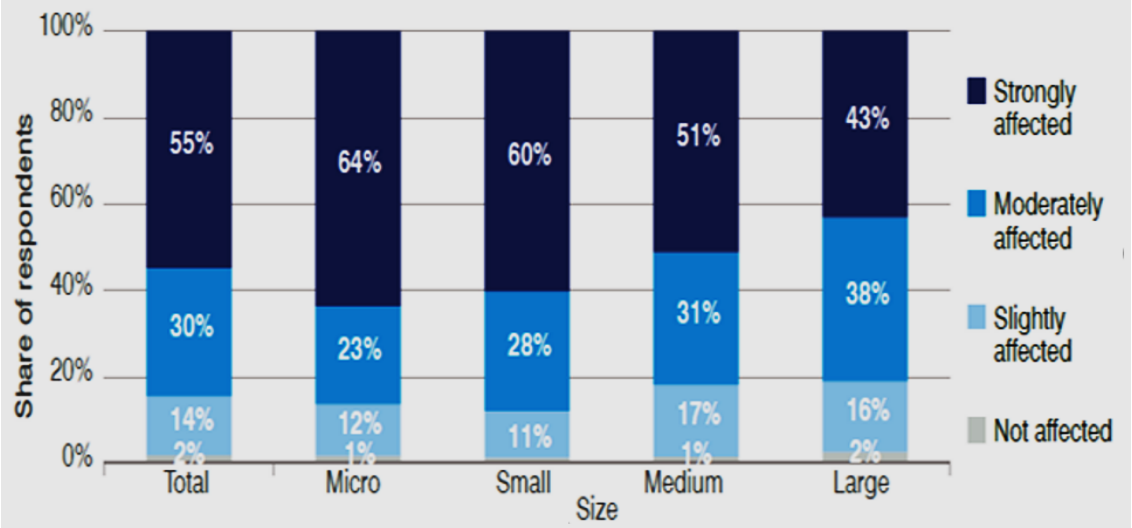


Figure 2. Smaller companies see larger impact from Covid-19

Source: ITC calculations based on ITC Covid-19 business survey

In the crisis era, SMEs had to navigate through four phases sequentially or simultaneously (ITC, 2020):

1. Shutdown impact: The first phase involved governments in various regions and countries implementing measures to halt economic activities in response to the pandemic. These actions were taken to curb the spread of the virus. In the short term, the focus was on supporting the SME sector to keep it afloat during the initial economic shutdown.
2. Supply chain disruption: The second phase saw disruptions in supply chains. Companies in many countries had to halt their production, as well as exports and imports. These disruptions were primarily due to lockdowns imposed by major economic players, including China, the European Union (EU), and the United States (US), which are often referred to as the "group of three" (G3). As a result, the countries affected by these lockdowns experienced reduced availability of inputs necessary for the global supply chains that SMEs rely on.
3. Demand depression: In the third phase, there was a significant drop in demand in the countries affected by the crisis. Restrictive policies implemented to combat the pandemic reduced sales to both consumers and businesses. Households, faced with lower incomes, started to cut back on spending, which could have long-term effects. Additionally, the economic strain led to issues such as bad credit and bankruptcy among SMEs.

4. Recovery: The final phase, recovery, began gradually as lockdown measures were eased or lifted. As these restrictions were removed, economic activity gradually increased. People began purchasing products they had missed from their favorite small businesses. The economy relied on a recovery period following the crisis. However, the "new normal" ushered in new challenges for SMEs. This period was marked by diverse strategies and approaches SMEs used to navigate these four phases.

The Covid-19 crisis fundamentally transformed the business landscape, requiring SMEs to adapt and innovate to address the unique challenges posed by each phase. The resilience and adaptability of SMEs in this new environment have been instrumental in their ability to weather the storm and continue contributing to the economy. SMEs are a vital component of any economy, playing a crucial role in driving economic growth and prosperity. The more active the participation of SMEs in a country's economy, the stronger its economic landscape becomes. Investment in information technology (IT) is instrumental in enhancing the economic features of a country, and research has shown that well-developed technology significantly impacts users on an emotional level. As a result, SMEs have increasingly turned to electronic technology to improve their business operations.

However, unlike larger corporations, SMEs often face constraints when it comes to investing substantial capital in digital technology. Various challenges impede the digitalization of SME activities. These challenges include limited knowledge and expertise in technology, constraints related to the size of the enterprise, insufficient funds, and a lack of resources. All of these factors have made it more difficult for SMEs to adopt digital technologies, even though the competitive landscape has evolved significantly in the digital age (Alraja et al., 2021). To remain competitive in this digital era, they have to rethink their strategic direction and adapt to the changing landscape. Digital strategy adaptation is essential for SMEs to respond effectively to the new situational conditions created by digitalization (Gavrila & Ancillo, 2021). However, they are distinct from larger corporations in terms of their limited financial resources, a smaller pool of well-trained staff, and fewer available resources (Becker & Schmid, 2020). These inherent limitations necessitate innovative strategies tailored to their unique circumstances to successfully embrace digitalization and drive growth and competitiveness.

1.1.3. Green and digital employees of small and medium-sized enterprises

Eventually, in the post Covid-19 era, it is essential for SMEs to recruit individuals who are both environmentally sustainable and technologically adept (Isensee et al., 2020). People have varying attitudes toward new technology adaptation, encompassing both positive and negative views (Prasanna et al., 2019). While there has been extensive research on leadership styles, human resource management practices, and employee behaviors in the context of environmental sustainability, these studies typically do not incorporate interventions related to technology adaptation by employees within organizations. Simultaneously, technology adaptation by SME employees has become increasingly prevalent and can significantly influence the success of green initiatives undertaken by employees.

Hence, the study of EJS and EP in SMEs should encompass both the green concept and the intervention of ETA in the context of the crisis. In this evolving research landscape, studies examining leadership styles and human resource management practices have explored their role in determining EJS. Transformational leadership and human resource management practices have been associated with EJS. However, the relationship between GTL, GHRMPs, and their influence on EJS remains an understudied area. As a result, this study represents an important step in discussing the relationship between sustainability and EJS in SMEs. Moreover, the division between studies focused on environmentally sustainable employee behaviors and those addressing employee technology adaptation within companies is another notable research gap. To fully understand and address the interplay of these factors, research should aim to bridge these gaps, exploring how green initiatives and technology adaptation intersect to influence employee behavior, satisfaction, and performance within SMEs.

Indeed, succeeding in the post-Covid-19 era is contingent on SMEs embracing green concepts and effectively adapting to technology. These are not only immediate imperatives but also long-term investments crucial for the development and sustainability of the digital business ecosystem. Both the urgency of digitalization and the importance of sustainability have become paramount considerations in this new era. The theories of reasoned action and planned behavior are valuable frameworks for understanding the link between work attitudes and behaviors. Job satisfaction, which represents a positive work attitude, plays a pivotal role in shaping performance, which is a crucial positive work behavior (Madden et

al., 1992). However, it is essential to recognize that investigating these factors in isolation would be inadequate in the context of the era. The factors of sustainability and digitalization are now integral to the workplace, and their influence on work attitudes and behaviors cannot be ignored. In this rapidly evolving landscape, SMEs must adapt, not only in response to immediate challenges but also as part of a broader transformation towards a more sustainable and digital future. This approach is crucial for long-term resilience and success in the evolving business ecosystem.

This study effectively integrates several important theories to emphasize the urgency of embracing green concepts and technology adaptation for leaders, human resource managers, and employees within SMEs. Below is a summary of the key theories used and their roles in the study:

1. The theory of sense of urgency (Kotter, 2011): This theory highlights the importance of recognizing true change urgencies, such as sustainability and digitalization, as solutions to the problem of complacency. It stresses that acceptance of sustainability and digitalization should be viewed as a determination to excel rather than causing anxiety, and emphasizes that insisting on these changes can positively influence work completion.
2. The theory of sustainable development (Goodland, 1995): This theory supports the integration of sustainability across social, environmental, and economic dimensions. In the context of SMEs, leaders, managers, and employees should operate in ways that not only protect the environment but also contribute to profitability. It promotes a harmonious balance between economic growth and environmental stewardship.
3. Digital business ecosystem theory (Herdon et al., 2012): This theory helps understand the concept of an evolutionary and self-organized system that can contribute to local and regional sustainability through well-defined software platforms. It is particularly relevant in the context of SMEs, where digitalization is a critical component for success in the modern business landscape.
4. The theory of reasoned action and planned behavior: These theories provide a structured framework for understanding the relationship between attitudes and behaviors. In this study, these theories are essential for explaining how EJS and EP can be influenced by attitudes and behaviors.

By incorporating these five theories, this study not only underscores the importance of embracing green concepts and technology adaptation but also provides a strong theoretical foundation to support the findings and recommendations within the context of SMEs. This multi-faceted approach is valuable for understanding and addressing the challenges and opportunities presented by sustainability and digitalization in the post-Covid era.

This study employs a mixed method of quantitative and qualitative approaches. This combination of methods can indeed provide a more comprehensive understanding of the research topic. Quantitative research is valuable for systematically collecting and analyzing numerical data to answer specific research questions, while qualitative research can offer deeper insights and context through the exploration of themes and narratives. The integration of both approaches can enhance the rigor and richness of the study's findings. Davies (2020) seems to emphasize the importance of a well-structured research process that starts with defining paradigms and research questions, then selecting appropriate methods and data analysis techniques to draw meaningful conclusions. This holistic approach can lead to a more robust research outcome.

The next section after this section is a literature review which explains SMEs in the context of South Sumatra of Indonesia, the five theories which are the foundation in the research framework, and the relationships between the variables studied following the hypotheses described. After that, the materials and methods section include an explanation of the design, measurements, instruments, data collection and sampling, and analysis used. Then, the results and discussions section explain the respondent profile, SMEs profile, analysis results, and discussion of the analysis results. Consequently, the conclusions and recommendations section explain the answers to the research objectives, recommendations for developing research and developing SMEs, as well as research limitations. Last but not least, the new scientific results section includes six recent findings in the topic of human resource management in the context of going green and digital.

1.2. Problems

Problems in this study refer to the following six questions:

1. When going green has become a competitive value for SMEs since the pre-Covid-19 era, do the leaders, human resource managers, and employees of SMEs go green in their work after the Covid-19 era?
2. By going green, are SME leaders and human resource managers support EGB?
3. When digitalization had been valuable since the pre-Covid-19 era, and essential in the Covid-19 era, do SME employees adapt the technology after the Covid-19 era?
4. By going green, do SME leaders and managers interact with ETA to support EJS?
5. By going green and being digital, do SME employees feel more satisfaction in their job after Covid-19 era?
6. By going green and being digital, are EJS related to EP after Covid-19 era?

1.3. Objectives

This study focuses on sustainability and digitalization in the context of human resources in SMEs in the post-Covid-19 era, in South Sumatra of Indonesia. It is to reveal a causal relationship between leadership styles, human resource management practices, employee attitudes and behavior within an updated framework. Methodologically, this study aims to investigate the relationship between GTL, GHRMPs, EGB, ETA, EJS, and EP. The relationship is in the following fours ways:

1. Direct relationship between GTL and EGB, and GHRMPs and EGB.
2. Direct relationship between GTL and EJS, and GHRMPs and EJS moderated by ETA.
3. Direct relationship between GTL and EP, and GHRMPs and EP.
4. Indirect relationships between GTL and EP, and GHRMPs and EP mediated by EJS.

1.4. Hypotheses and framework

Based on the phenomena, research gaps, problems and objectives, this study tested 6 hypotheses which included 11 relationships between variables. Hypotheses 1, 2, 4, 5, 6 each consist of two relationships, while hypothesis 3 only has one relationship. The explanation of these eleven relationships is as follows, where two relationships of

hypothesis 1 are based on explanation of GTL, GHRMPs, and EGB (section 2.4), and others relationships of other hypotheses are based on explanation of moderation of ETA (section 2.5), and mediation of EJS, and EP (section 2.6).

Hypothesis 1. GTL and GHRMPs are positively related to EGB.

Hypothesis 2. GTL is positively related to EP and EJS.

Hypothesis 3. EJS is positively related to EP.

Hypothesis 4. GHRMPs are positively related to EP and EJS.

Hypothesis 5. ETA moderates the relationship between GTL and EJS, and GHRMPs and EJS.

Hypothesis 6. EJS mediates the relationship between GTL and EP, and GHRMPs and EP.

Then, based on the six hypotheses, a research framework was created as shown in Figure 3. Two dependent variables to be explained ere EGB and EP. GTL and GHRMPs are the independent variables. These predict EGB directly and EP indirectly. The indirect relationship is mediated by EJS. While GTL and GHRMPs directly predict EJS, ETA interacts with both of them to mediate the direct relationship between GTL, GHRMPs, and EJS. Moreover, the important role of technology for people in companies has been on the agenda long before the Covid-19 era which required technological adaptation, while the role of the environment for them became a new agenda after the Covid-19 era.

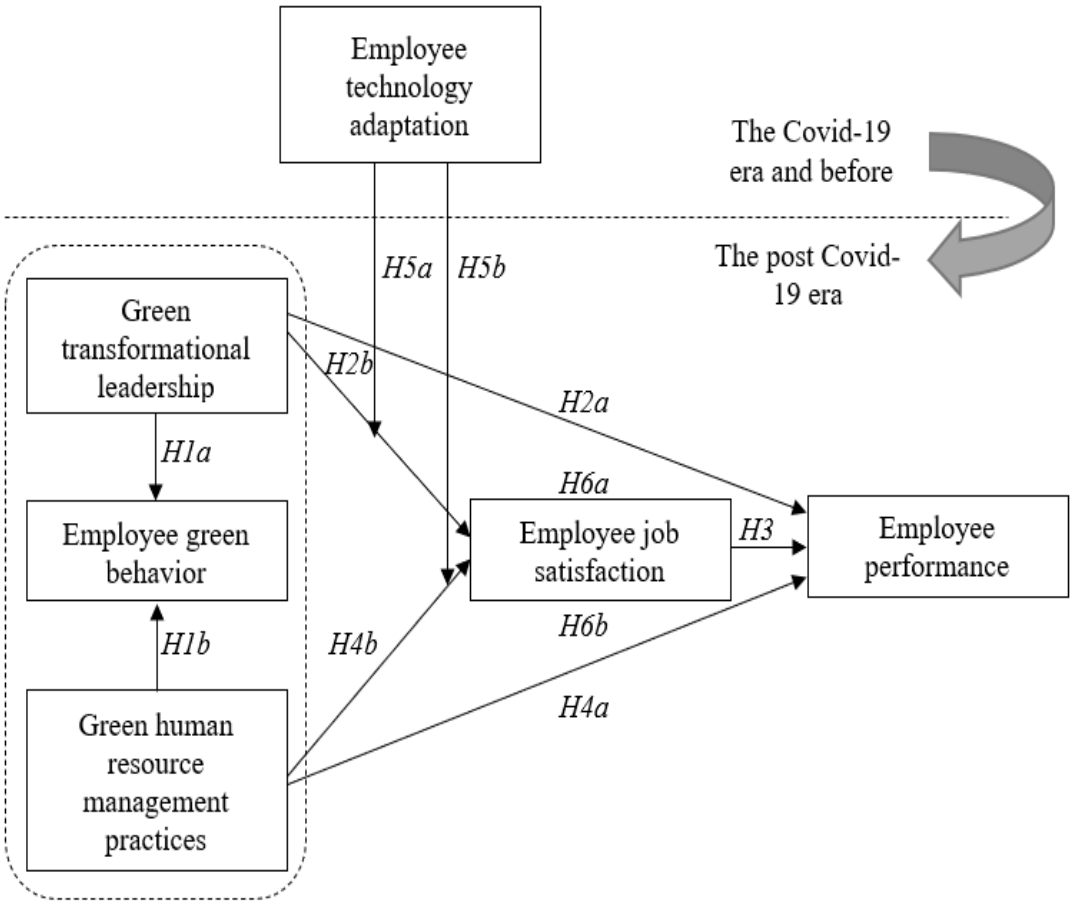


Figure 3. The research framework

Source: Author's own research

II. LITERATURE REVIEW

2.1. Small and medium-sized enterprises in Indonesia

Indonesia is a lower-middle-income country situated in the geographic region of Asia. It is an archipelagic nation located in Southeast Asia, spanning the expanse between the Indian Ocean and the Pacific Ocean. Positioned in a strategically vital location, it lies along or astride major sea lanes that connect East Asia, South Asia, and Oceania. This country holds the distinction of being the world's largest archipelagic country, boasting a rich tapestry of regional cultures that have evolved through centuries of complex interactions with its physical environment. Figure 4 displays Indonesia's location within the context of the surrounding countries.

Figure 4. Map of Indonesia

Source: Orange Smile (2023)

In this country, SMEs are generally categorized into two main sectors: agricultural and non-agricultural. The agricultural SMEs encompass activities such as selling plant seeds, agricultural tools, organic vegetables, ornamental plants, hydroponic vegetables, fertilizers, and animal livestock. In contrast, the non-agricultural SMEs includes industries

such as culinary, fashion, education, automotive, tour and travel, creative products, internet technology, beauty, event organizing, children's needs, cleanliness maintenance, retail trade, electronics, laundry, printing, flowers, computers, and more.

According to the Organization for Economic Co-operation and Development (OECD, 2021), the definition of SMEs fundamentally depends on the region and country in which they operate to align with various policy objectives. Yazfinedi (2018) explains that this definition can vary based on Law Number 20 of 2008 and the Central Statistics Agency in Indonesia (Badan Pusat Statistik), which can then be compared with definitions provided by the World Bank and the EU. Badan Pusat Statistik (BPS) defines SMEs based on the number of workers, with a maximum of 4 people for micro-businesses, 5 to 19 people for small businesses, and 20 to 99 for medium-sized businesses. The law defines them based on net worth and annual sales proceeds. The criteria for SMEs based on the law are as follows:

1. Micro enterprises are defined as productive businesses owned by individuals or business entities with a maximum net worth of fifty million rupiahs, excluding the value of land and buildings used for business premises. They also have annual sales proceeds of up to three hundred million rupiahs.
2. Small enterprises refer to independent productive economic businesses established by individuals or business entities that are not subsidiaries or branch companies controlled directly or indirectly by medium or large businesses. These enterprises fall into two categories: a) Those with a net worth exceeding fifty million rupiahs but not exceeding five hundred million rupiahs, excluding land and buildings. b) Those with annual sales proceeds exceeding three hundred million rupiahs but not exceeding two billion five hundred million rupiahs.
3. Medium sized-enterprises are productive economic enterprises that operate independently and are established by individuals or business entities not linked directly or indirectly to small businesses or large businesses. To be classified as these enterprises, they must meet one of the following criteria: a) Have a net worth exceeding five hundred million rupiahs but not exceeding ten billion rupiahs, excluding land and buildings used for business premises. b) Have annual sales proceeds exceeding two billion five hundred million rupiahs but not exceeding fifty billion rupiahs.

International institutions, such as the EU and the World Bank, have different definitions for the businesses. The EU, guided by the European Commission (EC) through its issued guidelines, uses specific criteria to categorize a company as an SME, including the number of employees, annual turnover, and annual balance sheet (EC, 2020). The criterion related to the number of employees is mandatory, while the other two financial criteria are optional for the company. On the other hand, the World Bank defines SMEs based on the number of employees, assets, and turnover in US dollars.

Several studies have explored the topic of green SMEs in Indonesia. According to Syafri et al. (2021), GHRMPs significantly influence workplace green behavior in culinary SMEs in Yogyakarta. Jermsittiparsert et al. (2019) investigated the impact of GHRMPs on workplace green behavior in manufacturing SMEs located in Yogyakarta, Solo, and Semarang, including chemical, food, and pharmaceutical industries. Herman & Anggraeni (2015) found that organizational learning capabilities support eco-innovation as a strategy to tap into market opportunities and cater to the preferences of green-oriented consumers in SMEs in Yogyakarta, Solo, and Semarang.

Additionally, Fitri et al. (2022) discovered that green relational capital is closely linked to sustainability. Muafi & Kusumawati (2021) emphasized the importance of SMEs in Yogyakarta and East Java offering products and services with an ecological focus. Ardyan et al. (2017) highlighted the significance of environmental concern among SME managers in Central Java and Yogyakarta for competitiveness. Finally, Falentina & Resosudarmo (2019) viewed the development and sustainability of SMEs in Indonesia as a means of supporting indigenous Indonesian businesses, redistributing assets along ethnic lines, and reducing inequality.

SMEs in Indonesia have been actively adapting to the challenges posed by the Covid-19 crisis. Notably, this country possesses significant potential for the development of technology-based SMEs (Kurniawati et al., 2021). The Indonesian government has supported them by establishing support centers, while cloud computing, social media, e-commerce, and the sharing economy have flourished. However, many of them have faced obstacles due to limited internet access and low levels of digital literacy (Fachrunnisa et al., 2020). According to the United Nations Industrial Development Organization (UNIDO, 2021), successful SMEs in Indonesia during the Covid-19 crisis were those that had already established digital platforms before the crisis and utilized app-based delivery start-ups. Table 2 illustrates four types of Indonesian SMEs.

Table 2. The characteristics of small and medium-sized enterprises in Indonesia

No	Types of SMEs	Criteria
1	Artisanal	1) Have low productivity and low wages. 2) Lack of market expansion, high investment and production, production improvement methods, rapid management and organizational development. 3) have a local target market (low profit oriented). 4) Use traditional tools. 5) Lack of understanding of company management, and tend to be passive in marketing their products. 6) Rely on intermediaries to market their products. 7) Lack of strong vertical collaboration between companies. 8) Lack of external network that supports the company.
2	Active	1) Recruit workers with certain specializations and utilize advanced technology. 2) Have an extensive marketing network both domestically and abroad. 3) Supply products for national and export markets. 4) have a good understanding of product quality.
3	Dynamic	1) Have an extensive market network overseas. 2) Have an apprenticeship environment that consists of a variety of skills. 3) Make good use of technological advances. 4) Serve the market well. 5) Become a pioneer who plays an important role.
4	Advance	1) Have a high level of specialization. 2) Have a comprehensive network and connections with reliable suppliers to provide raw materials, components, equipment and other inputs. 3) Provide business services for sellers, distributors, banks and other parties who want to develop together. 4) Establish cooperation with government institutions, universities, research centers and training centers both on a local and national scale. 5) Registered with national and international trade organizations to facilitate exports.

Source: Prabowo et al. (2020)

In Asia, SMEs play a crucial role in driving economic growth and achieving sustainable development goals. They are key to job creation, income distribution, and export growth. For instance, in Indonesia, SMEs contributed 61.07% to the gross domestic product and accounted for a total investment of 60.42%. However, they are also responsible for a significant share of global resource consumption, air and water pollution, and waste generation. SMEs can influence the environmental impact of large-scale companies

through their production activities, contributing to 60-70% of the total pollution produced by SMEs (Khairani & Cholid, 2022).

The Ministry of Cooperatives and SMEs of the Republic of Indonesia (Kemenkop UKM) has devised numerous strategic programs to encourage Indonesian SMEs to adapt to the ongoing revolution. Modernizing the SMEs is essential to ensure that the jobs created meet the high-quality standards as envisioned by the World Bank (Kemenkop UKM, 2023). Also, one approach to digital transformation for them is connecting their stakeholders with digital ecosystems, including government and private sector-managed e-commerce platforms. E-commerce plays a vital role in extending the market reach of Indonesian SMEs, offering opportunities to attract new customers (Kemenkop UKM, 2023). The competitiveness of the SMEs before the Covid-19 crisis is detailed in Table 3. It reflects that the capability of Indonesian small businesses remains relatively weak, and medium-sized enterprises lack strong capabilities.

Table 3. Small and medium-sized enterprises' competitiveness in Indonesia in 2018

Firm capabilities	**Compete**	**Connect**	**Change**
Small	25.4	7.5 (Weak)	25.5
Medium	42.4	28.5	40.4
Average scores (0 to100) Weaknesses are scores below 23.9 Strengths are scores above 71.8			

Source: ITC (2018)

Several e-commerce marketplaces in Indonesia, such as Lazada, Shopee, MatahariMall.com, BliBli.com, Bukalapak, Tokopedia, and Blanja.com, have successfully developed their online businesses. However, Table 3 indicates that the involvement of Indonesian SMEs in these platforms remains limited. Furthermore, many of the emerging marketplaces categorized as digital business platforms for Indonesian SMEs have faced challenges and setbacks. These challenges have arisen due to a lack of awareness, understanding, and effective knowledge transfer from top management to lower levels. Therefore, SMEs are calling for a paradigm shift in digitalization by reinvigorating their strategies and adopting flexible model development (Okfalisa et al., 2021).

2.2. Small and medium-sized enterprises in South Sumatra of Indonesia

South Sumatra is a big province of Indonesia, situated in the southeastern part of the island of Sumatra. The province covers an area of 91,592.43 km2 (35,364 sq mi) and had a population of 8,467,432 as per the 2020 census. The official estimate as of mid-2022 stood at 8,657,008 Indonesians. The provincial capital is the city of Palembang. Administratively, the province is divided into 13 regency governments and 4 city governments, in addition to the regional people's representative council (Pemerintah Provinsi Sumatera Selatan, 2023). Figure 4 displays the geographical location of the province among the neighboring provinces.

Figure 5. Map of South Sumatra of Indonesia
Source: Google (2023)

According to Bank Indonesia (BI, 2022), based on the economic report of South Sumatra, regional financing in the province experienced growth in the first quarter of 2022, driven by an increase in financing in the household sector, despite a slowdown in financing in the corporate sector. Concurrently, the Office of Kemenkop UKM of South Sumatra Province, in collaboration with universities, conducted online marketing training for SME products (Dinkopukm Kota Palembang, 2022). The province collected SME census data from districts and cities, which indicated that the number of SMEs in this province was 2.2

million. However, the data recorded in the online system was only 200,000, even though there were 800,000 applicants for presidential assistance for micro-enterprises (Jati, 2022). According to BPS (2022), the 2020 annual survey by Industri Kecil dan Menengah (IMK) recorded a total of 75,569 SMEs in the province. Among these, the food industry was the largest category, with 23.44 thousand businesses, followed by the textile industry and the non-metal minerals industry as the second and third most common types, each with over 10,000 businesses. The paper and paper goods industry and the electrical equipment industry had the fewest SMEs, with only one business.

The Covid-19 crisis has played a role in helping the SMEs overcome adversity and improve their overall health. According to information from the national media company Sonora, they faced challenges related to marketing, and access to capital was occasionally a hindrance. However, these issues could be promptly resolved when a market was available (Sasongko, 2022). The crisis presented an opportunity for them to recover. Each district and city in this province showcase distinct local SME products, which are indicative of the unique characteristics of their respective areas.

Before the crisis, data on SMEs in South Sumatra indicated a negative growth trend in both the number of establishments (units) and employment levels (Tange, 2015). These SMEs were not following environmentally friendly practices in their production, manufacturing, and distribution of food products (Chotibah et al., 2022). The majority of them avoided using environmentally friendly but expensive materials due to the high cost (Mellita et al., 2020). On average, the owners or managers of these SMEs had an understanding of the green concept, but most of them were not fully aware of its application in the production process (Heriyanto et al., 2018). The adoption of green innovation was limited, with many parts of the production process still relying on traditional technology. People working in these SMEs had limited education and understanding of the benefits of going green and adopting new technologies (Khairani et al., 2021).

South Sumatra holds significant potential for the development of startups, but the available resources are limited, resulting in untapped excellence. According to data from BPS of South Sumatra (BPS Sumsel) for January 2019, the number of foreign tourists visiting South Sumatra through the Sultan Mahmud Badaruddin II Airport in Palembang in January 2019 was recorded at 811 visits, representing a 43.33 percent decrease compared to December 2018. This data highlights that tourism promotion remains constrained,

despite the potential for increasing the number of tourists each year by synergizing and leveraging startups (Adelin et al., 2020).

According to BPS Sumsel (2017), the business landscape in this province is primarily dominated by SMEs. The results of the 2016 economic census listing by BPS Sumsel (2017) revealed that micro and small businesses were prevalent, accounting for 648 thousand businesses or 98.7 percent of the total non-agricultural businesses in the province. These businesses also played a significant role in providing employment, as they absorbed over 1.7 million people in South Sumatra, constituting approximately 86 percent of the total non-agricultural workforce.

Based on available data, the advanced economic census revealed that this province had over 40,000 micro-small businesses in 2017, spread across various districts and cities. Additionally, the 2020 annual SME survey recorded a total of 75,569 businesses in South Sumatra, showing an increase from 80,307 in 2019 (BPS Sumsel, 2022). Despite their large number, their technology and environmental practices remains low. Several studies conducted in the province have shown that they have not been innovative in environmentally friendly practices and adopting technology. The micro and small businesses are considered less promising and face higher risks, as higher education graduates or bachelor's degree holders show less interest in becoming SME entrepreneurs. Human resource development in the SMEs should focus on improving the quality of human resources in technology (Trihandayani & Yamaly, 2022).

Internet use by SMEs in South Sumatra in 2020 indicated that 87.94% did not use the internet, although this percentage was lower than the previous year, which was 93.04%. Only 12.06% of SMEs utilized the internet in their businesses. The food industry had the highest number of businesses using the internet, with 4,354, followed by the apparel industry with 1,103 businesses (12.10%). The SMEs found it challenging to implement e-commerce (Chetibah et al., 2022; Bashir et al., 2020), but they lacked understanding of digital marketing, information and communication technology, and effective utilization of social media (Karimudin et al., 2022). Also, they had not adopted efficient technology from renewable energy (Bizzy & Santoso, 2018) and lacked innovation in leadership (Perizade et al., 2022). According to Mellita et al. (2020), they had not yet implemented environmentally friendly systems in the production, manufacturing, and distribution of food products. Most of them did not consider obtaining certification for environmental

management in their business processes, citing a lack of information, capacity, a lengthy certification process, and high certification costs in the field of environmental management.

The Covid-19 crisis had far-reaching effects in Indonesia, not only in the health sector but also in socio-economic conditions. One significant change was influenced by the implementation of the large-scale social restrictions policy. Measures such as social distancing, limited transportation, and the closure of crowded areas aimed to curb the spread of the Covid-19 virus, but they had a negative impact on business activities. Companies across various sectors were affected by the pandemic. According to BPS Sumsel, in 2020, around 57,480 SMEs in the province reported being affected by the crisis. The impact was felt across various industrial groups, with varied percentages. In general, the percentage of SMEs affected by the crisis was higher than those that were not affected, and the primary impacts included reduced demand or sales (55.16%), increased costs of raw materials (14.71%), and delays in buyer payments (14.59%). Changes in consumer behavior during the crisis, influenced by evolving policies and financial constraints, led to a decrease in the sale of goods or services. Other impacts included raw material shortages (8.11%) and reduced worker attendance (3.92%), among others.

SMEs in South Sumatra implemented various strategies to cope with the crisis. These strategies included reducing working hours or days, downsizing the workforce, and suspending production. Reducing working hours or days and trimming the workforce were measures taken to cut labor costs and ensure business continuity during the crisis. Online marketing strategies were also adopted, businesses explored new sectors, and some even shifted their products or services. However, these changes presented their challenges, such as the potential loss of workforce in the production of goods or services.

2.3. Theories

The second part of this chapter outlines the five theories used in this study as the foundational frameworks. The first theory is the sense of urgency theory, which underpins GTL, GHRMPs, and EGB. It is also used to explain ETA that leads to changes in employee work. The second theory is Sustainable Development, which supports GTL. GHRMPs, and EGB within economic, social, and environmental contexts. The third theory, digital business ecosystem theory, endorses ETA. The final two theories are the reasoned actions

and planned behavior theory, which support the psychological aspects of employees by considering attitudes and work behavior in EJS as a work attitude, and EP as a work behavior.

2.3.1. Sense of urgency theory

The sense of urgency theory is utilized to explain the concepts of GTL, GHRM, and EGB in an environmental perspective, and ETA in a technological context. This theory was originally proposed by Kotter in 1996 within the context of organizational change management. Since then, it has been further developed and widely applied in various disciplines. From the environmental management perspective, it has been studied in the context of sustainability, while from the technological perspective, it has been examined in the context of information systems and innovation management. Also, behavioral and social disciplines are two other fields of study that address this theory.

The first step in creating a true sense of urgency is to deeply understand both the genuine and false sense of urgency (Kotter, 2011). Kotter began by observing failures in change and developed a positive vision for turning mistakes into actionable steps for successful changes (Bucciarelli, 2015). Starting in 1996, Kotter popularized his book 'Leading Change,' which was considered by many scholars and practitioners as an important work in the field of change management (Aiken & Keller, 2009). Complacency is a not true sense of urgency that SME employees must comprehend. Conditioned thoughts, feelings, and experiences can make it difficult for them to embrace environmental and technological changes as true urgency. However, acceptance of these changes can lead to improved job satisfaction and performance.

The journey of change management toward sustainability commences with the establishment of a genuine sense of urgency (Isaksson, 2019), which is equally indispensable in the context of digitalization. Devoid of the right energy and a profound grasp of true urgency, the imperative for change would go to waste (Ahmad & Jalil, 2013). Consequently, sustainability and digitalization require a collective response from all human resources within SMEs in South Sumatra, driven by a true sense of urgency. Their thoughts, emotions, and experiences concerning GTL, GHRMPs, and EGB represent a genuine urgency in addressing sustainability as a transformative process. Likewise, their

sentiments, cognitions, and experiences related to technological adaptation manifest an urgency in embracing digitalization. The urgency to embrace new directions is paramount for achieving technological adaptation (Swenty et al., 2014). SME leaders and managers need to act swiftly and earnestly in response to environmental demands (Wilson & Erlove, 2021) and technological shifts (Mitcheltree, 2023). Their responsibilities extend beyond the present and encompass the future (Oster, 2019). In an increasingly unstable business environment, they are obligated to actively generate knowledge and foster a culture of innovation, rather than waiting for external stimuli to trigger these processes (Rosa et al., 2008).

The sense of urgency theory examined in this study supports the imperatives of sustainability and digitalization, both of which are critical challenges confronting SMEs in the context of organizational change after the Covid-19 crisis. As the business landscape compels a shift toward sustainability and digital transformation, this theory assumes a pivotal role. Essentially, it contends that complacency, a common characteristic in long-established organizations, constitutes a false sense of urgency. In such organizations, individuals tend to become content with the status quo and the comfort of their existing work environment. However, this complacency is not anticipated in SMEs, which are compelled to adapt to ongoing environmental and technological changes. While complacency can yield adverse consequences for innovation, it has received relatively little attention within the innovation process (Mitcheltree, 2023). A true sense of urgency does not arise naturally; it involves the speculation and critical thinking of individuals in response to new developments (Huang, 2018).

In this study, the concepts of environmental and technological changes are applied differently within the context of its content. Environmental changes in SMEs impact both managerial and non-managerial levels within the organization. In contrast, technological change has primarily been addressed by non-managerial employees. This distinction in roles forms the basis for defining GTL and GHRMPs as independent variables in the determination of EGB, EJS, and EP. Simultaneously, ETA plays a mediating role in the relationship between GTL and EJS, as well as GHRMPs and EJS. It is evident that environmental change in this study is comprehensive, whereas technological change remains selective.

This theory is primarily employed to elucidate the challenges encountered by organizations. It has been globally adopted by researchers to expound on changes in

various contexts, including technological, environmental, behavioral, and social domains. Researchers across diverse disciplines have explored the causes and effects of a sense of urgency as a positive force. In the realm of environmental management, Isaksson (2019) harnessed this theory to elucidate sustainability within the global cement manufacturing sector. He discovered that cultivating a sense of urgency represented the initial hurdle in managing sustainability as a transformative process. The findings of his study highlighted a strategic opportunity to instill a sense of urgency as a means to enhance the sustainability of building materials. Wilson and Erlove (2021) also employed this theory in their environmental research. They emphasized that climate change stands as a pressing global issue. Their comprehensive analysis encompassed discussions of climate urgency found in over 10,000 academic articles spanning the period from 1984 to 2019. These articles were drawn from diverse global regions (Europe, the Americas, Africa), featuring various decision-making domains and scales. Their recent behavioral experiments and observational studies revealed that urgency exerts a profound influence on decision-making processes. Specifically, within the climate domain, a subset of studies demonstrated that urgency was intricately linked to attention, motivation, and action.

In the realm of technology, Swenty et al. (2014) utilized this theory to elucidate health services that incorporate technology and information systems. They emphasized the critical role of nursing faculty in developing a sense of urgency and acting as change agents to ensure that graduates are prepared to effectively and efficiently use technology in the ever-evolving healthcare environment. Bucciarelli (2015) applied this theory to the context of change and innovation management, conducting a case study at a higher education institution in Italy. Establishing a sense of urgency emerged as a pivotal factor in facilitating change and fostering stronger engagement among individuals. Mitcheltree (2023) integrated this theory into his study to explore the realization of innovation. His research delved into the concept of complacency as a barrier to a sense of urgency in product innovation within the framework of an industrial research project in Norway. His findings offered valuable insights into mechanisms for enhancing a sense of urgency in complex research projects on interorganizational innovation. This contribution deepened the understanding of satisfaction asymmetry in product innovation collaboration and underscored the significance of trust in creating urgency. Fredberg and Pregmark (2022) delved into understanding the dual effects of urgency in their study, focusing on a media group navigating technological shifts. The pressure of a sense of urgency was palpable in

the media industry. They explored strategies for managing conflicting potential demands that could either support or hinder change. Innovative initiatives, requiring a promotional focus to stimulate creativity, were identified as effective settings for instilling a sense of urgency as part of broader transformations. The study also revealed that leaders within the organization successfully redefined three critical relationships, allowing for the maintenance of a high sense of urgency without causing stress, fear, or friction.

In the context of behavioral and social aspects, Ahmad and Jalil (2013) applied this theory to elucidate individual personality traits within multinational companies in Malaysia. Their research indicated that organizational changes were examined at the micro level, focusing on individual contributions in predicting the level of a sense of urgency based on existing personality traits. Huang (2018) employed this theory to explore social crises. According to their findings, crisis awareness was an integral component of a sense of urgency. In the social development process, individuals not only sustained a sense of urgency regarding social crises but also translated this sense of urgency into action through their willpower. Strengthening the societal subjectivity and emphasizing individual agency in anti-corruption efforts were identified as key to overcoming social crises, transforming crises into turning points, fostering happiness in people's lives, creating a stable and harmonious society, and building a prosperous and strong nation.

The sense of urgency theory, as demonstrated by Fredberg and Pregmark (2022), may not be well-suited to explain the innovative solutions required by SMEs. Urgency often calls for a prevention focus, which prioritizes the enforcement of existing standards, risk mitigation, and error avoidance, making it highly efficient at generating well-defined responses quickly. In the current competitive landscape, SMEs can no longer afford to delay their response to the imperatives of sustainability and digitization. Digitalization is assuming an increasingly vital role in transforming manufacturing processes towards environmental sustainability. To underscore the significance of both these aspects within a comprehensive framework, this study employs the sustainable development theory and the digital business ecosystem theory to elucidate these creative solutions in the subsequent sections.

GTL, GHRMPs, and EGB are critical aspects for employees to develop into sustainable human resources, particularly in the current post-Covid-19 era. Simultaneously, ETA is essential for their transformation into digital employees. The urgency associated with GTL and GHRMPs cannot be overlooked when determining employee work attitudes,

including job satisfaction and employee behavior, which subsequently influence overall performance. Consequently, the commitment to environmental sustainability exhibited by leaders and managers not only fosters EGB but can also enhance job satisfaction and performance when employees engage in environmentally friendly behavior. Furthermore, ETA plays a pivotal role in strengthening the relationship between GTL and ETA, as well as between GHRMPs and ETA. SMEs must wholeheartedly embrace environmental and technological changes as a genuine sense of urgency in response to the imperatives of sustainability and digitalization. By investing in sustainability through initiatives like GTL and GHRMPs, as well as fostering EGB, SMEs can optimize their resource utilization. Moreover, SMEs should actively participate in the digital business environment by leveraging information and communication technologies. This engagement contributes to the pursuit of higher growth, the creation of more and better jobs, and greater social inclusion. To achieve this, investing in digitalization by cultivating technology-adaptive employees allows SMEs to enhance the efficiency of their operations.

2.3.2. Sustainable development theory

This theory is employed to elucidate GHRMPs, GTL, and EGB within this study. In 1987, the term "sustainable development" gained popularity, defined as "development that meets the demands of the present without compromising the ability of future generations to meet their own needs" (Zhu et al., 2023). This concept aims to ensure that future generations inherit a planet that can support their livelihoods without diminishing their well-being compared to the current generation (Pearce & Atkinson, 1998). As per Pearce & Atkinson (1998), although the literature on sustainable development encompasses many of the issues initially raised in early economic growth models, it is fair to say that, a decade later, there have been significant advancements in both the theoretical aspects of desirable development and the methods used to measure it. The concept has revitalized the evaluation of sustainable or green national income. One suggestion made here is to reframe this concept in the form of genuine savings, which was originally introduced by them in 1993. The concept of sustainable development emerged in the late 1980s and has since found widespread application in environmental and technological disciplines. It was initially developed in 1987 by Gro Harlem Brundtland, who authored the influential

publication "Our Common Future," marking a pivotal shift in the discourse around the environment, development, and governance.

The United Nations' definition of sustainable development goals holds broad recognition, and any efforts made by companies in the realm of sustainability should be commended (Frecè & Harder, 2018; Isensee et al., 2020). Calls for sustainable development are a pragmatic response to the challenges of changing times (Sneddon et al., 2006). It is a comprehensive concept that encompasses various dimensions of human life in relation to the environment (Ahmad et al., 2023). According to Brundtland (1987), the report articulated a need for "A global agenda for change" - a mandate entrusted to the World Commission on Environment and Development by the General Assembly of the United Nations. The General Assembly called for the formulation of long-term environmental strategies aimed at achieving sustainable development, not only by the year 2000 but also beyond. The report further urged the Commission to recommend ways to translate environmental concerns into enhanced cooperation among developing nations and between countries at various stages of economic and social development. These cooperative efforts were intended to lead to the attainment of common and mutually reinforcing objectives, considering the intricate interplay between people, resources, the environment, and development.

Additionally, the Commission was tasked with exploring means by which the international community could more effectively address environmental concerns. It aimed to assist in defining shared perspectives on long-term environmental issues and the necessary endeavors to successfully address the challenges of environmental protection and enhancement. This included crafting a long-term action agenda for the upcoming decades and setting aspirational goals for the global community.

In 2015, the United Nations Sustainable Development Summit formally adopted 17 Sustainable Development Goals (SDGs), which provide a comprehensive and systematic framework for goals and tasks to be achieved by 2030. These goals are essential for human society to attain sustainable development across three key dimensions: economic, social, and environmental (Dai et al., 2023; Incekara, 2022). Within the realm of SMEs, sustainable development is a central component of business relationships at various levels, and it is reflected in how SMEs perceive sustainability (Smith et al., 2022). This underscores the vital role that SMEs play in advancing sustainable development goals at multiple stages (Aftab et al., 2022; Jabbour et al., 2020).

