# **Ulos Sustainability Towards Green Brands to Improve Marketing Performance Based on a Co-Creation Solution**

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### **ABSTRACT**

The purpose of this research is to produce ulos revitalization and create added value for the green sustainability of ulos production, oriented branding and its marketing so as to increase the life force of weavers and micro-entrepreneurs. Respondents are weavers and training entrepreneurs of ulos, retailers with a total of 316 people engaged in the production and service of Ulos production. Data collection was conducted by survey methods and questionnaires with statements used on a scale of 1-10. Data processing results with SEM AMOS show that green sustainability of Ulos oriented branding (GSB) proved unable to mediate between Product Innovation (PDI), Process Innovation (PCI) and Marketing Performance (MPF). In other words, green sustainability does not directly prove an improvement in marketing performance. GSG shows that it is able to improve Order Management (OMG). The process emphasizes on the relevance of green sustainability, it can be seen that PDI and PCI are proven to improve GSB. Sustainability of green branding can only be achieved when there is product and process innovation. SDL demonstrates the need for the development of new service innovations by investigating the prerequisites and general principles for developing sustainability. Dominant logic treats services as a category of market offerings to be developed and managed like ulos products. The concept of service design has been developed referring to a subset of "green" processes associated with rendering activities to define a concept, structure, or service infrastructure. This research invites ulos observers to understand the values of Ulos authenticity and its culture in sustainable entrepreneurship, inviting weavers and entrepreneurs to have prosocial motives that influence their interest in sustainable ulos entrepreneurship and the role of academia in promoting sustainable entrepreneurial practices.

Keywords: branding, green industry, innovation, sustainability, supplier, ulos

### A. INTRODUCTION

The innovation of Batak community woven fabric processes and products without eliminating the cultural values and character of ulos is a strong reason why research on the sustainability of green-oriented ulos woven fabric needs to be done. The focus of innovation is on revitalization activities based on value-added solutions (Plouffe, et al., 2019). Solutions as a combination of internal and external "elements" of entrepreneurs, consisting of product and service parts based on knowledge, experience and implementation of ideas so that cooperation

in sustainability revitalization (Bagdonienė & Valkauskienė, 2018), (Davey, et al., 2017), (Ribeiro, et al., 2019).

This solution value creation activity generates service value for the company to create a conditional environment. Green sustainability co-creation value can be a micro-level construct that is an individual (or personal) value and can be at the macro level where it is a collective (or public) value (Adebajo, 2018). Public sector producers tend to ensure more than just individual value, as they believe that the creation of shared values will be good, i.e., value can be created together with co-producers or co-creators to end users (Ballantyne & Varey, 2018). Co-creation of green-oriented ulos woven fabric sustainability in Service Dominant Logic (SDL) marketing results in innovation and innovation enhancing marketing performance (Hsu, 2017). Some researchers have previously stated that the better the innovation capabilities in the industry (food, manufacturing, services, textiles) are related to the better the performance of marketing (Jaaffar, Baharom, Ali, & Zaini, 2018; Jajja, Kannan, Brah, & Hassan, 2017). But in some studies, on similar industrial objects say that there is not always a relationship of innovation ability to marketing performance (Pino, Felzensztein, Zwerg-Villegas, & Arias-Bolzmann, 2016; Zhang, Wang, Zhao, & Zhang, 2017). With the gaps in previous research, it needs to be tested when mediated by new variables and tested on the ulos cloth industry (Thomas, 2018), (Huang, Yao & Chen, 2019). The study raised the ulos fabric industry, in addition to previous research gaps, as well as concerns for weavers whose work was not given a fair value.

This study adds the Green Sustainability of Ulos Oriented Branding variable in hopes of being able to answer the gap. The SDL perspective has the potential to improve service performance (Westrup, 2018). SDL answers exactly how service value creation can be improved for the better, with the idea of combining dimension co-production and co-creation (Copans, 2020), (Mary & Michiel, 2017; Rossi, Rosli & Yip, 2017). SDL focuses on value creation judging from a holistic approach and illustrates how value and resource providers are integrated into service systems (Kostas & Paraskevi, 2017), (Oertzen et al., 2018), (Ng & Vargo, 2018). Entrepreneurs with weavers need to proactively co-create processes as product and service adjustments with the current industry although on the other hand there are cultural values maintained (Kun-Huang, et al., 2018) and service orientation that was initially emphasized on tangible products, should be extended to intangible services (Davey et al., 2017; Kun-Huang et al., 2018).

For optimization of marketing performance emphasized the creation of green sustainability (Yang & Yan, 2020), (Ye, et al, 2020). In addition, SDL axioms emphasize that all value providers are those who are able to integrate and communicate various values as a service phenomenon to users (Ng & Vargo, 2018). SDL has illustrated that co-creation innovation changed the focus of understanding from transactional to relational (Lindhult, et al., 2018), (Ballantyne & Varey, 2018). This shows that the idea of SDL further strengthens the green continued production of Ulo as a producer of added value to package skills and knowledge as competitive advantages of ulos production, synchronizing with the creation of product and service value in accordance with the principles of conformity of Batak and human cultural environment; so that the nature of the organization, market and society has a reciprocal relationship; Products from organizations, markets and communities are services, with the concept of value, namely co-creation process green sustainability and brand value (Vargo, 2018), (Ballantyne & Varey, 2018), (Swaminathan, et al., 2020). The purpose of this research is to revitalize Ulos fabric and create added value for the green sustainability of ulos production and it's marketing so as to increase the life force of weavers and micro-entrepreneurs.

#### **B.** LITERATURE REVIEW

#### **Product and Process Innovation**

Innovation is a device or method of the creativity of one's imagination (Pilon, 2020). Innovation as an action is a process of updating ideas and ways of creating products or services (Mansur, et al., 2019), while innovation as an external is a service designed to provide significant benefits to individuals, groups, organizations, or regions where service characteristics provide satisfaction for consumers (Khan, 2020). The dynamic ability to create new products and processes is a condition of competitive excellence (Baruk & Goliszek, 2019). Innovation is generally very concerned with the use of new ways, by entrepreneurs, both from individual entrepreneurs, families, groups and industries. In the organization of the innovation industry is known by strategic management decisions (Lewnes & Keller, 2019). Microentrepreneurs control the innovation process, but ideas for innovation come from all parts of the organization and from the company's external network.

The ability of innovation depends on the characteristics and creativity of entrepreneurs with weavers in creating business platforms and together how they are able to invite people to build the added value of a service, such as a "green branding orientation" platform. As sought by entrepreneur by inviting weavers to keep working while providing raw materials yarn with

good quality. Not only does it train weaver regeneration, but it also strives for the best yarn material. Green innovation is of course more complex than other innovation creativity. Green innovation requires the firmness of entrepreneurs to determine cooperation partners with units or companies or other parties, supply chains, human resources and other resources (Guo, Wang, & Chen, 2020). Green product innovation aims to reduce environmental impact during the new ulos product cycle process. Green product innovation is also one of the key factors in achieving growth and environmental sustainability; strengthen the company's green image, and improve the financial performance of weavers (Xie, Huo & Zou, 2019), (Wu & Cheng, 2019), (Sharma & Kushwaha, 2019). Green process innovation can help entrepreneur achieve success in producing new ulos products with its branding and develop a competitive advantage. Process innovation can help entrepreneur improve the quality of their products, multiply product types, or generate unique ulos with ATBM, thus enabling them to increase market share (Xie et al., 2019). Based on the description above, the hypotheses proposed are as follows:

H<sub>1</sub>: Product Innovation has a positive influence on Green Sustainability of Ulos Oriented Branding

H<sub>2</sub>: Process Innovation has a positive influence on Green Sustainability of Ulos Oriented Branding

# Green Sustainability of Ulos Oriented Branding and Supplier Selection

The term "green" is "a set of brand perceptions in the minds of consumers related to commitment and concern for environmental sustainability" (Xie et al., 2019). Green business does not occur in a moment, but the beginning of a process to sustainability (Masele, 2019). According to Larson and Kinsey (2019) companies that ignore green business processes will lose market share. The "green branding" is expected to affect production, manufacturing, distribution and retail. Businesses will go towards a "greentailing" focus (e.g., retailers promoting their pro-environment activities) will increase rapidly and customers will be vying for green products). The demand for green products is getting here more and more, a number of consumers are ready to buy green products at higher prices. Consumers are motivated by many companies to buy their products because they offer environmentally friendly products. This is done as a responsibility and need to protect the earth's resources (Khandelwal, Kulshreshtha & Tripathi, 2019).

Sustainability development is on the agenda of the majority of countries in the world, including economic growth activities, social justice, and environmental protection. One way to

ensure sustainable green production and consumption and ultimately sustainable development is for businesses to have a sustainable marketing orientation with green branding. SDL views production as a process of knowledge transformation that implicitly refers to the importance of operant resources (Trischler & Charles, 2019) This is also a strong reason for entrepreneur to take part in the success of sustainable development. "Green marketing, also often called sustainable marketing" Eco-friendly marketing is one of the most important focus areas for companies and communities especially in this era of sustainable development. "Green marketing is the marketing or promotion of products based on environmental conservation values, values and culture" (Fatoki, 2019).