The United Nations presents the sustainable development goals as a universal call to action aimed at eradicating poverty, safeguarding the planet, and ensuring that all people can experience peace and prosperity (Aftad et al., 2022). Sustainable development encompasses community, economic, and environmental development (Jenkins & Yakovleva, 2006; Seuring & Müller, 2008; Erol et al., 2011; Govindan et al., 2016). However, it is essential to recognize that these three dimensions are interconnected yet sometimes in conflict (Garbie, 2015). Traditional enterprise systems often prioritize economic development while neglecting societal and environmental dimensions. In contrast, SMEs face a more challenging path to achieving sustainable development, given their common constraint of limited resources (Crals & Vereeck, 2005).

Pearce & Atkinson (1998) clarified that the concept of weak sustainability does not suggest that substitution between different forms of capital is necessarily easy or inexpensive. Obtaining an additional unit of a particular form of capital might require substantial sacrifices, a facet of weak sustainability that critics often overlook. Furthermore, weak sustainability dictates that any reduction in one form of capital must be offset by investment in other forms of capital. This requirement contrasts with spending capital and its consequences. On the other hand, strong sustainability does not render weak sustainability irrelevant, although some authors may mistakenly assume so. Strong sustainability entails the preservation of natural capital while allowing other forms of capital to decline. While it is theoretically possible to survive under such conditions, it is an outcome that appears highly improbable.

Sneddon et al. (2006) expounded that the release of "Our Common Future" in 1987 represented a pivotal moment in reshaping perspectives on the environment, development, and governance. It was during this period that rising energy consumption rates, escalating ecological degradation, mounting public skepticism towards science, widening disparities in economic opportunities both within and among societies, and a fractured array of institutional structures for global environmental governance emerged as formidable challenges that appeared daunting to surmount on the path toward sustainability.

Hsu et al. (2017) emphasized that scholars have asserted the significant role of SMEs in a country's economic development and their pivotal contribution to sustainability within supply networks. Consequently, both government authorities and large corporations have turned their attention to enhancing SME sustainability initiatives. Nevertheless, the effective implementation of measures for SMEs has been relatively scarce. Given the

constraints posed by limited resources, SMEs must strategically develop their sustainable initiatives. Different strategies for performance implementation are linked to various dimensions of sustainability adoption, highlighting the necessity of administering the required performance enhancement measures.

In practical scenarios, SMEs often face challenges in simultaneously applying all performance measures. Therefore, prioritizing performance indicators can be valuable to systematically implement these indicators in a manner that fosters effective sustainability development. By concentrating on essential performance indicators, SMEs are better positioned to evolve into sustainable enterprises, fortify their supply chain systems, and sustain economic growth. Frecè & Harder (2018) examined sustainable development within large companies. However, when transitioning this definition from a socio-political context to a corporate context, it became apparent that the original definition was not well-suited for business applications. This shift led to the realization that the company's sustainable development initiatives lacked a robust theoretical foundation, rendering the concept of sustainable development within the corporate context somewhat arbitrary.

It is important to acknowledge and appreciate any sustainability efforts made by a company. Simultaneously, for a company to claim value-based corporate sustainability efforts, it should meet at least three criteria: Consider all aspects, dimensions, or systems of the general sustainability model and recognize their interdependence. Ensure that the resulting initiatives directly contribute to the company's stated value objectives, value-related issues, and value-generating corporate activities. Go beyond legal requirements in their sustainability efforts. This theory has found application in SMEs. Isensee et al. (2020) emphasized that SMEs can actively engage in complex yet essential organizational tasks to foster cultural development, which is an effective response to the imperative of sustainability. Organizational culture, environmental sustainability, and digitalization collectively influence the development of SMEs. However, academic research often tackles these factors individually. In this study, the theory of sustainable development aims to elucidate the significance of GTL, GHRMPs, and EGB in the context of sustainability.

Jabbour et al. (2020) asserted that, despite their specific characteristics, SMEs play a pivotal role in achieving and sustaining growth and performance in Asian countries. They are crucial for enhancing these countries' competitiveness, directly contributing to job creation and income distribution, thereby reducing poverty and promoting sustainable

development in developing Asian nations. Therefore, monitoring and documenting the environmental performance of Asian manufacturing SMEs is of paramount importance.

Smith et al. (2022) explained that employing the power-cube framework enables a better understanding of the power dynamics that either hinder or facilitate SME engagement with the sustainable development goals. SMEs serve as the crucial link between the global and individual levels, which is evident in their interpretation of sustainability. SMEs view sustainable development as a community-focused effort, designed to serve and empower local communities in response to social and environmental needs. The concept of a "neighborhood" is intertwined with the idea of "power together," representing a partnership, collaboration, alliance, and shared responsibility within the local SME community.

Ahmad et al., (2023) used this theory in the context of technology due to Covid-19 crisis. The crisis had exposed the uncertain state of the global economy, signaling the need to be prepared to adopt new approaches and move towards sustainability. Technological innovation had a significant positive impact on China's sustainable development. Financial development was also found to contribute to pollution reduction in China, suggesting that financial expansion was more likely to promote sustainable development in the long term, advancing pollution reduction by reducing environmental pressure, implying that economic development leads to sustainable development. They also found that energy consumption was a barrier to a sustainable development path, even though it helped reduce environmental pollution and promotes economic growth. This demonstrated investment in renewable energy-related projects to meet growing energy needs while not polluting the environment, which would add to China's sustainable development.

Zhu et al. (2023), in the context of micro and macroeconomics, showed that the sharing economy was effective and necessary in the business world to support sustainable production and consumption processes, and motivated individuals to engage in sharing behavior. The sharing economy was a response to the problem of expanding the economy, accommodating a growing number of people with limited resources. As a result, policy makers were motivated to stimulate the expansion of this new economic activity. Governments also had a role to play in enabling sharing models to reach their full potential for sustainable growth and energy efficiency by enacting appropriate taxation policies and legislation. The shared economy helped reduce carbon emissions and pollution, which was beneficial for the environment. Consumers needed to be more aware of this vital issue, and

policy makers and educational institutions should encourage them to engage in more sharing behavior and turn to consumer choices that reduce environmental damage. Due to the decline in oil prices and the increase in the cost of renewable energy, the relationship between energy consumption, growth and energy prices is becoming increasingly important. This theory had developed into microeconomic and macroeconomic aspects. From a microeconomic standpoint, significant emphasis was put on the viability of individual businesses. However, it encompassed sustainability from the perspective of individual people, non-profit organizations and public institutions. From a macroeconomic standpoint, the focus was on the long-term development of economies.

Indeed, SMEs must make efficient use of their limited resources and prioritize key performance factors to drive their sustainable development (Hsu et al., 2017). Sustainability for SMEs involves achieving a delicate balance between financial, human, and material resources on one side and the social and economic environment in which they operate on the other (Burlea-Schiopoiu & Mihai, 2019). In Asian countries, SMEs hold immense importance in the pursuit and maintenance of sustainable development and are critical to the competitiveness of these nations (Jabbour et al., 2019). Moreover, sustainable development is gaining increased attention in the post-Covid-19 era (Chen et al., 2023).

If SMEs in South Sumatra adopt a green approach in their production and distribution processes in the era, they are not only focusing on profit generation but also on sustainability. GTL, GHRMPs, and EGB play a pivotal role in establishing sustainability for SMEs through their workforce. Additionally, discussions on sustainable development must acknowledge the impact of technological change, which is rooted in capital (Pearce & Atkinson, 1998). While the Covid-19 crisis may not have initially placed a strong emphasis on sustainability in the SMEs, unlike the pressing demand for digitalization, it is worth noting that the health concerns stemming from the crisis have heightened awareness among individuals within companies about the well-being that can be derived from the responsible maintenance of our natural environment.

2.3.3. Digital business ecosystem theory

This theory is applied to elucidate the concept of ETA in this study. A business ecosystem is essentially an economic community that thrives on the interplay of various

organizations and individuals. This community collectively generates goods and services that hold value for customers, who themselves are integral members of the ecosystem. In a robust ecosystem, there exists a delicate balance between cooperation and competition within a dynamic free market. The term "ecosystem" is borrowed from biology, emphasizing the interconnectedness of all entities in the business environment, where they evolve their capabilities and roles in tandem.

In the context of a digital business ecosystem, there exists an isomorphic model that draws parallels between biological behavior and the behavior of software. This model, rooted in theoretical computer science, leads to an evolutionary, self-organizing, and self-optimizing environment. As described by Lurgi & Estanyol (2010), a digital business ecosystem is a digital environment created to facilitate cooperation and service aggregation among small organizations offering complementary services. These organizations form coalitions that collaborate to develop more intricate applications primarily based on the services each of them provides. This collective effort enhances the competitive strength of the entire group of companies when pitted against larger application or service providers.

Within the digital environment provided by a digital business ecosystem, companies coexist and interact, represented by software that facilitates the exchange of information to establish suitable cooperative relationships. In this context, agents within the digital business ecosystem depart from the traditional principle where collaborative relationships between companies emerge in a non-digital environment, driven mainly by human actors pursuing their own motivations for forging business interactions among their companies.

The most prevalent approach to implementing digital business ecosystems today relies heavily on the semantic web, which allows companies interacting on the World Wide Web to collaborate and exchange knowledge and information. It is worth noting that the predominant architecture used for this type of service aggregation is commonly referred to as a service-oriented architecture, specifically designed to underscore the service-oriented nature of this digital environment.

Khalil et al. (2011) applied this theory in the context of SMEs. The term "Digital ecosystem" is defined in various ways by different authors. A federated digital ecosystem is characterized as a distributive, loosely coupled, demand-driven, self-organizing, and collaborative software environment where each entity is reasonably responsive and proactive. These entities, or agents, are interconnected through digital infrastructure to achieve collective benefits. Digital ecosystems enhance the market value of their

constituent entities by forging connections across domains. They achieve this by leveraging information and communication technology and integrating themselves into modern society's networks. The digital ecosystem has evolved into a valuable platform that amalgamates diverse infrastructure, services, and the digital economy within a collaborative technological framework. It has become a nexus bridging industry, business, human endeavors, social sciences, and cutting-edge internet technology.

In simpler terms, when a business becomes an "entity" in a digital ecosystem, it forms a digital business ecosystem. The digital business ecosystem amalgamates traditional, well-defined collaborative environments, including centralized (client-server), distributed models (such as peer-to-peer), and hybrid models (such as web services). It offers a self-organized and interactive software environment that is distributive in nature but presents a unified view of all business entities. Anticipated benefits include cost-effective services and profitable value creation activities for SMEs, employees, and consumers. The digital business ecosystem significantly aids SMEs by enabling their growth and global expansion. Through this technology, SMEs can access global markets via the internet.

Digital business ecosystems foster connections among SMEs in the region, enabling the region to compete globally with partner organizations, customers, and competitors, ultimately benefiting all stakeholders. Knowledge sharing and interaction among stakeholders in regional and global markets empower SMEs to explore innovative business models and ideas, allowing them to adapt to a constantly changing market. The digital business ecosystem represents the next generation of information and communication technology, facilitating more effective and efficient interactions among SME users. While it is still in its early stages, certain characteristics are already evident. Digital business ecosystems transcend the internet to create an environment where services can be developed and delivered in their true essence. It operates on open-source principles, offering its services free of charge and avoiding dominance or control by any single technology owner or organization. Contributors are equally involved and compete on level playing fields. Furthermore, digital business ecosystem's open software applications and services evolve and reorganize themselves, adapting to the needs of end users in the digital business ecosystem.

The digital business ecosystem theory originated from a digital business ecosystem project initiated by the EU in 2006 (Whitley & Darking, 2006). According to the European Commission (2006), a digital ecosystem refers to the technical infrastructure based on

distributed software technology. It serves as a conduit for transporting, locating, and connecting services and information via internet links, thereby enabling networked transactions and the distribution of all digital objects within this infrastructure. This encompasses various valuable digital representations expressed in languages that can be interpreted and processed by computer software and humans alike. These representations may include software applications, services, knowledge, taxonomies, folksonomies, ontologies, descriptions of skills, reputation and trust relationships, training modules, contractual frameworks, and laws.

The concept of the ecosystem has gained popularity across various disciplines, particularly in information systems. It aims to establish a flexible, distributed infrastructure that connects economic development with regional support for local trade and industry through software development. The overarching goal is to foster local ecosystems that gradually federate, promoting cooperation within regions while encouraging nodes of innovation and integration that extend to pan-European, national, and local initiatives (Nachira, 2002). This project draws inspiration from physical and biological concepts of self-organization and evolution to create a technological platform that facilitates the flexible composition of software services.

What sets the ecosystem apart from similar proprietary models, such as Microsoft's.Net or SAP's forthcoming business process "apply-structure," is its evolutionary nature and the fact that it has been designed as a non-proprietary public infrastructure. While the digital business ecosystem is funded as a European research project, the innovation ecosystems cluster in the EU is equally committed to ensuring that projects like the digital business ecosystem contribute both useful scientific advances and significant practical benefits.

In the case of the ecosystem, this involves actively engaging SMEs with the platform. To achieve this, a number of "regional catalysts" were tasked with coordinating engagement activities and involving local SMEs. It was to actively participate in and study the process through which SMEs in three European regions (Tampere, Finland; Aragon, Spain; West Midlands, UK) became engaged with the ecosystem. The fieldwork reported in this paper, associated with the engagement activities, was conducted by one of the authors, who served as a full-time research officer on the project. The research involved attending digital business ecosystem engagement events held between February and July 2005. Additionally, for the engagement study, interviews were conducted in each of the

three digital business ecosystem regions. From the initial contact to formal engagement, the aim was to describe how the interest of driver SMEs was captured and sustained.

Much like a traditional business ecosystem, the digital ecosystem serves as a hub where all parties converge to conduct transactions, implement marketing strategies, and expand their business operations through effective data and information management within a robust system. As previously explained, ETA plays a pivotal role in facilitating technological change. The theory of the digital business ecosystem is employed to elucidate ETA, a crucial variable that intervenes in the relationship between GTL, GHRMPs, and EJS. Scholars widely concur that this concept was first introduced in the realm of business during the Lisbon Agenda in March 2000. Researchers have harnessed this theory to investigate SMEs.

The ecosystem fosters collaborative environments, encompassing various models, including centralized and distributed ones (Senyo et al., 2019). It facilitates robust collaboration among enterprises (Salam et al., 2008), allowing SMEs to interoperate effectively. This concept alludes to a distributed computing infrastructure that equips SMEs with the capabilities to compete on a global scale (Senyo et al., 2019). Razavi et al. (2010) applied this theory to SMEs. Nowadays, the Internet can be likened to a steam engine, creating fresh opportunities that attract both new, small entrepreneurs and well-established, large businesses. These emerging technologies have ushered in new products and services, transforming the way we communicate (e.g., video conferencing and telepresence), shop (online retail), and work. Often, it is the nimble SMEs that are quick to identify these possibilities and are, consequently, the first to enter these markets. These companies become the "first movers," demonstrating a knack for grasping new possibilities and informing potential customers about groundbreaking products. They are also the pioneers in patenting inventions based on novel technologies, ultimately giving rise to entirely new industries.

Securing a first-mover advantage with their innovative products positions them as industry leaders or "keystones." When a new industry takes shape, many SMEs seek to leverage the available opportunities and enter the market. The first movers, now keystones, attempt to raise the barriers for potential new entrants or collaborate with them (be they suppliers, customers, or followers). In both scenarios, new miniature ecosystems or networks emerge, with the keystones at the center and others as nodes. Since virtually all communication among these players is conducted electronically (via computers), the

network structure lacks a defined pattern and expands haphazardly. The general network topology, alongside its growth in terms of link distribution and coordinated business interactions, plays a pivotal role in the evolving business landscape.

Herdon et al. (2012) applied this theory to SMEs. SMEs encounter difficulties as their adoption of technology often falls short of desired levels. Integrating enterprise information systems tailored for larger companies proves challenging for SMEs. Systems developed for the SME market, especially those produced by developers, often lack the cost-effective and flexible management of inter-company business relationships among smaller enterprises. Given the crucial role of SMEs in national economies, numerous companies recognize market potential within this segment. Regrettably, these systems primarily focus on internal company processes, lacking sufficient support for relationships and processes between companies. Their research findings have demonstrated that the introduction of modern IT solutions can significantly enhance SMEs' business opportunities, thereby ensuring their sustainability in the online segment.

Senyo et al. (2019) suggest that digital business ecosystem research can be categorized into four main themes: business issues, technical issues, digital business ecosystem conceptualization, and digital business ecosystem artifacts. Among these themes, business issues take precedence over others. While ecosystem research within the broader management field is on the rise, the ecosystem studies appear to be diminishing. It serves as a robust collaborative environment for inter-company cooperation. SME participation can take two forms: 1) Involvement in research, or 2) Utilization of research results. Both forms of participation necessitate enabling mechanisms to ensure the ongoing evolution of the digital business ecosystem. The research field related to this theory gained momentum with the "Go Digital" initiative (Nachira et al., 2011). This community recognized the importance of providing information and communication technology that supports greater growth, improved job opportunities, and enhanced social inclusion. Prospective participants in a shared digital business ecosystem must initially establish a mechanism akin to that of a natural ecosystem (Lenkenhoff et al., 2018).

This theory represents a fusion of digital, social, and business ecosystems (Briscoe, 2007; Khalil et al., 2011) that contribute to local and regional sustainable development by introducing modern IT solutions for SMEs (Herdon et al., 2012; Lurgi & Estanyol, 2010). A digital ecosystem should facilitate loosely coupled business interactions while upholding the stability and sustainability of this dynamic environment (Razavi et al., 2010). Several

benefits are associated with this theory, including cost-effective services and profitable value-creating activities for SMEs, employees, and consumers (Khalil et al., 2011). It significantly assists SMEs in expanding and accessing global markets through digital business ecosystem technology. The theory encourages collaboration among SMEs in a region, enabling them to compete globally alongside partner organizations, customers, and competitors for mutual benefit (Khalil et al., 2011).

The year 2020/21, marked by the Covid-19 pandemic, witnessed increased technology adoption by SMEs due to various restrictions (Georgescu et al., 2022). Therefore, in the post-Covid-19 era, it is becoming increasingly challenging for SMEs to abstain from using digital tools (Psylaeva et al., 2022). The future indicates that small businesses must swiftly adapt to this transformation. If SMEs in South Sumatra fully harness the internet and promote technology adoption among their employees, they will become integral components of the digital business ecosystem crucial in the post-Covid-19 era.

Digital facilities have become a necessity for SMEs in the post-Covid era, no longer just an option. Consumers, clients, business partners, and workers now expect them to be the standard. Cash payments and paper-based documents, such as invoices or pay slips, are becoming obsolete. Files are shifting to the computing cloud, rather than being stored on hard drives. Conditions experienced during the Covid-19 lockdowns may encourage businesses to leverage big data analytics and artificial intelligence (AI) for post-pandemic decision-making. These technologies can help companies address challenges they faced during lockdowns, such as rapidly changing consumer demand and confidence, operational disruptions, uncertainty, and workforce redundancies. The digitization of core business operations presents challenges for SMEs.

Many SMEs face challenges related to survival and growth, such as navigating globalization, digitization, and evolving work dynamics. Social media has transformed their customer interactions, service delivery, and IT system integration. Big data is not only useful for marketing and customer relations but also for data-driven revenue models and preventive maintenance (Bouwman et al., 2019). While digitalization and internationalization are integral to business models, many SMEs struggle to scale digitally due to their initial design limitations. This gap in literature, focusing on multinational corporations over SMEs, may be a contributing factor (Westerlund, 2020). Strategic decisions related to digital transformation do not automatically boost performance; they require a reevaluation of the business model (Bouwman et al., 2019). SMEs need digital

transformation to keep up with digitization and leverage digital advantages (Ulas, 2019). However, they often invest in digital technologies opportunistically without a global digital transformation strategy. This short-term focus can lead to investment errors and incremental development, rather than profound transformation maximizing value creation (Dethine et al., 2020). Transitioning to an industry 4.0 perspective can be complex for SMEs. Implementing Internet of Things, big data analytics, AI, and blockchain technologies necessitates a full digitalization of their strategic and organizational models (Garzoni et al., 2019). With limited resources, SMEs struggle in this environment (Teng et al., 2022). Key inhibitors to adopting digital services and applications in SMEs include inadequate capabilities and limited resources for e-business operations, low IT skills, limited customer or supplier engagement, and short planning horizons. However, SMEs are agile and can quickly adapt to projects and new opportunities (Kääriäinen et al., 2020).

2.3.4. Reasoned action theory and planned behavior theory

This study employs both the Theory of Reasoned Action and the theory of planned behavior to comprehensively investigate and elucidate the intricate relationship between EJS as a fundamental work attitude and EP as a crucial work behavior. It is noteworthy that the two theories grounded in the same theoretical foundation, with the first having been established over half a century ago, while the other emerged shortly after as a natural progression and evolution of the former, offering a more refined and nuanced framework for understanding the dynamics of employee attitudes and behaviors in the workplace. These theories are employed to investigate the intricate connection between attitudes and behaviors within a more expansive context, encompassing four vital components: beliefs, attitudes toward behavior, subjective norms, and intentions. Originating from the field of social psychology, they have extended their influence to various disciplines, including the study of human behavior, environmental and technological research, entrepreneurship, and education. Their versatility and adaptability have allowed them to become instrumental in exploring and understanding human actions and decisions across a wide spectrum of fields.

The concept of reasoned actions predicts individual behavior based on pre-existing attitudes and the environmental conditions that either support or hinder the intended behavior (Nguyen et al., 2020). This theory primarily focuses on actions that involve

conscious and autonomous decisions, and it has gained widespread use among researchers for investigating human behavior, enjoying substantial support in the literature on social behavior (Mishra et al., 2014) and individual behavior (Akther & Nur, 2022). Attitudes, which represent individual evaluations of liking or disliking a behavior, are typically shaped by behavioral beliefs (Matute et al., 2021). It is closely associated with individual motivational factors that help predict the likelihood of engaging in specific behaviors, and operates under the fundamental assumption that individuals are rational actors (Emami et al., 2022). Consequently, if a person strongly believes that a positive outcome will result from a specific behavior, they will typically exhibit a positive attitude toward that behavior (Al-Ayed, 2022).

Planned behavior concept, introduced by Ajzen in 1985, builds upon the foundations of reasoned action concept, expanding the concept by delving into the underlying reasons behind human behavior. It posits that most actions are planned in various scenarios, emphasizing the need for a scientific approach to the study of human behavior (Al-Mamary & Alraja, 2022). According to this plan behavior theory, intentions are shaped by three key considerations. It encompasses instrumental and experiential beliefs concerning behavioral performance, known as behavioral beliefs. Then, it takes into account beliefs about socially referenced expectations and behaviors, such as those of family, friends, or co-workers, which result in perceived social pressure or subjective norms. Finally, this theory acknowledges beliefs about factors that may facilitate or hinder behavior, which impact perceived behavioral control or self-efficacy (Seddig et al., 2022).

The two theories are both individual-level frameworks, with the first serving as the precursor to the latter, and they exhibit only minor distinctions between them (Tanhan & Young, 2022). It has played a pivotal role in identifying determinants of behavior, while the second is renowned for its extensive applications in predicting, explaining, and modifying behavior (Hagger et al., 2022). Mishra et al. (2014) applied theory of reasoned actions in environmental and technological contexts, utilizing its core concepts such as 'principles of compatibility' and 'behavioral intention.' It functions as a predictive model, finding applications in diverse fields, including banking, public sectors, education, and various industries, offering the ability to anticipate individual actions based on specific criteria. IT is one such domain where its influence is evident. Pryor & Pryor (2009) incorporated it within an educational context and traced its development from the 1960s to the mid-1970s, crediting its evolution to Fishbein (1963, 1967) and Fishbein and Ajzen

(1975). It is a comprehensive theory encompassing beliefs, attitudes toward behavior, subjective norms, and intentions, addressing behavior in general. Attitudes often carry more weight than subjective norms, although their relative influence may vary across different populations and behaviors. They are shaped by beliefs about potential outcomes of a behavior and the corresponding evaluations of each outcome. Understanding the impact of each outcome belief, whether positive or negative, provides valuable insights for influencing behavior.

This understanding holds particular relevance within the context of job satisfaction, a critical work attitude that can exert a significant influence on EP as a pivotal work behavior. When employees in SMEs can express their job satisfaction by articulating their beliefs about potential performance outcomes and their corresponding evaluations, the connection between job satisfaction and performance becomes manifest. Emami et al. (2022) describe the application of the first theory in an entrepreneurial context, emphasizing its relation to individual motivational factors that predict behavior. Fishbein and Ajzen established a causal chain effect from attitude to voluntary action, both with and without external influence. They demonstrated that attitudes toward intentions were more reliable predictors of actions than attitudes toward objects. Attitudes are shaped by individuals' beliefs about the consequences of their actions. When a person believes in the positive outcomes of a behavior, their strong attitude toward that behavior propels them into action. At the core of the first theory lie the fundamental assumption that individuals are rational actors who possess control over their choices. Job satisfaction, as a form of motivation, can predict EP voluntarily. Strong job satisfaction often correlates with superior EP.

Al-Mamary & Alraja (2022) offer an entrepreneurial perspective on the two theories. They confirm that the first theory, established in 1967 by Martin and Ajzen, was developed to comprehend decision-making across diverse domains of voluntary behavior. It is primarily focused on actions that involve conscious and deliberate choices. Within this theory, behavior prediction revolves around three key constructs: attitudes (favorable or unfavorable evaluations of a behavior), subjective norms, and intentions. It has found extensive use in research for predicting behavioral intentions. In response to limitations and criticisms, Ajzen and Fishbein introduced a third construct, Perceived Behavioral Control, which later became the foundation for the model of theory of planned behavior. The control measures the perceived level of control over behavior and enhances the model's predictability. Theory of planned behavior, a significant theory in social psychology,

studies the relationship between personal attitudes and behavior. Ajzen introduced it in 1985, building upon the groundwork of the first theory. Planned behavior concept is rooted in the idea that human behavior is predictable because most activities are carefully planned under various scenarios. This model emphasizes the need for a scientific approach to the study of human behavior and introduces three key variables that influence behavior.

2.4. Green transformational leadership, green human resource management practices, employee green behavior

In the contemporary landscape, the academic and practical spheres have witnessed a remarkable surge of interest in delving deeper into and gaining a more profound understanding of the highly intricate and interwoven dynamics that underpin the relationships between leadership style, the gamut of human resource management practices, and the often multi-faceted tapestry of employee behavior, all situated within the distinctive and environmentally sensitive contexts that have garnered increasing attention (He et al., 2021). The corpus of current research that has proliferated in this domain reveals, with growing clarity and empirical support, the pivotal role played by GTL and GHRMPs in significantly influencing and fostering the development of EGB, an indispensable dimension of contemporary workforce behavior that places a special emphasis on environmentally sustainable practices and behaviors. This, in turn, can be postulated as contributing indispensably to the overarching goal of organizational sustainability and ecological responsibility in the ever-evolving and environmentally conscious corporate landscape.

Green transformational leaders, as champions of sustainability, play a pivotal role in nurturing and propagating the ethos of ecological responsibility within their organizations. These leaders go beyond conventional leadership paradigms, actively promoting sustainability as a core component of their leadership style. They possess the remarkable ability to inspire and motivate their subordinates to wholeheartedly embrace green attitudes, effectively aligning their values and beliefs with the principles of sustainability. This alignment of values and attitudes within the workforce forms a powerful foundation upon which sustainable practices are built. Furthermore, green transformational leaders exhibit a proactive commitment to fostering and facilitating green actions among their

followers. They not only encourage their subordinates to participate in eco-friendly initiatives but also provide the necessary support and resources to empower them to take meaningful environmental actions. This multifaceted approach, encompassing inspiration, alignment of values, and proactive facilitation, serves as a catalyst for the adoption of sustainable behaviors within their organizations. On the other hand, green human resource managers assume a complementary but equally vital role in the sustainability equation. These managers are instrumental in creating an organizational environment that is conducive to the promotion of environmentally responsible behaviors. They establish and maintain a supportive ecosystem where employees feel encouraged and empowered to engage in sustainability initiatives. This includes providing training and education on environmental sustainability, effectively communicating the importance of ecological responsibility, and offering the necessary resources to participate in sustainable activities. Collectively, the dynamic interplay between green transformational leaders and green human resource managers serves as a potent force for stimulating EGB. EGB encompasses an array of positive and pro-social behaviors undertaken by employees, all geared towards addressing environmental challenges and advancing the cause of sustainable development within the organizational context. This holistic approach, championed by both leaders and human resource managers, represents a pivotal component of the contemporary corporate landscape's journey towards ecological responsibility and sustainability (Omarova & Jo, 2022; Jian et al., 2020; Zhang et al., 2021).

EGB stands as a pivotal and indispensable catalyst in the overarching journey towards the sustainable development of organizations (Tian et al., 2020). It is worth noting that EGB has burgeoned into a prominent and burgeoning area of exploration and inquiry within the expansive domains of organizational behavior and environmental benefits (Saleem et al. in 2020). EGB, sometimes interchangeably referred to as eco-friendly behavior or pro-environmental behavior, encapsulates a spectrum of habits, practices, and actions that individuals conscientiously weave into the fabric of their daily routines (Yang, 2019; Zhang et al. 2021). These actions are thoughtfully designed and executed to fulfill the noble purpose of mitigating the detrimental impact they might otherwise exert on the environment. At its core, EGB is predicated on the steadfast commitment to promoting sustainable practices that not only curtail any adverse consequences but also actively engender positive environmental effects. In this manner, EGB emerges as a powerful and multi-faceted instrument through which individuals can embrace and manifest their

ecological responsibility. It signifies a conscientious effort to harmonize personal behaviors and practices with the greater cause of ecological preservation and advancement, making it a paramount consideration in the discourse surrounding organizational sustainability and the broader context of environmental stewardship.

Norton et al. (2015) describe EGB as environmentally friendly actions carried out by employees in the context of their job duties. In summary, EGB can be defined as positive employee behavior that supports sustainable practices through eco-conscious actions in the workplace. The comprehensive definition of EGB, characterizes it as a collection of environmentally friendly actions meticulously undertaken by employees within the scope of their job responsibilities (Norton et al. 2015). In essence, it encapsulates a broad and encompassing perspective, where its core essence can be distilled into a succinct but profound summation. In summation, EGB can be succinctly defined as the manifestation of positive employee behavior that is inherently driven by a steadfast commitment to uphold and advance sustainable practices within the workplace. It is a conscious and eco-conscious endeavor that is deeply rooted in a genuine and resolute dedication to nurturing ecological responsibility and endorsing practices that not only mitigate adverse environmental impacts but also actively contribute to the greater cause of sustainability within the organizational context.

Preserving the environment is a responsibility shared collectively by all (Woo, 2021). To this end, it is not only feasible but also imperative for organizations to seamlessly weave into their day-to-day operations a repertoire of eco-conscious practices that encompass energy conservation, judicious resource utilization, waste reduction, recycling, and water conservation (Weerarathna et al., 2017). These practices, although diverse, are unified by a common thread—namely, the potential and indeed the necessity for their integration as routine and non-negotiable components of an organization's modus operandi. Such integration is not only beneficial but is, in fact, an essential obligation in the quest for a sustainable and environmentally responsible future.

Within the confines of a company, the actions and attitudes of employees are significantly shaped and influenced by a potent combination of leadership style and human resource management practices. In particular, the adoption of transformational leadership, which places a pronounced emphasis on the tenets of environmental preservation, and the implementation of human resource management practices that ardently support and promote green initiatives have garnered substantial advocacy and recognition within the

academic and professional spheres. This is not merely a theoretical notion but is substantiated by an array of scholarly works. Numerous studies in the field have consistently demonstrated that when transformational leaders ardently prioritize and champion environmentally friendly approaches and practices, their concerted efforts yield a profoundly positive and constructive impact on the green behavior exhibited by employees within the organizational framework (Ahmed et al., 2020). This means that employees are more likely to engage in eco-conscious and sustainable practices when they are led by transformational leaders who underscore the significance of environmental preservation and ecological responsibility. The strategic significance of embracing environmentally conscious practices is not merely an ethical or moral stance but also represents a plethora of opportunities and advantages for companies. In this context, transformational leadership has emerged as a particularly favored and popular leadership style ardently endorsed by scholars and organizational leaders alike, precisely because it possesses the potential to instigate and drive the necessary changes and transformations essential for ushering in a new era of environmental sustainability within the corporate landscape. This confluence of leadership and human resource practices underscores a powerful and symbiotic relationship that is instrumental in shaping not only the environmental ethos of an organization but also its future prospects and success.

GTL are not only standard-bearers of environmental responsibility but also adept cultivators of emotional attitudes and a far-reaching perspective that carry a profound impact on their capacity to create, communicate, and effectively implement sustainability initiatives. As evidenced by the findings presented by Begum et al. (2022), GTL possess a remarkable ability to instill within themselves and their teams a heightened sense of emotional connection to environmental causes, generating a pervasive and genuine commitment to ecological responsibility. This emotional attunement extends beyond mere compliance and instead engenders a deep-seated dedication to environmental sustainability. One of the hallmarks of GTL is their exceptional acumen in identifying the changes and adaptations necessary to advance sustainable practices within their organizations. With unwavering commitment and a resolute sense of purpose, GTL effectively embark on this transformational journey. In doing so, they not only pinpoint the changes required but also inspire and lead their teams toward a collective vision of a greener, more environmentally responsible future. This vision is not just communicated; it is ingrained in the organizational culture, creating a ripple effect that extends to all levels

of the company. The role of GTL extends well beyond the conventional boundaries of leadership, as they emerge as visionary champions of environmental stewardship who harness the power of emotions, commitment, and a broad perspective to drive transformative change in the quest for sustainability. Their multifaceted approach encapsulates not only the identification of necessary adaptations but also the unwavering commitment to see them through, making them indispensable in the ever-evolving landscape of organizational sustainability (Alshihabat & Atan, 2020).

In a striking juxtaposition to leadership styles that primarily uphold the status quo while diligently working toward fulfilling organizational objectives, as elucidated by Andriani et al. (2018), transformational leadership emerges as a dynamic and potent force that consistently and decisively influences the attitudes and behaviors of employees across a diverse array of management settings. This differentiation is not merely theoretical but is grounded in empirical evidence (Boamah et al. in 2018). Under the transformative mantle of transformational leadership, employees' perceptions of their green transformational leaders hold a pivotal role, shaping their attitudes and subsequent behaviors in profound ways. This phenomenon is substantiated and supported by the research conducted by Du & Yan (2022), and Özgül & Zehir (2021). The perceptions held by employees regarding their leaders serve as a powerful lens through which they view and interpret the organizational culture, values, and priorities. In essence, this suggests that transformational leadership goes beyond merely influencing organizational strategies and goals; it has the intrinsic capacity to mold and impact the very fabric of employee attitudes and behaviors, thus becoming an instrumental determinant in steering the course of organizational culture and fostering sustainable practices.

Scholars, in their comprehensive and scholarly discourse, have defined GTL as a distinctive behavior style that transcends conventional leadership paradigms, primarily by serving as a formidable motivator for followers to ardently pursue and attain environmental goals. Under the influence of GTL, followers are not merely content with meeting expected levels of environmental performance but are consistently inspired and encouraged to surpass these expectations (Özgül & Zehir, 2021). Moreover, the transformative influence of GTL extends to fostering an environment where innovative and eco-conscious ideas are not only welcomed but actively promoted. Within this visionary leadership style, the cultivation of innovative green ideas is considered pivotal, and the promotion of green processes stands as a fundamental facet of the commitment to sustainable development.

This transformational leadership style thereby emerges as a wellspring of skills and techniques that drive sustainability within companies (Shah et al., 2020). GTL is not just a leadership style but a driving force that empowers and equips organizations with the tools and mindset necessary to advance on the path of sustainable growth and environmental responsibility.

GTL, which has emerged as a pivotal concept in the realm of environmental leadership, was originally introduced by Chen and Chang (2013). Their definition of GTL is particularly poignant, characterizing it as "leader behavior that motivates followers to achieve environmental goals and inspires them to surpass expected levels of environmental performance." This innovative concept significantly extends and amplifies the foundational principles of transformational leadership. The inception and development of GTL build upon the bedrock of transformational leadership, a concept that has been examined and expanded upon in the works of scholars such as Mittal & Dhar (2016); Tosun et al. (2022), and Li et al., (2020). Transformational leadership represents a cornerstone in leadership theory and has been influential in shaping contemporary approaches to leadership. In crafting the concept of GTL, Chen and Chang (2013) drew from and synthesized insights provided by eminent scholars in the field, including Bass, Gardner, Avolio, and Podsakoff et al. This rich tapestry of ideas and perspectives coalesced to form a distinct leadership style with 6 key components, each of which is integral to the eco-friendly transformational leadership paradigm. These components serve as a blueprint for leaders who aspire to be at the vanguard of environmentally responsible leadership, making them essential in the discourse surrounding sustainable leadership and ecological responsibility.

1. Inspiring project members with environmental plans for green product development projects.
2. Providing a clear environmental vision for project members to follow.
3. Encouraging project members to collaborate in achieving common environmental goals.
4. Motivating project members to reach environmental objectives.
5. Considering the environmental beliefs of project members when taking action.
6. Stimulating project members to generate environmentally friendly ideas.

The research conducted centered its focus on the electronics industry within Taiwan, delving into this particular business discipline to explore and dissect the dynamics of GTL

within this specific context. On a related note, the concept of GHRMPs encompasses a diverse array of initiatives, all designed with the overarching aim of promoting sustainable practices within organizations while concurrently fostering a heightened level of employee commitment to the cause of sustainability. These GHRMPs encompass a comprehensive array of tangible programs, processes, and techniques that are systematically implemented within organizations, specifically geared towards minimizing the detrimental environmental impacts of their operations and simultaneously enhancing the positive environmental contributions. This harmonious approach seeks to engender a tangible improvement in sustainable environmental performance, a theme that has been empirically validated and explored in scholarly works such as that by Arulrajah et al. (2015). The holistic approach of GHRMPs not only drives environmental responsibility but also fosters a culture of sustainability and eco-consciousness among employees, positioning it as a fundamental element in the discourse surrounding the ecological responsibility of organizations.

GHRMPs have emerged as a distinct field, laying the theoretical foundation for the integration of human resource management and sustainability (Chen & Yan, 2022), building upon Renwick et al. (2018) initial proposition. This extension of green marketing, accounting, and management research includes eco-friendly practices in recruitment, performance appraisal, training and development, labor relations, compensation, and exit processes. GHRMPs have evolved into a distinct and highly influential field, having laid a robust theoretical foundation for the seamless integration of human resource management principles and sustainability objectives. This significant progression in the field of GHRMPs builds upon the seminal proposition presented by Renwick et al. (2018), highlighting the dynamic and innovative nature of this domain as it continues to expand and evolve. GHRMPs have ventured beyond the confines of traditional human resource management practices, introducing eco-conscious elements into various aspects of human resource management, recruitment, and employee engagement. This extension of green marketing, accounting, and management research represents a multifaceted approach that encompasses a wide array of eco-friendly practices across the human resource spectrum. These practices are seamlessly woven into recruitment processes, performance appraisal systems, training and development initiatives, labor relations, compensation structures, and even employee exit procedures. The integration of sustainability principles into these diverse human resource functions represents a fundamental shift in organizational culture

and practices, as it embeds eco-consciousness into every facet of the employee lifecycle and management processes. This paradigm shift underscores the pivotal role of GHRMPs in driving environmentally responsible human resource practices and corporate sustainability. Chen & Yan (2022) have significantly contributed to the theoretical underpinning and practical application of GHRMPs, solidifying their position as a driving force in the intersection of human resource management and sustainability.

Within the realm of GHRMPs, various practices have been identified, such as green recruitment and selection, green training, green performance management, green compensation, and green engagement (Tang et al., 2018). These practices aim to cultivate 'green employees' by focusing on environmentally conscious recruitment, training, performance appraisal, and compensation (Haldorai et al., 2022). GHRMPs can lead to the formation of environmental teams (Jabbour & Jabbour, 2016). In the expansive landscape of GHRMPs, a diverse array of innovative practices has been identified and meticulously examined. These encompass green recruitment and selection processes, green training and development initiatives, green performance management systems, green compensation structures, and green engagement strategies, as comprehensively outlined in the scholarly work of Tang et al. (2018). These practices are unified by a common goal: the cultivation of what can be aptly termed as 'green employees. The creation of 'green employees' is at the heart of these GHRMPs, and this concept hinges on the dedicated focus on environmentally conscious principles across a spectrum of human resource functions, ranging from the initial recruitment and training phases to performance appraisal and compensation, as expounded upon by Haldorai et al. (2022). This multifaceted approach transforms human resource practices into a potent mechanism for fostering environmentally responsible individuals within the organization. Moreover, GHRMPs have the potential to go beyond individual development and extend into the formation of environmental teams, as elucidated in the research of Jabbour & Jabbour (2016). These teams serve as instrumental vehicles for collectively advancing sustainable initiatives within organizations, thereby underscoring the collaborative and transformative nature of GHRMPs in contributing to environmental stewardship and ecological responsibility.

A crucial point to emphasize is that GHRMPs span a wide spectrum of activities within the organizational framework, incorporating a comprehensive array of functions that include the development of eco-conscious job descriptions, recruitment and selection processes, training and development initiatives, performance appraisal systems, rewards

structures, employee engagement strategies, and talent acquisition protocols. This expansive range of practices, as explicated in the research conducted by scholars such as Hutomo et al. (2020) and Mousa & Othman (2020), underscores the holistic nature of GHRMPs and their pervasive impact on the environmental performance of organizations. These multifaceted practices are not limited to internal processes alone but also extend to shaping the employee population into what can be aptly termed 'green employees'. These 'green employees' are individuals who are not only environmentally conscious but actively contribute to the achievement of the organization's environmental objectives, thereby making GHRMPs a vital driver of ecological responsibility and sustainable growth within the corporate landscape. In essence, GHRMPs are instrumental in transforming not only the organizational processes but also the collective mindset and behaviors of the workforce towards the attainment of environmental goals and objectives.

GHRMPs extend their purview to include a strategic focus on harnessing employees' green contributions to performance, thus emerging as a pivotal driver in the attainment of corporate environmental goals. As delineated in the research by Kim et al. (2019), this strategic alignment with employee green contributions is not only instrumental in advancing ecological responsibility but is also paramount in achieving broader corporate environmental objectives. However, the influence of GHRMPs extends beyond environmental benefits alone. These practices possess the potential to make significant contributions to social and economic well-being by actively promoting ecological responsiveness, sustainable resource development, and cultivating a heightened level of employee commitment and engagement towards organizational goals and practices. This multifaceted approach, as advocated by scholars like Singh & Nath (2020), underscores the transformative power of GHRMPs in shaping organizations that are not only environmentally responsible but also socially and economically attuned to the broader welfare of society. GHRMPs, thus, represent a comprehensive and multi-dimensional strategy for advancing corporate sustainability and holistic well-being.

The strategic practices embedded within GHRMPs play a pivotal role in cultivating and fostering green employee attitudes and behaviors, as aptly highlighted by the scholarship of Chaudhary (2019). These practices exert a direct and influential impact on shaping green behavior within the workplace, thereby effectively communicating the organization's unwavering commitment to environmental concerns and actively involving employees in a spectrum of eco-friendly activities, as substantiated by the research

conducted by Ercantan & Eyupoglu (2022). Moreover, GHRMPs extend their influence to enhance the pro-environmental capabilities, knowledge, and skills of employees. By doing so, they not only motivate employees to actively engage in green behavior but also create an ecosystem that offers opportunities for the cultivation and manifestation of EGB, a concept well-supported in the research of He et al. (2020). This multifaceted approach empowers employees with the requisite tools and competencies to contribute to environmentally responsible practices within the workplace, making GHRMPs a potent enabler of ecological responsibility and sustainability within the corporate realm.

The impact of GHRMPs transcend the confines of the workplace, extending their shaping influence on EGB in various settings, as elucidated in the research by Karmoker et al. (2021). This signifies that the effects of GHRMPs are not limited to the professional realm but have a ripple effect, shaping EGB in diverse contexts beyond the workplace. GHRMPs are adept at creating a nurturing and enabling environment where employees are not only encouraged but willingly participate in green behavior, as highlighted in the research conducted by Sabokro et al. (2021). The principles and practices embedded within GHRMPs are instrumental in fostering a culture of ecological responsibility and in motivating employees to proactively engage in eco-conscious actions. By serving as a conduit for transmitting and embedding organizational green values through the domain of human resource management, GHRMPs stand as a powerful instrument for enhancing employee environmental behavior. This strategic alignment, as validated by Zhu et al. (2021), underscores the multifaceted role of GHRMPs in creating an organizational ethos that is not only committed to ecological responsibility but also successful in instigating and sustaining employee participation in environmentally responsible practices across various settings.

GTL stands as another indispensable component that seamlessly complements GHRMPs in the collective endeavor of shaping and fostering EGB. Leaders who espouse and exhibit green behavior within the organization assume the pivotal role of serving as role models for their subordinates, thus becoming sources of inspiration that ignite a shared commitment to environmental values and the prioritization of environmental sustainability. This inspirational dynamic is underpinned by the research of Kura (2016), which highlights the transformative influence of GTL. In addition to serving as role models, green transformational leaders proactively build robust relationships with their subordinates. They effectively convey their eco-friendly values and simultaneously work to enhance

awareness of environmental issues within the organizational context, as evidenced by the findings presented by Wang et al. (2018). When employees perceive their leaders as not merely environmentally conscious but also as inspirational figures, they become more receptive to their leaders' motivational influence, inspirational motivation, intellectual stimulation, and individualized considerations. This perception of leadership fosters an environment where employees are not only inspired but also inclined to explore innovative approaches to address and overcome environmental challenges, a theme substantiated by the research of Zhu et al. (2022). In summation, the intricate web of relationships within this dynamic can be distilled into two pivotal intersections: the interplay between GTL and EGB and the interrelationship between GHRMPs and EGB. These relationships represent the strategic confluence of leadership and human resource practices, forging a path toward the cultivation of environmentally responsible behavior within organizations and beyond.

2.5. Moderation of employee technology adaptation

Digitization represents a pivotal and transformative force that plays a crucial role in facilitating the adoption of cutting-edge technologies, an aspect of paramount importance for the competitiveness and sustainability of SMEs, as underscored by the insights of Das et al. (2020). In today's rapidly evolving business landscape, innovative and technology-driven SMEs are increasingly venturing into intra-regional and international markets, ambitiously contending with multinational corporations to secure a larger slice of the domestic market. To achieve this, many SMEs endeavor to differentiate themselves by cultivating and enhancing their technological capabilities. The process of globalization, which has reshaped the economic and business terrain, has ushered in new opportunities, particularly in terms of economies of scale. However, within the context of developing countries, SMEs often confront a set of unique challenges, including the looming specter of technological obsolescence. This poses a considerable hindrance to their ability to compete effectively with foreign goods on two fronts: quality and price. Consequently, it becomes evident that the adoption of technology by SME employees assumes a pivotal and non-negotiable role. It is imperative that they wholeheartedly embrace the integration of technology within the workplace, as this represents a compelling and strategic imperative for SMEs to remain viable, competitive, and agile in the evolving global marketplace. This

engagement with technology serves as a potent catalyst for the transformation and future success of SMEs in a digital and global age.

Technological adaptation is defined as the process of changing how information and communication technologies are used to complete work (Thomas & Bostrom, 2010). It empowers companies to enhance their capabilities and extend their reach beyond current market areas (Pu et al., 2021). This concept is of great interest to SMEs. However, the process of technology integration is often prolonged, especially in developing nations, due to economic structures, social cultures, and the technological and political climate. Recognizing the potential benefits, scholars have extensively studied it by SMEs in both developed and developing nations. Such technology adoption drives technological innovation and enhances firm performance. New technologies can increase business efficiency and reduce operational costs (Kurniawan et al., 2023). Factors such as the cost of technological equipment and the need for efficiency improvements facilitate it (Manyati & Mutsau, 2019).

Technological adaptation is a dynamic concept defined as the process through which organizations change how they employ information and communication technologies to carry out their work, as established by Thomas & Bostrom (2010). Its process bestows companies with the power to bolster their capabilities, enabling them to extend their market presence and impact beyond their current boundaries (Pu et al., 2021). It is important to underscore that technological adaptation, while a universal concept, holds particular significance for SMEs. However, the path of technology integration can be a protracted and intricate journey, particularly in developing nations, where the process can be impeded by complex economic structures, ingrained social cultures, and the interplay of technological and political dynamics. Nevertheless, the potential benefits are profound, prompting scholars to devote extensive research efforts to understanding the intricacies of technology adoption by SMEs, both in developed and developing countries. This deliberate embrace of technology fuels technological innovation and brings about a palpable enhancement in firm performance. The adoption of new technologies within SMEs can significantly augment business efficiency while concurrently curtailing operational costs (Kurniawan et al., 2023). Key factors influencing this adaptation include the cost of technological equipment and the unceasing need for efficiency improvements (Manyati & Mutsau, 2019). These factors serve as potent drivers of technological innovation,

propelling the dynamic process of technological adaptation and infusing organizations with the capacity to thrive and evolve in a digitally driven landscape.

The intricate interplay between technology, organizational structure, and the surrounding environment has been the subject of extensive exploration from the perspective of structuration, a viewpoint that has discernible effects on the shaping and evolution of institutions, as underscored by the research of Haggerty & Golden (2002). This perspective delves into the dynamic and mutually influential relationships that exist between technology, organizational systems, and the broader environmental context, offering valuable insights into the complexities of this intricate interrelationship. In the contemporary landscape, the use of social media has ascended to a status of paramount significance, emerging as a pivotal factor that exerts a tangible impact on job satisfaction. The research conducted by Zhang et al. (2019) delves into the modern context, revealing that social media has evolved into a critical and influential dimension of job satisfaction. This transformation underlines the evolving nature of job-related factors and the emerging significance of technology-driven channels in shaping the contemporary work experience, underscoring the need to embrace and adapt to these novel dynamics in the ever-changing world of work.

A substantial body of research has yielded compelling evidence that underscores a robust and positive relationship between transformational leadership and job satisfaction, as established by numerous studies, such as the work of Abelha et al. (2018). Transformational leadership, characterized by its ability to inspire and motivate, has consistently demonstrated its capacity to exert a positive influence on job satisfaction, as corroborated by the research conducted by Allozi et al. (2022) and Bernarto et al. (2020). Furthermore, the realm of human resource management has also emerged as a key determinant in shaping EJS, with extensive studies indicating a positive correlation between these elements. Cherif (2019) has demonstrated this affirmative link, while human resource management practices, as examined in the work of Noor et al. (2022), along with GHRMPs, as substantiated by Chowdhury et al. (2019), have also been found to contribute positively to EJS. It is worth highlighting that the adoption of GHRMPs, as revealed in the findings of Freire & Pieta (2022), has a particularly constructive impact on EJS. The concept of job satisfaction, a well-researched phenomenon in the domains of human resource management and organizational behavior, represents a multifaceted dimension encompassing a sense of contentment, reduced stress, and a confident approach to job

requirements. This perspective, as elucidated in the research conducted by Dhamija et al. (2019), underscores the significance of job satisfaction in the professional sphere, highlighting its multifarious and far-reaching implications for both employees and organizations alike. The intricate relationship between leadership style and human resource management practices in the context of determining EJS cannot be isolated from the pervasive influence of the contemporary business environment and evolving technology. It is within this dynamic framework that GTL and GHRMPs emerge as instrumental factors that can significantly influence EJS. This connection takes on even greater significance when we consider the role played by ETA in moderating and shaping these relationships.

In recent times, especially in the aftermath of the Covid-19 crisis, the business landscape has experienced a seismic shift towards a more technology-driven and environmentally conscious paradigm. Technology has become the linchpin that enables businesses across the spectrum to function effectively and remain resilient. This transformation has catapulted the role of ETA as a critical factor, as it helps organizations navigate the complex interplay of technology and environmental factors. Moreover, it has become increasingly evident that ETA serves as a powerful moderator that can shape and fine-tune the relationships between GTL, GHRMPs, and EJS. The incorporation of ETA moderation introduces a novel dimension in the realms of organizational behavior and human resource management research. This dimension, particularly concerning SMEs, is characterized by its ability to shed light on the evolving and intricate dynamics that define the interplay between leadership, human resource practices, technology, and the environment. It signifies the imperative for organizations to adapt, harness, and leverage technology and ecological considerations as a fundamental part of their strategies to enhance EJS in an ever-evolving business landscape.

2.6. Mediation of employee job satisfaction, and employee performance

Job satisfaction and job performance serve as pivotal and interconnected components that underpin the foundation of business success, as affirmed by the research of Roberts & David (2020) and Shi et al. (2022). These two facets are not mere peripheral considerations; instead, they play a central and irreplaceable role in shaping a company's overall performance, as emphasized by Ćulibrk et al. (2018). Within the overarching context of

EP, job satisfaction assumes a position of particular importance. It is inextricably linked to the positive attitudes that employees harbor toward their current roles within an organization (Shaju & Subhashini, 2017). Job satisfaction serves as the wellspring of these positive attitudes, influencing employee motivation, engagement, and overall job-related contentment. It is a pivotal factor in ensuring that employees are not just present but fully invested in their roles, which has a direct bearing on their performance. The contemporary landscape, characterized by significant technological advancements, particularly in mobile communication, has ushered in transformative changes. These innovations have undeniably improved the speed and convenience of managerial communication, but they have also introduced new challenges that may potentially hinder individual performance. Consequently, the relationship between EP and EJS has assumed heightened significance, particularly in the post-Covid-19 era marked by extensive technology usage. As businesses grapple with the complexities of the digital age, understanding how these factors interact and influence each other becomes increasingly crucial, defining a new and dynamic dimension in the sphere of organizational performance and management.

The exploration of job satisfaction has been a subject of extensive study and discussion since the inception of Herzberg's Two-Factor theory in 1958. This landmark theory sought to comprehensively understand the intricate factors that give rise to both satisfaction and dissatisfaction, as well as motivation, within organizations. At the heart of this theory, Frederick Herzberg and his colleagues embarked on a pioneering journey to conduct a comprehensive investigation into job satisfaction, aiming to delineate the specific factors in the work environment that wield a substantial influence over an employee's overall sense of satisfaction or dissatisfaction. The groundbreaking work of Herzberg and his associates paved the way for a deeper comprehension of the multifaceted nature of job satisfaction, unearthing the distinct elements within the work environment that possess the capacity to mold an employee's perception and emotional response to their job. Their research marked a pivotal juncture in the study of organizational behavior and management, offering valuable insights into the fundamental factors that impact employee well-being and motivation, and establishing a lasting legacy that continues to inform and shape contemporary discussions surrounding job satisfaction.

Job satisfaction, a foundational concept in the realm of organizational behavior and employee well-being, is typically characterized as a positive emotional state directly linked to an employee's work experience. This encompassing definition takes into account the

impact of the work itself and the perception that it bestows value and significance upon the employee (Suleman et al., 2022). EJS continues to be a focal point of extensive studies and research (Bulińska-Stangrecka & Bagieńska, 2021). The concept of job satisfaction is often further expounded upon by defining it as the positive emotional state that emanates from an employee's professional experiences, or as the extent to which an employee finds contentment in their work. This broad construct extends its purview to encompass and consolidate satisfaction with the myriad specific aspects of work. In the realm of work-life balance and the broader context of well-being, job satisfaction is acknowledged as a distinct concept, separate from non-work-related satisfaction. It serves as a pivotal component that contributes to an employee's sense of well-being and mental health, marking it as a positive attribute and integral dimension of the broader landscape of employee mental and emotional wellness.

The paramount significance of job satisfaction, both for individual employees and organizations as a whole, underscores its enduring status as a subject of extensive research and inquiry. The body of research concerning job satisfaction is multifaceted and encompasses various approaches to measuring it, exploring its far-reaching influence on critical facets such as employee engagement, productivity, organizational performance, and the intention to seek alternative employment opportunities. Moreover, research conducted within the context of remote work has yielded intriguing insights, suggesting that temporary transitions away from the traditional workplace can augment EJS by offering flexibility and autonomy. However, it is noteworthy that research conducted during periods of social isolation and the Covid-19 pandemic has unveiled a complex facet of remote job satisfaction. While remote work can bring benefits, it has also been revealed that extended periods of isolation can exert a negative impact on remote job satisfaction. This underscores the dynamic and evolving nature of job satisfaction research, as it adapts to the transformative influences of contemporary work patterns and external circumstances, continually shaping our understanding of this critical aspect of the professional landscape.

Scholars frequently define job satisfaction as the measure of the extent to which employees find contentment and fulfillment in their work. This multifaceted concept is inherently linked to the presence of motivating factors and favorable conditions within the workplace. Job satisfaction is characterized by the interplay of various factors, and the presence of these factors can significantly influence and motivate an individual in their professional pursuits. It is widely recognized that an individual's job satisfaction can be

shaped by a multitude of elements within the work environment. Moreover, job satisfaction is widely regarded as a common and influential determinant of work performance. The positive correlation between job satisfaction and work performance is particularly pronounced when employees are adequately recognized and rewarded for their contributions. In this regard, the appropriate recognition and rewards serve as powerful motivators, further underscoring the intricate relationship between job satisfaction, motivation, and work performance. This interplay highlights the essential role that job satisfaction plays in shaping the dynamics of the workplace and fostering optimal performance and employee well-being.

Theoretical frameworks within the field of organizational psychology and management consistently suggest a significant and positive relationship between job satisfaction and work performance. These frameworks imply that SMEs that boast a higher proportion of satisfied employees tend to exhibit greater effectiveness and productivity in their operations. This connection underscores the pivotal role that job satisfaction plays in shaping the overall performance and success of these organizations. Furthermore, organizations that cultivate an environment where employees report high levels of job satisfaction are poised to enjoy the additional benefit of lower turnover rates. Satisfied employees, who experience contentment and fulfillment in their roles, are notably less inclined to consider leaving their jobs. This results in increased employee retention, stability within the workforce, and reduced costs associated with recruitment and onboarding. The symbiotic relationship between job satisfaction and employee retention further solidifies the notion that fostering job satisfaction can have a positive cascading effect on the organization as a whole, contributing to its long-term success and sustainability.

The intricate dynamics of job satisfaction are further illuminated by its role as a mediator in the relationship between GTL and EP, as demonstrated by the research conducted by Amelia et al. (2022). In this context, job satisfaction assumes a pivotal role as a guiding force, offering insights into the interplay between GTL, EJS, and EP. It serves as a mediating link, elucidating how the environment-focused leadership provided by GTL within SMEs can significantly influence employee work attitudes, with a particular emphasis on job satisfaction. Building upon the previous sections that expounded on how GTL in SMEs can catalyze the development of EGB, this section delves deeper into how GTL can exert its influence on employee work behavior through the prism of work

attitudes, with job satisfaction as a central component. The profound insights offered by this mediation process not only contribute to our understanding of behavioral research but also shed light on the nuanced dynamics within organizations, unveiling the profound impact that environment-oriented leadership can have on shaping employee attitudes, job satisfaction, and overall work performance. These concepts collectively form crucial facets of the intricate tapestry of behavioral research and organizational dynamics, offering valuable insights for SMEs and researchers alike.

The relationship between transformational leadership and EP has been extensively explored and well-documented in the realm of organizational research, as corroborated by the studies conducted by Eliyana & Muzakki (2019) and Hussain & Khayat (2021). However, it is imperative to consider the mediating role played by job satisfaction in this intricate relationship, as it introduces a nuanced layer of understanding into this dynamic. Since its conceptualization in 1985, transformational leadership has been a subject of persistent examination in relation to job satisfaction, as indicated by the research conducted by Gan & Voon (2021). Job satisfaction, though a fundamental concept, has been defined in diverse ways within the literature. This diversity in definitions has led to a lack of consensus concerning whether it should be categorized as an attitude, a feeling, a belief, or a value. This ongoing debate underscores the complexity of job satisfaction and its multifaceted nature, making it a fascinating and dynamic area of study within the domain of organizational behavior and management.

A distinct perspective on job satisfaction characterizes it as a multifaceted construct that arises from a complex interplay of psychological, physiological, and environmental circumstances, ultimately culminating in an individual genuinely expressing the sentiment, "I am satisfied with my job." From this vantage point, job satisfaction is framed as a profound feeling that individuals encounter in the context of their employment. It serves as a reflection of the degree to which they experience contentment or discontentment with their work. In this conceptualization, job satisfaction is viewed as a deeply ingrained emotional response that individuals hold regarding their professional roles. It encapsulates the intricate web of factors that contribute to their sense of fulfillment or dissatisfaction within the workplace. This perspective acknowledges the intricate nature of job satisfaction, emphasizing its subjective and personal nature, and recognizes the interplay of internal and external elements that collectively shape an individual's perception of their job satisfaction.

An alternative definition of job satisfaction characterizes it as "a set of feelings with which employees view their work." This perspective underscores the essence of job satisfaction as a positive emotional state experienced by individuals who perceive a harmony between their job and their personal job values. Crucially, this definition highlights the deeply individualized nature of job satisfaction, commencing with an individual's distinctive job values, which encapsulate what they seek or desire from their work. Job values are highly personalized and may vary significantly from one person to another, rendering job satisfaction an inherently subjective experience. This perspective exemplifies the subjectivity and variability of job satisfaction, as it hinges on an individual's unique set of values and priorities. For instance, disparities in pay may serve as a substantial source of dissatisfaction for one person, while another individual might attach less importance to compensation and place greater emphasis on other facets of their job, such as the nature of the work, work-life balance, or opportunities for professional development. This individual variation further underscores the complexity of job satisfaction and its deeply personal and subjective nature, as it is intimately entwined with an individual's values and preferences.

A crucial distinction must be made between values, expectations, and needs within the context of job satisfaction. Expectations pertain to an individual's beliefs and anticipations regarding what might transpire in the future, and there is no guarantee that the actual outcomes will align with these expectations. In contrast, values are the deeply ingrained convictions held by an individual, signifying what they firmly believe they should expect from their work and how they ought to behave in their work environment. These values remain relatively stable over time and assume a pivotal role in shaping an individual's behavior and emotional responses. Values represent the core principles and beliefs that guide an individual's actions, choices, and interactions within their work environment. They serve as a foundation for understanding what an individual deems as important and essential in their job, thus influencing their perceptions of job satisfaction. The distinction between values, expectations, and needs is instrumental in unraveling the complexities of job satisfaction, as it highlights the role of deeply held convictions in shaping an individual's experiences and assessments of their work.

Work values encompass an employee's deeply held convictions pertaining to the outcomes they believe they should anticipate from their work and the manner in which they should conduct themselves within the work environment. These values transcend the

immediate and are characterized by their broad and enduring nature, wielding substantial influence over how individuals perceive and engage with their work. While values, attitudes, moods, and emotions are all interconnected facets of employees' thoughts and emotions, work values are regarded as the most influential among them, capable of exerting a profound impact on the other components. This perspective underscores the pivotal role played by work values in shaping an individual's work experience and the subsequent effects on their attitudes, emotions, and overall job satisfaction. It emphasizes that an individual's deeply ingrained convictions about their work not only serve as a guiding force for their behavior but also have the potential to ripple through the broader spectrum of their emotional and cognitive responses to their work environment. In this sense, work values represent a cornerstone in understanding the complex interplay of factors that contribute to job satisfaction and the overall work experience.

In alternative definitions, job satisfaction is conceptualized as a composite of attitudes, emotions, and beliefs. It encompasses the attitudes and emotions that individuals hold in relation to their work. Positive and favorable attitudes toward one's job are indicative of job satisfaction, whereas negative and unfavorable attitudes signify job dissatisfaction. It is worth noting that people's levels of job satisfaction can span a broad continuum, covering the full spectrum of emotional experiences in the workplace, ranging from the highest levels of extreme satisfaction to the depths of extreme dissatisfaction. This definition underscores the comprehensive nature of job satisfaction, considering it as a multifaceted construct that encompasses not only cognitive evaluations but also emotional responses and overall attitudes toward one's job. It acknowledges the diversity of individual experiences and the varying degrees of satisfaction or dissatisfaction that employees may encounter in their work, portraying job satisfaction as a nuanced and intricate domain of study within the realms of organizational psychology and management.

In the workplace, leaders wield a substantial influence over the behavior of their team members. They not only serve as role models for the organization but also possess the authority to assess performance and make determinations regarding promotions (Lai et al., 2020). Leaders assume a pivotal role in molding the culture and values of the organization, and these cultural and value underpinnings, in turn, exert a profound impact on the behavior and work ethic of their team members. Leadership, therefore, plays an instrumental part in the overall functioning and dynamics of an organization. The way leaders conduct themselves and the values they espouse set the tone for the workplace environment and

significantly influence how team members behave, interact, and approach their responsibilities. Leadership is not merely a top-down directive but a driving force that shapes the ethos and behavioral expectations within an organization, making it a linchpin in organizational management and development.

Effort and dedication form the bedrock of task accomplishment and the attainment of meaningful success within an organization (Amin et al., 2021). Employees who display unwavering commitment and wholeheartedly invest their efforts are not only more inclined to make significant contributions to the realization of organizational objectives but also to elevate productivity levels and cultivate a positive and conducive work environment. This underscores the critical role that commitment and effort play in driving the performance and overall effectiveness of both individual employees and the organization as a whole. Committed and dedicated employees serve as a driving force in the pursuit of organizational goals, driving progress and fostering a work atmosphere characterized by enthusiasm, cooperation, and achievement.

EP stands as a pivotal element in organizations, demanding a comprehensive understanding and effective management (Mansyur et al., 2022). EP serves as a direct reflection of how proficiently employees carry out their designated roles and responsibilities, exerting a direct and substantial impact on the organization's capacity to realize its objectives. High levels of EP hold the potential to yield positive outcomes for the organization, while lackluster performance can engender adverse consequences. This underscores the paramount importance of EP within the organizational context, as it is intricately tied to the achievement of corporate goals and the overall success and sustainability of the organization. Recognizing the multifaceted dimensions of EP and its far-reaching implications for organizational performance is essential for leaders and managers to steer their teams towards excellence and optimal results.

Human resource management practices play a central role in enhancing the performance appraisal system within an organization, with profound implications for job satisfaction (Kurdi et al., 2021). Effective human resource management practices empower organizations to establish performance appraisal processes that are not only equitable but also objective, and these processes, in turn, exert a considerable influence on job satisfaction and the broader spectrum of EP. By optimizing their human resource management practices and refining their performance appraisal systems, organizations can pave the way for more robust job satisfaction levels among their employees. Furthermore,

this commitment to fair and objective performance appraisal can significantly enhance overall EP, contributing to the realization of organizational objectives and the creation of a thriving workplace culture.

In summary, leadership, employee effort and dedication, performance appraisal systems, and human resource management practices constitute interconnected facets within an organization, collectively shaping employee behavior and performance. Gaining a profound comprehension of these interrelated elements and adeptly managing them are imperative for the attainment of organizational success and the cultivation of a workplace environment characterized by positivity and productivity. These components serve as the building blocks of a thriving organization, where effective leadership, engaged employees, fair performance assessment, and strategic human resource management practices harmoniously converge to drive excellence and achievement.

Job satisfaction is indeed a multifaceted construct that encapsulates an individual's feelings and attitudes toward their work, serving as a dynamic state shaped by personal attributes and the work environment. Its ramifications extend to several positive outcomes for both individuals and organizations, encompassing a reduction in turnover intent, a boost in self-efficacy, voluntary efforts, and the fostering of positive inter-employee relationships. EJS is intrinsically linked to their propensity to make constructive contributions to the organization, thereby impacting its performance. In essence, job satisfaction constitutes a pivotal dimension of the work experience, wielding its influence on various aspects within and beyond the organizational context. It remains an evolving and responsive state, susceptible to an array of factors. The adept understanding and management of job satisfaction are paramount for the cultivation of a positive work environment and the realization of organizational triumph.

Job satisfaction, as described by Khan et al. (2019), is an emotional evaluation of one's work experience, primarily shaped by the individual's perception of their own job. It serves as a crucial gauge of employees' sentiments toward their work and their overall contentment with their job roles. In the contemporary landscape of highly competitive global business environments, organizations are increasingly placing a premium on enhancing EJS, recognizing its pivotal role in sustainable success. Notably, previous research has consistently underscored the constructive relationship between human resource practices and job satisfaction. Researchers have diligently illuminated the far-reaching impact of these practices on organizational performance, essentially molding

employee behavior and attitudes. This encompasses the enhancement of not only job satisfaction but also motivation and commitment, collectively contributing to the holistic betterment of organizations. Job satisfaction, thus, remains an instrumental component in the pursuit of organizational excellence.

As explained by Sonnentag & Frese (2001), the concept of EP has been discussed in organizational psychology since the 1990s. EP is a measurable individual attribute and behavior that is relevant to organizational goals. It is a multifaceted and dynamic concept, and there are three main perspectives associated with it: individual differences, situational factors, and performance regulation. Each of these perspectives is linked to specific interventions aimed at enhancing performance. EP is a central concern in organizations, as it directly impacts the achievement of organizational objectives (Sonnentag & Frese (2001), which has been a prominent topic of discussion within the realm of organizational psychology since the 1990s. It encompasses measurable individual attributes and behaviors that hold relevance to the attainment of organizational goals. This concept is multifaceted and dynamic, with its understanding revolving around three main perspectives: individual differences, situational factors, and performance regulation. The individual differences perspective recognizes that each employee possesses unique qualities and characteristics that influence their performance. Situational factors, on the other hand, acknowledge that the context and environment in which work is conducted can significantly affect performance. The performance regulation perspective delves into the various mechanisms and processes employed by individuals to regulate their own performance. These distinct perspectives are intimately connected to specific interventions designed to enhance and optimize performance. In essence, EP stands as a pivotal focal point for organizations, as it bears a direct and profound impact on the realization of organizational objectives, making it a subject of paramount concern and attention.

In the realm of organizational dynamics and workforce management, the intricate interplay between EJS and EP has long been a subject of fervent inquiry, signifying an area of paramount significance that commands considerable attention from scholars, researchers, and practitioners alike, as it delves into the multifaceted dynamics through which human resource practices, organizational environments, and an amalgamation of diverse factors, both internal and external, intricately influence and shape the attitudes, behaviors, and, consequently, the overall performance of the employees who constitute the lifeblood of any given organization. The amalgamation of these inquiries coalesces into a

robust body of research that not only sheds light on the intricate nexus of EJS and EP but also serves as an invaluable compass, guiding organizations toward the continuous refinement and enhancement of their human resource practices, strategies, and policies, with the overarching aspiration of realizing and sustaining a state of superior performance outcomes that propels them to the pinnacle of achievement and success in an ever-evolving and highly competitive organizational landscape.

The nexus of human resource management practices with EP, as underscored by Alsafadi & Altahat (2021), along with the well-established associations between human resource management practices and job satisfaction, documented by Cherif (2019), Noor et al. (2022), Chowdhury et al. (2019), and Freire & Pieta (2022), forms an intricate tapestry of organizational dynamics. Moreover, the mediating function of job satisfaction in the intricate interplay between human resource management practices and EP, a facet thoughtfully examined by Khan et al. (2019), extends the canvas of research in human resources. Job satisfaction, serving as a lynchpin within the intricate mosaic of the organizational paradigm, assumes a pivotal role in defining the employee's attitude toward their work, thus becoming an indispensable element for organizations aspiring to sustain strategic and competitive advantages, an assertion eloquently elucidated by Mahmood et al. (2019). Therefore, within the contextual framework delineated, nine hypotheses emerge as promising avenues for empirical scrutiny and validation, laying the foundation for a comprehensive exploration of the nuanced relationships that underpin the realm of human resource management, EJS, and EP.

The insights offered by Ajzen & Fishbein (1997) provide valuable perspectives on the intricacies of predicting behavior from attitudes, primarily hinging on the concept of consistency. Inherent in this approach is the underlying assumption that individuals who harbor favorable attitudes towards a specific object will manifest corresponding favorable behaviors towards said object. In contrast, those who hold unfavorable attitudes are anticipated to engage in unfavorable behaviors. However, this seemingly straightforward assumption is not without its intricacies and limitations, as it may lack a clear and universally applicable theoretical foundation for precisely defining which behaviors can be deemed favorable or unfavorable concerning the object under scrutiny. This complexity underscores the multifaceted nature of human behavior, which may not always conform to the binary categorization of favorable and unfavorable. Behavior often exists on a continuum influenced by numerous situational, psychological, and contextual factors.

Consequently, understanding the interplay between attitudes and actions necessitates a more nuanced and comprehensive approach that accounts for the diversity and dynamics inherent in human decision-making and conduct.

Scholars have conducted extensive research to elucidate the multifaceted determinants of job satisfaction, recognizing a web of influences that collectively shape this crucial workplace construct. The factors encompass a spectrum of elements such as the compensation structure, promotion prospects, the intrinsic nature of job tasks, supervisory relationships, interactions with colleagues, and avenues for career advancement. Among these diverse facets, the role of compensation, particularly equity-based compensation, emerges as a prominent contributor to the intricate puzzle of job satisfaction. Researchers have revealed a notable and positive association between equity-based compensation schemes and EP, underlining the significance of fair and rewarding remuneration in motivating and retaining talent. In light of this, compensation is identified as a pivotal element for human capital-intensive enterprises, serving as a magnet for attracting and retaining seasoned experts within the workforce. The inherent link between compensation and job satisfaction is affirmed, highlighting the substantial impact that compensation packages have on the overall contentment of employees within the organizational context. Notably, it is noteworthy that the findings of studies have also discerned that flexible compensation schemes exert no discernible influence on the level of job satisfaction. This implies that while conventional compensation models hold a tangible sway over job satisfaction, the introduction of flexible compensation mechanisms may not significantly alter the job satisfaction levels of employees. These insights emphasize the nuanced nature of the relationship between compensation and job satisfaction, with the impact varying across different compensation approaches and organizational contexts.

Empirical studies have yielded valuable insights into the critical challenges faced by businesses, particularly those related to EP and job satisfaction, often referred to as "work happiness." These two factors, inextricably linked with the productivity and well-being of an organization, have emerged as focal points for attention and improvement in the corporate landscape. It has become evident that enhancing individual competency is pivotal in addressing these challenges and advancing toward the achievement of organizational objectives. Individual competency encompasses a multifaceted set of attributes, skills, and knowledge that equip employees to fulfill their roles effectively. Therefore, developing and honing individual competencies are essential strategies to elevate both EP and job

satisfaction within an organization. Moreover, research delving into the job satisfaction of public sector managers has unveiled a notable determinant: income. Income, as a critical element in compensation structures, emerges as the predominant influence on job satisfaction levels among this cohort. This finding underscores the substantial impact of financial remuneration on the overall satisfaction experienced by public sector managers in their professional roles. Recognizing the pivotal role of income in shaping job satisfaction provides organizations with valuable insights for designing compensation packages that effectively cater to the needs and expectations of their managerial staff, ultimately contributing to a more content and motivated workforce.

The findings discussed above offer a rich foundation for the exploration of various relationships and interactions among a multitude of variables that collectively shape the organizational dynamics and employee experiences. These intricate relationships are integral to understanding and optimizing the functioning of organizations. Among the diverse relationships that can be empirically tested, one can examine the direct and indirect connections between several key constructs, including GTL and EP, GTL and EJS, EJS and EP, GHRMPs and EP, GHRMPs and EJS, GTL and EJS, where the moderation effects of ETA come into play. Furthermore, the interplay between GHRMPs and EJS, moderated by ETA, can be explored in depth, as well as the mediating effects of EJS in the relationships between GTL and EP and GHRMPs and EP. By delving into these multifaceted connections and considering the impact of moderating and mediating factors, companies can gain a comprehensive understanding of the levers that influence job satisfaction, EP, leadership styles, and human resource practices. Such insights are invaluable for organizations seeking to enhance their operations and create environments that foster employee well-being, motivation, and overall success.

III. MATERIALS AND METHODS

3.1. Design

This study utilized a quantitative approach complemented by a qualitative strategy. Evidence-based procedures, protocols, and guidelines are employed in quantitative studies to provide tools and frameworks (Majid, 2018). They use numbers to access information, measure data, and analyze statistics. A common method for developing and answering quantitative research questions is to identify gaps in the existing literature and design research to address those gaps (Jamieson et al., 2022). This technique is robust for studying large groups of people and making generalizations from large group samples (Holton III & Burnett, 2005, p. 30). This method explains an empirical orientation that values testing beliefs or logical propositions against experience (Zyphur & Pierides, 2019), and possess six primary attributes related to using numbers to evaluate data, the ability to measure and quantify data, striving for objectivity, employing statistical analysis to evaluate findings, representing complex problems through variables, and summarizing, comparing, or generalizing results (Goertzen, 2017).

The approach was supported by a confirmatory approach, which began by establishing a framework based on pre-existing theories and phenomena to address research questions related to the hypotheses. Therefore, it used a deductive approach. Social science researchers have explained that deductive testing of theories is commonly associated with the positivist scientific research paradigm and quantitative research (Bitektine, 2008). In this type of research, the logical reasoning structure needs to be highly formal to achieve consensus (Zalaghi & Khazaei, 2016). This approach describes pre-existing phenomena without manipulating conditions to influence subject responses, and there is no manipulation of the independent variables (Radhakrishnan, 2013). Therefore, the quantitative research design, operationalized through confirmatory, deductive, and non-experimental approaches, can be explained in Figure 6. It illustrates that the quantitative research design comprises five steps, starting with an explanation of the paradigm and research questions and concluding with an explanation of the results obtained from the preceding analysis.

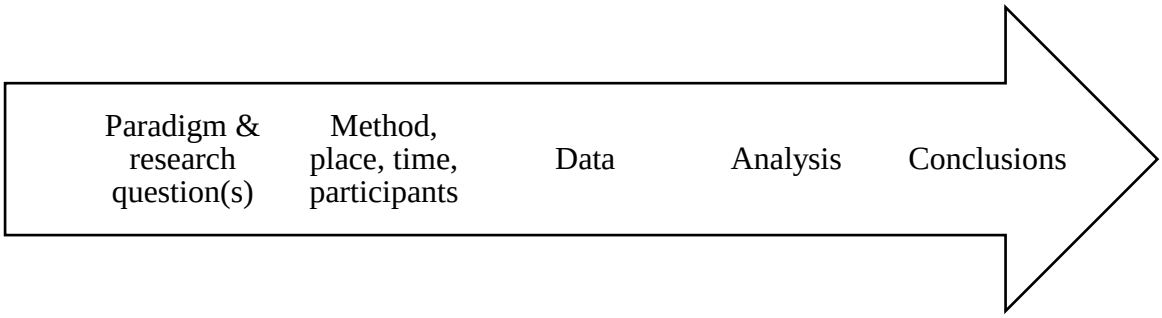


Figure 6. The quantitative research

Source: Davies (2020)

This study also employed a qualitative strategy to yield comprehensive results. It emphasized both the process and meaning in the research. Theoretical foundations were used as a guide to ensure that the research focus aligns with the realities in the field. The purpose of this strategy was to elucidate phenomena through data collection. Qualitative research objects are not limited and require in-depth analysis. Qualitative research aims to address questions related to developing an understanding of the dimensions of meaning and the human experience within the social world (Fossey et al., 2002). In many forms of qualitative research, analysis commences immediately after the initial data unit is collected, and this preliminary analysis then informs subsequent data collection (Sandelowski, 1995).

Kim et al. (2017) explain that six features and qualitative descriptive design techniques are identified from the description of approaches in the literature. First, researchers generally adopt a naturalistic perspective and examine a phenomenon in its natural state. Second, qualitative design has been described as less theory-driven than some other qualitative approaches, allowing for flexibility in commitment to theory or framework when designing and conducting research. For instance, researchers may choose whether or not to start with a targeted theory of phenomena and need not remain committed to a theory or framework if their investigations lead them in different directions. Third, the data collection strategy usually involves individual and/or focus group interviews with minimally structured or semi-structured interview guidelines. Fourth, researchers typically use purposive sampling techniques, such as maximum variation sampling, which have been described as valuable for obtaining broad insights and rich information. Fifth, qualitative content analysis (often supplemented with descriptive statistics to describe the research sample) is a common strategy for data analysis. In some cases, thematic analysis is used,

and it should not be confused with content analysis. This data analysis approach allows the researcher to remain closely connected to the data, with minimal transformation during analysis. Such interpretation is low inference, allowing readers familiar with the topic to recognize their own experience of the phenomenon in the findings. Finally, it is desirable that the representation of study findings in published reports is straightforward, including comprehensive descriptive summaries and accurate details presented in a way that makes sense to the reader. It is important to acknowledge that variations in methods or techniques may be appropriate across qualitative design studies. For example, when aligned with the aims of the study, a decision may be made to use techniques from other qualitative traditions, such as employing the constant comparative analytic approach typically associated with grounded theory.

3.2. Measurement

The questionnaire items in this study were measured using a "seven-point Likert scale from 1 to 7," ranging from strongly disagree to strongly agree. Previous quantitative research in the field of human resource management has commonly utilized 7-point Likert scales to obtain more detailed information about the attitudes and views of respondents. In some cases, five levels may be too limited to describe the more subtle degrees of agreement or disagreement. Increasing the number of levels on the Likert scale can enhance the validity of the measurement instrument. In specific situations, such as academic research or research requiring a deeper understanding, a 7-level Likert scale can offer higher accuracy in describing the attitudes of respondents. The indicators and items for the variables in this study are presented in Table 4.

Table 4. Measurement of variables

Variable	Indicator	Item
Green transformational leadership (Chen & Chang, 2013)	Green plans	1) The leader of the green product development project inspires the project members with the environmental plans.
	Green vision	1) The leader of the green product development project provides a clear environmental vision for the project members to follow.

	Green goals	1) The leader of the green product development project gets the project members to work together for the same environmental goals. 2) The leader of the green product development project encourages the project members to achieve the environmental goals.
	Green beliefs	1) The leader of the green product development project acts with considering environmental beliefs of the project members.
	Green ideas	1) The leader of the green product development project stimulates the project members to think about green ideas.
Green human resource management practices (Dumont, et al., 2017)	Green goals	1) The company sets green goals for its employees.
	Green training	1) The company provides employees with green training to promote green values. 2) The company provides employees with green training to develop employees' knowledge and skills required for green management.
	Green performance appraisal	1) The company considers employees' workplace green behavior in performance appraisals.
	Green rewards and compensation	1) The company relates employees' workplace green behaviors to rewards and compensation.
	Green promotion	1) The company considers employees' workplace green behaviors in promotion.
Employee green behavior (Robertson & Barling, 2013)	Green printing	1) The employee prints double sided whenever possible.
	Green items	1) The employee puts compostable items in the compost bin.
	Green materials	1) The employee puts recyclable material (cans, paper, bottles, batteries) in the recycling bins.
	Green utensils	1) The employee brings reusable eating utensils to work (travel coffee mug, water bottle, reusable containers, reusable cutlery).
	Green lighting	1) The employee turns lights off when not in use.

	Green programs	1) The employee takes part in environmentally friendly programs (bike/walk to work day, bring your own local lunch day).
	Green suggestions	1) The employee makes suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.
Employee technology adaptation (Rubel et al., 2016)	New technology	1) The employee has skillfully used the tools and applications the new technology provides.
		1) The employee has quickly become familiar with the new technology.
		1) The employee is easy for me to adjust myself to the new technology introduced in my organization.
		1) The employee has accurately managed all the facilities the new technology provides.
		1) The employee considers myself a frequent user of my organization's technology.
Employee job satisfaction (Yousef, 2000)	Present job satisfaction	1) Overall, the employee is satisfied with my present job.
Employee performance (Yousef, 2000)	Working quality	1) The employee has a quality performance at work.
	Working productivity	1) The employee has high productivity at work.
	Comparison	1) The employee's colleagues perform better at work than I do at the same job. 2) The employee performs better at work than my colleagues do at work at the same job.

3.3. Instrument

In this study, primary data collection involved the use of an online questionnaire written in the Indonesian language as the main instrument. However, as there were approximately 200 intended respondents in Lubuk-Linggau who preferred to complete paper-based survey questionnaires, a hybrid questionnaire was employed. All responses

from paper-based survey questionnaires were transcribed to an online format and could be immediately accessed and reviewed through the researcher's Google Form account. In other words, all responses from the target respondents using the paper-based survey questionnaire were initially collected, and then they were manually entered or transferred to the Google Form by the data collection officer in the field.

Given that each item used in this questionnaire was adapted from previous research, a pilot test for the questionnaire was deemed unnecessary. This was also considered during the direct observation process and in the data collection preparations, as outlined in Table 6. Data collection took place from January to June 2023. Furthermore, a common method bias (CMB) test could be employed to identify any potential biases in the data collected before conducting structural equation modeling (SEM) analysis. The structure of the questionnaire is explained below.

The front page of the questionnaire contained introductory remarks, study objectives, researcher identification, information about respondent volunteerism, and an estimated completion time. The stated aim of the questionnaire was to support the completion of the researcher's doctoral dissertation. The researcher's identity included a full name, study status, campus affiliation, email address, and WhatsApp number. Respondents were not provided with incentives to complete the questionnaire, and their personal information was not required, as their responses would be used exclusively for dissertation purposes. The estimated time required to complete the questionnaire was approximately five minutes.