Service dominant literature (SDL) supports the efforts of industrial companies to conduct industrial processes by initiating added value and production value (co-creation-co production) such as creating product added value while still supporting environmental conservation (Wilden, et al., 2018). Green branding with the strategy of choosing yarn suppliers and natural dyes, creating the unique value of the product with the development of olus motifs. In realizing the marketing of green products ulos established. Ulos raw materials, such as yarn and dyes are made from environmentally friendly raw materials, with natural dyes (Green logistics performance), intention to behave, Environmental Awareness, ulos Weaving Training Center, Preservation of traditional woven ulos values. Weaver training is also part of human resource harvesting in ulos production.

Selection of suppliers of raw materials and human resources as production's strategy to manage and develop the value chain of the ulos industry effectively and efficiently. Ulos production chain is guaranteed with environmentally friendly features (Okwu & Tartibu, 2020), (Yu & Huo, 2019). The exterior of ulos green sustainability development in the end to achieve marketing performance The company's ability to 1. identify the company's resources and acquisition, implementation, and development with environmental and cultural sustainability principles 2. evaluate the marketing position of ulos fabric in the market and design marketing strategies; and 3. Managing financial and non-financial results (such as weavers are highly paid based on their work) as a manifestation of the competitiveness of the market (Q. Zhang, et al., 2019). Marketing performance has an important role in the company, as a tool used by management to assess and evaluate the effectiveness and return of marketing activities (Gama, 2011). Market share and sales value can be used to demonstrate marketing performance (Ferdinand & Killa, 2014). Or in Nuryakin and Ardyan Language (2018) relational capital and

the ability to enter the market as a form of marketing performance. Sustainable capabilities can be expressed as solutions in developing the market (Saul & Gebauer, 2018).

The development of ulos production cannot be separated from Ulos Batak's efforts to revitalize traditional ulos and create value according to customer needs (Hsu, 2017), while still emphasizing the quality supply chain (Saorín-Iborra & Cubillo, 2019). The ability to develop revitalization of ulos is in line with the ability of co-production and order management. Order management is one of the business model strategies (Wilden et al., 2018), (Spieth, Roeth, & Meissner, 2019) towards economic performance, environment performance and social performance (Thanh-Lam, 2019). Cocreation dynamics, in addition to how to maintain an interaction between entrepreneur and customer (Hsu, 2016), as well as how to create stabilization and acquisition to achieve global marketing. Borrowing the term (Snowdon, DeForge &Olla, 2017) by referring to cocreation as "innovation acquisition". Ulos batak's service dynamics are realized when companies are not looking for value but creating value to meet customer needs (Whalen &Akaka, 2015). Based on the description above, the hypotheses proposed are as follows:

H<sub>3</sub>: Green Sustainability of Ulos Oriented Branding shows a positive influence on the desire to conduct Supplier Selection.

H<sub>4</sub>: Green Sustainability of Ulos Oriented Branding shows positive influence on Marketing Performance.

H<sub>5</sub>: Green Sustainability of Ulos Oriented Branding shows positive influence on Order Management.

# **Supplier Selection, Order Management and Marketing Performance**

The selection of suppliers (resources; dye threads, ATBM and HR: Weavers) to the management of product distribution/ sales orders requires instruments to obtain the best analytical results. One uses the Stochastic Multicriteria Acceptability Analysis (SMAA) instrument, SMAA is considered one of the most effective intrusions in holistic supplier selection decision making (Q. Zhang et al., 2019). SMAA instruments will help value providers for the selection of green quality supplies, with standards specified by value providers to ensure the best processes, for example no chemical waste, no noise, no harm to weavers and even higher prices (H. Zhang &Cui, 2019). At the same time this method provides motivation about the need for environmental awareness as the responsibility of all parties, both industry

managers and consumers. Environmental awareness makes everyone truly have an attitude for the good of the environment, nature and people (Yu &Huo, 2019).

The selection of suppliers, requires entrepreneurs to foster long-term relationships with vendors, as well as against consumers. As such, it is important to outperform competitors including the production of other woven fabrics, in Ulos Oriented Branding efforts to build lasting relational exchanges with suppliers and buyers (Paparoidamis, et al., 2019). Supplier selection includes paying attention to technical matters such as willingness to share information, willingness for rapid coordination, flexible contracts, willingness to plan together in delivery schedules, ability for continuous improvement. Thus, order management provides access to order tracking, access to inventory levels, ordering systems are directly connected with suppliers, suppliers have long-term stock and manage the distribution of ulos products well. Ulos Oriented Branding success towards the sustainability of marketing and sustainability of traditional ulos oriented to green branding and lifted it to the global market, cannot be separated from the creativity of innovating products and processes, in realizing the revitalization of ulos, lifting the image of ulos weavers, and ulos is also known worldwide (Yao, Huang, & Li, 2019), (Cheng, 2018). Based on the description above, the hypotheses proposed are as follows:

H<sub>6</sub>: Supplier Selection shows positive influence on Order Management.