The second page of the questionnaire was the respondent profile section, which included gender, age, education level, work experience, and contact details. Respondents were given multiple-choice options for gender, with male and female as the available choices. Age was categorized into five groups: 17-20 years, 21-30 years, 31-40 years, 41-50 years, and over 50 years. Education level was also presented as multiple-choice options, ranging from elementary school to master's degree level. Length of work experience was divided into five categories: less than one year, 1-5 years, 6-10 years, 11-15 years, and over 15 years. Respondents were not obligated to provide contact details, but they could choose to do so by providing either an email address or WhatsApp number.

The third page of the questionnaire pertained to the profile of SMEs and included the type of business, business location, and the number of employees. Respondents were asked to provide a written response for the type of business and business location. The number of employees was presented as a multiple-choice question with two options: 5 to 19 and 20

to 99. These two options were selected to align with the focus of the study on SMEs, as well as with GTL and GHRMPs.

The fourth page of the questionnaire consisted of items related to GTL, GHRMPs, EGB, ETA, EJS, and EP. There was a total of 29 items presented as multiple-choice questions with a 1 to 7 scale ranging from "Strongly Disagree" to "Strongly Agree." Finally, the questionnaire contained four questions related to obtaining the respondent's consent. These questions were designed to confirm that each respondent had understood the objectives and topics of the research, was employed by an SME in South Sumatra, was responding to the questionnaire without any representation, and comprehends the potential benefits of the research.

3.4. Sampling and data collection

In the initial stages of the study, secondary data was collected from sources such as journals, books, website reports, and chapters to develop a framework for testing. The purpose of collecting secondary data was to establish a solid foundation for the study. Subsequently, primary data was collected. The targeted respondents for primary data collection in this study were employees of SMEs in South Sumatra. The primary data collected consisted of the responses provided by the respondents to the items in the questionnaire.

This study was concerned about the potential for performance bias to arise during the collection of primary data. Performance bias refers to the possibility that the behavior or performance of the respondents might be influenced by factors such as the researcher's presence or the way the questions are framed. To address this concern, the researcher took steps to minimize the influence of such biases. For instance, the questionnaire was designed in a neutral and unbiased manner, and respondents were instructed to answer the questions honestly and without any external influences. Additionally, the researcher employed a standardized protocol for data collection to ensure that all respondents were treated consistently and objectively. It is important for researchers to be aware of performance bias and take steps to minimize its potential impact on their study findings (Jefferson & Demicheli, 1999).

The primary data was collected in three waves. Non-probability sampling, specifically purposive sampling, was utilized to ensure that the sample consisted solely of employees who work in SMEs located in the South Sumatra, with a focus on three specific areas: the cities of Palembang, Lahat, and Lubuk-Linggau. This method can be explained by the specific intent, purpose, problem, or research idea that is tailored to the sample (Campbell et al., 2020). Thus, this study focused on populations that attracted particular attention or homogeneous samples.

The number of targeted samples for this study was 900, but the number of collected samples ranged between 500 to 600. It is important to note that having a target sample size does not necessarily mean that it will be achievable or necessary to reach that exact number. As long as the sample size is adequate for the research question and analysis, it can still be valid and reliable. The sample size is determined using the sample size calculator approach, where, when the population is very large, the minimum sample size that can be used is 385 (SurveyMonkey, 2023). According to Newscom (2020), a table summary of some minimum sample size recommendations for structural equation modeling is commonly noted in the literature and online, as shown in Table 5.

Table 5. Minimum sample size recommendations

Approach	Minimum size	Description
Maximum likelihood with multivariate normal data	a) 100 b) 200 – 400 c) 5:1 ratio of cases to free parameters d) 10:1 ratio of cases to free parameters	These suggested sample sizes are based on maximum likelihood estimation with multivariate normal data, which may be somewhat rare in practice, and correctly specified models. For analyses with fewer than 100 cases or so, some authors suggest using t-critical values instead of z-critical values for parameter significance tests. The complexity of the model is important, and the minimum needed for simple path models—equivalent to regression models—may differ from that required for complex full structural models with latent variables.
Multilevel modeling for non-normal continuous variables: maximum likelihood with robust	≥ 250	When data are multivariate normal, standard maximum likelihood and multilevel modeling will yield identical estimates. However, overcorrection of standard errors may occur when sample sizes are too small (e.g., < 250).

standard errors and Satorra-Bentler Scaled Chi-Square		
Bootstrap for nonnormal continuous variables	≥ 200 - 1000	When data are multivariate normal, standard maximum likelihood is preferable in terms of unbiased and efficient standard errors. Standard errors were well below true values when sample sizes were < 1000 for moderately nonnormal data. Bootstrap estimates of standard errors do not perform well with small sample sizes (< 200), but performance may depend on the complexity of the model. It is noted that a sample size of 100 could be sufficient for simple models, while 250 or more bootstrap samples should be used for estimation. However, many sources recommend using 500-1000 bootstrap samples in various contexts and find that more than 250 bootstrap samples did not significantly improve estimates.
Bootstrap tests of indirect effects	> 50 - 500	Percentile bootstrap confidence intervals for indirect effects do not exhibit seriously inflated Type I error rates, even for very small sample sizes of 50 or 100. However, bias-corrected and accelerated bias-corrected methods require at least 500 cases to avoid problematic Type I errors. Results from Fritz and colleagues indicated that the Type I error issues depended on the effect sizes of the 'a' and 'b' effects, with larger effects sometimes demonstrating more problematic rates or lower-than-expected power. The percentile bootstrap method was found to be superior for the smallest sample sizes.
Multiple linear regression for continuous nonnormal missing data (robust maximum likelihood)	> 400	While more simulation work is likely needed, it appears that robust adjustments with full information maximum likelihood work well when data are missing at random and sample sizes are 400 or above.
Robust diagonally weighted least squares for	≥ 200 – 500	Unadjusted categorical weighted least squares do not perform as well as the mean and variance-adjusted version of diagonally weighted least squares. A sample size of 500 or more may be necessary for sufficient power to reject models.

binary or ordinal variables (weighted least square mean and variance adjusted in Mplus and lavaan)		Less than 200 cases seem to be associated with serious standard error bias and inflated Type I errors; 500 cases may be needed to maintain a nominal Type I error rate. In general, this method tends to be more powerful than multiple linear regression, particularly for binary and ordinal variables.
Robust maximum likelihood for binary and ordinal variables with categorical designation in Mplus	≥ 200 – 500	Unadjusted marginal maximum likelihood for binary and ordinal variables (full information maximum likelihood) does not perform as well as the mean and variance-adjusted (robust) version. Similar to robust diagonally weighted least squares, a sample size of less than 200 seems to be associated with serious standard error bias and inflated Type I errors; 500 cases may be needed for a nominal Type I error rate. Although computationally more intensive, it performs comparably to weighted least squares means and variance-adjusted in most cases. It may also have less bias in standard errors than weighted least squares means and variance-adjusted for small sample sizes with asymmetric distributions in some cases.

Source: Newsom (2020)

According to Table 5, the minimum number that can be applied for SEM analysis varies, with options including 100, 200, 250, and 400, either 5 times or 10 times the number of parameters. In this study, 400 to 500 samples were used, which were in line with the 10 times the number of parameters (29), totaling 290 or above 400.

The ethical approach used to collect primary data involved respecting the participation of research subjects by providing good treatment, safeguarding the provided data, and offering extra protection for vulnerable subjects. Furthermore, the important principles applied included upholding values of integrity, honesty, and fairness, avoiding conflicts of interest between researchers, field officers, and respondents, maintaining honesty in data submission, and being transparent about research objectives, benefits, and funding.

A cross-sectional approach was used to collect data in three waves with a relatively short time difference, differing by months. The first wave of baseline data collection

occurred in March 2023, followed by April and May for the second and third waves. It is important to note that this was not a longitudinal study since it did not involve repeated measurements of the same individuals over a long enough time span to detect changes in their developmental status (Rajulton, 2001; Ployhart & Vandenberg, 2010). Details about the data collection process are provided in Table 6.

Table 6. Data collection process

Wave and time	Activity	Result
Preparation for data collection between January to February, 2023	1) Observed SMEs in three locations—Palembang, Lahat, and Lubuk-Linggau in South Sumatra, and engaged in unstructured informal conversations with SME employees in the cities to understand their perspectives on online surveys and their preferred methods for completing online questionnaires	1) Collected the types of SMEs in the three cities exhibited similarities in terms of business premises design and management patterns, which were predominantly traditional and conventional. The sheer number of these SMEs was substantial, aligning with the information provided in the introduction section about SMEs in South Sumatra. 2) Collected information about the majority of SME employees in South Sumatra were well-acquainted with cellphones, the internet, and email, as well as social media applications such as WhatsApp. However, there were still some individuals who are not familiar with the internet and cellphones, including WhatsApp and email. 3) Collected a significant proportion of SME employees in South

		Sumatra those who expressed a willingness to participate in questionnaire surveys, whether conducted online or on paper, especially if the links or physical questionnaires were received from individuals they know.
Wave 1 of primary data collection btween March 24 to April 9, 2023 (17 days).	1) Distributed the questionnaire directly by employing 3 enumerators. The SMEs selected were SMEs with a workforce ranging from 5 to 99 employees. These criteria ensured a clear separation between the roles of leaders and employees. Three field officers were deployed to collect data in three cities. Each field agent is a native of each city, has extensive information and connections within the SME community in their respective locations. 2) Distributed online questionnaires to other cities in South Sumatra. The field workers contacted their acquaintances who were native residents of these cities. The six additional cities included Pagar Alam, Banyu Asin, Musi Rawas, Inderalaya, Muara Enim, and South Ogan Komering Ulu.	1) Collected a total of 611 data points, with the majority originating from three key cities in South Sumatra: Palembang, Lahat, and Lubuk Linggau. 2) Compiled the profiles of the respondents and the profiles of the SMEs.
Wave 2 of primary data collection between April 24 and May 6, 2023 (13 days)	1) Distributed questionnaires in the three main cities and ignored the other 6 additional cities because they are not effective and efficient.	1) Collected a total of 578 data points from the three cities.
Wave 3 of primary data collection between May 21 and June 3, 2023 (14 days)	1) Did the same activities as in the previous wave.	1) Collected 584 data from three cities.

Source: Author own research

The primary data collection process in the field involved three field assistants (enumerators): a male native residing in Palembang, aged between 35 to 45 years; another male native residing in Lahat, aged 20 to 30 years; and the other male native residing in Lubuk-Linggau, aged 30 to 40 years. The selection of these three locations was based on geographical factors and the possibility of finding suitable individuals to assist in data collection based on discussions with former SME employees. After agreeing to assist with the data collection process in the field, the enumerators received a briefing from the researcher regarding the contents of the questionnaire and the procedures for distributing the questionnaires, both online and in person. The target was to receive responses from 900 individuals (300 from each of the three cities).

3.5. Common method bias

The CMB test was first introduced by Campbell & Fiske (1959), who identified that a portion of the variance in their study, which involved decomposing a multi-trait multi-method matrix, might be attributed to the research method used (Jordan & Troth, 2020). CMB refers to the extent of correlation between small steps of magnitude (Meade et al., 2007). In Harman's single-factor test, the percentage of variance associated with the first component (or factor), which corresponds to the highest eigenvalue, is compared to a threshold of 0.5. This percentage is also referred to as the total variance explained by the first component extracted during the analysis. It is important to note that this can be a bit confusing for test users, as it may give the impression that it is the total variance in the latent variable explained by the indicator. In reality, it is 1 (or 100 percent) for the first component, and for the corresponding factor, it is equivalent to the factor reliability (Kock, 2021). Harman's single-factor test is widely used, and it is employed by researchers to detect common method variance (Fuller et al., 2015). CMB sources are described in Table 7.

Table 7. Potential sources of common method bias

Source	Description
Common rater effects	Any artifactual covariance between the predictor and criterion variable produced by the fact that the respondent providing the measure of these variables is the same.

Consistency motif	The propensity for respondents to try to maintain consistency in their responses to questions.
Implicit theories (and illusory correlations)	Respondents' beliefs about the covariation among particular traits, behaviors, and/or outcomes.
Social desirability	The tendency of some people to respond to items more as a result of their social acceptability than their true feelings.
Leniency biases	The propensity for respondents to attribute socially desirable traits, attitudes, and/or behaviors to someone they know and like than to someone they dislike.
Acquiescence biases (yea-saying and nay-saying)	The propensity for respondents to agree (or disagree) with questionnaire items independent of their content.
Mood state (positive or negative affectivity; positive or negative emotionality)	The propensity of respondents to view themselves and the world around them in generally negative terms (negative affectivity) or the propensity of respondents to view themselves and the world around them in generally positive terms.
Transient mood state	The impact of relatively recent mood-inducing events to influence the manner in which respondents view themselves and the world around them.
Item characteristic effects	Any artifactual covariance that is caused by the influence or interpretation that a respondent might ascribe to an item solely because of specific properties or characteristics the item possesses.
Item social desirability	The fact that items may be written in such a way as to reflect more socially desirable attitudes, behaviors, or perceptions.
Item demand characteristics	The fact that items may convey hidden cues as to how to respond to them.
Item ambiguity	The fact that items that are ambiguous allow respondents to respond to them systematically using their own heuristic or respond to them randomly.
Common scale formats	Artifactual covariation produced by the use of the same scale format (e.g., Likert scales, semantic differential scales, "faces" scales) on a questionnaire.
Common scale anchors	The repeated use of the same anchor points (e.g., extremely, always, never) on a questionnaire.
Positive and negative item wording	The fact that the use of positively (negatively) worded items may produce artifactual relationships on the questionnaire.
Item context effects	Any influence or interpretation that a respondent might ascribe to an item solely because of its relation to the other items making up an instrument.
Item priming effects	The fact that the positioning of the predictor variable on the questionnaire can make that variable more salient to the respondent and imply a causal relationship with other variables.
Item embeddedness	The fact that neutral items embedded in the context of either positively or negatively worded items will take on the evaluative properties of those items.

Context-induced mood	When the first question (or set of questions) encountered on the questionnaire induces a mood for responding to the remainder of the questionnaire.
Scale length	The fact that if scales have fewer items, responses to previous items are more likely to be accessible in short-term memory and to be recalled when responding to other items.
Intermixing (or grouping) of items or constructs on the questionnaire	The fact that items from different constructs that are grouped together may decrease intra construct correlations and increase inter construct correlations.
Measurement context effects	Any artifactual covariation produced from the context in which the measures are obtained.
Predictor and criterion variables measured at the same point in time	The fact that measures of different constructs measured at the same point in time may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured in the same location	the fact that measures of different constructs measured in the same location may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured using the same medium	The fact that measures of different constructs measured with the same medium may produce artifactual covariance independent of the content of the constructs themselves.

Source: Podsakoff, et al. (2003)

In this study, the three-wave data collection process involved grouping the data into independent variables, moderating and mediating variables, and dependent variables. This grouping was determined based on the sub-framework, which served as the reference for the hypotheses. As shown in Table 8, the independent variables were obtained from waves 1 and 2, the moderating and mediating variables were derived from wave 2, and the dependent variable was collected in wave 3.

Table 8. Distribution of data sources

Hypotheses	**Data collection**		
	Wave 1	**Wave 2**	**Wave 3**
Hypothesis 1	GTL	GHRMPs	EGB
Hypothesis 2, 3, 4, 5, 6	GTL & GHRMPs	ETA & EJS	EP

Source: Author's own research

3.6. Analyses

This section consisted of two parts: descriptive analysis (quantitative and qualitative) and structural equation modeling. The first analysis elucidated the mean, median, and mode of the collected data, while the subsequent analysis examined the relationships between GTL, GHRMPs, EGB, ETA, EJS, and EP.

3.6.1. Descriptive analysis

The most common types of descriptive statistics are measures of central tendency (mean, median, and mode), and they are utilized across various levels of mathematics, research, evidence-based practice, and quality improvement (Conner & Johnson, 2017). In this study, descriptive statistics were employed to characterize the fundamental characteristics of data collected from experimental studies in various ways, providing a straightforward summary of the samples and their characteristics. Statistics that are frequently used to describe location, spread, or variability include measures like the mean, median, standard deviation, and quartiles (Shi & McLarty, 2009). According to Nick (2007), reporting the size and distribution of data is essential in quantitative research.

Given that this study focused on the Indonesian context, it used Geert Hofstede's cultural dimensions to explain the study's results in a descriptive qualitative manner with a specific emphasis on Indonesian culture. Hofstede's Cultural Dimensions factor analysis is based on extensive research into cultural preferences conducted by Gert Jan Hofstede and his research teams. Hofstede's research is centered on national cultural preferences rather than individual cultural preferences. It encompasses six key aspects of national culture in country comparison scales, including the power distance index, individualism vs. collectivism, masculinity versus femininity, uncertainty avoidance index, long-term orientation versus short-term normative orientation, and indulgence versus restraint (Hofstede Insights, 2023).

3.6.2. Structural equation modeling analysis

Since the framework in this study was constructed to establish a step-by-step causal relationship between the two dependent variables, the moderating and mediating variables, and the dependent variable, the analysis process was conducted in two stages:

1. Simultaneously tested two direct relationships between GTL, GHRMPs, and EGB, as depicted in Figure 7.
2. The second stage involved testing the direct relationship between GTL, GHRMPs, ETA, EJS, and EP with the moderating and mediating variables, as illustrated in Figure 8.

In the first stage, the analysis focused on the relationship between GTL, GHRMPs, and EGB, with GTL and GHRMPs as the two independent variables, and EGB as the dependent variable. SEM analysis was employed to test the effects of GTL and GHRMPs. The analysis was conducted using the analysis of moment structure (Amos). The relationship between these three variables is depicted in the figure below:

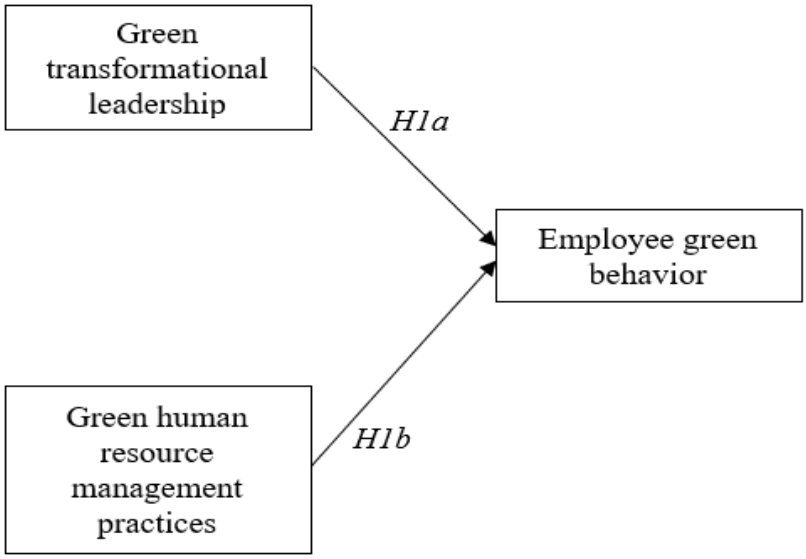


Figure 7. The framework for the first analysis

Source: Author's own research

3.6.3. Moderation analysis

In the second stage, the analysis focused on the relationship between GTL and EJS, as well as GHRMPs and EJS, both moderated by ETA. The moderating variable is connected to the independent and dependent variables, with arrows indicating the relationships between them (Memon et al., 2019). Moderation analysis is used to examine when, under what circumstances, or for what types of people the influence of variables is significant or not, and to what extent. Moderation is also referred to as interaction. If the effect of independent variables on dependent variables is moderated by interaction, it means that the independent variables interact with the moderator (Liana, 2009; Hayes & Rockwood, 2016).

3.6.4. Mediating analysis

This study analyzed the relationship between GTL and EP, as well as between GHRMPs and EP. Mediation analysis using covariance-based SEM is typically employed for model validation, and it necessitated large sample sizes, which can vary among authors (commonly more than 100 subjects and preferably more than 200 subjects). Various estimation methods are used in covariance-based SEM, such as Maximum Likelihood or Unweighted Least Squares, which are considered complete information methods (Tenenhaus, 2008). SEM extends the capabilities of path analysis, allowing researchers to explore the relationships between measured and latent variables (Streiner, 2006). SEM has been extensively utilized in the social and behavioral sciences for studying relationships between latent constructs (Yuan et al., 2000), evolving from the intersection of path analytic and factor analytic.

SEM represents specific, theory-based causal relationships between latent variables and their corresponding indicator variables. Model parameter estimates aim to make the indicator variance/covariance matrix closely resemble the data's variance/covariance matrix. The degree of similarity or dissimilarity between these matrices is typically expressed as the likelihood of observing the data's covariance matrix under the assumption that the model, with its causal estimations, represents the population from which the data was drawn. If the model is indeed the correct one, the implied covariance matrix will match the population covariance matrix (Hayduk et al., 2007). In contrast to more traditional

multivariate linear models, SEM allows the response variable in one regression equation to act as a predictor in another equation, and variables in SEM can influence each other reciprocally, either directly or through intermediary variables (Fox, 2002). Bagozzi & Yi (2012) highlight several benefits of using structural equation modeling, including its integrative functions, precision in hypothesis specification, consideration of measurement reliability in hypothesis testing, guidance for exploratory and confirmatory research, suggestion of new hypotheses, suitability for various research types, and ease of use.

Irrespective of the chosen statistical model, the mediation process involves intermediary variables between the independent and dependent variables, requiring at least three variables: X (independent variable), Y (dependent variable), and I (mediating variable). Full mediation suggests that the researcher has fully explained the process by which X affects Y and does not need to test further indirect effects, whereas partial mediation implies that other indirect effects should be examined and empirically tested (Rucker et al., 2011).

Amos, short for analysis of moment structures, is a powerful SEM software that extends standard multivariate analysis methods like regression, factor analysis, correlation, and analysis of variance. It helps build attitude and behavior models that more accurately represent complex relationships compared to standard multivariate statistical techniques. Amos is an International Business Machines (IBM) Corporation statistical package for social sciences (SPSS) designed for analyzing covariance structural models, including SEM, path analysis, and confirmatory factor analysis (CFA) (Barnidge & Zúñiga, 2018). Researchers can utilize Amos to test complex variable-relationship hypotheses and derive new insights from the data. Unlike SPSS, which employs exploratory factor analysis, Amos uses CFA, which explains the latent variables describing measured variables, with any unexplained variance attributed to measurement error (Nam et al., 2018). Researchers commonly use Amos to confirm theories because it utilizes Maximum Likelihood estimation in SEM analysis (Ong & Puteh, 2017). Figure 8 illustrates the moderation of ETA and the mediation of EJS.

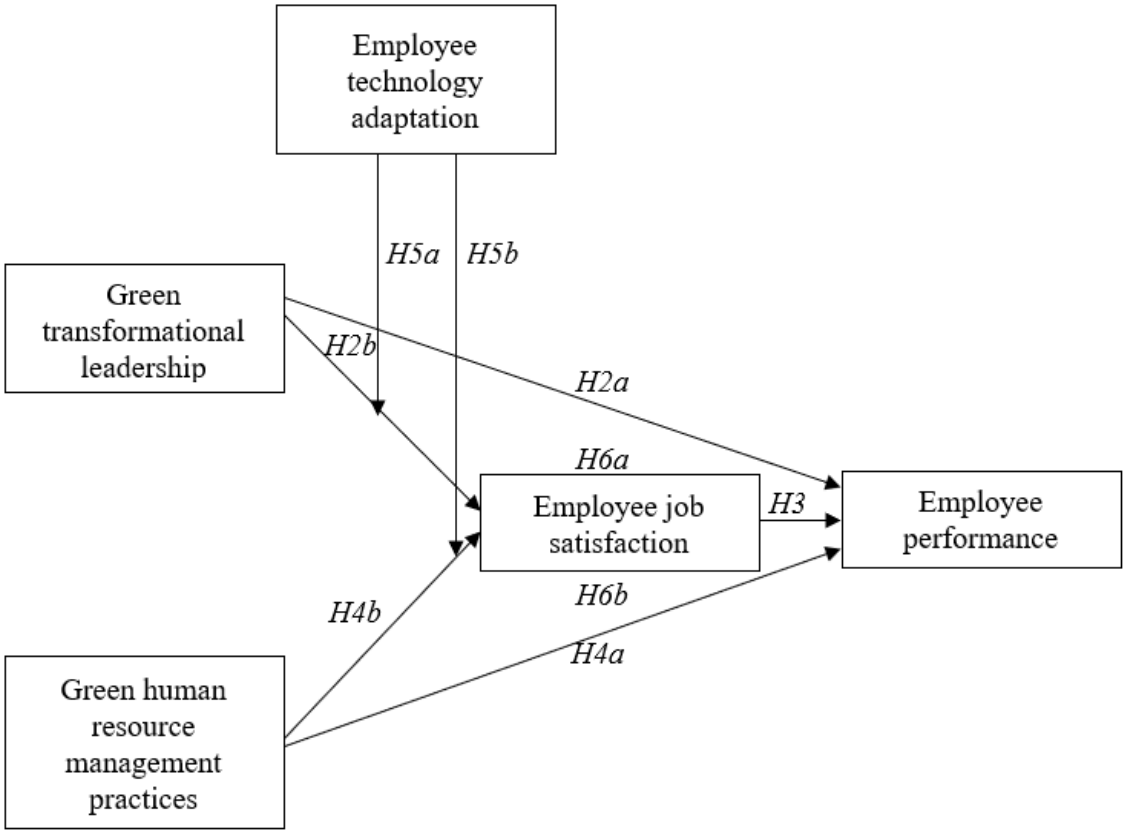


Figure 8. The framework for the second analysis

Source: Author's own research

IV. RESULTS AND DISCUSSION

This chapter presents profiles of respondents and SMEs (4.1 and 4.2), analysis of CMB (4.3), descriptive statistics (4.4), SEM analysis (4.5), and discussion (4.6). The first section contains gender, age, education, and job tenure of respondents, which can be seen in Tables 9, Table 10, Table 11, and Table 12. The profile of SMEs is based on three types of businesses, namely manufacturers (Table 14), service providers (Table 15), and traders (Table 16). The three analyses, which are CMB, descriptive statistics, and SEM, are explained in two steps: hypotheses 1 and hypotheses 2. The discussion section explains the theoretical and practical implications of the results of the hypothesis analysis.

4.1. Profile of respondents

This section describes the demographic characteristics of respondents, including gender, age, education, and job tenure. Gender is categorized into two groups: female and male, while age, education, and job tenure are each divided into five levels.

Table 9. Respondents' gender

No	Gender	Total in three cities			Total	%
		Palembang	Lahat	Linggau		
1	Female	143	27	88	258	45.34
2	Male	116	80	115	311	54.66
Total		259	107	203	569	100

Source: Author’s own research

According to Table 9, the total number of respondents after screening, which was based on three-wave data collection (1st: 611, 2nd wave: 578, and 3rd wave: 584), was 569. The screening process was based on the consistency of respondents' participation in the surveys and the completeness of their questionnaire submissions. These SME employees were dispersed across three cities in South Sumatra province. The first city, Palembang, which serves as the capital of South Sumatra Province, had 259 respondents. the second city, Lahat, had 107 respondents, and the third city, Lubuk-Linggau, had 203

respondents. The percentage of female respondents was below 50 percent, amounting to 45.34 percent, which was lower than that of males, standing at 54.66 percent. Consequently, the respondents were predominantly male employees working in SMEs in South Sumatra, with the city of Palembang being the most dominant in terms of their representation.

Table 10. Respondents' age

No	Age (years)	Total in three cities			Total	%
		Palembang	Lahat	Linggau		
1	17 to 20	57	7	32	96	16.88
2	21 to 30	118	69	85	272	47.80
3	31 to 40	61	26	47	134	23.55
4	41 to 50	23	2	27	52	9.14
5	> 50	0	3	12	15	2.63
Total		259	107	203	569	100

Source: Author's own research

Table 10 contains the ages of the respondents, ranging from 17 to more than 50 years old, divided into five categories. All categories had percentages below 50 percent, with the highest percentage being 47.80% in the group aged 21 to 30. According to this table, most of the respondents were employees of SMEs in South Sumatra born between 2002 and 2011, or Generation Z (born between 1995 and 2010). The city of Palembang was also dominant in terms of their representation.

Table 11. Respondents' education

No	Education	Total in three cities			Total	%
		Palembang	Lahat	Linggau		
1	Elementary school	0	1	8	9	1.58
2	Junior high school	15	1	21	37	6.50
3	Senior high school	220	81	146	447	78.56
4	Pre bachelor academy (level I, II, III)	12	3	1	16	2.81
5	Bachelor (Pre bachelor level IV)	12	21	27	60	10.55
Total		259	107	203	569	100

Source: Author's own research

Table 11 shows that among the five education groups, respondents with senior high school education dominated with over seventy-eight percent. The other education groups had less than twenty-five percent representation. Based on this table, most of the respondents were employees of SMEs in South Sumatra who had graduated from senior high school. The city of Palembang was dominant in their representation.

Table 12. Respondents' job tenure

No	Job tenure (years)	Total in three cities			Total	%
		Palembang	Lahat	Linggau		
1	Less than 1	20	26	11	57	10.02
2	1 to 5	147	62	122	331	58.17
3	6 to 10	74	13	43	130	22.85
4	11 to 15	17	3	18	38	6.68
5	More than 15	1	3	9	13	2.28
Total		259	107	203	569	100

Source: Author's own research

Table 12 confirms that respondents with a work experience of 1 to 5 years were dominant, comprising over fifty percent. This percentage was significantly higher than that of the other four groups. According to this table, the majority of respondents were employees of SMEs in South Sumatra with less than a decade of experience. The city of Palembang remained dominant in their representation.

4.2. Profile of small and medium-sized enterprises

In the first wave of data collection, an online questionnaire link was distributed to 900 target employees spread across 150 SMEs in three cities (50 SMEs in each city). Based on data from waves 1, 2, and 3, the total number of SMEs that participated in the three cities was 119 (33 + 41 + 45). In Palembang, a total of 33 SMEs participated in the survey, with 29 being small enterprises (5 to 19 employees) and 4 being medium-sized enterprises (20 to 99 employees). In Lahat, 45 small enterprises participated, with no medium-sized businesses taking part. In Lubuk-Linggau, 41 small enterprises and 1 medium-sized enterprise participated. This resulted in a total of 119 SMEs participating in the survey in South Sumatra. There were 31 types of SMEs that took part in this survey, including 5 manufacturing SMEs, 13 service SMEs, and 13 trade SMEs. The most prominent sectors

among participating SMEs were food and beverage for manufacturing, vehicle repair shops for services, and grocery shops for trading, as indicated in Table 13, Table 14, and Table 15. In these tables, SEs are small enterprises and MEs are medium-sized enterprises.

Table 13. Manufacturing small and medium-sized enterprises

No	Manufacturer	Total in three cities						Total	%
		Palembang		Lahat		Linggau			
		SEs	MEs	SEs	MEs	SEs	MEs		
1	Building materials factories					1			1.75
2	Craft shops (rattan and wood)			3		1		4	7.0
3	Food and beverage	12		18		18		48	84.21
4	Food factories					2		2	3.51
5	Spice shops	1				1		2	3.51
Total		13		21		23		57	100

Source: Author's own research

Table 13 reveals that manufacturing SMEs in Lubuk-Linggau were surveyed more extensively compared to SMEs in Palembang and Lahat. It is worth noting that only small enterprises were surveyed in these three cities, with the food and beverage sector dominating in terms of the percentage. The other four surveyed SME types, which included craft shops, food factories, spice shops, and building materials factories, each had a percentage below 10 percent. According to this table, the total number of manufacturing SMEs surveyed was 57.

Table 14. Service small and medium-sized enterprises

No	Service	Total in three cities						Total	%
		Palembang		Lahat		Linggau			
		SEs	MEs	SEs	MEs	SEs	MEs		
1	Electrical installation			1				1	2.70
2	Event organizer			1				1	2.70
3	Fitness center					1		1	2.70
4	Flower board			1		1		2	5.40
5	Laundry	1		1		2		4	10.81
6	Pet shop and care					1		1	2.70

7	Photo studio			2				2	5.40
8	Printing			3		1		4	10.81
9	Roof installation			1		1		2	5.40
10	Salon, spa, and barber shop	2		1				3	8.11
11	Taylor	1		1		4		6	16.22
12	Vehicle repair shop	1		4		4		9	24.32
13	Vehicle washing			1				1	2.70
Total		5		17		15		37	100

Source: Author's own research

Table 14 confirms that among the 13 service SMEs surveyed, vehicle repair shops were the most numerous, comprising 9 percent of the total. Tailors accounted for 6 percent, while the remaining eleven SMEs had percentages below 5 percent. It is interesting to note that, in terms of location, there was a higher percentage of vehicle repair shops among SMEs in the cities of Lahat and Lubuk-Linggau compared to Palembang. Similar to the surveyed SMEs in manufacturing, all the surveyed service SMEs were small enterprises.

Table 15. Trade small and medium-sized enterprises

No	**Trade**	**Total in three cities**						**Total**	**%**
		Palembang		**Lahat**		**Linggau**			
		SEs	**MEs**	**SEs**	**MEs**	**SEs**	**MEs**		
1	Aquarium fish shop			1				1	4
2	Building materials store	1						1	4
3	Butcher and fish shop	1						1	4
4	Cellphone & computer shop	1		2				3	12
5	Clothing shop	1				1		2	8
6	Cosmetic shop	1	3					4	16
7	Drug stores	1						1	4
8	Fishing equipment shop	1						1	4
9	Fragrance shop	1						1	4
10	Fruit store			1				1	4
11	Grocery shop	3	1	1		1	1	7	28
12	Office supply store			1				1	4
13	Refill water shop			1				1	4
Total		11	4	7		2	1	25	100

Source: Author own research

Table 15 confirms that among the 13 service SMEs surveyed, grocery shops were the most numerous, with a percentage above 25 percent. The other twelve SMEs had percentages below 20 percent. Notably, in terms of location, the percentage of surveyed SMEs in Palembang was higher than those in Lahat and Lubuk-Linggau. Furthermore, it is worth mentioning that medium-sized enterprises were surveyed in Palembang and Lubuk-Linggau, whereas all surveyed service SMEs in Lahat remained small enterprises.

4.3. Common method bias

After conducting a CMB test using Harman's one-factor test with SPSS support, it was found that the cumulative percentage values of the extraction sums of squared loadings for hypotheses 1 and 2 were both below 50 percent. The scores for the two were nearly identical, specifically 24 percent and 25 percent, as indicated in Tables 16 and 17.

Table 16. Total variance explained of hypothesis 1

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% Variance	% Cumulative	Total	% Variance	% Cumulative
1	5.359	28.205	28.205	4.904	25.809	25.809
2	4.568	24.042	52.247			
3	3.547	18.667	70.915			
4	0.699	3.678	74.593			
5	0.588	3.093	77.686			
6	0.564	2.966	80.652			
7	0.498	2.621	83.272			
8	0.387	2.037	85.309			
9	0.338	1.777	87.087			
10	0.330	1.737	88.823			
11	0.315	1.657	90.480			
12	0.300	1.578	92.058			
13	0.285	1.503	93.560			
14	0.267	1.408	94.968			
15	0.227	1.196	96.163			
16	0.214	1.125	97.289			
17	0.202	1.061	98.350			
18	0.174	0.915	99.265			
19	0.140	0.735	100.000			

Source: Author’s own research

Table 16 shows that there are 19 items or parameters tested, comprising 6 items for GTL, 6 items for GHRMPs, and 7 items for EGB. In the initial eigenvalue column, the total values of the 19 parameters ranged from 0.140 to 5.359. The percentage values of the variance fell between 0.735 and 28.205. In the extraction sums of squared loadings column, the maximum total value was 4.904, with a variance percentage value of 25.809. This cumulative percentage value served as the basis for determining the presence of method bias in the collected data. Consequently, it was found that there was no CMB on the data collected for hypothesis 1, as the cumulative percentage value was well below 50 percent. Thus, the collected data can be used for subsequent analyses.

Table 17. Total variance explained of hypothesis 2

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% Variance	% Cumulative	Total	% Variance	% Cumulative
1	5.971	27.167	27.167	5.400	24.548	24.548
2	3.996	18.165	45.332			
3	3.668	16.672	62.004			
4	2.331	10.596	72.599			
5	0.960	4.362	76.961			
6	0.717	3.261	80.222			
7	0.567	2.578	82.800			
8	0.517	2.351	85.150			
9	0.405	1.843	86.993			
10	0.390	1.771	88.764			
11	0.334	1.519	90.283			
12	0.325	1.477	91.760			
13	0.279	1.269	93.029			
14	0.274	1.245	94.274			
15	0.252	1.144	95.418			
16	0.216	0.983	96.401			
17	0.179	0.816	97.217			
18	0.174	0.789	98.006			
19	0.151	0.686	98.692			
20	0.128	0.580	99.272			
21	0.102	0.463	99.735			
22	0.058	0.265	100.000			

Source: Author’s own research

Table 17 reveals that there are 22 items or parameters tested, including 6 items each for GTL and GHRMPs, 5 items for ETA, 1 item for EJS, and 4 items for EP. In the initial eigenvalue column, the total values of the 22 parameters ranged from 0.058 to 5.971, and the percentage values of the variance fell between 0.265 and 27.167. In the extraction sums of squared loadings column, the maximum total value was 5.400, with a variance percentage value of 24.548. This cumulative percentage value served as the basis for determining the presence of method bias in the collected data. Similar to hypothesis 1, it was found that there was no bias based on the data collected for hypothesis 2. Consequently, the collected data were suitable for subsequent analyses.

4.4. Descriptive statistics and Hoftstede's insights

This section describes the GTL dataset from the wave 1 survey for both hypotheses 1 and 2, the GHRMPs dataset from the wave 2 survey for hypothesis 1, and the same dataset from the wave 3 survey for hypothesis 2. The EGB dataset was exclusively from the wave 3 survey and was used for hypothesis 1. The ETA and EJS datasets from the wave 2 survey were employed for hypothesis 2, while the EP dataset from the wave 3 survey was utilized for hypothesis 2.

Table 18. Statistics for green transformational leadership of hypothesis 1 and 2

	X1.1	**X1.2**	**X1.3**	**X1.4**	**X1.5**	**X1.6**
Valid N	569	569	569	569	569	569
Mean	5.44	5.38	5.46	5.42	5.33	5.40
Standard error of mean	0.047	0.046	0.046	0.047	0.046	0.046
Median	5.00	5.00	5.00	5.00	5.00	5.00
Mode	5	5	5	5	5	5
Standard deviation	1.113	1.109	1.092	1.111	1.096	1.101
Variance	1.239	1.229	1.192	1.234	1.201	1.211
Skewness	-0.680	-0.589	-0.610	-0.649	-0.550	-0.592
Standard error of skewness	0.102	0.102	0.102	0.102	0.102	0.102
Kurtosis	1.265	1.299	0.969	1.231	1.457	1.155
Standard error of kurtosis	0.204	0.204	0.204	0.204	0.204	0.204
Range	6	6	6	6	6	6
Minimum	1	1	1	1	1	1
Maximum	7	7	7	7	7	7
Sum	3094	3061	3104	3085	3034	3070

Source: Author's own research

Table 18 shows that the mean value for each item or variable ranged between 5.33 and 5.48. The median and mode values for each item were 5.00 and 5, respectively. On the whole, the respondents generally agreed with the GTL. However, it is worth noting that the overall answers from the respondents ranged from 1 to 7, indicating that not all respondents fully agreed with the GTL.

Table 19. Statistics for green human resource management practices of hypothesis 1

	X2.1	**X2.2**	**X2.3**	**X2.4**	**X2.5**	**X2.6**
Valid N	569	569	569	569	569	569
Mean	5.53	5.49	5.54	5.57	5.57	5.53
Standard error of mean	0.041	0.043	0.043	0.042	0.042	0.043
Median	5.00	5.00	5.00	5.00	5.00	5.00
Mode	5	5	5	5	5	5
Standard deviation	0.982	1.016	1.027	0.990	0.998	1.026
Variance	0.964	1.032	1.055	0.981	0.995	1.052
Skewness	-0.247	-0.171	-0.180	-0.323	-0.170	-0.221
Standard error of skewness	0.102	0.102	0.102	0.102	0.102	0.102
Kurtosis	0.217	0.333	0.081	0.867	0.099	0.360
Standard error of kurtosis	0.204	0.204	0.204	0.204	0.204	0.204
Range	6	6	6	6	6	6
Minimum	1	1	1	1	1	1
Maximum	7	7	7	7	7	7
Sum	3149	3123	3154	3172	3170	3147

Source: Author’s own research

Table 19 shows that the mean value for each item or variable ranged between 5.49 and 5.57. The median and mode values for each item were 5.00, indicating that respondents, as a whole, generally agreed with the GHRMPs. However, the overall answers from the respondents ranged from 1 to 7, suggesting that not all respondents fully agreed with the GHRMPs. Overall, the statistics of respondents' answers for GHRMPs were similar to those for GTL. Notably, there were two items in GHRMPs, namely X2.4 and X2.5, with mean values above 5.5 or close to 6.

Table 20. Statistics for green human resource management practices of hypothesis 2

	X2.1	**X2.2**	**X2.3**	**X2.4**	**X2.5**	**X2.6**
Valid N	569	569	569	569	569	569
Mean	5.49	5.44	5.45	5.43	5.45	5.44
Standard error of mean	0.43	0.43	0.44	0.42	0.42	0.43
Median	5.00	5.00	5.00	5.00	5.00	5.00

Mode	5	5	5	5	5	5
Standard deviation	1031	1024	1044	0994	1004	1035
Variance	1064	1049	1089	0989	1004	1035
Skewness	-0.361	-0.250	-0.370	-0.255	-0.313	-0.344
Standard error of skewness	0.102	0.102	0.102	0.102	0.102	0.102
Kurtosis	0.425	0.272	0.648	0.704	0.617	0.727
Standard error of kurtosis	0.204	0.204	0.204	0.204	0.204	0.204
Range	6	6	6	6	6	6
Minimum	1	1	1	1	1	1
Maximum	7	7	7	7	7	7
Sum	3123	3093	3100	3090	3099	3095

Source: Author's own research

Table 20 shows that the mean value for each item or variable ranged between 5.43 and 5.59. The median and mode values for each item were 5.00, indicating that respondents, as a whole, generally agreed with the GHRMPs. However, the overall answers from the respondents ranged from 1 to 7, suggesting that not all respondents fully agreed with the GHRMPs. Overall, the statistics of respondents' answers for GHRMPs in wave 1 were similar to those in wave 2. However, there were no mean values above 5.5 or close to 6 for any of the items.

Table 21. Statistic for employee green behavior of hypothesis 1

	Y1.1	**Y1.2**	**Y1.3**	**Y1.4**	**Y1.5**	**Y1.6**	**Y1.7**
Valid N	569	569	569	569	569	569	569
Mean	5.39	5.38	5.35	5.40	5.41	5.44	5.39
Std. Error of Mean	0.042	0.041	0.040	0.041	0.040	0.040	0.040
Median	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Mode	5	5	5	5	5	5	5
Std. Deviation	0.997	0.973	0.960	0.977	0.966	0.952	0.943
Variance	0.995	0.946	0.922	0.955	0.933	0.905	0.890
Skewness	-0.026	0.214	0.289	0.150	0.076	0.089	0.106
Standard error of skewness	0.102	0.102	0.102	0.102	0.102	0.102	0.102
Kurtosis	0.488	0.169	0.059	0.107	0.609	0.184	0.835
Standard error of kurtosis	0.204	0.204	0.204	0.204	0.204	0.204	0.204
Range	6	6	6	6	6	6	7
Minimum	1	1	1	1	1	1	1
Maximum	7	7	7	7	7	7	7
Sum	3066	3059	3045	3073	3079	3096	3068

Source: Author's own research

Table 21 shows that the mean value for each item or variable ranged between 5.35 and 5.44. The median and mode values for each item were 5.00, indicating that respondents, as a whole, generally agreed with EGB. However, the overall answers from the respondents ranged from 1 to 7, suggesting that not all respondents fully agreed with EGB. Overall, the response statistics for EGB in wave 3 were similar to those for GTL and GHRMPs.

Table 22. Statistics for employee technology adaptation of hypothesis 2

	M1	**M2**	**M3**	**M4**	**M5**
Valid N	569	569	569	569	569
Mean	544	541	540	541	544
Standard error of mean	0.043	0.042	0.042	0.043	0.043
Median	5.00	5.00	5.00	5.00	5.00
Mode	5	5	5	5	5
Standard deviation	1.021	1.007	1.011	1.024	1.016
Variance	1.042	1.014	1.023	1.048	1.033
Skewness	-0.179	0.089	-0.004	0.008	-0.016
Standard error of skewness	0.102	0.102	0.102	0.102	0.102
Kurtosis	-0.113	-0.742	-0.716	-0.645	-0.757
Standard error of kurtosis	0.204	0.205	0.204	0.204	.204
Range	6	5	5	5	5
Minimum	1	2	2	2	2
Maximum	7	7	7	7	7
Sum	3094	3080	3075	3077	3098

Source: Author's own research

Table 22 shows that the mean value for each item or variable ranged between 5.40 and 5.44. The median and mode values for each item were 5.00, indicating that respondents, as a whole, generally agreed with the ETA. However, the overall answers of the respondents ranged from 1 to 7 and from 2 to 7, which suggested that not all respondents fully agreed with the ETA. Overall, the response statistics for ETA in wave 3 were similar to those for GTL, GHRMPs, and EGB.

Table 23. Statistics for employee job satisfaction of hypothesis 2

	I (EJS)
Valid N	569
Mean	5.44
Standard error of mean	0.046
Median	5.00
Mode	5

Standard deviation	1.102
Variance	1.215
Skewness	-0.463
Standard error of skewness	0.102
Kurtosis	0.561
Standard error of kurtosis	0.204
Range	6
Minimum	1
Maximum	7
Sum	3096

Source: Author's own research

Table 23 shows that the mean value for the items from the EJS was 5.44. The median and mode values for the items were 5.00, indicating that respondents, overall, quite agreed with the EJS. These were similar to those for GTL, GHRMPs, EGB, and ETA.

Table 24. Statistics for employee performance of hypothesis 2

	Y2.1	**Y2.2**	**Y2.3**
Valid N	569	569	569
Mean	5.38	5.28	5.33
Standard error of mean	0.047	0.046	0.046
Median	5.00	5.00	5.00
Mode	5	5	5
Standard deviation	1.126	1.100	1.107
Variance	1.269	1.211	1.225
Skewness	-0.487	-0.391	-0.438
Standard error of skewness	0.102	0.102	0.102
Kurtosis	0.766	1.103	0.749
Standard error of kurtosis	0.204	0.204	0.204
Range	6	6	6
Minimum	1	1	1
Maximum	7	7	7
Sum	3064	3007	3033

Source: Author's own research

Table 24 shows that the mean value for each item of the EP ranged between 5.28 and 5.38. The median and mode values for the items were 5.00, indicating that respondents, as a whole, quite agreed with the EP. However, the answers of the respondents as a whole ranged from 1 to 7, meaning that not all respondents fully agreed with the EP. Overall, the response statistics for EP in wave 3 were also similar to those for GTL, GHRMPs, EGB,

ETA, and EJS. After finding that the six variables tested in this study exhibited relatively high values, they were analyzed based on Hofstede's Insight about Indonesia as explained below:

1. Power distance (78%): Indonesia's culture scores 78% on power distance, signifying a strong dependence on hierarchy, unequal power distribution, inaccessibility of superiors, directive leadership, and centralized power. Managers rely on the obedience of their team members, and employees expect clear directions. Control is expected, and managers are respected for their positions. Communication tends to be indirect, and negative feedback may be concealed. A high-power distance means Indonesian colleagues typically expect clear guidance from their leaders.
2. Individualism (14%): Indonesia is a collectivist society with a 14% individualism score. This indicates a preference for a well-defined social framework where individuals are expected to conform to the ideals of their society and group.
3. Masculinity (46%): Indonesia scores 46% on masculinity, considered relatively low. In this context, effective managers are supportive, and decision-making often involves group participation.
4. Uncertainty avoidance (48%): Indonesia scores 48% on uncertainty avoidance, highlighting the importance of maintaining workplace harmony and relationships. Indonesians may be averse to delivering bad or negative news directly, and they may prefer indirect communication. Conflict resolution often involves third-party intermediaries.
5. Long-term orientation (62%): With a high score of 62 in long-term orientation, Indonesia exhibits a pragmatic culture. People in such societies believe that truth depends on the situation, context, and time. They are adaptable to changing conditions, emphasize thrift, and persistently work towards achieving results.
6. A low score of 38 on indulgent. This dimension shows that Indonesia has a restraint culture. People with low scores on this dimension have tendencies of cynicism and pessimism. Also, in contrast to indulgent societies, Restraint people place less emphasis on leisure and controlling the satisfaction of their desires. People with this orientation have the perception that their actions are constrained by social norms and feel that self-indulgence is somewhat wrong.

The key question is whether the relatively high levels of GTL, GHRMPs, EGB, ETA, EJS, and EP in SMEs align with Indonesian culture according to Hofstede's country comparison. This study had provided relatedness among these six variables and the six cultural dimensions by Hofstede, based on the meaning of each variable and each of these cultural dimensions. As a result, it was found that four dimensions to be particularly relevant: individualism, power distance, long-term orientation, and indulgence. The relationship between each variable and cultural dimension was explained as follows:

1. GTL and individualism: GTL negatively related to individualism, as both discuss how individuals work. The relatively high GTL in Indonesian SMEs was consistent with the low level of individualism in Indonesian society. GTL encouraged collaborative efforts to achieve environmental goals, considers environmental beliefs of project members, stimulates collective thinking about green ideas, and fosters a sense of collectivity.
2. GHRMPs and power distance: GHRMPs were related to power distance, both dealing with clarity in power. The relatively high GHRMPs in Indonesian SMEs aligned with the high-power distance in Indonesian society. These practices determined EGB and EJS through formalities in setting goals, providing training, conducting performance appraisals, offering rewards and compensation, and promotions. This consistency attributed to the role of human resource managers in managing employees with formal rules and policies, rather than the green approach offered.
3. EGB and long-term orientation: EGB was related to long-term orientation, both focusing on time orientation in actions. A relatively high EGB in Indonesian SMEs aligned with the high long-term orientation of Indonesian society. This consistency was evident in the acceptance of green practices among SME employees, including the use of green printing, materials, lighting, and sustainability programs.
4. ETA and long-term orientation: ETA also related to long-term orientation. A relatively high ETA aligned with the high long-term orientation of Indonesian society. This consistency was reflected in SME employees' acceptance of new technology as a long-term investment.
5. EJS and indulgence: EJS was related to indulgence, both addressing cynicism and pessimism. A relatively high EJS was inconsistent with the low indulgence of Indonesian society. While job satisfaction was quite high, indicating that employees

were not cynical or pessimistic, the rate of indulgence remains low among the Indonesian population.

6. EP and indulgence: EP related to indulgence, with both discussing cynicism and pessimism. A relatively high EP was inconsistent with low indulgence in Indonesian society. The overall high-quality performance at work, productivity, and competition among SME employees demonstrated that they were not cynical or pessimistic, despite the low level of indulgence within the Indonesian culture.

4.5. Structural equation modeling with analysis of moment structure

This section covers model fit analysis, CFA, hypothesis analysis, and Amos's outputs. The analyses explain hypotheses 1 and 2 separately.

4.5.1. Model fit of hypothesis 1

This section presents two tables, Table 25 and Table 26 to explain the results of the model fit test for hypothesis 1.

Table 25. Model fit of hypothesis 1

CMIN					
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	41	584.094	149	0.000	3.920
Saturated model	190	0.000	0		
Independence model	19	8018.961	171	0.000	46.895
RMR, GFI					
Model	**RMR**	**GFI**	**AGFI**	**PGFI**	
Default model	0.037	0.899	0.871	0.705	
Saturated model	0.000	1.000			
Independence model	0.365	0.295	0.216	0.265	
Baseline comparation					
Model	**NFI Delta1**	**RFI rho1**	**IFI Delta2**	**TLI rho2**	**CFI**
Default model	0.927	0.916	0.945	0.936	0.945
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000
RMSEA					
Model	**RMSEA**	**LO 90**	**HI 90**	**P CLOSE**	
Default model	0.072	0.066	0.078	0.000	

Independence model	0.284	0.279	0.290	0.000

Source: Author's own research

Table 26. Conclusion of model fit of hypothesis 1

Fit test item	Appraisal value	Fit criterion	Result	Conclusion
CMIN/DF	3.920	< 2	> 2	Not fit
GFI	0.899	> 0.9	< 0.9	Not fit
NFI	0.927	> 0.9	> 0.9	Fit
RFI	0.916	> 0.9	> 0.9	Fit
IFI	0.945	> 0.9	>0.9	Fit
TLI	0.936	> 0.9	> 0.9	Fit
CFI	0.945	> 0.90	> 0.9	Fit
RMSEA	0.072	< 0.8	< 0.8	Fit

Source: Author's own research

Table 25 and Table 26 present the components of the fit model test, which include chi-square value (CMIN), root mean square residual (RMR), goodness of fit index (GFI), baseline comparisons, and root mean square error of approximation (RMSEA). Good criteria for this test are as follows: CMNI/degree of freedom (CMINI/DF) below 2, all of GFI, normed fit index (NFI), relative fit index (RFI), incremental fit index (IFI), Tucker Lewis fit Index (TLI), comparative fit index (CFI) above 0.9, and RMSEA below 0.8 (Narimawati & Sarwono, 2022). The obtained CMIN/DF value was 3.920, which exceeded the recommended threshold of 2. The GFI value was 0.899, falling below the desirable threshold of 0.9. These values did not meet the criteria for a good fit. However, NFI, RFI, IFI, TLI, and CFI values all exceeded 0.9, and the RMSEA value was below 0.8. Consequently, this model could be considered reasonably fit based on the baseline comparison, which encompasses NFI, RFI, IFI, TLI, CFI, and RMSEA.

4.5.2. Model fit of hypothesis 2

This section presents two tables, Table 27 and Table 28 to explain the results of the model fit test for hypothesis 2.

Table 27. Model fit of hypothesis 2

CMIN					
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	63	967.536	237	0.000	4.082
Saturated model	300	0,000	0		
Independence model	24	10508.019	276	0.000	38.073
RMR, GFI					
Model	**RMR**	**GFI**	**AGFI**	**PGFI**	
Default model	0.042	0.880	0.848	0.695	
Saturated model	0.000	1.000			
Independence model	0.331	0.316	0.257	0.291	
Baseline comparations					
Model	**NFI**	**RFI**	**IFI**	**TLI**	**CFI**
Default model	0.908	0.893	0.929	0.917	0.929
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000
RMSEA					
Model	**RMSEA**	**LO 90**	**HI 90**	**PCLOSE**	
Default model	0.074	0.069	0.079	0.000	
Independence model	0.255	0.251	0.260	0.000	

Source: Author's own research

Table 28. Conclusion of fit test of hypothesis 2

Fit test item	**Appraisal value**	**Fit criterion**	**Result**	**Conclusion**
CMIN/DF	4.082	< 2	> 2	Not fit
GFI	0.880	> 0.9	< 0.9	Not fit
NFI	0.908	> 0.9	> 0.9	Fit
RFI	0.893	> 0.9	< 0.9	Not fit
IFI	0.929	> 0.9	> 0.9	Fit
TLI	0.917	> 0.9	> 0.9	Fit
CFI	0.929	> 0.9	> 0.9	Fit
RMSEA	0.074	< 0.8	< 0.8	Fit

Source: Author's own research

Table 27 and Table 28 present the components of the fit model test, including CMIN, RMR, GFI, Baseline comparisons, and RMSEA. The CMIN/DF value obtained was 4.082,

which exceeded the recommended threshold of 2. The GFI and RFI values were 0.880 and 0.893, both falling below the desirable threshold of 0.9. These values did not meet the criteria for a good fit. However, NFI, IFI, TLI, and CFI values all exceeded 0.9, and the RMSEA value was below 0.8. Consequently, this model could be considered reasonably fit based on the baseline comparison, which encompassed NFI, IFI, TLI, CFI, and RMSEA.

4.5.3. Confirmatory factor analysis

This section is divided into two CFAs: one for hypothesis 1, as shown in Table 29, and another for hypothesis 2, as shown in Table 30. In cases where an item was found to be invalid, the fit model was retested, and the CFA was repeated with a new number of items, as indicated in Table 31, Table 32, and Table 33. Finally, Table 34 explains the implied covariance for hypothesis 1, and Table 35 does the same for hypothesis 2.

Table 29. Validity and reliability of hypothesis 1

Regression and estimate weights (validity)		**Variances and estimate weights**		**Regression and error comparation**	**Reliability**	
Regression	**Estimate**	**Error**	**Estimate**		**CR**	**AVE**
X1.1 and GTL	0.757	e1	0.529	r > e	0.925	0.674
X1.2 and GTL	0.802	e2	0.438	r > e		
X1.3 and GTL	0.867	e3	0.296	r > e		
X1.4 and GTL	0.904	e4	0.225	r > e		
X1.5 and GTL	0.885	e5	0.261	r > e		
X1.6 and GTL	0.854	e6	0.332	r > e		
X2.1 and GHRMPs	0.761	e7	0.405	r > e	0.885	0.565
X2.2 and GHRMPs	0.698	e8	0.529	r > e		
X2.3 and GHRMPs	0.819	e9	0.346	r > e		
X2.4 and GHRMPs	0.858	e10	0.259	r > e		
X2.5 and GHRMPs	0.724	e11	0.473	r > e		
X2.6 and GHRMPs	0.643	e12	0.616	r > e		
Y1.1 and EGB	0.817	e13	0.330	r > e	0.939	0.689
Y1.2 and EGB	0.833	e14	0.290	r > e		
Y1.3 and EGB	0.800	e15	0.331	r > e		
Y1.4 and EGB	0.843	e16	0.276	r > e		
Y1.5 and EGB	0.872	e17	0.223	r > e		
Y1.6 and EGB	0.718	e18	0.438	r > e		
Y1.7 and EGB	0.854	e19	0.240	r > e		

Source: Author's own research

Table 29 confirms that the estimated regression values (factor loadings) between each variable and each item were all above 0.5, ranging from 0.643 to 0.904. Consequently, all items for the GTL, GHRMPs, and EGB variables were considered valid, as these factor loadings exceeded the error variances, which ranged from 0.223 to 0.616. Further manual calculations using Excel revealed that the composite reliability (CR) and average variance extracted (AVE) values for the three variables were satisfactory, with CR values above 0.7 and AVE values above 0.5, confirming the reliability of all items or parameters for each variable.

Table 30. Validity and reliability of hypothesis 2

Regression and estimate weights (validity)		**Variances and estimate weights**		**Regression and error comparation**	**Reliability**	
Regression	**Estimate**	**Error**	**Estimate**		**CR**	**AVE**
X1.1 and GTL	0.757	e1	0.528	r > e	0.925	0.711
X1.2 and GTL	0.803	e2	0.437	r > e		
X1.3 and GTL	0.867	e3	0.296	r > e		
X1.4 and GTL	0.903	e4	0.227	r > e		
X1.5 and GTL	0.885	e5	0.260	r > e		
X1.6 and GTL	0.852	e6	0.332	r > e		
X2.1 and GHRMPs	0.886	e7	0.228	r > e	0.948	0.764
X2.2 and GHRMPs	0.963	e8	0.077	r > e		
X2.3 and GHRMPs	0.730	e9	0.508	r > e		
X2.4 and GHRMPs	0.715	e10	0.482	r > e		
X2.5 and GHRMPs	0.940	e11	0.118	r > e		
X2.6 and GHRMPS	0.962	e12	0.080	r > e		
M1 and ETA	0.749	e13	0.457	r > e	0.881	0.720
M2 and ETA	0.804	e14	0.358	r > e		
M3 and ETA	0.848	e15	0.288	r > e		
M4 and ETA	0.737	e16	0.478	r > e		
M5 and ETA	0.743	e17	0.462	r > e		
Y2.1 and EP	0.866	e18	0.317	r > e	0.925	0.674
Y2.2 and EP	0.882	e19	0.269	r > e		
Y2.3 and EP	0.794	e20	0.452	r > e		
Y2.4 and EP	0.231	e21	0.962	e > r		

Source: Author's own research

Table 30 reveals that the estimated regression values (factor loadings) between each variable and its items were generally above 0.5, with the exception of item Y2.4, which had a lower value. These factor loading values ranged from 0.118 to 0.963. Consequently, all items for GTL, GHRMPs, EJS, ETA, and EP variables were considered valid, except

for the fourth item of EP. Manual calculations using Excel indicated that the CR and AVE values for these three variables were satisfactory, with CR values above 0.7 and AVE values above 0.5. Therefore, all items or parameters of each variable were found to be reliable, except for the last item from EP. Consequently, item Y2.4 was excluded from further analysis, and a new analysis process, including CMB, model fit, and CFA, was conducted.

Table 31. Total variance explained without item invalid of hypothesis 2

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% Variance	% Cumulative	Total	% Variance	% Cumulative
1	5.971	28.435	28.435	5.397	25.698	25.698
2	3.961	18.862	47.297			
3	3.660	17.429	64.727			
4	2.309	10.997	72.723			
5	0.719	3.426	79.149			
6	0.569	2.710	81.859			
7	0.518	2.4675	84.326			
8	0.418	1.990	86.317			
9	0.394	1.877	88.194			
10	0.334	1.592	89.786			
11	0.327	1.559	91.345			
12	0.280	1.335	92.680			
13	0.274	1.305	93.985			
14	0.252	1.199	95.184			
15	0.217	1.032	96.216			
16	0.180	0.857	97.073			
17	0.174	0.827	97.900			
18	0.153	0.730	98.630			
19	0.128	0.607	99.237			
20	0.102	0.485	99.722			
21	0.058	0.278	100.000			

Source: Author's own research

Table 31 confirms that, after omitting item Y2.4, there were 21 items tested, comprising 6 items for GTL, 6 items for GHRMPs, 5 items for ETA, 1 item for EJS, and 3 items for EP. In the initial eigenvalue column, the total values of the 21 parameters ranged from 0.058 to 5.971, similar to the values before omitting item Y2.4 (as shown in Table 17). However, the percentage values of the variance ranged from 0.278 to 28.435, which

were higher than the values before omitting item Y2.4. In the extraction sums of squared loadings column, the maximum total value was 5.397, with a variance percentage value of 25.698, which was lower than before omitting item Y2.4. This cumulative percentage value served as the basis for assessing the presence of method bias in the collected data. Consequently, there was no general method bias found in the data collected for hypothesis 1 after omitting item Y2.4, as the cumulative percentage value remained well below 50 percent. The collected data can be confidently used for subsequent analyses.

Table 32. Model fit without the invalid item of hypothesis 2

CMIN					
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	61	935.589	215	0.000	4.352
Saturated model	276	0.000	0		
Independence model	23	10447.899	253	0.000	41.296
RMR, GFI					
Model	**RMR**	**GFI**	**AGFI**	**PGFI**	
Default model	0.042	0.879	0.844	0.684	
Saturated model	0.000	1.000			
Independence model	0.343	0.309	0.246	0.283	
Baseline comparations					
Model	**NFI**	**RFI**	**IFI**	**TLI**	**CFI**
Default model	0.910	0.895	0.930	0.917	0.929
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000
RMSEA					
Model	**RMSEA**	**LO 90**	**HI 90**	**PCLOSE**	
Default model	0.077	0.072	0.082	0.000	
Independence model	0.266	0.262	0.271	0.000	

Source: Author's own research

Table 33. Conclusion of fit test without the invalid item of hypothesis 2

Fit test item	**Appraisal value**	**Fit criterion**	**Result**	**Conclusion**
CMIN/DF	4.352	< 2	> 5	Not fit
GFI	0.879	> 0.9	< 0.9	Not fit
NFI	0.910	> 0.9	> 0.9	Fit
RFI	0.895	> 0.9	> 0.9	Not Fit
TLI	0.917	> 0.9	> 0.9	Fit
CFI	0.929	> 0.90	> 0.9	Fit

RMSEA	0.077	< 0.8	< 0.8	Fit

Source: Author's own research

Table 32 and Table 33 clarify the components of the fit model test, including CMIN, RMR, GFI, baseline comparisons, and RMSEA. Following the omission of item Y2.4 from the model, the CMIN/DF value remained almost unchanged, at 4.352, still exceeding the threshold of 2. The GFI value was 0.879, and the RFI value was 0.895, both falling below the recommended threshold of 0.9. However, NFI, TLI, and CFI values all exceeded 0.9, and the RMSEA value remained below 0.8. Therefore, this model can still be considered reasonably fit based on the baseline comparison, which encompasses NFI, TLI, CFI, and RMSEA.

Table 34. Validity and reliability without invalid item of hypothesis 2

Regression and estimate weights (validity)		**Variances and estimate weights**		**Regression and error comparation**	**Reliability**	
Regression	**Estimate**	**Error**	**Estimate**		**CR**	**AVE**
X1.1 and GTL	0.757	e1	0.528	r > e	0.925	0.674
X1.2 and GTL	0.803	e2	0.437	r > e		
X1.3 and GTL	0.867	e3	0.296	r > e		
X1.4 and GTL	0.903	e4	0.227	r > e		
X1.5 and GTL	0.885	e5	0.260	r > e		
X1.6 and GTL	0.852	e6	0.332	r > e		
X2.1 and GHRMPs	0.886	e7	0.228	r > e	0.948	0.754
X2.2 and GHRMPs	0.963	e8	0.077	r > e		
X2.3 and GHRMPs	0.730	e9	0.508	r > e		
X2.4 and GHRMPs	0.715	e10	0.482	r > e		
X2.5 and GHRMPs	0.940	e11	0.118	r > e		
X2.6 and GHRMPs	0.962	e12	0.080	r > e		
M1 and ETA	0.749	e13	0.457	r > e	0.881	0.597
M2 and ETA	0.804	e14	0.358	r > e		
M3 and ETA	0.848	e15	0.288	r > e		
M4 and ETA	0.737	e16	0.478	r > e		
M5 and ETA	0.743	e17	0.462	r > e		
Y2.1 and EP	0.868	e18	0.314	r > e	0.861	0.674
Y2.2 and EP	0.879	e19	0.273	r > e		
Y2.3 and EP	0.792	e20	0.453	r > e		

Source: Author's own research

Table 34 illustrates that, following the exclusion of item Y2.4, the estimated regression values (factor loadings) between each variable and its items were consistently above 0.5. These factor loading values ranged from 0.715 to 0.963, while the error values ranged from 0.118 to 0.528. Consequently, all items for GTL, GHRMPs, EJS, ETA, and EP variables were considered valid. Further manual calculations using Excel confirmed that the CR and AVE values for these three variables were satisfactory, with CR values above 0.7 and AVE values above 0.5. Therefore, all items or parameters of each variable were found to be reliable, except for the last item from EP.

Table 35. Implied covariance of hypothesis 1

	Y1.7	**Y1.6**	**Y1.5**	**Y1.4**	**Y1.3**	**Y1.2**	**Y1.1**
Y1.7	0.889						
Y1.6	0.550	0.904					
Y1.5	0.678	0.574	0.931				
Y1.4	0.663	0.562	0.692	0.954			
Y1.3	0.618	0.524	0.646	0.632	0.920		
Y1.2	0.652	0.553	0.681	0.666	0.621	0.945	
Y1.1	0.656	0.556	0.685	0.670	0.625	0.65	0.993
	X2.6	**X2.5**	**X2.4**	**X2.3**	**X2.2**	**X2.1**	
X2.6	1.050						
X2.5	0.476	0.994					
X2.4	0.560	0.612	0.979				
X2.3	0.554	0.607	0.713	1.053			
X2.2	0.467	0.511	0.601	0.595	1.030		
X2.1	0.492	0.539	0.634	0.628	0.529	0.962	
	X1.6	**X1.5**	**X1.4**	**X1.3**	**X1.2**	**X.1**	
X1.6	1.029						
X1.5	0.907	1.199					
X1.4	0.940	0.972	1.232				
X1.3	0.886	0.916	0.949	1.190			
X1.2	0.832	0.860	0.891	0.849	1.227		
X1.1	0.788	0.815	0.845	0.796	0.747	1.237	

Source: Author’s own research

In Table 35, the implied covariance values for each item or variable in hypothesis 1 (GTL, GHRMPs, and EGB) were consistently higher than the surrounding values, both to

the left and below. For instance, the implied covariance of Y1.7 was 0.889, surpassing all values below it. This pattern demonstrated the reliability of each item for every variable.

Table 36. Implied covariance of hypothesis 2

	INTER2	**INTER1**	**I**			
INTER2	0.907					
INTER1	0.194	1.052				
I	-0.012	-0.100	1.213			
	M5	**M4**	**M3**	**M2**	**M1**	
M5	1.031					
M4	0.569	1.046				
M3	0.646	0.646	1.021			
M2	0.610	0.610	0.693	1.012		
M1	0.576	0.576	0.654	0.618	1.040	
	X2.6	**X2.5**	**X2.4**	**X2.3**	**X2.2**	**X2.1**
X2.6	1.069					
X2.5	0.937	1.006				
X2.4	0.707	0.670	0.987			
X2.3	0.757	0.718	0.541	1.087		
X2.2	0.979	0.928	0.700	0.750	1.047	
X2.1	0.908	0.861	0.649	0.695	0.899	1.062
	Y2.3	**Y2.2**	**Y2.1**			
Y2.3	1.223					
Y2.2	0.847	1.209				
Y2.1	0.856	0.945	1.267			
	X1.6	**X1.5**	**X1.4**	**X1.3**	**X1.2**	**X1.1**
X1.6	1.209					
X1.5	0.907	1.199				
X1.4	0.939	0.971	1.232			
X1.3	0.886	0.916	0.948	1.190		
X1.2	0.833	0.861	0.891	0.840	1.227	
X1.1	0.789	0.816	0.844	0.797	0.749	1.237

Source: Author's own research

In Table 36, the implied covariance values for each item or variable in hypothesis 2 (GTL, GHRMPs, ETA, EJS, and EP) consistently exceeded the surrounding values, both to the left and below. For instance, the implied covariance of X2.4 was 0.987, surpassing all values below it. This pattern underscores the reliability of each item or parameter for every variable.

4.5.4. Hypothesis analysis

This section provides a comprehensive analysis, including regression, decisions regarding the hypotheses, direct effects, indirect effects, and total effects, all of which were based on hypotheses 1 and 2.

Table 37. Regression weights of hypothesis 1

	Estimate	**Standard error**	**Critical ratio**	**Probability**
EGB and GTL	0.013	0.043	-0.315	0.753
EGB and GHRMPs	0.174	0.050	3.477	0.000

Source: Author's own research

Table 37 reveals that the relationship between GTL and EGB had a negative C.R value and a probability value greater than 0.05. Statistically, there was no significant positive relationship between the two. Therefore, hypothesis 1a was rejected. On the other hand, the relationship between GHRMPs and EGB exhibited a positive C.R value greater than 1.96, specifically 3.477, with a probability value of 0.000 or less than 0.05. Hence, both variables were statistically significantly positively related, leading to the acceptance of hypothesis 1b.

Table 38. Regression weights of hypothesis 2

	Estimate	**Standard error**	**Critical ratio**	**Probability**
EP and GTL	-0.062	0.038	-1.638	0.101
EJS and GTL	-0.103	0.055	-1.853	0.064
EJS and INTER1	-0.114	0.044	-2.624	0.009
EP and EJS	0.685	0.034	20.376	0.000
EP and GHRMPs	-0.060	0.036	-1.680	0.093
EJS and GHRMPs	0,339	0.050	6.785	0.000
EJS and INTER2	0,030	0.047	0.639	0.523
EJS and ETA	0.311	0.062	4.987	0.000

Source: Author's own research

Table 38 presents the eight relationships examined in hypothesis 2:

1. The relationship between GTL and EP displayed a negative C.R value of -1.638 and a probability of 0.101, indicating no significant positive relationship between the two. Consequently, hypothesis 2a was rejected.
2. The relationship between GTL and EJS showed a negative C.R value of -1.853 and a probability of 0.064, signifying no significant positive relationship. This led to the rejection of hypotheses 2b and 2e.
3. The interaction between GTL and ETA (INTER1) and EJS revealed a negative C.R value of -2.624 and a probability of 0.009, again suggesting no significant positive relationship, resulting in the rejection of hypothesis 2c.
4. The relationship between EJS and EP demonstrated a C.R value of 20.376 and a probability of 0.000, indicating a significant positive relationship and the acceptance of hypothesis 2d.
5. The relationship between GHRMPs and EP displayed a negative C.R value of -1.680 and a probability of 0.093, signifying no significant positive relationship, leading to the rejection of hypothesis 2f.
6. The relationship between GHRMPs and EJS showed a C.R value of 6.785 and a probability of 0.000, indicating a significant positive relationship and the acceptance of hypothesis 2g. As this result aligned with hypothesis 2d, hypothesis 2i was also accepted.
7. The interaction between GHRMPs and ETA (INTER 2) and EJS had a C.R value of 0.639 and a probability of 0.523, indicating no significant positive relationship and leading to the rejection of hypothesis 2h.
8. The relationship between ETA and EJS displayed a C.R value of 4.987 and a probability of 0.000, indicating a significant positive relationship. However, ETA did not moderate the positive relationship between GTL and EJS, and GHRMPs and EJS. A summary of the findings from Table 38 is presented in Table 39.

Table 39. Decision for hypotheses

Hypothesis	Test	Related variables	Decision	Theses
1	a	GTL and EGB	Rejected	An increase in GTL does not lead to an increase in EGB.
	b	GHRMPs and EGB	Accepted	An increase in GHRMPs results in an increase in EGB.

2	a	GTL and EP	Rejected	An increase in GTL does not result in an increase in EP.
	b	GTL and EJS	Rejected	An increase in GTL does not lead to an increase in EJS.
3	a	EJS and EP	Accepted	An increase in EJS lead to an increase in EP.
4	a	GHRMPs and EP	Rejected	An increase in GHRMPs does not result in an increase in EP.
	b	GHRMPs and EJS	Accepted	An increase in GHRMPs lead to an increase in EJS.
5	a	GTL, ETA, EJS	Rejected	An increase in GTL does not lead to an increase in EJS, which is moderated by an increase in ETA.
	b	GHRMPs, ETA, EJS	Rejected	An increase in GHRMPs does not lead to an increase in EJS, which is moderated by an increase in ETA.
6	a	GTL, EJS, EP	Rejected	An increase in GTL does not lead to an increase in EP, which is mediated by an increase in EJS.
	b	GHRMPs, EJS, EP	Accepted	An increase in GHRMPs results in an increase in EP, which was mediated by an increase in EJS.

Source: Author's own research

In Table 39, it is evident that out of the 11 hypotheses tested in this study, only 4 hypotheses have been accepted. Among the two independent variables, GTL and GHRMPs, only GHRMPs have emerged as predictors for EJS. ETA does not act as a mediating factor in the relationships between GTL and EJS, as well as between GHRMPs and EJS. Conversely, EJS serves as a mediator in the relationship between GHRMPs and EP. This mediation role is complete and remains unaffected by any direct relationship between GHRMPs and EP.

Table 40. Standardized direct effects of hypothesis 1

	GTL	**GHRMPs**
EP	0.014	0.159

Source: Author's own research

Table 40 reveals that the relationship value between GTL and EP is 0.014, while the relationship value between GHRMPs and EGB is 0.159. Both of these values are very weak, measuring below 0.3.

Table 41. Standardized direct effects of hypothesis 2

	INTER2	ETA	GHRMPs	INTER1	GTL	EJS	EP
EJS	0.026	0.215	0.281	-0.106	-0.079	0.000	0.000
EP	0.000	0.000	-0.056	0.000	-0.054	0.774	0.000

Source: Author's own research

Table 41 provides the following relationship values:

1. The relationship value between GHRMPs and EJS is 0.281.
2. The relationship value between the interaction variables of GHRMPs and ETA (INTER2) and EJS is 0.026.
3. The relationship value between ETA and EJS is 0.215, with a critical ratio (C.R.) of 4.987 and a probability of 0.000.
4. The relationship value between EJS and EP is 0.774.

Out of these four values, only the relationship value between EJS and EP is strong, measuring above 0.7. The other three are very weak, measuring below 0.3.

Table 42. Standardized indirect effect of hypothesis 2

	INTER2	ETA	GHRMPs	INTER1	GTL	I	EP
I	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
EP	0.020	0.167	0.218	-0.082	-0.061	0.000	0.000

Source: Author's own research

Table 42 shows that the value of the indirect relationship between GHRMPs and EP, which is mediated by EJS, is 0.218. This value is very weak, measuring below 0.3.

Table 43. Standardized total effect of hypothesis 2

	INTER2	ETA	GHRMPs	INTER1	GTL	I	EP
I	0.026	0.215	0.281	-0.106	-0.079	0.000	0.000
EP	0.020	0.167	0.161	-0.082	-0.115	0.774	0.000

Source: Author's own research

Table 43 displays that the total effect value between GHRMPs and EP is 0.161. This value is very weak, measuring below 0.3.

4.5.5. Outputs of Amos

Figure 9 depicts an analysis involving 19 observed variables and 22 unobserved variables. The observed variables consist of:

1. Six GTL items (X1.1 to X1.6).
2. Six GHRMPs items (X2.1 to X2.6).
3. Seven items of Y1 (Y1.1 to Y1.7).

The unobserved variables include: GTL and errors (e1 to e6).

1. GHRMPs and errors (e7 to e12).
2. EGB and errors (13 to 19).
3. An error variable (20) representing variables influencing EGB but were not tested.

The relationship line between GTL and GHRMPs shows the covariance between the two as independent variables. Both GTL and GHRMPs are positively related to EGB.

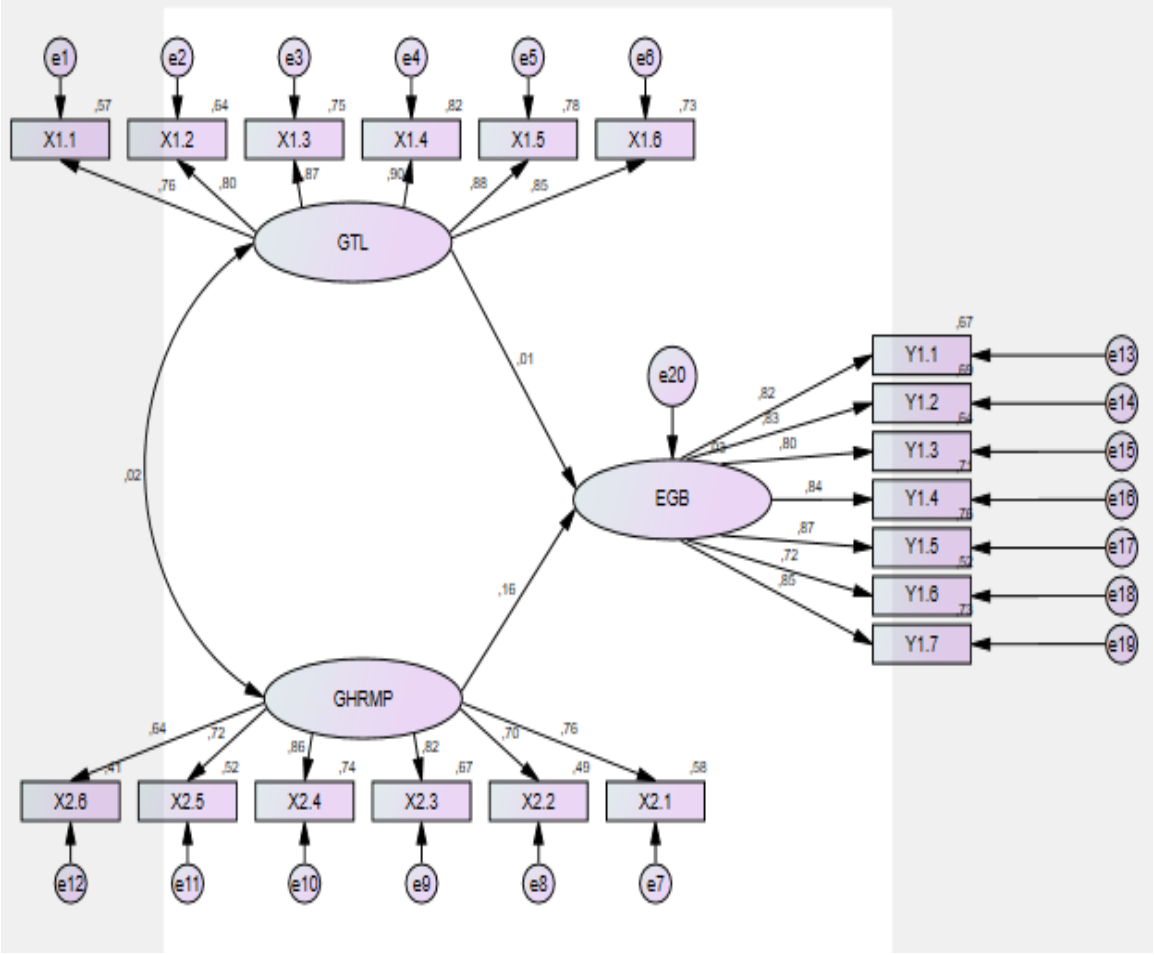


Figure 9. Output of analysis of moment structure of hypothesis 1

Source: Author's own research

Figure 10 presents an analysis involving 23 observed variables and 26 unobserved variables. The observed variables include:

1. INTER1: The interaction variable between GTL and ETA.
2. INTER2: The interaction variable between GHRMPs and ETA.
3. I (intervening): Representing EJS.
4. 6 GTL items (X1.1 to X1.6).
5. 6 GHRMPS items (X2.1 to X2.6).
6. 5 ETA items (M1 to M5).
7. 3 EP items (Y2.1 to Y2.3).

In this analysis, GTL, INTER1, ETA, INTER2, and GHRMPs function as independent variables related to EJS, which is the dependent variable. Both GTL and GHRMPs are also connected to the intervening variable I (EJS) as well as EP.

1. The relationship between GTL and EJS is negative.
2. The relationship between GHRMPs and EJS is positive.
3. The relationship between INTER1 and EJS is negative.
4. The relationship between INTER2 and EJS is positive.
5. The relationship between ETA and EJS is positive.
6. The relationship between GTL and EP is negative.
7. The relationship between GHRMPs and EP is also negative.

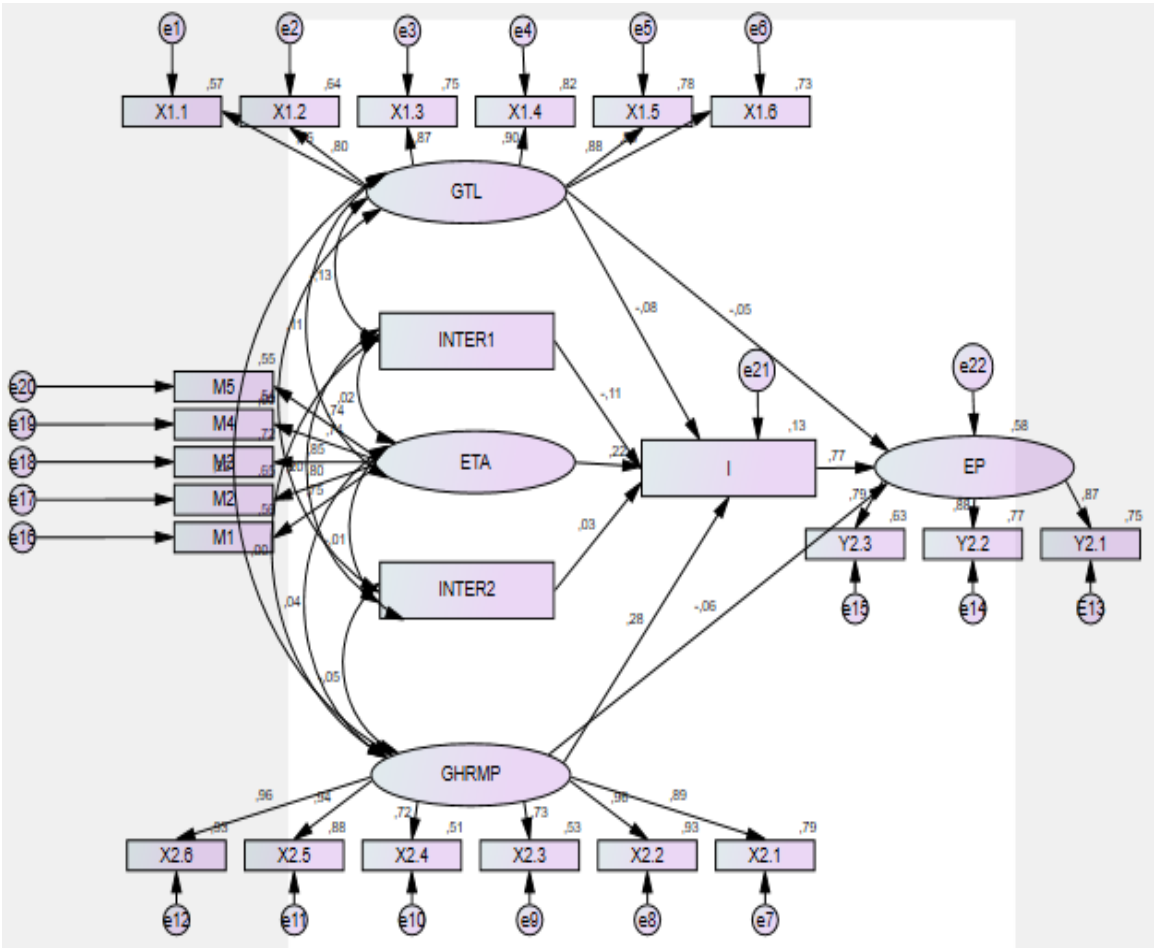


Figure 10. Output of analysis of moment structure of hypothesis 2

Source: Author's own research

4.6. Discussion

The most relevant differences between traditional and transformational leadership, from the aspect of sustainability, are that not all leadership styles can align with sustainability, which is exemplified as a characteristic that suits transformational leadership. Similarities and differences can be further revealed in future research involving a sample from various nationalities (other than expatriates from post-Soviet countries). This can be achieved by utilizing cultural differences as observed through Hofstede's cultural dimensions. Such research is likely to yield diverse results in the relationships between the variables tested.