H<sub>7</sub>: Order Management shows a positive influence on Marketing Performance.

Table 1. Respondent Profile

Characteristics	Frequency	(%)
Gender		
Male	98	31,01
Female	218	68,99
Age		
23-35	24	7,59
36-45	64	20,25
46-55	119	37,66
56-65	67	21,20
Over 66	42	13,29
Education		
Basic Education	274	86,71
College	36	11,39
Bachelor	6	1,90
Role on business		
Independent Weaver	88	27,85
Weaver entrepreneur	73	23,10
Retailer	155	49,05

Source: primary data processed, 2022

Table 2. Variables and Indicators

Variable	Ident	Measured Item	Reference
Product	PDI1	We are revitalizing Ulos products.	(Zhang et al.,
Innovation	PDI2	We follow the latest ulos product trends	2017)
	PDI3	We often introduce new products that are different from	
		other productions.	
	PDI4	We have a new blend of Ulos motifs	
	PDI5	We have a variety of new motif variants Ulos	
	PDI6	We have a unique color range of Ulos products	
Process	PCI1	We learned more about the latest process.	(Zhang et al.,
Innovation	PCI2	We are the first to implement the process of revitalizing	2017)
		Ulos products	·
	PCI3	We are keeping up with the latest process developments.	
	PCI4	We introduce a different process.	
	PCI5	We rely on the latest process	
Green	GSB1	We minimize the impact on natural systems	Nathaniel D.
Sustainability	GSB2	We choose to use natural color	Line Lydia
of Ulos	GSB3	We place the principle of welfare for weavers	Hanks, 2018
Oriented	GSB4	We place the principle of well-being for consumers.	
Branding	GSB5	We respect the culture.	
	GSB6	We preserve cultural heritage.	
	GSB7	We choose logistics and green facilities.	
	GSB8	We maintain environmental sustainability.	
	GSB9	We prioritize the preservation of traditional ulos weaving	
	002)	values	
Supplier	SPS1	We are willing to share information	(Othman, Abd
Selection	SPS2	We are willing to coordinate forecasting of raw materials	Rahman,
	SPS3	We coordinate the procurement process of raw materials.	Sundram, &
	SPS4	We are flexible in discussions.	Bhatti, 2015)
	SPS5	We plan together in the delivery schedule	
	SPS6	We make continuous repairs.	
Order	OMG1	We have access to order tracking	(Othman et al.
Management	OMG2	We have access to inventory levels	2015)
	OMG3	We have a booking system connecting departments	,
	OMG4	We have an ordering system connected with suppliers	
	OMG5	We ensure suppliers provide ingredients continuously	
Marketing	MPF1	We receive total sales of products and services	(Zhang, Wang
Performance	MPF2	We earned a profit	Zhao, &
2 3110111141100	MPF3	We guarantee market share growth	Zhang, 2017)
	MPF4	We have a value proposition.	
	MPF5	We value social and community.	
		•	
	MPF6	We are expanding our market reach.	

Source: primary data processed, 2022

# C. RESEARCH METHOD

Respondents are weavers (self-living weavers/living in their own homes and ulos training entrepreneurs), retailers engaged in Ulos fabric production and services. It consists of 316 respondents, with the following profiles shown in table 1.

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Respondents were selected based on area (Marais et al., 2009) (Ulos Toba production) living in Toba, Samosir, North Tapanuli and Humbanghasundutan districts specifically for weavers and trainers. Other respondents such as retailers or MSME entrepreneurs Ulos are those who have a network with weavers in the area. Data collection was conducted by survey method directly to weavers by using questionnaires as a medium of assistance. At the time of the survey obtained data of entrepreneurs who have relationships with weavers, so that the entrepreneur is followed up as a respondent. The statements in this questionnaire are made using a scale of 1-10 that serve as indicators of each variable as shown in table 2.

#### D. RESULTS AND DISCUSSION

Following up on the research model with the management of questionnaire results data, it was obtained that the green sustainability of Ulos Oriented Branding (GSB) mediation variable proved unable to mediate between Product Innovation (PDI), Process Innovation (PCI) and Marketing Performance (MPF). In other words, green sustainability does not directly prove an improvement in marketing performance. It takes adjustment time and other stages that can be researched at a later date, as shown the results of the processing model below.

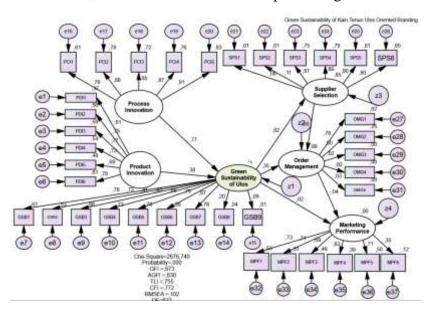


Figure 1. Equation Modelling

Based on the