The most important implications for human resource management pertain to both employees and employers, particularly in the context of industry 4.0 and Society 5.0. Namely, the implication is that the contemporary world of work cannot escape digitization. Employees are expected to embrace technology, making technological adaptation a critical consideration in human resource management processes, including staffing, training and development, compensation, occupational health and safety, and employee relations.

Industry 4.0, introduced in 2011, aimed to modernize business processes, especially within the manufacturing sector. This era had also introduced many technologies, some of which are still being adopted by industry players, such as AI and Internet of Things (IoT), to enhance their work processes. In 2017, Japan was the first to introduce the vision of the industrial revolution 5.0, which they initially called Society 5.0 at the *Centrum für Büroautomation, Informationstechnologie und Telekommunikation* (CeBIT) exhibition in Germany. While industry 4.0 raised concerns about AI replacing humans, industry 5.0 took a different approach, viewing technology like AI and robots as tools to collaborate with humans. The Industrial Revolution 5.0 emphasized efficiency and productivity through technology, which was harnessed in conjunction with human intelligence.

Another example is the use of human resource management information software with cloud technology. With human assistance, this technology streamlines human resource operations, with some features focused on employee well-being. Beyond economic efficiency and productivity, industry 5.0 placed a special emphasis on shifting from economic values to prioritizing social values and welfare, especially for the workers involved in these processes. The fourth industrial revolution, known as industry 4.0, was characterized by rapid advancements in the realm of IT. Key components of this revolution

included automation, big data analysis, robotics, AI, and IoT. On the other hand, the fifth industrial revolution, industry 5.0, signified a further evolution of technology in the industrial and production sectors. It entails the development of systems that are even more adaptive and responsive to changes in the production environment. Industry 5.0 places a strong emphasis on integrating advanced technologies like AI, IoT, and robotic technology with human expertise and innovation. This integration aimed to enhance the efficiency, flexibility, sustainability, and overall welfare of production systems. The primary goal was to create production systems that can better adapt to changes in market demand, prioritize customer experience, and optimize the utilization of limited natural resources. In essence, the Industrial Revolution 5.0 was expected to offer numerous benefits to various stakeholders, including the industry, customers, workers, and society at large. These benefits encompassed increased production productivity, enhanced quality and safety, the creation of new job opportunities, and a reduction in negative environmental impacts.

To commence this discussion, it is essential to highlight the consistency of the results in this study with findings from previous research, particularly with regard to the items employed. This study integrated multiple items from various sources to shape this research constructs. Specifically, it adopted multi-items from GTL (X1.1 to X1.6), GHRMPs (X2.1 to X2.6), and ETA (M1 to M5) from previous studies. In addition, a single item from EJS (I) was incorporated into this study. Regarding EP, it adapted three out of four multi-items (Y2.1, Y2.2, Y2.3), as these adequately represented the construct, with Y2.3 and Y2.4 being used for the same indicator, specifically the comparison aspect. In this study, the concepts were operationalized as follows:

1. Green plans, vision, goals, beliefs, and ideas implemented by SME leaders were indicative of GTL.
2. Green goals, training, performance appraisal, rewards, compensation, and promotions implemented by human resource managers of SMEs were reflective of GHRMPs.
3. Green practices, encompassing green printing, use of green materials, green utensils, green lighting, green programs, and green suggestions implemented by SME employees, represented EGB within SMEs.
4. The adoption of new technology by SME employees was used as a measure of their job satisfaction.

5. Working quality, productivity, and comparisons made by SME employees were employed to gauge their work performance.

As a result, this study aligned with previous research, such as the work of Chen & Chang (2013) on GTL, Dumont et al. (2017) on GHRMPs, Robertson & Barling (2013) on EGB, Rubel et al. (2016) on ETA, and Yousef (2000) on EJS and EP. This study conducted a survey on GTL in various SMEs in South Sumatra, Indonesia, with employees serving as respondents. In a similar vein, Chen & Chang (2013) conducted a survey on GTL, focusing on SMEs in Taiwan's electronics industry. However, they gathered input from chief executive officers and managers. As a result, GTL measures, encompassing elements like green plans, vision, goals, beliefs, and ideas implemented by SME leaders, can be gleaned from both leaders and employees' perspectives.

Dumont et al. (2017) collected data for their study on GHRMPs from a Chinese subsidiary of an Australian multinational enterprise involved in paper packaging production. Their data sources included the general manager, the human resource manager, officers, employees, and their direct supervisors. Consequently, GHRMPs measures, including green goals, green training, performance appraisal, rewards, compensation, and promotions implemented by human resource managers, can be sourced from the perspectives of both human resource managers and employees.

Robertson & Barling (2013) tested the measurement model of EGB using a sample of undergraduate students who had prior full-time work experience and reported to a supervisor. This implies that EGB measures, including green printing, use of green items, materials, utensils, lighting, programs, and employee suggestions, could be applied to working students and employees alike.

Rubel et al. (2016) tested the measurement model of ETA with data gathered from frontline employees in private commercial banks. Thus, the adaptation to new technologies implemented by employees could be applied to both large corporations and SMEs.

Yousef (2000) tested measures related to EJS and EP using data from individuals employed in major service and government organizations. Therefore, the EJS and EP measures, encompassing aspects like current job satisfaction and working quality, productivity, and comparisons made by employees, could be applied to a range of organizations, including large private and government-owned companies, as well as SMEs. Consequently, research on GTL, GHRMPs, ETA, EJS, and EP, along with their measures used in this study, could be generalized to various types and sizes of organizations.

Secondly, the results of the quantitative descriptive analysis of GTL and GHRMPs aligned with the qualitative insights from Hofstede's cultural dimensions, specifically focusing on how the dimensions of Indonesian culture correspond to these concepts. This alignment indicated consistency between these two analyses. The high level of power distance in Indonesia was incongruent with GTL but was harmonious with GHRMPs. The low level of individualism in Indonesia was consistent with both GTL and GHRMPs. The low level of masculinity in Indonesia was congruent with GTL but not with GHRMPs. The low uncertainty avoidance in Indonesia did not correspond to GTL but was in alignment with GHRMPs. The high long-term orientation in Indonesia was present in both GTL, which needed change, and GHRMPs. A low Indulgence score was not characteristic of GTL, which promoted togetherness, and was similarly not associated with GHRMPs. Thus, there were three dimensions in Hofstede's cultural dimension theory—power distance, uncertainty avoidance, and long-term orientation—that were compatible with GHRMPs. Meanwhile, two dimensions align with GTL—individualism and long-term orientation. There was one dimension, indulgence, which did not correspond with either GTL or GHRMPs.

Continuing this discussion, it is important to examine the consistency of the results of this study with previous research regarding the collaborative role of GTL and GHRMPs in determining EGB. Omarova & Jo (2022) explored the relationship between GTL and EGB and the moderating role of GHRMPs in this relationship, utilizing a sample of employees from both public and private organizations. Their findings confirmed that GTL had a positive impact on EGB. They employed different items for GTL and the same parameters for EGB. However, their study indicated that GHRMPs did not significantly enhance the effect of GTL on EGB. Consequently, the results of this study revealed a lack of joint influence between GTL and GHRMPs in determining EGB, as well as a weak relationship between GHRMPs and EGB. In contrast to the findings of Omarova & Jo (2022), this study suggested that GHRMPs could act as an independent variable influencing EGB. Naturally, further research was needed to explore the relationships between GTL, GHRMPs, and EGB in a broader context, including both SMEs and large privately and publicly owned companies.

Previous studies had explored the relationship between GTL and EGB. Kura (2016) found that environmentally specific transformational leadership was associated with green workplace behavior among public sector employees. However, the results of this study did

not align with Kura's findings, as GTL was not positively related to EGB. This discrepancy may be attributed to the use of different items for GTL, specifically the seven-item transformational leadership measure, suggesting that the inconsistency may not be fundamental.

Wang et al. (2018) investigated GTL's influence on EGB in large manufacturing companies, employing the same items for GTL and EGB as used in this study. In contrast to their study, the results of this research did not support the positive relationship between GTL and EGB. This represented a fundamental inconsistency with the outcomes of Wang et al. (2018) research.

Draj & Saed (2023) explored the relationship between transformational leadership and job satisfaction, focusing on Jordanian pharmaceutical company employees. Their study did not delve into the green aspects of transformational leadership and employed a different measure of EGB. Consequently, the results of this study were not fundamentally inconsistent with the findings of their research.

Furthermore, Wang et al. (2018) also highlighted GTL's impact on EGB in large manufacturing companies, using the same items for GTL and EGB. In contrast to their research, this study's results did not support the positive relationship between GTL and EGB. This represented a fundamental inconsistency.

Ningsih et al. (2023) examined the impact of transformational leadership on employee satisfaction and EP within the insurance and pension fund service cluster of state-owned enterprises. Their study did not address the green aspects of leadership, nor did they use the same measures for EJS. Thus, the results of this study were not fundamentally inconsistent with Ningsih et al. (2023) findings.

Thirdly, the role of ETA in influencing the relationship between GTL, GHRMPs, and EJS in this study could be compared with the findings of previous research. It is crucial for SMEs to embrace digitalization initiatives to maintain competitiveness and sustainability (Das et al., 2020). ETA remained a predictor of EJS. The relationship between technology, organization, and the environment has been examined through the lens of structuration, and its impact on institutional structures has been explored (Haggerty & Golden, 2002). In contemporary times, the use of social media has become an integral part of job satisfaction (Zhang et al., 2019). However, this study revealed that ETA did not appropriately moderate the relationship between GTL and EJS, nor in the case of the relationship between GHRMPs and EJS. Consequently, the results of this study were not fundamentally

inconsistent with the findings of these previous studies. ETA remained associated with EJS, although the environmental aspects of transformational leadership and human resource management practices were not supported by ETA in determining EJS.

Fourthly, regarding GTL and EJS, Bernato et al. (2020) highlighted the positive effect of transformational leadership on job satisfaction. It was worth noting that they employed different parameters for both constructs compared to this study. As a result, the results of this study were not fundamentally consistent with their research. In the context of GHRMPs and EJS, several previous studies (Cherif, 2019; Chowdhury et al., 2019; Freire & Pieta, 2022) had explored this relationship. Cherif (2019) found a positive correlation between human resource management and EJS using different items than those in this study. Hence, the results of this study were not fundamentally consistent with Cherif's research (2019). Chowdhury et al. (2019) demonstrated that GHRMPs had a substantial and significant influence on EJS within the banking sector in Bangladesh, using different parameters for both constructs. Therefore, the results of this study did not fundamentally align with their research. Meanwhile, Freire & Pieta (2022) established a relationship between GHRMPs and EJS using different items compared to this study. While the findings were consistent, they were not fundamentally so.

Based on the results of this study, EJS proved to be an appropriate mediator in the relationship between GHRMPs and EP. However, it was not found to be a suitable mediator in the relationship between GTL and EP. This implied that GHRMPs, when implemented by human resource managers, could enhance EP, but only when mediated by EJS. Roberts & David (2020) have emphasized the significance of job satisfaction as a predictor of performance, supporting the notion that job satisfaction played a crucial role in the workplace. Similarly, Shaju & Subhashini (2017) had explored the connection between job satisfaction and EP. It was important to note that the measures they used for job satisfaction and EP differed from those in this study, and they did not focus on SMEs. Nevertheless, the results of this study aligned with the findings of Roberts & David (2020) and Shaju & Subhashini (2017) to some extent, albeit not in a fundamental way. Amelia et al. (2022) conducted their study at a hospital and found that job satisfaction had a positive but not statistically significant effect on EP. The results of this study diverged from the findings of their research, where EJS significantly and positively determined EP. In a similar vein, Lai et al. (2020) explored the impact of transformational leadership on followers' performance and their willingness to provide assistance, focusing on leaders and members within the

context of hospitals. However, the results of this study did not align with the outcomes of their research, in which GTL significantly and positively determined EP.

Eliyana & Muzakki (2019) explored the relationship between transformational leadership, job satisfaction, and EP. Their study involved data from 30 middle-level leaders of varying organizational sizes to analyze these factors. However, the results of this study did not align with their findings regarding the relationship between transformational leadership and job satisfaction. Nonetheless, the results of this study were consistent with their research in terms of the relationship between EJS and EP. Hussain & Khayat (2021) investigated the relationship between transformational leadership and job satisfaction using data collected from hospital staff and leaders. It was worth noting that they utilized different measures compared to the ones used in this study. Consequently, the results of this study did not fundamentally align with their findings, but there was a non-fundamental inconsistency between the two. Kurdi et al. (2021) discovered that human resource management practices influence job satisfaction. Their study gathered data from a broad population, encompassing top management employees, ministry employees, and all departments both inside and outside the ministry's head office, including training institutes, educational zones, educational offices, schools, and kindergartens. Consequently, the results of this study were not fundamentally in line with their findings. Noor et al. (2022) delved into the effects of human resource management practices on job satisfaction among academics in higher education, employing specific measurements for GHRMPs and job satisfaction. Their research provided valuable insights into this relationship.

On the other hand, Alsafadi & Altahat (2021) investigated the impact of human resource management practices on EP using different measurement approaches. Their study focused on employees in commercial banks but did not incorporate a green approach to the variable. Consequently, the results of this study did not align with their findings. Khan et al. (2019) explored the relationship between job satisfaction and EP, highlighting job satisfaction as a significant mediator for the relationship between human resource practices and EP. Their study included data from academic staff members in public sector universities. However, they employed different measures for human resource management, EJS, and EP, and did not incorporate a green approach to human resource management. Therefore, this study aligned with Noor et al.'s (2022) findings but did not support the conclusions of Alsafadi & Altahat (2021) and Khan et al. (2019).

4.6.1. Theoretical implication

The green aspects of leadership and human resource management practices have been examined in both large companies and SMEs. Various measures have been employed to investigate GTL, GHRMPs, and EGB. It is important to note that when different measures are used, the results can vary. In instances where leaders implement green plans, vision, goals, beliefs, and ideas in their work, employees may not necessarily be influenced to adopt green printing, items, materials, utensils, lighting, programs, and suggestions in their work. Instead, the green activities of these employees are often influenced by green goals, training, performance appraisal, rewards, and compensation, as well as promotions, which are typically managed by human resource managers.

EJS appeared to be more influenced by the activities of human resource managers rather than those of leaders. Similarly, EP did not seem to be significantly affected by the green activities of human resource leaders and managers. This study underscored the significance of the concept of a sense of urgency for both human resource managers and employees in SMEs when it comes to driving changes related to sustainability and technology. In SMEs, sustainability can be effectively realized through GHRMPs and EGB. Meanwhile, technology adoption can be facilitated by SME employees through ETA. SMEs are increasingly demanding environmental and technological transformations. It is essential for SME human resource managers and employees to recognize that embracing sustainability and technology constitutes a genuine sense of urgency. Embracing these changes can lead to enhanced EJS and EP.

Furthermore, this study highlighted the importance of the sustainable development Theory. SME human resource managers and employees play a crucial role in ensuring that future generations inherit a planet that can sustain their livelihoods without degradation. In this context, the United Nations Sustainable Development Summit adopted 17 Sustainable Development Goals (SDGs) aimed at achieving sustainable development in economic, social, and environmental dimensions by 2030. This underscores the vital role SMEs play in contributing to these sustainability goals.

Although this study did noy establish the moderating role of ETA, it emphasized the significance of the digital business ecosystem theory, which proved influential in shaping EJS. SME employees have the capacity to foster collaborative environments facilitated by ETA, underpinned by distributed computing infrastructure. This enables SMEs to compete

on a global scale. SME employees recognize that modern technology adoption can drive growth, job creation, and greater social inclusion within SMEs. They introduce advanced technology solutions that help SMEs expand and tap into global markets through the internet, using digital business ecosystem technology. In doing so, they facilitate regional competitiveness on a global scale, benefiting all stakeholders. Additionally, this study highlighted the theory of reasoned action. SME employees' performance was determined by their pre-existing attitudes, primarily their job satisfaction. Based on their job satisfaction, they are motivated, which, in turn, predicted their performance. These employees were rational actors whose job satisfaction generates instrumental and experiential beliefs about their performance. As a result, they became facilitators of behaviors that contribute to their perceived behavioral control or a sense of self-efficacy.

4.6.2. Practical implication

The role of human resource managers in promoting green activities within SMEs held more significance than that of SME leaders. In practical terms, human resource managers played a more vital role in enhancing EJS compared to SME leaders. Furthermore, EJS proved to be more critical than the green initiatives undertaken by human resource leaders and managers, as the latter did not seem to have a substantial impact on the performance of SME employees. Even when SME employees expressed support or moderate agreement with GTL and GHRMPs, it appeared that GTL was not a determining factor in their green behavior, job satisfaction, and performance.

Sustainability is becoming increasingly crucial for the global economy, particularly in the post-Covid-19 era. Environmental issues have taken center stage on the global economic agenda, signifying that the next crisis may revolve around environmental concerns. Simultaneously, SMEs must embrace green business practices, and their success will be contingent on their ability to adapt to climate-induced impacts and evolving trends in consumption, production, and policy. According to ITC in 2021, adopting green recovery measures can empower SMEs to address the challenges posed by the Covid-19 crisis. Nevertheless, SMEs might struggle to grasp how sustainability can be a driving force for growth (ACCA, 2021).

Key environmental issues, such as escalating energy costs, resource and waste management efficiency, and ensuring health and safety at the workplace, offer significant opportunities for SMEs (Johnson & Schaltegger, 2016). Barriers to proactive environmental engagement in SMEs often stem from their perception that their environmental impact is relatively small compared to larger companies. Additional challenges include a lack of environmentally focused skills, concerns about the associated costs, limited financial resources, and time constraints (Lawrence et al., 2006; Burlea-Schiopoiu & Mihai, 2019). Klewitz & Hansen (2014) introduced five distinct strategic sustainability behaviors of SMEs:

1. Resistant SMEs, which disregard environmental pressures and expectations.
2. Reactive SMEs, which react to external stimuli, such as government regulations or stakeholder pressures.
3. Anticipatory SMEs, which align their innovation strategies with future opportunities.
4. Innovation-based SMEs, which actively seek innovative solutions to environmental and social challenges to gain competitive advantages.
5. Sustainability-rooted SMEs, which base their business models on the triad of environmental, social, and economic variables, contributing to the sustainable development of markets and society by spreading sustainability-oriented innovations in niche and mass markets.

Numerous studies on green activities within SMEs have underscored the urgency of environmental considerations in their workplaces. However, the integration of green concepts does not always occur in tandem with technology adoption, which is essential for the success of SMEs. Developing and sustaining SMEs is seen as a means of supporting indigenous Indonesian businesses, redistributing assets along ethnic lines, and reducing inequality (Falentina & Resosudarmo, 2019).

Before the crisis, data on SMEs in South Sumatra indicated negative growth in terms of the number of establishments and employment levels (Tange, 2015). Additionally, many of these SMEs did not adhere to environmentally friendly practices in the production, manufacturing, and distribution of food products (Chotibah et al., 2022). A majority of SMEs steered clear of green materials and high-cost alternatives (Mellita et al., 2020). On average, SME owners and managers in the province had an understanding of green concepts but lacked awareness of their application in the production process (Heriyanto et

al., 2018). The concept of green innovation was not fully implemented, and several parts of the production process continued to rely on traditional technology. The employees within these SMEs exhibited a lack of education and understanding regarding the benefits of going green and embracing technology (Khairani et al., 2021).

4.6.3. The future study

While this study did not provide a comprehensive understanding of the joint role of GTL and GHRMPs, as well as the role of GTL in EJS, it successfully integrated environmental concepts and work psychology within the domain of human resource management. It explored the intricate relationship between employee behavior, job satisfaction, and EP. Specifically, GHRMPs incorporated environmental aspects that influenced employee behavior in environmental and psychological contexts.

In this context, the study suggested that when job satisfaction was capable of determining EP, it implied that GHRMPs influenced employee behavior in both EGB and EJS. As a result, this study laid the foundation for a potential research model, focusing on the relationships between GHRMPs and EGB, GHRMPs and EJS, EJS and EP, with a particular focus on the mediating role of EJS in the relationship between GHRMPs and EP. The envisioned research framework can be illustrated as follows:

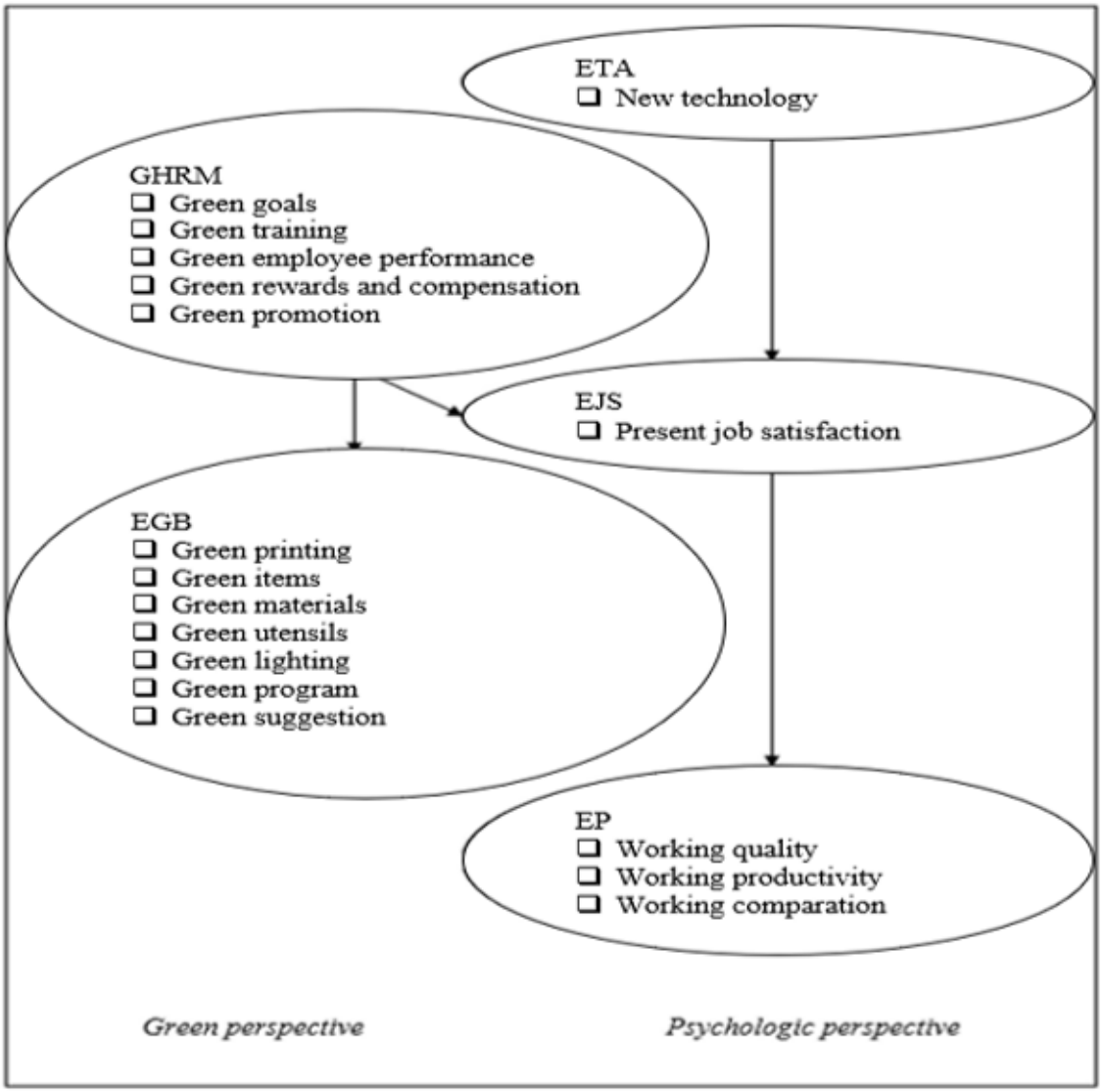


Figure 11. The future study

Source: Author's own research

In Figure 11, two independent variables, ETA and GHRMPs, influence EJS. GHRMPs do not only influence EJS but also EGB. EJS, in turn, plays a mediating role in the relationship between ETA and EP, as well as between GHRMPs and EP. This new relationship converges three key perspectives: green, technology, and psychology.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Closure

As the importance of sustainability and green practices for SMEs increased in the pre-Covid-19 era, leaders, human resource managers, and employees within these SMEs have embraced eco-friendly approaches following the Covid-19 crisis. Employees generally support the green initiatives, plans, vision, goals, beliefs, and ideas introduced by their leaders. They also show strong alignment with the green objectives, training, performance appraisal processes, rewards, compensation, and promotions provided by their human resource managers.

Notably, GHRMPs played a positive role in influencing EGB, encompassing activities like green printing, utilizing eco-friendly items, sustainable material use, energy-efficient lighting, green programs, and valuable eco-friendly suggestions. However, it is worth mentioning that while leaders have embraced and implemented green initiatives, they have not significantly impacted EGB in the post-Covid era.

While the significance of digitalization had been recognized prior to the Covid-19 era and became essential during the pandemic, SME employees have actively embraced technology following the crisis. However, it is noteworthy that this digital adaptation by employees does not significantly impact the relationship between GTL and EGB, or the relationship between GHRMPs and EGB. Nevertheless, the digital adaptation does influence their job satisfaction.

This study aimed to explore the relationships between GTL, GHRMPs, EGB, ETA, EJS, and EP. This objective is accomplished through four types of findings: a direct relationship between GHRMPs and EGB, a direct relationship between GHRMPs and EJS, a direct relationship between EJS and EP, and an indirect relationship between GHRMPs and EP mediated by EJS. In the post-Covid-19 era, this research framework focuses on the causal relationships between GHRMPs, ETA, employee attitudes and behavior. The study presents five hypotheses: a direct relationship between GHRMPs and EGB, a direct relationship between ETA and EJS, a direct relationship between GHRMPs and EJS, a direct relationship between EJS and EP, an indirect relationship between GHRMPs and EP

mediated by EJS. The final hypothesis represents a new and original addition, stemming from the unique findings of the study.

This study provides five key insights:

1. Going green become a competitive value for SMEs in the pre-Covid-19 era. After the crisis, leaders, human resource managers, and employees in SMEs have adopted environmentally friendly practices in their work.
2. The green initiatives and practices implemented by SME leaders and managers are not significantly influencing EGB even after they have adopted these practices.
3. The importance of digitalization has been evident since before the Covid-19 era and became essential during the crisis. SME employees have adapted to these technological changes after the crisis.
4. Despite the green initiatives by SME leaders and managers, they are not effectively leveraging ETA to support EJS.
5. When SME employees embrace both green practices and digitalization, they experience higher levels of job satisfaction in the post Covid-19 era.

These findings underscore the intricate interplay between green practices, digitalization, job satisfaction, and performance within SMEs in the post-Covid-19 era. The six questions posed in this study did not yield uniform responses, as some were supported, some were partially supported, and one was not supported.

1. Question 1 received support. Therefore, SME leaders, human resource managers, and employees have embraced environmentally friendly practices after the Covid-19 crisis, as going green became a competitive necessity for SMEs in the pre-Covid-19 era.
2. Question 2 was partially supported. Consequently, the adoption of green practices by SME leaders and human resource managers indicates some level of support for EGB in the pre-Covid-19 era.
3. Question 3 found support. As a result, given the significance of digitalization before and during the Covid-19 era, SME employees have adapted to technology after the Covid-19 crisis.
4. Question 4 was not supported. Hence, green initiatives undertaken by SME leaders and managers do not appear to lead to interactions with ETA to support EJS in the pre-Covid-19 era.

5. Question 5 received support. Consequently, the adoption of green and digital practices has resulted in increased job satisfaction among SME employees after the Covid-19 crisis.
6. The final question found support. The adoption of green and digital practices demonstrates a positive relationship with EJS and EP after the Covid-19 crisis.

The four objectives in this study did not yield uniform results, either affirmatively or negatively. Among these objectives, two are partially supported, while the other two lack support.

1. Objective 1 is partially supported as it established a direct link between GHRMPs and EGB.
2. Objectives 2 and 3 are not supported.
3. Objective 4 is partially supported as it confirmed indirect relationships between GHRMPs and EP, mediated by EJS.

Through positive responses and the achievement of these objectives, this study effectively addressed prevailing research gaps. In particular, it bridged the gap between environmental and psychological perspectives by integrating GHRMPs as an independent variable, EJS as a mediating variable, and EP as the dependent variable. Additionally, it highlighted the potential for ETA to function as an independent variable influencing EJS.

5.2. Recommendations

The findings of this study have made a significant and noteworthy contribution to the field of human resource management. They highlight the increasing significance of sustainability in business operations, particularly in the post-Covid-19 era. The study underscores the evolving roles of human resource managers and employees in driving sustainability initiatives within SMEs. It has enriched the literature on technology and information systems by delving into employee attitudes and behavior regarding new technology. Furthermore, the study has shed light on the development of human resource management practices in SMEs through GHRMPs and the enhancement of employee attitudes and behavior toward technology through ETA.

It is recommended that human resource managers in SMEs concentrate on sustainability and digitalization strategies in the post-Covid-19 era. They should formulate

clear objectives, offer training programs, ensure EP, establish reward and compensation structures, and provide opportunities for career advancement. This approach is intended to stimulate environmentally responsible work behavior, boost job satisfaction, and ultimately enhance overall EP. Furthermore, it is advisable to continue promoting digitization in SME business operations, as this factor has a significant impact on EJS, and in turn, leads to improved overall performance. Therefore, prospective human resource managers in SMEs should incorporate both green and digitalization strategies into their human resource management practices to align with the evolving demands of the post-Covid-19 era.

5.3. Limitations

Methodologically, this study had four notable limitations. First, it faced limitations in terms of the comprehensiveness of available data for Indonesia. Second, although it categorized Indonesian SMEs into four types (as illustrated in Table 2), the study did not specifically investigate these four types individually. Third, it relied on data collected in three waves, without access to longitudinal data spanning a more extended period, such as quarterly, semesterly, or annually. Consequently, it could not present variations in the results of data analysis between waves 1, 2, and 3, which constitutes a limitation. Fourth, the study solely gathered the perspectives of SME employees concerning all the variables under investigation. To enhance the comprehensiveness of research findings, it is advisable to collect data from a variety of stakeholders, including human resource managers for GHRMPs and SME leaders for GTL, which would allow for a broader range of analyses and results.

In summary, this study provided confirmation for only four out of the 11 tested hypotheses. Three distinct limitations were evident in the findings. Firstly, the moderation model did not receive empirical support. Secondly, the combined impact of the two independent variables under investigation (GTL and GHRMPs) was not substantiated. Thirdly, it appeared that GTL did not play a significant role in influencing EGB, EJS, and EP. Therefore, it is imperative to undertake further research to establish and validate the relationship between GTL and the mediating and dependent variables.

VI. NEW SCIENTIFIC RESULTS

This study has revealed several newly emerged scientific discoveries:

1. In the realm of environmental and psychological factors, it has become evident that human resource managers in SMEs play a more prominent role compared to leaders in shaping employee behavior. GHRMPs have the capacity to define EP through EJS, whereas GTL does not have the same impact.
2. A direct correlation can be identified between the ecological and psychological aspects in the study of human resource management and organizational behavior. This link indicates that conversations surrounding these two viewpoints have pivoted toward sustainability in the aftermath of the Covid-19 crisis. To illustrate, prior research conducted by Dumont et al. (2017) underscored the significance of green objectives, training, performance assessments, rewards, compensation, and promotions initiated by human resource managers to foster EGB in multinational corporations.
3. This present study extends these findings to apply to SMEs in the post-Covid-19 era. Similarly, whereas Robertson & Barling (2013) scrutinized the measurement model of green practices, such as printing, material usage, utensils, lighting, programs, and suggestions, among undergraduate students, it has been established that the EGB measures are applicable to a sample of post-Covid-19 SME employees. Using the EGB measures derived from Robertson & Barling (2013), a relationship is observed between GHRMPs and EGB, which differs from the results obtained by Dumont et al. (2017).
4. In the context of SMEs, ETA has been identified as a predictor of EJS. This differs from the study conducted by Rubel et al. (2016), in which ETA was examined as the dependent variable influenced by other factors in private commercial banks. It is clarified that, in the SME context in the post-Covid-19 era, ETA does not function as a moderating variable affecting EJS. Instead, ETA functions as a dependent variable that influences EJS. It is affirmed that EJS and EP can be studied in both large companies and SMEs. While Yousef (2000) explored the relationship between EJS and EP with data from individuals working in major service and

government organizations, it is confirmed the same relationship with data from SME employees in the post-Covid-19 era.

5. The data obtained from SME employees offer substantial evidence of the connections between GHRMPs, ETA, EGB, EJS, and EP. This contrasts with earlier investigations conducted by Dumont et al. (2017) concerning GHRMPs, Robertson & Barling (2013) regarding EGB, Rubel et al. (2016) concerning ETA, and Yousef (2000) regarding EJS and EP in various types of organizations prior to the Covid-19 era. It is evident that these relationships are established within the context of SMEs in the post-Covid-19 era.
6. The examination of GTL, GHRMPs, EGB, ETA, EJS, and EP is closely intertwined with the national culture of Indonesia. In SMEs, GTL aligns with the collectivist cultural values in Indonesia, while GHRMPs in SMEs align with the characteristics of a high-power distance culture. EGB and ETA in SMEs correspond to the long-term orientation inherent in Indonesian culture, and EJS and EP are linked to the culture of indulgence that prevails in Indonesia.

VII. SUMMARY

This research investigated the determinants of EP within the framework of sustainability and digital transformation, encompassing leaders, human resource managers, and employees in SMEs. It explored six inquiries in connection with these aspects, with a particular emphasis on sustainability and digitalization in SMEs located in South Sumatra, Indonesia. The study had four primary research goals, aiming to establish both direct and indirect links between GTL, GHRMPs, EGB, ETA, EJS, and EP. To address these questions and objectives, six hypotheses, derived from eleven pertinent associations among these variables, were empirically tested.

After the introductory chapter, the literature review segment furnished contextual insights about SMEs within the research locale. It introduced five pertinent theories (sense of urgency, sustainable development, digital business ecosystem, reasoned actions, planned behavior) that constituted the underpinning of the research framework. Furthermore, it explored the associations between the six variables by drawing upon previous research findings.

In the materials and methods chapter, the research design, measurements, instruments, sampling techniques, and data collection methods were thoroughly expounded. The research utilized a combination of quantitative and qualitative approaches. A set of twenty-nine items was employed to assess the six variables, and data were gathered using an online questionnaire featuring seven-point Likert scales. The survey was administered in three different cities: Palembang, Lahat, and Lubuk-Linggau, all situated within the same province.

In the results and discussion portion, a comprehensive overview of the study's participants and the profiles of SMEs was presented. Additionally, the results of CMB testing, descriptive statistics computed using SPSS, and insights derived from Hofstede's research were discussed. The study involved a sample of 569 employees drawn from 119 SMEs, spanning diverse sectors such as manufacturing, services, and trade, across the previously mentioned cities. The data collection process was conducted in an unbiased manner, and a majority of the 29 assessed items demonstrated both validity and reliability, with 28 out of 29 items meeting these established criteria. The SEM analysis indicated that

the tested models displayed a favorable fit, as evident from various fit indices. Out of the 11 tests that assessed the relationships between the variables, four tests offered substantial support for these associations. This affirmed that EJS served as a mediating factor in the positive connection between GTL, GHRMPs, and EP. Furthermore, ETA exhibited a positive correlation with EJS, although it did not act as a moderator in the relationships between GTL, GHRMPs, and EJS.

In the conclusions and recommendations stage, an evaluation was made regarding whether the obtained results effectively addressed the initial research questions and objectives. It provided a comprehensive set of theoretical and practical recommendations, in addition to discussing research limitations stemming from both the methodology and findings. In a nutshell, the study yielded positive findings for several of the research questions and partially accomplished its intended objectives. These conclusions contribute significantly to the fields of human resource management, sustainability, and digitalization, thereby yielding six novel scientific insights that could guide further research in these domains.

APPENDICES

A1: BIBLIOGRAPHY (LIST OF LITERATURE CONSULTED)

ABELHA, D. M., Carneiro, P. C. C. C., Cavazotte, F. C. C., N. (2018). Transformational Leadership and Job Satisfaction: Assessing the Influence of Organizational Contextual Factors and Individual Characteristics. *Revista Brasileira de Gestão de Negócios*, 20, 4, 516-532. Doi: 10.7819/rbgn.v0i0.3949

ACCA. (2021). *How SMEs can create a more sustainable world*, 1-58.

ADELIN, Febrianty, A., Hadiwijaya, H., Octafian, D. T., Barovih. G. (2020). Integrated Business Startup (Ibs) Innovation Design for Cooperatives and SMEs South Sumatera Province Based on Android. *Icasi*. Doi 10.4108/Eai.20-6-2020.2300638

AFTAB, J., Veneziani, M., Sarwar, H., Ishaq, M. I. (2022). Organizational Ambidexterity, Firm Performance, and Sustainable Development: Mediating Role of Entrhreneurial Orientation in Pakistani SMEs. *Journal of Cleaner Production*, 367. https://doi.org/10.1016/j.jclepro.2022.132956

AGLER, R., Boeck, P. (2017). On the Interpretation and Use of Mediation: Multiple Perspectives on Mediation Analysis. *Conceptual Analysis*, 8. Doi: 10.3389/fpsyg.2017.01984

AHMAD, H., Jalil, J. (2013). Relationship between Personality Traits and Sense of Urgency: A Study of Repso Malaysia. *IBIMA Business Review*. Doi: 10.5171/2013.126696

AHMAD, N., Youjin, l., Zikovi, S., Belyaeva, Z. (2023). The Effects of Technological Innovation on Sustainable Development and Environmental Degradation: Evidence from China. *Technology in Society*, 72. https://doi.org/10.1016/j.techsoc.2022.102184

AHMED, U., Mozammel, S., Zaman, F. (2020). Green HRM and Green Innovation: Can Green Transformational Leadership Moderate: Case of Pharmaceutical Firms in Australia. *Systematic Reviews in Pharmacy*, 11, 7, 612-617.

Aiken, C., Keller, S. (2009). *The Irrational Side of Change Management*. The McKinsey Quarterly, 2, 101-109.

AJZEN, I., Fishbein, M. (1997). Attitude-Behavior Relations: A Theoretical Analysis and Review of Empirical Research. *Psychological Bulletin*, 84, 5, 888-918.

AKTHER, T., Nur, T. (2022). A Model of Factors Influencing Covid-19 Vaccine Acceptance: A Synthesis of the Theory of Reasoned Action, Conspiracy Theory Belief, Awareness, Perceived Usefulness, and Perceived Ease of Use. *Plos One*, 17, 1. https://Doi.Org/10.1371/Journal

AL-AYED, S. (2022). The Impact of E-Commerce Drivers on E-Customer Loyalty: Evidence from KSA. *International Journal of Data and Network Science*, 6, 73–80. Doi: 10.5267/J.Ijdns.2021.10.002

ALLOZI, A. I., Alshurideh, M., Alhamad, A. Q., Alkurdi, B. H. (2022). Impact of Transformational Leadership on the Job Satisfaction with the Moderating Role of Organizational Commitment: Case of UAE and Jordan Manufacturing Companies. *Academy of Strategic Management Journal*, 21, S2, 1-13.

AL-MAMARY, Y. H. S., Alraja, M. M. (2022). Understanding Entrepreneurship Intention and Behavior in the Light of TPB Model from the Digital Entrepreneurship Perspective. *International Journal of Information Management Data Insights*, 2. https://Doi.Org/10.1016/J.Jjimei.2022.100106

ALRAJA, M. N., Hussein, M. A., Ahmed, H. M. S. (2021). What Affects Digitalization Process in Developing Economies? An Evidence from SMEs Sector in Oman. *Bulletin of Electrical Engineering and Informatics*, 10, 1, 441-448. Doi: 10.11591/Eei.V10i1.2033

ALSAFADI, Y., Altahat, S. (2021). Human Resource Management Practices and Employee Performance: The Role of Job Satisfaction. *Journal of Asian Finance, Economics and Business*, 8, 1. Doi:10.13106/Jafeb.2021.Vol8.No1.519

ALSHIHABAT, K., Atan, T. (2020). The Mediating Effect of Organizational Citizenship Behavior in the Relationship between Transformational Leadership and Corporate Social Responsibility Practices: middle eastern example/Jordan. *Sustainability*, 12. Doi:10.3390/Su12104248

AMELIA, R. F., Febriani, R., Sa'diyah, C. (2022). The Effect of Islamic Leadership on Employee Performance Mediated by Job Satisfaction. *Jurnal Manajemen Bisnis dan Kewirausahaan*, 02, 04, 359-366. Doi: 10.22219/Jamanika.V2i04.23805

AMIN, F. A. M. N. M. M., Ibrahim, F. A. I., Nordin, N. M. N. (2021). A Review of the Job Satisfaction Theory for Special Education Perspective. *Turkish Journal of Computer and Mathematics Education*, 12, 11, 5224-5228.

ANCILLO, A. L. L., Núñez, M. T. V., Gavrila, S. G. (2021). Workplace Change within the Covid-19 Context: A Grounded Theory Approach. *Economic Research-Ekonomska Istraživanja*, 34, 1, 2297-2316. Doi: 10.1080/1331677x.2020.1862689

ANDRIANI, S., Kesumawati, N., Kristiawan, M. (2018). The Influence of the Transformational Leadership and Work Motivation on Teachers' Performance. *International Journal of Scientific & Technology Research*, 7, 7, 19-29.

ARDYAN, E., Nurtantiono, A., Istiyanto, B., Rahmawan, G. (2017). Green Innovation Capability as Driver of Sustainable Competitive Advantages and SMEs Marketing Performance. *International Journal of Civil Engineering and Technology*, 8, 8, 1114–1122.

ARULRAJAH, A. A., Opatha, H. H. D. N. P., Nawaratne, N. N. J. (2015). Green Human Resource Management Practices: A Review. *Sri Lankan Journal of Human Resource Management*, 5, 1.

BAGOZZI, R. P., Yi, Y. (2012). Specification, Evaluation, and Interpretation of Structural Equation Models. *Journal of The Academy of Marketing Science*, 40, 8–34. Doi 10.1007/S11747-011-0278-X

BARNIDGE, M., Zúñiga, H. G. (2017). *Amos (Software). In the International Encyclopedia of Communication Research Methods*. John Wiley & Sons, Inc. Doi: 10.1002/9781118901731.Iecrm0003

BASHIR, M. F., Ma, B. J., Bilal, Komal, B., Bashir, M. A., Farooq, T. H., Iqbal, N., Bashir, M. (2020). Correlation between Environmental Pollution Indicators and Covid-19 Pandemic: A Brief Study in Californian Context. *Environmental Research*, 187. https://Doi.Org/10.1016/J.Envres.2020.109652

BECKER, W., Schmid, O. (2020). The Right Digital Strategy for Your Business: An Empirical Analysis of the Design and Implementation of Digital Strategies in SMEs and LSEs. *Business Research*, 13, 985–1005. https://Doi.Org/10.1007/S40685-020-00124-Y

BEGUM, S., Ashfaq, M., Xi, E., Awan, U. (2022). Does Green Transformational Leadership Lead to Green Innovation? The Role of Green Thinking and Creative Process Engagement. *Business Strategy and The Environment*., 31:580–597. Doi: 10.1002/Bse.2911

BERNARTO, I., Bachtiar, D., Sudibjo, N., Suryawan, I. N., Purwanto, A., Asbari, M. (2020). Effect of Transformational Leadership, Perceived Organizational Support, Job Satisfaction Toward Life Satisfaction: Evidences from Indonesian Teachers. *International Journal of Advanced Science and Technology*, 29, 03, 5495-5503.

BI. (2022). *Laporan Perekonomian Provinsi Sumatera Selatan*, 1-81.

BIESER, J. C. T., Hilty, L. M. (2018). *An Approach to Assess Indirect Environmental Effects of Digitalization Based on A Time-Use Perspective*. In: Bungartz Hj., Kranzlmüller D., Weinberg V., Weismüller J., Wohlgemuth V. (Eds) Advances and New Trends in Environmental Informatics. Progress In Is. Springer, Cham, 67-78. https://Doi.Org/10.1007/978-3-319-99654-7_5

BITEKTINE, A. (2008). Prospective Case Study Design Qualitative Method for Deductive Theory Testing. *Organizational Research Methods*, 11, 1, 160-180. Doi: 10.1177/1094428106292900

BIZZY, I., Isnurhadi, Santoso, B. (2018). *Inovasi Teknologi untuk Meningkatkan Kinerja dan Kualitas Produk Usaha Mikro Kecil Menengah di Desa Ulak Kerbau Baru Kecamatan Tanjung Raja Kabupaten Ogan Ilir Provinsi Sumatera Selatan.* Prosiding Semnas Sinta FT Unila, 1, Riset Pt-Eksplorasi Hulu Demi Hilirisasi Produk Bandar Lampung, 312-316.

BOAMAH, S. A., Laschinger, H. K. S., Wong, C., Clarke, S. 1. (2018). Effect of Transformational Leadership on Job Satisfaction and Patient Safety Outcomes. *Nursing Outlook*, 66, 180–189. https://Doi.Org/10.1016/J.Outlook.2017.10.004

BOUMAN, H., Nikou, S., Reuver, M. d. (2019). Digitalization, Business Models, and SMEs: How do Business Model Innovation Practices Improve Performance of Digitalizing SMEs? *Telecommunications Policy*, 43. https://doi.org/10.1016/j.telpol.2019.101828

BPS Provinsi Sumatera Selatan. (2017). *Hasil Pendaftaran (Listing) Usaha/Perusahaan Sensus Ekonomi 2016 Provinsi Sumatera Selatan*, 1-12.

BPS Provinsi Sumatera Selatan. (2022). *Profil Industri Mikro dan Kecil Provinsi Sumatera Selatan 2020*. 1-168.

Briscoe, G. (2011). *Complex Adaptive Digital Ecosystems*. Doi: 10.1145/1936254.1936262

Brundtlan, G. H. (1987). *Report of the World Commission on Environment and Development: Our Common Future*.

BUCCIARELLI, L. (2015). A Review of Innovation and Change Management: Stage Model and Power Influences. *Universal Journal of Management*, 3, 1, 36-42. Doi: 10.13189/Ujm.2015.030106

BULIŃSKA-STANGRECKA, H., Bagieńska, A. (2021). The Role of Employee Relations in Shaping Job Satisfaction as An Element Promoting Positive Mental Health at Work in The Era of Covid-19. *International Journal of Environmental Research and Public Health*, 18, 1903. https://Doi.Org/10.3390/Ijerph18041903

BURLEA-SCHIOPOIU, A., Mihai, L. S. (2019). An Integrated Framework on The Sustainability of SMEs. *Sustainability*, 11. Doi:10.3390/Su11216026

CAMPBELL, D. T., Fiske, D. W. (1959). Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix. *Psychological Bulletin*, 56, 2, 81-105.

CAMPBELL, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., Walker, K. (2020). Purposive Sampling: Complex or Simple? Research Case Examples. *Journal of Research in Nursing*, 25, 8, 652–661. Doi: 10.1177/1744987120927206

CHAUDHARY, R., Jindal, A., Aujla, G. S., Aggarwal, S. Kumar, N., Choo, K. C. (2019). Best: Blockchain-Based Secure Energy Trading in SDN-Enabled Intelligent Transportation System. *Computer & Security*, 85, 288-299. https://Doi.Org/10.1016/J.Cose.2019.05.006

CHEN, L., Huang, H., Han, D., Wang, X., Xiao, Y., Yang, H., Du, J. (2023). Investigation on the Spatial and Temporal Patterns of Coupling Sustainable Development Posture and Economic Development in World Natural Heritage Sites: A Case Study of Jiuzhaigou, china. *Ecological Indicators*, 146. https://Doi.Org/10.1016/J.Ecolind.2023.109920

CHEN, X., Despeisse, M., Johansson, B. (2020). Environmental Sustainability of Digitalization in Manufacturing: A Review. *Sustainability*, 12. Doi:10.3390/Su122410298

CHEN, Y.-S., Chang, C.-H. (2013). The Determinants of Green Product Development Performance: Green Dynamic Capabilities, Green Transformational Leadership, and Green Creativity. *Journal of Business Ethics*, 116, 107–119. Doi 10.1007/S10551-012-1452-X

CHEN, Y.-S., & Yan, X. (2022). The Small and Medium Enterprises' Green Human Resource Management and Green Transformational Leadership: A Sustainable Moderated-Mediation Practice. *Corporate Social Responsibility and Environmental Management*, 1–16. https://Doi.Org/10.1002/Csr.2273

CHERIF, F. (2020). The Role of Human Resource Management Practices and Employee Job Satisfaction in Predicting Organizational Commitment in Saudi Arabian Banking Sector. *International Journal of Sociology and Social Policy*, 40, 7/8, 529-541. Doi 10.1108/Ijssp-10-2019-0216

CHOTIBAH, A., Yulina, B., Apriyanty, D. Dewata, E. Mandiangan. P. (2022). *The Innovation of South Sumatera Traditional Batik E-Commerce Applications*. Advances 5th FIRST T3 2021 International Conference (FIRST-T3 2021). In Social Science, Education and Humanities Research, 641.

CHOWDHURY, S. H., Roy, S. K., Arafin, M., Siddiquee, S. (2019). Green HR Practices and Its Impact on Employee Work Satisfaction - A Case Study on IBBL, Bangladesh. *International Journal of Research and Innovation in Social Science*, III, III, 129-138.

CONNER, B., Johnson, E. (2017). Descriptive Statistics. Use These Tools to Analyze Data Vital to Practice-Improvement Projects. Nursing research 101. *American Nurse Today*, 12, 11, 52-55.

Crals, E., Vereeck. (2005). The Affordability *of Sustainable Entrepreneurship Certification for Smes*. *International Journal of Sustainable Development & World Ecology*, 12, 2. https://doi.org/10.1080/13504500509469628

ĆULIBRK, J., Delić, M., Mitrović, S., Ćulibrk, D. (2018). Job Satisfaction, Organizational Commitment and Job Involvement: The Mediating Role of Job Involvement. *Frontiers In Psychology*, 9. Doi: 10.3389/Fpsyg.2018.00132

DAI, J., Ouyang, Y., Hou, J., Cai, L. (2023). Long-Time Series Assessment of The Sustainable Development of Xiamen City in China Based on Ecological Footprint Calculations. *Ecological Indicators*, 148. https://Doi.Org/10.1016/J.Ecolind.2023.110130

DAS, S., Kundu, A., Bhattacharya, A. (2020). Technology Adaptation and Survival of SMEs: A Longitudinal Study of Developing Countries. *Technology Innovation Management Review*, 10, 6, 64-72. http://Doi.Org/10.22215/Timreview/1369

DAVIES, C. (2020). *A Quick Guide to Quantitative Research in The Social Sciences*, 1-27. Wales Academy of Professional Practice and Applied Research, University of Wales Trinity Saint David.

DETHINE, B. Enjolras, M., Monticolo, D. (2020). Digitalization and SMEs' Export Management: Impacts on Resources and Capabilities. *Technology Innovation Management Review*, 10, 4. 18-34. http://Doi.Org/10.22215/Timreview/1344

DHAMIJA, P., Gupta, S. Bag, S. (2019). Measuring of Job Satisfaction: The Use of Quality of Work Life Factors. *Benchmarking: An International Journal*, 1463-5771. Doi 10.1108/Bij-06-2018-0155

DILIG-RUIZ, A., Macdonald, I., Varin, M. D., Vandyk, A., Graham, I. D., Squires, J. E. (2018). Job Satisfaction Among Critical Care Nurses: A Systematic Review. *International Journal of Nursing Studies*, 88, 123–134. https://Doi.Org/10.1016/J.Ijnurstu.2018.08.014

Dinkopukm Kota Palembang. (2022). *Kemenkopukm Ajak UMKM Optimalkan Pembayaran Elektronik Respons Tantangan di Era Digital*. https://diskopukm.palembang.go.id/berita/kemen-kop-ukm-ajak-umkm-optimalkan-pembayaran-elektronik-respons-tantangan-di-era-digital-1

DRAJ, F. A., Saed, R. A. (2023). Mediating Role of Employee Empowerment for Transformational Leadership and Job Satisfaction. *Problems and Perspectives in Management*, 21, 1. http://Dx.Doi.Org/10.21511/Ppm.21(1).2023.06

DU, Y., Yan, M. (2022). Green Transformational Leadership and Employees' Taking Charge Behavior: The Mediating Role of Personal Initiative and The Moderating Role of Green Organizational Identity. *International Journal of Environmental Research and Public Health*, 19. https://Doi.Org/10.3390/Ijerph19074172

DUMONT, J., Shen, J., Deng, X. (2017). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. *Human Resource Management*, 56, 4, 613–627. Doi:10.1002/Hrm.21792

EC. (2020). User Guide to The SME Definition. European Union, 1-56.

ELIYANA, A., Ma'arif, S., Muzakki. (2019). Job Satisfaction and Organizational Commitment Effect in The Transformational Leadership Towards Employee Performance. *European Research on Management and Business Economics*, 25, 144–150.

EMAMI, A., Ashourizadeh, S., Sheikhi, S., Rexhepi, G. (2022). Entrepreneurial Propensity for Market Analysis in The Time of Covid-19: Benefits from Individual Entrepreneurial Orientation and Opportunity Confidence. *Review of Managerial Science*, 16, 2413–2439. https://Doi.Org/10.1007/S11846-021-00499-0

ERCANTAN, O., Eyupoglu, S. (2022). How Do Green Human Resource Management Practices Encourage Employees to Engage in Green Behavior? Perceptions of University Students as Prospective Employees. *Sustainability*, 14. https://Doi.Org/10.3390/Su14031718\

EROL, I., Sencer, S., Sari, R. (2011). A New Fuzzy Multi-Criteria Framework for Measuring Sustainability Performance of a Supply Chain. *Ecological Economics*, 70, 1088–1100. Doi:10.1016/J.Ecolecon.2011.01.001

European Commision (2006). Digital Business Ecosystem. http://www.digital-ecosystem.org/

FACHRUNNISA, O., Adhiatma, A., Lukman, N., Majid, M. N. A. (2020). Towards SMEs' Digital Transformation: The Role of Agile Leadership and Strategic Flexibility. *Journal of Small Business Strategy*, 30, 3, 65-85.

FALENTINA, A. T., Resosudarmo, B. P. (2021). Digitalisation and the Performance of Micro and Small Enterprises in Yogyakarta, Indonesia. *Bulletin of Indonesian Economic Studies*, 57, 3, 343–369. http://Dx.Doi.Org/10.1080/00074918.2020.1803210

FEROZ, A. K., Zo, H., Chiravuri, A. (2021). Digital Transformation and Environmental Sustainability: A Review and Research Agenda. *Sustainability*, 13, 1530. https://Doi.Org/10.3390/Su13031530

FITRI, A., Diamastuti, E., Romadhon, F., Maharani, H. (2022). The Effect of Green Intellectual Capital on SMEs' Business Sustainability. *Jurnal Bisnis dan Manajemen*, 9, 1, 55-64.

FOSSEY, F., Harvey, C., McDermott, F., Davidson, L. (2002). Understanding and Evaluating Qualitative Research. *Australian and New Zealand Journal of Psychiatry*, 36, 717–732.

FOX, E., Russo, R., Dutton, K. (2002). Attentional Bias for Threat: Evidence for Delayed Disengagement from Emotional Faces. *Cognition and Emotion*, 16, 3. https://doi.org/10.1080/02699930143000527

FRECÈ, J. T., Harder, D. L. (2018). Organisations Beyond Brundtland: A Definition of Corporate Sustainability Based On Corporate Values. *Journal of Sustainable Development*, 11, 5. 184-193. https://doi.org/10.5539/jsd.v11n5p184

FREDBURG, T., Pregmark, J. E. (2022). Organizational Transformation: Handling the Double-Edged Sword of Urgency. *Long Range Planning*, 55. https://Doi.Org/10.1016/J.Lrp.2021.102091.

FREIRE, C., Pieta, P. (2022). The Impact of Green Human Resource Management on Organizational Citizenship Behaviors: The Mediating Role of Organizational Identification and Job Satisfaction. *Sustainability*, 14. https://Doi.Org/10.3390/Su14137557

FULLER, C. M., Simmering, M. J., Atinc, G., Atinc, Y., Babin, B. J. (2015). Common Methods Variance Detection in Business Research. *Journal of Business Research*. http://Dx.Doi.Org/10.1016/J.Jbusres.2015.12.008

GAN, E., Voon, M. L. (2021). *The Impact of Transformational Leadership on Job Satisfaction And Employee Turnover Intentions: A Conceptual Review*. SHS Web of Conferences, 124. https://Doi.Org/10.1051/Shsconf/202112408005

GARBIE, I. H. (2015). Sustainability Awareness in Industrial Organizations. *Procedia CIRP*, 26, 64 – 69. Doi: 10.1016/J.Procir.2015.03.003

GARZONI, A., Turi, I. D., Secundo, G., Vecchio, P. D. (2019). Fostering Digital Transformation of Smes: A Four Levels Approach. *Management Decision*. Doi: 10.1108/Md-07-2019-0939

GAVRILA, S. G., Ancillo, A. L. (2021). Spanish SMEs' Digitalization Enablers: E-Receipt Applications to the Offline Retail Market. *Technological Forecasting & Social Change*, 162. https://Doi.Org/10.1016/J.Techfore.2020.120381

GEORGESCU, A., Peter, M. K., Avasilcai, S. (2022). A Business Ecosystem Framework for SME Development through Associative and Non-Associative Business Structures in the Digital Age. *Cogent Business & Management*, 9:1. Doi: 10.1080/23311975.2022.2143310

Goertzen, M. J. (2017). *Introduction to Quantitative Research and Data. Applying Quantitative Methods to E-Book Collections*. Chapter 3. Library Technology Reports Alatechsource.Org May/June, 12-18.

Google. (2023). *South Sumatra*. https://www.google.com/maps/place/South+Sumatra,+Indonesia/@-3.2753964,104.1284474,8z/data=!3m1!4b1!4m6!3m5!1s0x2e108b753d35ea2d:0x18fc8101e201c4cf!8m2!3d-3.3194374!4d103.914399!16zL20vMDJiZGRf?entry=ttu

GOODLAND, R. (1995). The Concept of Environmental Sustainability. *Annual Review of Ecology and Systematics*, 26, 1-24.

GOVINDAN, K., Muduli, K., Devika, A., Barve, A. (2016). Investigation of the Influential Strength of Factors on Adoption of Green Supply Chain Management Practices: An Indian Mining Scenario. *Resources, Conservation and Recycling*, 107, 185–194. http://Dx.Doi.Org/10.1016/J.Resconrec.2015.05.022

HA, L. T., Huong, T. T. L., Thanh, T. T. (2022). Is Digitalization a Driver to Enhance Environmental Performance? An Empirical Investigation of European Countries. *Sustainable Production and Consumption*, 32, 230–247. https://Doi.Org/10.1016/J.Spc.2022.04.002

HAGGER, M. S., Cheung, M. W-L., Ajzen, I., Hamilton, K. (2022). Perceived Behavioral Control Moderating Effects in the Theory of Planned Behavior: A Meta-Analysis. *Health Psychology*, 41, 2, 155-167. https://Doi.Org/10.1037/Hea0001153

HAGGERTY, N., Golden, B. (2022). Theorizing Technological Adaptation as a Trigger for Institutional Change. *International Conference on Information Systems Proceedings*. Paper 22. http://Aisel.Aisnet.Org/Icis2002/22

HALDORAI, K., Kim, W. G., Garcia, R. L. F. (2022). Top Management Green Commitment and Green Intellectual Capital as Enablers of Hotel Environmental Performance: The Mediating Role of Green Human Resource Management. *Tourism Management*, 88. https://Doi.Org/10.1016/J.Tourman.2021.104431

HASSAN, L. M. M., Mohamed, S. B. A. (2023). Examining Factors Affecting Employee's Job Satisfaction Under the Practices of Human Resources Management and Total Quality Management. Case Study of Egyptian Petroleum Company. *Scientific Journal for Financial and Commercial Studies and Research, Faculty of Commerce, Damietta University*, 4, 1, 229-267.

HAYDUK, L. Cummings, G., Boadu, K., Pazderka-Robinson, H., Boulianne, S. (2007). Testing! Testing! One, Two, Three – Testing the Theory Instructural Equation Models! *Personality and Individual Differences*, 42, 841–850. Doi:10.1016/J.Paid.2006.10.001

HAYES, A. F., Rockwood, N. J., (2016). Regression-Based Statistical Mediation and Moderation Analysis in Clinical Research: Observations, Recommendations, and Implementation. *Behaviour Research and Therapy*, http://Dx.Doi.Org/10.1016/J.Brat.2016.11.001

HE, J., Morrison, A. M., Zhang, H. (2021). Being Sustainable: The Three-Way Interactive Effects of CSR, Green Human Resource Management, and Responsible Leadership on Employee Green Behavior and Task Performance. *Corporate Social Responsibility and Environmental Management*, 28:1043–1054. Doi: 10.1002/Csr.2104

HERDON, M., Varallyai. L., Pentek, (2012). A Digital Business Ecosystem Prototyping for SMEs. *Journal of Systems and Information Technology*, 14, 4, 286-301. Doi 10.1108/13287261211279026

HERIYANTO, Noviardy, A., Syah, L. Y., Syarif, A. (2019). Analysis And Application of Green Supply Chain Management (GSCM) in Pempek Culinary SMEs In Palembang, South Sumatera. *International Journal of Science and Research*. 8, 3, 1647-1650.

HERMAN, L. E., Anggraeni,, A. I. (2015). Nurturing Green Product into Globalization: Challenges and Opportunities Over Indonesian SMEs. *Indian Journal of Applied Business and Economic Research*, 13, 7, 6199-6215.

Hoftstede Insights. (2023). Country Comparison Tool. https://www.hofstede-insights.com/country-comparison-tool?countries=indonesia.

Holton III, E. F., Michael F. Burnett, M. F. (2005). *The Basics of Quantitative Research*. Chapter 3, 29-44. In Research in Organization. Berrett-Koehler Publishers, Inc.

HSU, C-H., Chang, A-Y., Wei Luo, W. (2017). Identifying Key Performance Factors for Sustainability Development of SMEs Integrating QFD and Fuzzy MADM Methods. *Journal of Cleaner Production*, 161. http://Dx.Doi.Org/10.1016/J.Jclepro.2017.05.063

HUANG, W. (2018). Comprehension of the Social Crisis from the Sense of Urgency. International Conference on Contemporary Education, Social Sciences and Ecological Studies (Cesses 2018). *Advances in Social Science, Education and Humanities Research*, 283., 900-903.

HUSSAIN, M. K., Khayat, R. A. M. (2021). The Impact of Transformational Leadership on Job Satisfaction and Organisational Commitment Among Hospital Staff: A Systematic Review. *Journal of Health Management*, 23,4, 614–630. Doi: 10.1177/09720634211050463

HUTOMO, A., Marditama, T., Limakrisn, N., Sentosa, I., Yew, J. L. K. (2020). Green Human Resource Management, Customer Environmental Collaboration and The Enablers of Green Employee Empowerment: Enhancing an Environmental Performance. *Dinasti International Journal of Economics, Finance & Accounting*, 1, 2, 358-372.

INCEKARA, M. (2022). Determinants of Process Reengineering and Waste Management as Resource Efficiency Practices and Their Impact on Production Cost Performance of Small and Medium Enterprises in the Manufacturing Sector. *Journal of Cleaner Production*, 356. https://Doi.Org/10.1016/J.Jclepro.2022.131712

ITC (2018). *SME Competitiveness Outlook 2018: Business Ecosystems for The Digital Age*. ITC, Geneva.1-15.

ITC (2020). *SME Competitiveness Outlook 2020: Covid-19: The Great Lockdown and Its Impact on Small Business*. ITC, Geneva, 1-154.

ITC (2021). *SME Competitiveness Outlook 2021: Empowering the Green Recovery*, 1-90.

ISAKSSON, R. (2019). Creating A Sense of Urgency for Sustainable Development E Testing Two System Models. *Journal of Cleaner Production*, 227. https://Doi.Org/10.1016/J.Jclepro.2019.04.177

ISENSEE, C., Teuteberg, F., Griese, K-M., Topi, C. (2020). The Relationship between Organizational Culture, Sustainability, and Digitalization in SMEs: A Systematic Review. *Journal of Cleaner Production*, 275. https://Doi.Org/10.1016/J.Jclepro.2020.122944

JABBOUR, A. B. L. S., Ndubisi, N. O., Seles, B. M. R. P. (2020). Sustainable Development in Asian Manufacturing SMEs: Progress and Directions. *International Journal of Production Economics*, 225. https://Doi.Org/10.1016/J.Ijpe.2019.107567

JABBOUR, C. J. C., Sarkis, J., Jabbour, A. B. L. S., Renwick, D. W. S., Singh, S. K., Grebinevych, O., Kruglianskas, I., Filho, M. G. (2019). Who Is in Charge? A Review and a Research Agenda on the 'Human Side' of the Circular Economy. *Journal of Cleaner Production*, 222. 793-801. https://Doi.Org/10.1016/J.Jclepro.2019.03.038

JABBOUR, C. J. C., Jabbour, A. B. L. S. (2016). Green Human Resource Management and Green Supply Chain Management: Linking Two Emerging Agendas. *Journal of Cleaner Production*, 112, http://Dx.Doi.Org/10.1016/J.Jclepro.2015.01.052

JAMIESON, M. K., Govaart, G. H., Pownall, M. (2023). Reflexivity in Quantitative Research: A Rationale and Beginner's Guide. *Soc Personal Psychol Compass*, 17. https://Doi.Org/10.1111/Spc3.12735

Jati. (2022). *Data Belum Valid, Sumsel Gelar Sensus Umkm*. https://www.kompas.id/baca/nusantara/2022/03/07/data-belum-valid-sumsel-gelar-sensus-umkm.

JEFFERSON, T., Demicheli, V. (1999). Relation Between Experimental and Non-Experimental Study Designs. Hb Vaccines: A Case Study. *Journal of Epidemiol Community Health*, 53:51–54.

JENKINS, H., Yakovleva, N. (2006). Corporate Social Responsibility in The Mining Industry: Exploring Trends in Social and Environmental Disclosure. *Journal of Cleaner Production*, 14. Doi:10.1016/J.Jclepro.2004.10.004

JERMSITTIPARSERT, K., Siriattakul, P., Wattanapongphasuk, S. (2019). Determining the Environmental Performance of Indonesian SMEs Influence by Green Supply Chain Practices with Moderating Role of Green Hr Practices. *International Journal of Supply Chain Management*, 8, 3, 59-69.

JIAN, P., Kui, Y., Nan, H., Yanchun, Z., Qi, N. (2020). How to Facilitate Employee Green Behavior: The Joint Role of Green Trans-Formational Leadership and Green Human Resource Management Practice. *Acta Psychologica Sinica*, 52, 9. https://dx.doi.org/10.3724/SP.J.1041.2020.01105

JOHNSON, M. P., Schaltegger, S. (2016). Two Decades of Sustainability Management Tools for SMEs: How Far Have We Come? *Journal of Small Business Management*, 54, 2, 481–505. Doi: 10.1111/Jsbm.12154

JORDAN, P. J., Troth, A. C. (2022). Common Method Bias in Applied Settings: The Dilemma of Researching in Organizations. *Australian Journal of Management*, 45,1, 3–14. Doi: 10.1177/0312896219871976

KÄÄRIÄINEN, J., Pussinen, P., Saari, L., Kuusisto, O., Saarela, M., Hänninen, K. (2020). Applying The Positioning Phase of The Digital Transformation Model in Practice for SMEs: Toward Systematic Development Of Digitalization. *International Journal of Information Systems and Project Management*, 8, 4, 24-43. Doi: 10.12821/Ijispm080402

KARATEPE, O. M., Hsieh, H., Aboramadan, M. (2022). The Effects of Green Human Resource Management and Perceived Organizational Support for The Environment on Green and Non-Green Hotel Employee Outcomes. *International Journal of Hospitality Management*, 103. https://Doi.Org/10.1016/J.Ijhm.2022.103202

KARIMUDIN, Y., Hadjri, M. I., Fitrianto, M. E., Satria, H. (2022). Pendampingan Penerapan Digital Marketing bagi Pelaku UMKM di Desa Kotadaro II, Kabupaten Ogan Ilir, Provinsi Sumatera Selatan. *Jurnal Abdi Masyarakat Indonesia*, 2, 3, 899-906. https://Doi.Org/10.54082/Jamsi.344

KARMOKER, K., Kona, F. A., Oyshi, A. H., Yasmin, K. S. (2021). Effects of Green Human Resource Management on Employee Green Behavior: Moderating Role of Employee Environmental Knowledge. *International Journal of Sustainable Development & World Policy*, 10, 2, 64-80. Doi: 10.18488/Journal.26.2021.102.64.80

KHAIRANI, S., Cholid, I. (2022). Environmental Performance as a Mediating Variable Relationship between Green Process Innovation and Eco-Efficiency on Corporate Sustainability of SMEs In South Sumatera. *Inovasi: Jurnal Ekonomi, Keuangan dan Manajemen*, 18, 268-277.

KHAIRANI, S., Susetyo, D., Yusnaini, E., Yusrianti, H. (2021). The Effect of Green Process Innovation on Corporate Sustainability and Environmental Performance as a Mediation Variable. Proceedings of the 7th Sriwijaya Economics, Accounting, and Business Conference (SEABC 2021). *Advances in Economics, Business and Management Research,* 647, 147-154.

KHALIL, M. A. T., Dominic, P. D. D., Hassan, M. F., Mushtaq, A. (2011). An in-Depth Analysis of Ecosystems & Blueprint of Digital Business Ecosystem (Digital Business Ecosystem) Framework for Malaysian SMEs. *Computer Science Journal*, 1, 1, 65-78.

KHAN, M. A., Yusoff, R. M., Hussain, A., Ismail, F. (2019). The Mediating Effect of Job Satisfaction on The Relationship of HR Practices and Employee Job Performance: Empirical Evidence from Higher Education Sector. *International Journal of Organizational Leadership*, 8, 78-94.

KIM, A., Kim, Y., Han, K. (2019). A Cross Level Investigation on The Linkage Between Job Satisfaction and Voluntary Workplace Green Behavior. *Journal of Business Ethics*, 159, 1199–1214. https://Doi.Org/10.1007/S10551-018-3776-7

KIM, H., Sefcik, J. S., Bradway, C. (2017). Characteristics of Qualitative Descriptive Studies: A Systematic Review. *Research in Nursing & Health*, 40. Doi: 10.1002/nur.21768

KLEWITZ, J., Hansen, E. G. (2014). Sustainability-Oriented Innovation of SMEs: A Systematic Review. *Journal of Cleaner Production*, 65, 57-75. http://Dx.Doi.Org/10.1016/J.Jclepro.2013.07.017

KNIFFIN, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberger, P., Bapuji, H., Bhave, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Gary, J., Kesebir, Selin, Klein, Peter G., Lee, Young, S., Ozcelik, Hakan, Petriglieri, Louise, J., Rothbard, Nancy P., Rudolph, Cort W., Shaw, Jason D., Sirola, Nina. (2021). Covid-19 and the Workplace: Implications, Issues, and Insights for Future Research and Action. *American Psychologist*, 76, 1, 63-77. https://Doi.Org/10.1037/Amp0000716

KOCK, N. (2021). Harman's Single Factor Test in PLS-Sem: Checking for Common Method Bias. *Data Analysis Perspective Journal*, 2, 2, 1-6.

Kotter, J. P. (2011). *A Sense of Urgency*. Harvard Business Press, 1-11.

KURA, K. M. (2016). Linking Environmentally Specific Transformational Leadership and Environmental Concern to Green Behaviour at Work. *Global Business Review*, 17, 3s, 1s–14s. Doi: 10.1177/0972150916631069

KURDI, B. A., Elrehail, H., Alzoubi, H. M., Alshurideh, M., Adaileh, R. (2021). The Interplay among HRM Practices, Job Satisfaction and Intention to Leave: An Empirical Investigation. *Journal of Legal, Ethical and Regulatory Issues*, 24, 1, 1-14.

KURNIAWAN, A. M. & Iskandar, Y. (2023). The Effect of Technology Adaptation and Government Financial Support on Sustainable Performance of MSMEs During the Covid-19 Pandemic. *Cogent Business & Management*, 10, 1, Doi: 10.1080/23311975.2023.2177400

KURNIAWATI, E., Idris, Handayati, P., Osman, S. (2021). Digital Transformation of MSMEs in Indonesia during the Pandemic. *Entrepreneurship and Sustainability Issues*, 9, 2. http://Doi.Org/10.9770/Jesi.2021.9.2(21)

LAI, F-Y., Tang, H-C., Lu, S-C., Lee, Y-C., Lin, C-C. (2020). Transformational Leadership and Job Performance: The Mediating Role of Work Engagement. *Sage Open*, 1–11. Doi: 10.1177/2158244019899085

LAWRENCE, S. R., Collins, E., Pavlovich, K., Arunachalam, M. (2006). Sustainability Practices of SMEs: The Case of NZ. *Business Strategy and the Environment*, 15, 242–257. Doi: 10.1002/Bse.533

Lenkenhoff, K., Wilkens, U., Zheng, M., Süße, T., Kuhlenkötter, B., Ming, X. (2018). *Key Challenges of Digital Business Ecosystem Development and How to Cope with Them.* 10th CIRP Conference on Industrial Product-Service Systems, IPS2 2018, 29-31 may 2018, Linköping, Sweden. Procedia CIRP, 3, 167–172. Doi: 10.1016/J.Procir.2018.04.082

LI, W., Bhutto, T. A., Xuhui, W., Maitlo, Q., Zafar, A. U., Bhutto, N. A. (2020). Unlocking Employees' Green Creativity: The Effects of Green Transformational Leadership, Green Intrinsic, and Extrinsic Motivation. *Journal of Cleaner Production*, 255. https://Doi.Org/10.1016/J.Jclepro.2020.120229

LIANA, L. (2009). Penggunaan MRA Dengan SPSS untuk Menguji Pengaruh Variabel Moderating terhadap Hubungan Antara Variabel Independen dan Variabel Dependen. *Jurnal Teknologi Informasi Dinamik*, Xiv, 2, 90-97.

Lurgi, M., Estanyol, F. (2010). *Managing a Digital Business Ecosystem Using a Simulation Tool.* MEDES '10: *Proceedings of The International Conference on Management of Emergent Digital Ecosystems*, October 26-29, 2010, Bangkok, Thailand. https://doi.org/10.1145/1936254.1936295

LUZ, C. M. D. R., Paula, S. L., Oliveira, L. M. B. (2018). Organizational Commitment, Job Satisfaction and Their Possible Influences on Intent to Turnover. *Revista de Gestão*, 25, 1, 84-101. Doi 10.1108/Rege-12-2017-008

MADDEN, T. J., Ellen, P. S., Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin*, 18, 1, 3-9.

MAHMOOD, A., Akhtar, M. N., Talat, U., Shuai, C., Hyatt, J. C. (2019). Specific HR Practices and Employee Commitment: The Mediating Role of Job Satisfaction. *Employee Relations: The International Journal*, 41, 3, 420-435. Doi: 10.1108/Er-03-2018-0074

MAJID, U. (2018). Research Fundamentals: Study Design, Population, and Sample Size. *Undergraduate Research in Natural and Clinical Science and Technology (URNCST) Journal*, 2,1. https://Doi.Org/10.26685/Urncst.16

MANDIP, G. (2012). Green HRM: People Management Commitment to Environmental Sustainability. *Research Journal of Recent Sciences*, 1, 244-252.

MANSYUR, A., Arfah, A., Semmaila, B. (2022). Relationship between Transformational Leadership Style and Job Satisfaction on Employee Performance. *Point of View Research Management*, 3, 2, 108 – 120.

MASRI, H. A., Jaaron, A. A. M. (2017). Assessing Green Human Resources Management Practices in Palestinian Manufacturing Context: An Empirical Study. *Journal of Cleaner Production*, 143, http://Dx.Doi.Org/10.1016/J.Jclepro.2016.12.087

MANYATI, T. K., Mutsau, M. (2019). Exploring Technological Adaptation in the Informal Economy: A Case Study of Innovations in Small and Medium Enterprises (SMEs) in Zimbabwe. *African Journal of Science, Technology, Innovation and Development*. https://doi.org/10.1080/20421338.2018.1552650

MATUTE, J., Palau-Saumell, R., Meyer, J., Derqui, B., Jiménez-Asenjo, N. (2021). Are You Getting it? Integrating Theories to Explain Intentions to Get Vaccinated Against Covid-19 In Spain. *Journal of Risk Research*. Doi: 10.1080/13669877.2021.1958044

Meade, A. W., Watson, A. M., & Kroustalis, C. M. (2007). *Assessing Common Methods Bias in Organizational Research*. Paper Presented at the 22nd Annual Meeting of The Society for Industrial and Organizational Psychology, New York. 1-10.

MELLITA, D., Aliya, S., Elpanso, E. (2020). Green Supply Chain Management at Culinary Small Business: Some Notes to Consider. *Dinasti International Journal of Digital Business Management*, 1, 4. 512-521.

MISHRA, D., Akman, I., Mishra, A. (2014). Theory of Reasoned Action Application for Green Information Technology Acceptance. *Computers in Human Behavior*, 36, 29–40. http://dx.doi.org/10.1016/j.chb.2014.03.030

MITCHELTREE, C. M. (2023). Towards A Sense of Urgency for Innovation Realization: A Case Study on Complacency Asymmetries in Interorganizational Relations. *Journal of Innovation and Entrepreneurship*, 12, 11. https://doi.org/10.1186/s13731-023-00267-2

MITTAL, S., Dhar, R. L. (2016). Effect of Green Transformational Leadership on Green Creativity: A Study of Tourist Hotels. *Tourism management*, 57, 118-127. http://Dx.Doi.Org/10.1016/J.Tourman.2016.05.007

MOUSA, S. K., Othman, M. (2020). The Impact of Green Human Resource Management Practices on Sustainable Performance in Healthcare Organisations: A Conceptual Framework. *Journal of Cleaner Production*, 243. https://Doi.Org/10.1016/J.Jclepro.2019.118595

MUAFI, M., Kusumawati, R. A. (2021). Green Human Resources Management and Its Impact on Supply Chain and Business Performance: An Empirical Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8, 5, 1099–1107. Doi:10.13106/Jafeb.2021.Vol8.No5.109

MUHAJIR, A., Hermanto, T. A. (2022). Influence of Transformational Leadership and Work Environment on Job Satisfaction and Ready to Change at The Medical Faculty of Al-Azhar Islamic University. *International Journal of Multicultural and Multireligious Understanding*, 9, 12, 517-531.

Nachira, F., Dini, P., Nicolai, A. (2011). A Network of Digital Business Ecosystems for Europe: Roots. *Processes and Perspectives*, 5-24.

NAGY, M. S. (2022). Using a Single-Item Approach to Measure Facet Job Satisfaction. *Journal of Occupational and Organizational Psychology*, 75, 77–86.

NAM, S., Kim, D., Jin, C. (2018). A Comparison Analysis among Structural Equation Modeling (Amos, Lisrel and PLS) Using the Same Data. *Journal of The Korea Institute of Information and Communication Engineering*, 22, 7, 978-984. http://Doi.Org/10.6109/Jkiice.2018.22.7.978

Narimawati, U., Sarwono, J. (2022). Kajian tentang Indeks Kecocokan Model dalam Pemodelan Persamaan Struktural Berbasis Kovarian dalam Lisrel dan Amos serta Berbasis Partial Least Square dalam PLS SEM. *Majalah Ilmiah Unikom*, 20, 20, 85-94.

NGUYEN, C. P., Thanh, S. D., Nguyen, B. (2020). Economic Uncertainty and Tourism Consumption. *Tourism Economics*, 28, 4, 920–941. Doi: 10.1177/1354816620981519

Nick, T. G. 2007. *Descriptive statistics*. Chapter 3, 33-52. Methods in Molecular Biology, 404: Topics in Biostatistics. Humana Press Inc., Totowa, NJ.

NINGSIH, M. A., Wijaya, Y. K., Muntahari, S., Damayanti, N. (2023). The Impact of Transformational Leadership on Employee Satisfaction, Employee Performance, and Employee Engagement: The Insurance and Pension Fund Service. *International Journal of Applied Business Research*, 5, 1, 88–100. Doi: 10.35313/Ijabr.V5i01.289

NOOR, K. M., Razali, W. M. F. A. W., Mutalib, M. A. (2022). Human Resource Management Practices and Job Satisfaction of Academics in Malaysian Higher Education Institutions. *International Journal of Mechanical Engineering*, 7, 4. 26-39.

NORTON, T. A., Parker, S. L., Zacher, H., Ashkanasy, N. M. (2015). Employee Green Behavior: A Theoretical Framework, Multilevel Review, and Future Research Agenda. *Organization & Environment*, 28, 1. Doi: 10.1177/1086026615575773

OECD. (2021). *The SME Test: Taking SMEs and Entrepreneurs into Account When Regulating*, 1-62.

OKFALISA, Anggraini, W., Nawanir, G., Saktioto, Wonge. K. W. (2021). Measuring the Effects of Different Factors Influencing on the Readiness of SMEs towards Digitalization: A Multiple Perspectives Design of Decision Support System. *Decision Science Letters*, 10, 425–442. Doi: 10.5267/J.Dsl.2021.1.002

OMAROVA, L., Jo, S.-J. (2022). Employee Pro-Environmental Behavior: The Impact of Environmental Transformational Leadership and GHRM. *Sustainability*, 14. https://Doi.Org/10.3390/Su14042046

ONG, M. H. A., Puteh, F. (2017). Quantitative Data Analysis: Choosing between SPSS, PLS and Amos in Social Science Research. *International Interdisciplinary Journal of Scientific Research*, 3, 1, 14-25.

Orange Smile. (2023). *Maps of Indonesia*. https://www.orangesmile.com/travelguide/indonesia/country-maps.htm

OSTER, G. (2019). Employee Complacency and Corporate Demise. *Review of International Comparative Management*, 20, 2, 122-130.

ÖZGÜL, B., Zehir, C. (2021). The Influence of Green-Transformational Leadership Style on Corporate Sustainability: A Systematic Literature Review and Propositions for Future Studies. *Istanbul Management Journal*, 90, 1-30. http://Doi.Org/10.26650/Imj.2021.90.0001

PEARCE, D., Giles Atkinson, G. (1998). The Concept of Sustainable Development: An Evaluation of Its Usefulness Ten Years after Brundtland. *Swiss Journal of Economics and Statistics*, 134, 3, 251-269.

Pemerintah Provinsi Sumatera Selatan. (2023). *Sekilas Sumatera Selatan*. https://sumselprov.go.id/page/content/sekilas-sumatera-selatan

PERIZADE, B., Hadjri, M. I., Susetyo, D., Zunaidah, Sari, P. (2022). Pendampingan Pembinaan Nilai-Nilai Kepemimpinan dalam Menghadapi Era New Normal bagi Pelaku UMKM di Desa Kotadaro Ii, Kabupaten Ogan Ilir, Provinsi Sumatera Selatan. *Jurnal Abdi Masyarakat Indonesia*, 2, 3, 907-914. https://Doi.Org/10.54082/Jamsi.343

PHAM, N. T., Tučkovaa, Z., Jabbour, C. J. C. (2019). Greening the Hospitality Industry: How Do Green Human Resource Management Practices Influence Organizational Citizenship Behavior in Hotels? A Mixed-Methods Study. *Tourism Management*, 72, 386–399. https://Doi.Org/10.1016/J.Tourman.2018.12.008

PLOYHART, R. E., Vandenberg, R. J. (2010). Longitudinal Research: The Theory, Design, and Analysis of Change. *Journal of Management*, 36, 94. Doi: 10.1177/0149206309352110

PODSAKOFF, P. M., Mackenzie, S. B., Lee, J-Y., Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of The Literature and Recommended Remedies. *Journal of Applied Psychology*, 88, 5, 879–903. Doi: 10.1037/0021-9010.88.5.879

PRABOWO, R. Singgih, M. L., Putu Dana Karningsih, P. D., Erwin Widodo, E. (2020). New Product Development from Inactive Problem Perspective in Indonesian SMEs to Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 6, 20. Doi:10.3390/Joitmc6010020

PRASANNA, R. P. I. R., Jayasundara, J. M. S. B., Gamage, S. K. N., Ekanayake, E. M. S., Rajapakshe, P. S. K., Abeyrathne, G. A. K. N. J. (2019). Sustainability of SMEs in The Competition: A Systemic Review on Technological Challenges and SME Performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 5, 100. Doi:10.3390/Joitmc5040100

PRYOR, B. W., Pryor, C. R. (2009). What Will Teachers Do to Involve Parents in Education? Using a Theory of Reasoned Action. *Journal of Educational Research & Policy Studies*, 9, 1, 45-59.

PU, G., Qamruzzaman, M., Mehta, A. M., Naqvi, F. N., Karim, S. (2021). Innovative Finance, Technological Adaptation and SMEs Sustainability: The Mediating Role of Government Support during Covid-19 Pandemic. *Sustainability*, 13, 9218. https://Doi.Org/10.3390/Su13169218

PYLAEVA, I. S., Podshivalova, M. V., Alola, A. A., Dmitrii V. Podshivalov, D. V., Demin, A. A. (2022). A New Approach to Identifying High-Tech Manufacturing SMEs with Sustainable Technological Development: Empirical Evidence. *Journal of Cleaner Poduction*, 363. https://doi.org/10.1016/j.jclepro.2022.132322

RADHAKRISHNAN, G. (2013). Non-Experimental Research Designs: Amenable to Nursing Contexts. *Asian Journal of Nursing Education and Research*, 3, 1, 25-28.

RAJULTON, F. (2001). The Fundamentals of Longitudinal Research: An Overview. Special Issue on Longitudinal Methodology. *Canadian Studies in Population*, 28, 2, 169-185.

RAKSHIT, S., Islam, N., Mondal, S. Paul, T. (2021). Mobile Apps for SME Business Sustainability during Covid-19 and onwards. *Journal of Business Research*, 135, 28–39. https://Doi.Org/10.1016/J.Jbusres.2021.06.005.

Razavi, A. R., Krause, P. J., Strømmen-Bakhtiar, A. (2010). From Business Ecosystems towards Digital Business. *Ecosystems*. 4th Ieee International Conference on Digital Ecosystems and Technologies (Ieee Dest 2010), 290-295.

Renwick, D., Redman, T., Maguire, S. (2008). Green *HRM: A Review, Process Model, and Research Agenda. Discussion Paper Series*. University of Sheffield Management School, 1-46.

RINGENSON, T., Höjer, M., Kramers, A., Viggedal, A. (2018). Digitalization and Environmental Aims in Municipalities. *Sustainability*, 10. Doi:10.3390/Su10041278

ROBERTS, J. A., David, M. E. (2020). Boss Phubbing, Trust, Job Satisfaction and Employee Performance. *Personality and Individual Differences*, 155. https://Doi.Org/10.1016/J.Paid.2019.109702

ROBERTSON, J. L., Barling, J. (2013). Greening Organizations through Leaders' Influence on Employees' Pro-Environmental Behaviors. *Journal of Organizational Behavior*, 34, 176–19. Doi: 10.1002/Job.1820

ROSA, J. A., Qualls, W. J., Fuentes, C. (2008). Involving Mind, Body, and Friends: Management That Engenders Creativity. *Journal of Business Research*, 61, 631–639. Doi:10.1016/J.Jbusres.2007.06.038

RUBEL, M. R. R. B., Kee, D. M. H., Rimi, N. N., Yusoff, Y. M. (2016). Adapting Technology: Effect of High Involvement HRM and Organisational Trust. *Behaviour & Information Technology*. Doi: 10.1080/0144929x.2016.1222552

RUCKER, D. D., Preacher, K. J., Tormala, Z. L., Petty, R. E. (2011). Mediation Analysis in Social Psychology: Current Practices and New Recommendations. *Social and Personality Psychology Compass*, 5, 6, 359-371. Doi: 10.1111/J.1751-9004.2011.00355.X

SABOKRO, M., Masud, M. M., Kayedia, A. (2021). The Effect of Green Human Resources Management on Corporate Social Responsibility, Green Psychological Climate and Employees' Green Behavior. *Journal of Cleaner Production*, 313. https://Doi.Org/10.1016/J.Jclepro.2021.127963

SALEEM, M., Qadeer, F., Mahmood, F., Ariza-Montes, A., Han, H. (2020). Ethical Leadership and Employee Green Behavior: A Multilevel Moderated Mediation Analysis. *Sustainability*, 12, 3314. Doi:10.3390/Su12083314

SANTARIUS, T., Pohl, J., Lange, S. (2020). Digitalization and the Decoupling Debate: Can ICT Help to Reduce Environmental Impacts While the Economy Keeps Growing? *Sustainability*, 12, 7496. Doi:10.3390/Su12187496

SANDELOWSKI, M. (1995). Focus on Qualitative Methods Qualitative Analysis: What It Is and How to Begin. *Research in Nursing & Health*, 18, 371 -375.

SCANLAN, J. N., Still, M. (2019). Relationships between Burnout, Turnover Intention, Job Satisfaction, Job Demands and Job Resources for Mental Health Personnel in an Australian Mental Health Service. *Scanlan and Still BMC Health Services Research*, 19, 62. https://Doi.Org/10.1186/S12913-018-3841-Z

SEDDIG, D., Maskileyson, D., Davidov, E., Ajzen, I., Schmidt, P. (2022). Correlates of Covid-19 Vaccination Intentions: Attitudes, Institutional Trust, Fear, Conspiracy Beliefs, and Vaccine Skepticism. *Social Science & Medicine*, 302. https://Doi.Org/10.1016/J.Socscimed.2022.114981

SENYO, P. K., Liu, K., Effah, J. (2019). Digital Business Ecosystem: Literature Review and a Framework for Future Research. *International Journal of Information Management*, 47, 52-64. https://Doi.Org/10.1016/J.Ijinfomgt.2019.01.002

SEURING, S., Muller, M. (2008). From a Literature Review to a Conceptual Framework for Sustainable Supply Chain Management. *Journal of Cleaner Production*, 16, 1699–1710. Doi:10.1016/J.Jclepro.2008.04.020

SHAH, A. K., Jintian, Y., Sukamani, D., Kusi, M. (2020). How Green Transformational Leadership Influences Sustainability? Mediating Effects of Green Creativity and Green Procurement. *Risus - Journal on Innovation and Sustainability*, 11, 4. http://Dx.Doi.Org/10.23925/2179-3565.2020v11i4p69-87

SHAJU, M., Subhashini, D. (2017). A Study on The Impact of Job Satisfaction on Job Performance of Employees Working in Automobile Industry. *Journal of Management Research*, 17, 2, 74-83.

SHI, R., Meng, Q., Huang, J. (2022). Impact of Psychological Empowerment on Job Performance of Chinese University Faculty Members: A Cross-Sectional Study. *Social Behavior and Personality*, 50, 1. https://Doi.Org/10.2224/Sbp.10975

SINGH, S., Vikas Nath, V. (2020). An Assessment in The Green HRM Practices with Job Satisfaction and Its Impact on Organizational Commitment. *International Journal of Management*, 11, 9, 1482-1493. Doi: 10.34218/Ijm.11.9.2020.143

SMITH, H., Discetti, R., Bellucci, M., Acuti, D. (2022). SMEs Engagement with the Sustainable Development Goals: A Power Perspective. *Journal of Business Research*, 149, 112–122. https://Doi.Org/10.1016/J.Jbusres.2022.05.021

SNEDDON, C., Howarth, R. B., Norgaard, R. B. (2006). Sustainable Development in a Post-Brundtland World. *Ecological Economics*, 57, 253–268. Doi: 10.1016/J.Ecolecon.2005.04.013

STREINER, D. L. (2006). Building A Better Model: An Introduction to Structural Equation Modeling. *The Canadian Journal of Psychiatry—Research Methods in Psychiatry*, 51, 5, 317-324.

SurveyMonkey. (2023). *Sample Size Calculator*. https://www.surveymonkey.com/mp/sample-size-calculator/

SULEMAN, A-R., Bingab, B. B. B., Boakye, K. O., Sam-Mensah, R. (2022). Job Rotation Practices and Employees Performance: Do Job Satisfaction and Organizational Commitment Matter? *Seisense Business Review*, 2, 1. https://Doi.Org/10.33215/Sbr.V2i1.730

SWENTY, C. L., Titzer, J. L. (2014). A Sense of Urgency: Integrating Technology and Informatics in Advance Practice Nursing Education. *The Journal for Nurse Practitioners*, 10, 10. http://Dx.Doi.Org/10.1016/J.Nurpra.2014.07.034

SYAFRI, W., Prabowo, H., Nur, S. A., Muafi, M. (2021). The impact of Workplace Green Behavior and Green Innovation on Green Performance of SMEs: A Case Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8, 5, 0365–0374. Doi:10.13106/Jafeb.2021.Vol8.No5.0365

TANG, G., Chen, Y., Jiang, Y., Paille, P., Jia, J. (2018). Green Human Resource Management Practices: Scale Development and Validity. *Asia Pacific Journal of Human Resources*, 56, 31–55. Doi:10.1111/1744-7941.12147

TANGE, J. (2015). Effects of External Factors on the Small and Medium Enterprises in South Sumatera Province, Indonesia. *Akuntabilitas: Jurnal Penelitian dan Pengembangan Akuntansi*, 9, 1. 27-52.

TANHAN, A., Young, J. S. (2022). Muslims and Mental Health Services: A Concept Map and a Theoretical Framework. *Journal of Religion and Health*, 61, 23–63. https://Doi.Org/10.1007/S10943-021-01324-4

TENENHAUS, M. N. D. (2008). Component-Based Structural Equation Modelling. *Total Quality Management & Business Excellence*, 1-17. Doi: 10.1080/14783360802159543

TENG, X., Wu, Z., Yang, F. (2022). Research On the Relationship Between Digital Transformation and Performance of SMEs. *Sustainability*, 14, 6012. https://Doi.Org/10.3390/Su14106012

THOMAS, D. M., Bostrom, R. P. (2010). Vital Signs for Virtual Teams: An Empirically Developed Trigger Model for Technology Adaptation Interventions. *Management Information Systems Quarterly*, 34, 1, 115-142.

TIAN, H., Zhang, J., Li, J. (2020). The Relationship between Pro-Environmental Attitude and Employee Green Behavior: The Role of Motivational States and Green Work Climate Perceptions. *Environmental Science and Pollution Research*, 27, 7341-7352. https://Doi.Org/10.1007/S11356-019-07393-Z

TOSUN, C., Parvez, M. O., Bilim, Y., Yu, L. (2022). Effects of Green Transformational Leadership on Green Performance of Employees via the Mediating Role of Corporate Social Responsibility: Reflection from North Cyprus. *International Journal of Hospitality Management*, 103. https://Doi.Org/10.1016/J.Ijhm.2022.103218

TRIHANDAYANI, Z., Yamaly, F. (2022). The Matrix of Human Resources Development Factors in Small and Medium Enterprises of Local Wisdom Products in Palembang. *International Journal of Arts and Social Science*, 5, 3, 78-91.

ULAS, D. (2019). Digital Transformation Process and SMEs. 3rd World Conference on Technology, Innovation and Entrepreneurship (Woctine). *Procedia Computer Science*, 158, 662-671. Doi: 10.1016/J.Procs.2019.09.101

UNIDO. (2021). *Impact Assessment of Covid-19 on Indonesia's Manufacturing Firms*, 1-29.

WANG, X., Zhou, K., Liu, W. (2018). Value Congruence: A Study of Green Transformational Leadership and Employee Green Behavior. *Frontiers in Psychology*, 9. Doi: 10.3389/Fpsyg.2018.01946

WEERARATHNA, R. S., Jayarathna, D. Y., Ann Pintoe, A. (2017). Employee Green Behavior: A Case in Manufacturing & Service Sector in Sri Lanka. *International Journal of Academic Research in Business and Social Sciences*, 7, 12, 1095-1106,

WESTERLUND, M. (2020). Digitalization, Internationalization and Scaling of Online SMEs. *Technology Innovation Management Review*, 10, 4, 48-57.

WHITLEY, E. A., Darking, M. (2006). Object Lessons and Invisible Technologies. *Journal of Information Technology*, 1–9.

WILSON, A. J. S., Ben Orlove, B. (2021). Climate Urgency: Evidence of Its Effects on Decision Making in the Laboratory and the Field. *Current Opinion in Environmental Sustainability*, 51, 65–76.

WOO, E-J. (2021). The Necessity of Environmental Education for Employee Green Behavior. *East Asian Journal of Business Economics*, 9,4, 29-41. http://Dx.Doi.Org/10.20498/Eajbe.2021.9.4.29

YACOB, P., Wong, L. S., Khor, S. C. (2018). An Empirical Investigation of Green Initiatives and Environmental Sustainability for Manufacturing SMEs. *Journal of Manufacturing Technology Management*. https://Doi.Org/10.1108/Jmtm-08-2017-0153

YANG, X. (2019). The Impact of Responsible Leadership on Employee Green Behavior: Mediating Effect of Moral Reflectiveness and Moderating Effect of Empathy. *IOP Conf. Series: Materials Science and Engineering*, 677. Doi:10.1088/1757-899x/677/5/052054

YAZFINEDI. (2018). Usaha Mikro, Kecil, dan Menengah di Indonesia: Permasalahan dan Solusinya. *Quantum*, XIV, 25, 33-41.

YOUSEF, D. A. (2000). Organizational Commitment: A Mediator of the Relationships of Leadership Behavior with Job Satisfaction and Performance in A Non-Western Country. *Journal of Managerial Psychology*, 15, 1, 6-28.

YUAN, K-H., Chan, W., Bentler, P. M. (2000). Robust Transformation with Applications to Structural Equation Modelling. *British Journal of Mathematical and Statistical Psychology*, 53, 31– 50.

ZAID, A. A., Jaaron, A. A. M., Bon, A. T. (2018). The Impact of Green Human Resource Management and Green Supply Chain Management Practices on Sustainable Performance: An Empirical Study. *Journal of Cleaner Production*, 204. https://Doi.Org/10.1016/J.Jclepro.2018.09.062

ZALAGHI, H., Mahdi Khazaei, M. (2016). The Role of Deductive and Inductive Reasoning in Accounting Research and Standard Setting. *Asian Journal of Finance & Accounting*, 8, 1. Doi:10.5296/Ajfa.V8i1.8148

ZHANG, B., Yang, L., Cheng, X., Chen, F. (2021). How Does Employee Green Behavior Impact Employee Well-Being? An Empirical Analysis. *International Journal of Environmental Research and Public Health*, 18, 1669. https://Doi.Org/10.3390/Ijerph18041669

ZHANG, X., Ma, L., Xu, B., Xu, F. (2019). How Social Media Usage Affects Employees' Job Satisfaction and Turnover Intention: An Empirical Study in China. *Information & Management*, 56. https://Doi.Org/10.1016/J.Im.2018.12.004

ZHANG, W., Sun, B., Xu, F. (2020). Promoting Green Product Development Performance via Leader Green Transformationality and Employee Green Self-Efficacy: The Moderating Role of Environmental Regulation. *International Journal of Environmental Research and Public Health*, 17, 6678. Doi:10.3390/Ijerph17186678

ZHU, J., Tang, W., Wang, H., Chen, Y. (2021). The Influence of Green Human Resource Management on Employee Green Behavior—A Study on The Mediating Effect of Environmental Belief and Green Organizational Identity. *Sustainability*, 13, 4544. https://Doi.Org/10.3390/Su13084544

ZHU, J., Tang, W., Zhang, B., Wang, H. (2022). Influence of Environmentally Specific Transformational Leadership on Employees' Green Innovation Behavior—A Moderated Mediation Model. *Sustainability*, 14, 1828. https://Doi.Org/10.3390/Su14031828

ZHU, J., Lina, N., Zhub, H., Liuc, X. (2023). Role of Sharing Economy in Energy Transition and Sustainable Economic Development in China. *Journal of Innovation & Knowledge*, 8, 100314. https://Doi.Org/10.1016/J.Jik.2023.100314

ZHUANG, M-E., Pan, W-T. (2022). Data Modelling in Human Resource Management: Influencing Factors of Employees' Job Satisfaction. *Hindawi Mathematical Problems in Engineering*. https://Doi.Org/10.1155/2022/3588822

ZYPHUR, M. J., Pierides, D. C. (2019). Making Quantitative Research Work: From Positivist Dogma to Actual Social Scientific Inquiry. *Journal of Business Ethics*. https://Doi.Org/10.1007/S10551-019-04189-6

A2. LIST OF AUTHOR'S PUBLICATIONS

This section presents the author's publications in academic journals and conferences. Additionally, the last subsection details peer-review activities in academic journals that the author has completed. These publications and peer-reviewed activities can be accessed through the author's Scopus ID (57223928414) at https://www.scopus.com/authid/detail.uri?authorId=57223928414, Orcid ID (0000-0002-0874-1175) at https://orcid.org/0000-0002-0874-1175, and the author's Google Scholar profile at https://scholar.google.com/citations?user=qwhQAagAAAAJ&hl=en.

1. Publication in foreign language

Scientific journal article in English:

1. Cahyadi, A. (2015). The Causal Relationship of Business Innovation Training and Development, and Job Satisfaction of SME Manufacturing in Palembang. *Journal of Economics, Business, & Accountancy Ventura*, 18, 1. http://dx.doi.org/10.14414/jebav.v18i1.384
2. Cahyadi, A., Magda, R. (2021). Digital Leadership in the Economies of the G20 Countries: A Secondary Research. *Economies*, 9, 32. https://doi.org/doi:10.3390/economies9010032 (Scopus Q2)
3. Cahyadi, A., Natalisa, D., Poór, J., Perizade, B., Szabó, K. (2022). Predicting the Relationship between Green Transformational Leadership, Green Human Resource Management Practices, and Employees' Green Behavior. *Administrative Sciences*, 13, 5. https://doi.org/10.3390/admsci13010005 (Scopus Q2)
4. Cahyadi, A., Poór, J., Szabó, K. (2022). Pursuing Consultant Performance: The Roles of Sustainable Leadership Styles, Sustainable Human Resource Management Practices, and Consultant Job Satisfaction. *Sustainability*, 14, 3967. https://doi.org/10.3390/su14073967 (Scopus Q1)
5. Cahyadi, A., Taufiq, M., Hágen, I., Siraj, M. N., Santati, P., Poór, J., Szabó, K. (2022). Leadership Styles, High-Involvement Human Resource Management Practices, and Individual Employee Performance in Small and Medium Enterprises in the Digital Era. *Economies*, 10, 162. https://doi.org/10.3390/economies10070162 (Scopus Q2)

6. Siraj, N., Hágen, I., Cahyadi, A., Tangl, A., Desalegn, G. (2022). Linking Leadership to Employees Performance: The Mediating Role of Human Resource Management. *Economies*, 10, 111. https://doi.org/10.3390/economies10050111 (Scopus Q2)

2. Publication in Indonesian language

Scientific journal article in Indonesian:

1. Ariska, Y., Zunaidah, Cahyadi, A. (2015). The Effect of Training & Development and Motivation on Job Satisfaction in Micro and Small-Sized Enterprises Managers in Plaju Ulu Village. *Jembatan: Jurnal Ilmiah Manajemen*, 12, 1, 23-32.
2. Damayanti, R., Hanafi, A., Cahyadi, A. (2018). Pengaruh Kepuasan Kerja terhadap Kinerja Karyawan (Studi Kasus Karyawan Non Medis RS Islam Siti Khadijah Palembang). *Jembatan - Jurnal Ilmiah Manajemen Bisnis dan Terapan*, 15, 2. https://doi.org/10.29259/jmbt.v15i2.6655
3. Dewi, C., Zunaidah, Cahyadi, A. (2019). Pengaruh Lingkungan Kerja Fisik Terhadap Disiplin Kerja Guru Formal Madrasah Tsanawyah Bina Bangsa di Pondok Pesantren Al-Falah Desa Suka Maju Kecamatan Sungai Lilin. *Jembatan - Jurnal Ilmiah Manajemen*, 16, 1. https://doi.org/10.29259/jmbt.v16i1.9258
4. Muliawan, Y., Perizade, B., Cahyadi, A. (2017). Pengaruh Keterikatan Karyawan (Employee Engagement) terhadap Kinerja Karyawan di Pt. Badja Baru Palembang. *Jurnal Ilmiah Manajemen Bisnis dan Terapan*, 2. https://doi.org/10.29259/jmbt.v14i2.5293
5. Umrie, R. H. S., Yuliani, Cahyadi, A. (2011). Analisis Kebijakan Dividen dan Kebijakan Hutang terhadap Nilai Perusahaan Go Publik di Indonesia. *Jurnal Manajemen dan Bisnis Sriwijaya*, 9, 17. https://doi.org/10.29259/jmbs.v9i17.7861
6. Siregar, M. I., Cahyadi, A., Igamo, A. M., Nurdiawansyah, M., Saggaf, A. (2022). Analisis Kinerja Keuangan Badan Usaha Milik Negara (Bumn) Se-Kota Palembang. *Owner: Riset dan Jurnal Akuntansi*, 6, 3. Doi: 10.33395/owner.v6i3.996
7. Wahyuningsih, G., Hanafi, A., Cahyadi, A. (2016). Pengaruh Kompetensi terhadap Kinerja Pengusaha Usaha Mikro Kecil (Umk) Batik Jambi di Wilayah Seberang Kota Jambi. *Jurnal Ilmiah Manajemen Bisnis dan Terapan*, 6, 1. https://doi.org/10.29259/jmbt.v13i1.4020

8. Zen, M. K., Cahyadi, A. (2013). Analisis Kepuasan Kerja Karyawan Divisi SDM PT Pusri (Persero) Palembang. *Jembatan - Jurnal Ilmiah Manajemen*, 10, 2. https://doi.org/10.29259/jmbt.v10i2.3290

3. Publication in foreign language

International conference publication:

1. Diah, Y. M., Cahyadi, A. (2020). Improving Organizational Performance through Job Satisfaction Based on Employee Empowerment. 5th Sriwijaya Economics, Accounting, and Business Conference (seabc 2019). *Advances in Economics, Business and Management Research*, 142. Doi: 10.2991/aebmr.k.200520.025
2. Hanafi, A., Wahab, Z., Cahyadi, A. (2020). Transactional Leadership and Transformational Leadership, Their Impacts on Job Satisfaction: Islamic Banking in South Sumatra. 5th Sriwijaya Economics, Accounting, and Business Conference (Seabc 2019). *Advances in Economics, Business and Management Research*, 142. Doi: 10.2991/aebmr.k.200520.023
3. Cahyadi, A., Hanafi, A., Diah, Y. M. (2020). Organizational Learning Culture Through Job Satisfaction Based on Servant Leadership and Transcendental Leadership. 5th Sriwijaya Economics, Accounting, and Business Conference (Seabc 2019). *Advances in Economics, Business and Management Research*, 142. Doi: 10.2991/aebmr.k.200520.024

4. Other research activities

Journal peer review:

2022:

1. 1 article in Administrative Sciences, MDPI (Scopus Q2).
2. 2 articles in Sustainability, MDPI (Scopus Q1).

2023:

1. 5 articles in Administrative Sciences, MDPI (Scopus Q2).
2. 6 articles in Sustainability, MDPI (Scopus Q1).
3. 2 articles in Economies, MDPI (Scopus Q2).
4. 2 articles in International Journal of Environmental Research and Public Health, MDPI (Scopus Q1).

5. 1 article in Journal of Environmental Planning and Management, Taylor & Francis (Scopus Q1).

A3. QUESTIONNAIRES

Dear Sir and Madam,

I kindly request your assistance in inviting employees from small and medium-sized enterprises (SMEs) in South Sumatra, Indonesia, to voluntarily participate in completing this research questionnaire. The aim of this survey is to gather data for my doctoral dissertation in the field of human resource management. Your genuine responses are greatly appreciated.

Below is some pertinent information:

1. This survey is being conducted from March to April 2023.
2. The estimated time for completing the questionnaire is approximately 5 minutes.
3. Please be assured that your name and any other personal identification details are not mandatory.

Researcher:

Afriyadi Cahyadi

(Doctoral student, Doctoral School of Economic and Regional Sciences, MATE, Godollo, Hungary).

Contact:

081379758800 (WA); afriy2020@gmail.com (Email).

Please tick the available answer choices for the 4 questions in Table 1.

Table 2. Profile of respondents

No	Demographics	Response
1	Gender	❑ Female ❑ Male
2	Age (years)	❑ 17-20 ❑ 21-30 ❑ 31-40 ❑ 41-50 ❑ > 50
3	Education	❑ Elementary school ❑ Junior high school ❑ Senior high school ❑ Pre-Bachelor academy ❑ Bachelor studies ❑ Master studies
4	Job tenure (years)	❑ < 1 ❑ 1-5 ❑ 6-10 ❑ 11-15 ❑ >15

Please fill in and tick the available answer choices for the 3 questions in Table 2.

Table 2. Profile of SMEs

No	Demographics	Response
1	Type of business	….. ….. ….. ….. ….. ….. ….. ….. …..
2	Location of business operations	….. ….. ….. ….. ….. ….. ….. ….. …..
3	Number of employees	❑ 5-19 ❑ 20-99

Please tick the available answer choices for the 6 questions in Table 3.

Table 3. Green transformational leadership

No	Item	Response (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	My leader inspires me with the environmental plans.							
2	My leader provides me a clear environmental vision for the project members to follow.							
3	My leader gets me to work together for the same environmental goals.							
4	My leader encourages the project members to achieve the environmental goals.							
5	My leader encourages the project members to achieve the environmental goals.							
6	My leader acts with considering environmental beliefs of me.							

Please check the available answer choices for the 6 questions in Table 4.

Table 4. Green human resource management practices

No	Item	Response (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	My company sets green goals for me.							
2	My company provides me with green training to promote green values.							

3	My company provides me with green training to develop employees' knowledge and skills required for green management.							
4	My company considers my workplace green behavior in performance appraisals.							
5	My company relates my workplace green behaviors to rewards and compensation.							
6	My company considers my workplace green behaviors in promotion.							

Please check the available answer choices for the 7 questions in Table 5.

Table 5. Employee green behavior

No	**Item**	**Response** (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	I print double sided whenever possible.							
2	I put compostable items in the compost bins.							
3	I put recyclable material (e.g., cans, paper, bottles, batteries) in the recycling bins.							

4	I bring reusable eating utensils to work (e.g., travel coffee mug, water bottle, reusable containers, reusable cutlery).							
5	I turn lights off when not in use.							
6	I take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day).							
7	I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.							

Please check the one correct answer option for the 5 questions in Table 6.

Table 6. Employee technology adaptation

No	**Item**	**Response** (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	I have skillfully used the tools and applications the new technology provides.							
2	I have quickly become familiar with the new technology.							
3	I have easiness to adjust myself to the new technology introduced in my organization.							

4	I have accurately managed all the facilities the new technology provides.							
5	I consider myself a frequent user of my organization's technology.							

Please check the available answer choices for the question in Table 7.

Table 7. Employee job satisfaction

No	**Item**	**Response** (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	Overall, I am satisfied with my present job.							

Please check the available answer choices for the 4 questions in Table 8.

Table 8. Employee performance

No	**Item**	**Response** (TD: Totally disagree, D: Disagree, QD: Quite disagree, N: Neutral, QA: Quite agree, A: Agree, TA: Totally agree)						
		TD	**D**	**QD**	**N**	**QA**	**A**	**TA**
1	I have a quality performance at work.							
2	I have high productivity at work.							
3	My colleagues perform better at work than I do at the same job.							
4	I perform better at work than my colleagues do at work at the same job.							

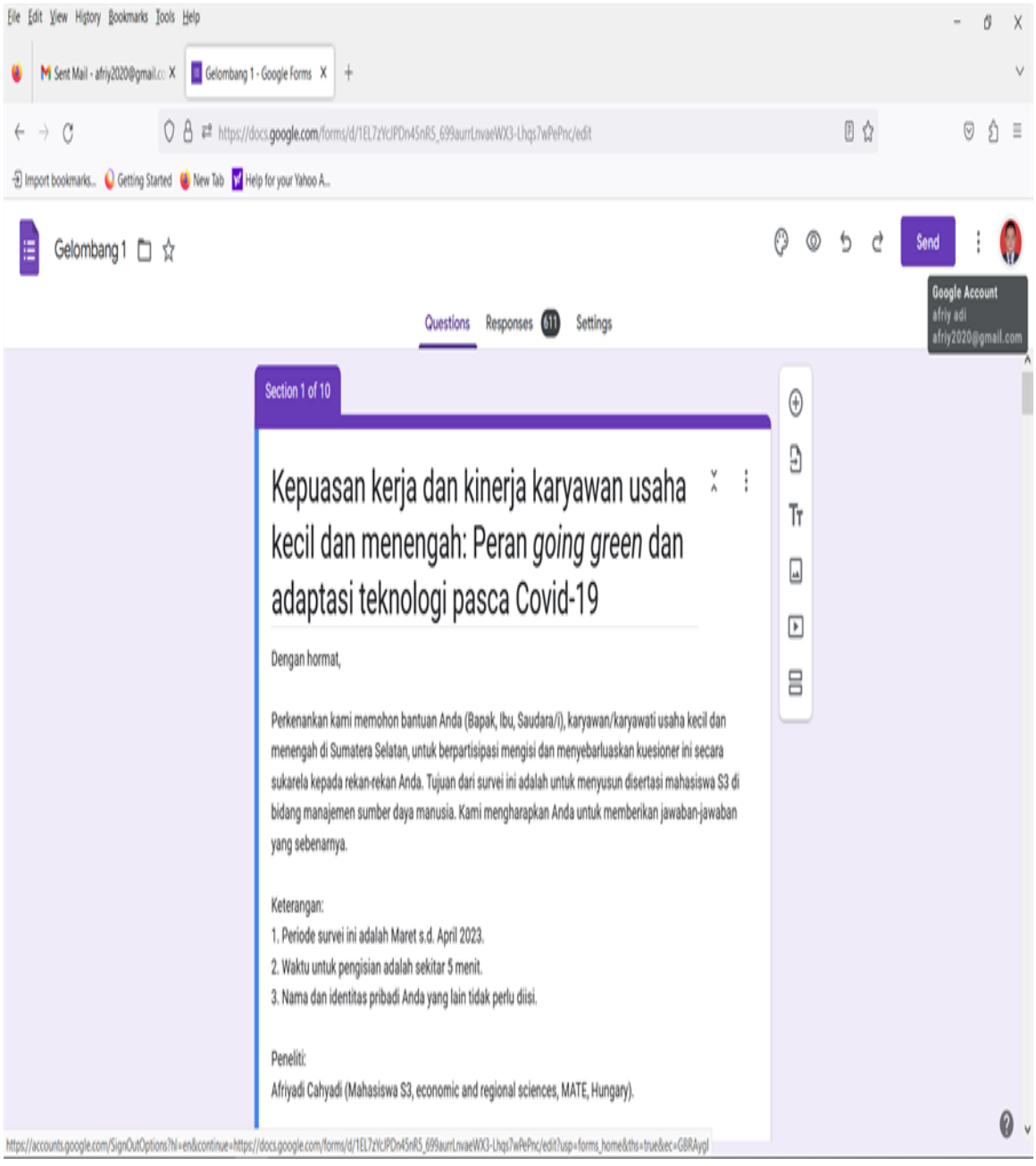
Please check the available answer choices for the 4 questions in Table 9.

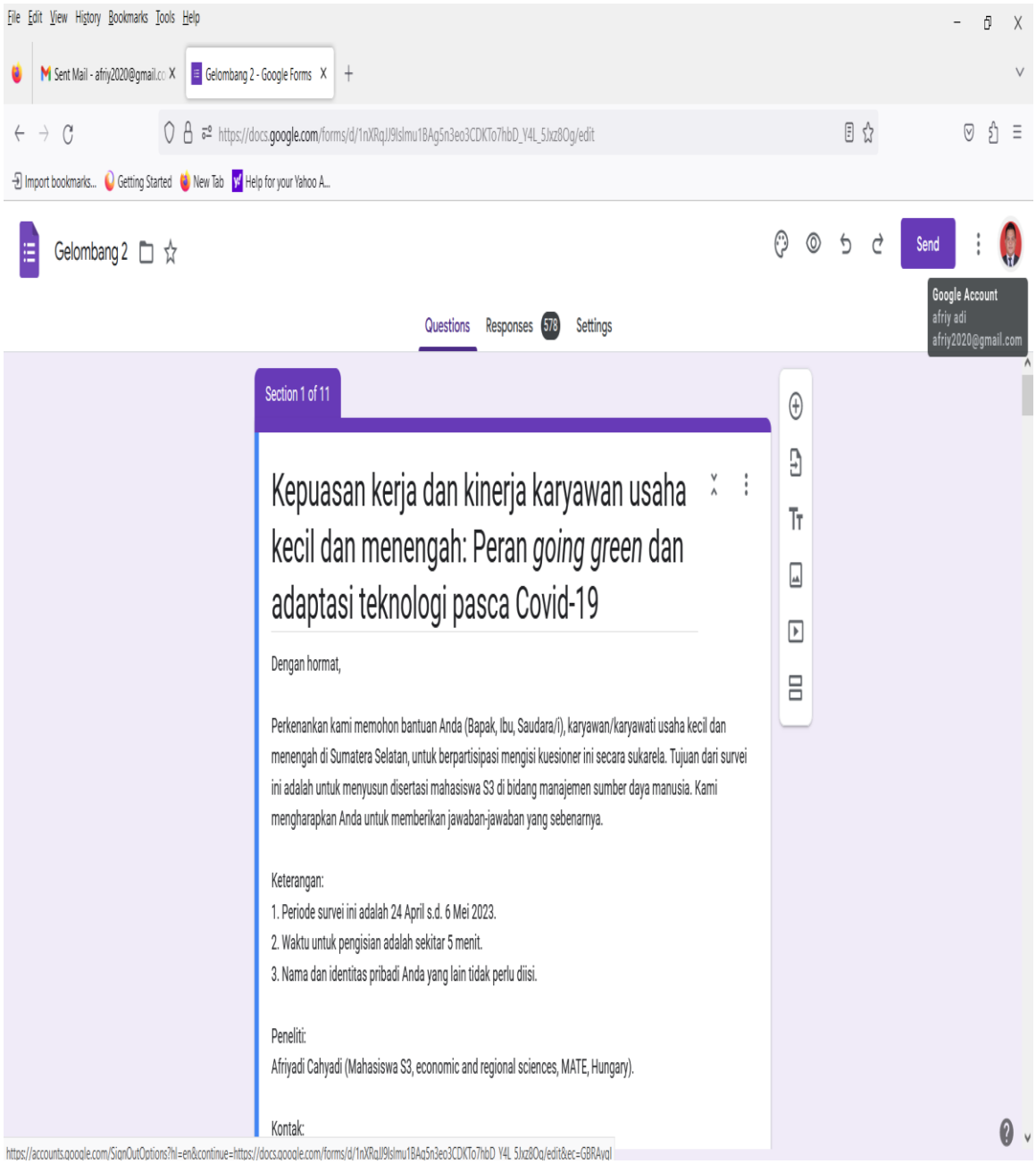
Table 9. Respondent's consent

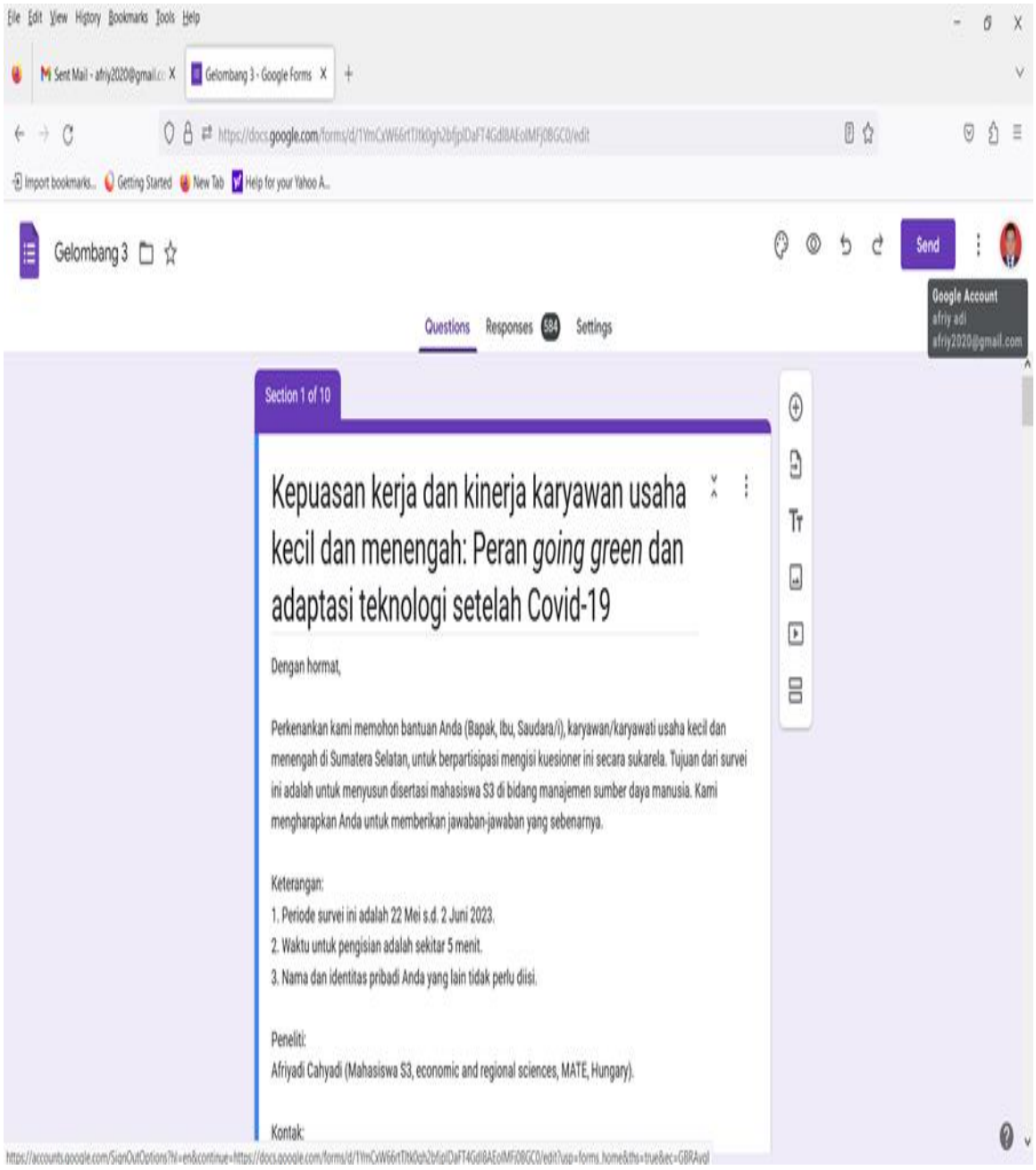
No	Consent	Response	
		Yes	No
1	I have understood the purpose and topic of this research questionnaire well.		
2	I work as an employee of small and medium enterprises in South Sumatra.		
3	I have given all correct answers and based on my own opinion.		
4	I agree that this research will be useful for the development of small and medium enterprises in the future.		

Thank you very much for your participation.

A4. QUESTIONNAIRE IN GOOGLE FORM




File Edit View History Bookmarks Tools Help
Sent Mail - afriy2020@gmail.co
Gelombang 2 - Google Forms
https://docs.google.com/forms/d/1nXRqJJ9lslmu1BAg5n3eo3CDKTo7hbD_Y4L_5Jxz8Og/edit
Import bookmarks... Getting Started New Tab Help for your Yahoo A...
Gelombang 2
Send
Google Account
afriy adi
afriy2020@gmail.com
Questions
Responses 578
Settings
Section 1 of 11
Kepuasan kerja dan kinerja karyawan usaha kecil dan menengah: Peran going green dan adaptasi teknologi pasca Covid-19
Dengan hormat,
Perkenankan kami memohon bantuan Anda (Bapak, Ibu, Saudara/i), karyawan/karyawati usaha kecil dan menengah di Sumatera Selatan, untuk berpartisipasi mengisi kuesioner ini secara sukarela. Tujuan dari survei ini adalah untuk menyusun disertasi mahasiswa S3 di bidang manajemen sumber daya manusia. Kami mengharapkan Anda untuk memberikan jawaban-jawaban yang sebenarnya.
Keterangan:
1. Periode survei ini adalah 24 April s.d. 6 Mei 2023.
2. Waktu untuk pengisian adalah sekitar 5 menit.
3. Nama dan identitas pribadi Anda yang lain tidak perlu diisi.
Peneliti:
Afriyadi Cahyadi (Mahasiswa S3, economic and regional sciences, MATE, Hungary).
Kontak:
https://accounts.google.com/SignOutOptions?hl=en&continue=https://docs.google.com/forms/d/1nXRqJJ9lslmu1BAg5n3eo3CDKTo7hbD_Y4L_5Jxz8Og/edit&ec=GBRAyg


File Edit View History Bookmarks Tools Help
Sent Mail - afriy2020@gmail.co
Gelombang 3 - Google Forms
https://docs.google.com/forms/d/1YmCxW66rTJtk0gh2bfjpIDaFT4GdI8AEoIMFj0BGC0/edit
Import bookmarks... Getting Started New Tab Help for your Yahoo A...
Gelombang 3
Send
Google Account
afriy adi
afriy2020@gmail.com
Questions
Responses 584
Settings
Section 1 of 10
Kepuasan kerja dan kinerja karyawan usaha kecil dan menengah: Peran going green dan adaptasi teknologi setelah Covid-19
Dengan hormat,
Perkenankan kami memohon bantuan Anda (Bapak, Ibu, Saudara/i), karyawan/karyawati usaha kecil dan menengah di Sumatera Selatan, untuk berpartisipasi mengisi kuesioner ini secara sukarela. Tujuan dari survei ini adalah untuk menyusun disertasi mahasiswa S3 di bidang manajemen sumber daya manusia. Kami mengharapkan Anda untuk memberikan jawaban-jawaban yang sebenarnya.
Keterangan:
1. Periode survei ini adalah 22 Mei s.d. 2 Juni 2023.
2. Waktu untuk pengisian adalah sekitar 5 menit.
3. Nama dan identitas pribadi Anda yang lain tidak perlu diisi.
Peneliti:
Afriyadi Cahyadi (Mahasiswa S3, economic and regional sciences, MATE, Hungary).
Kontak: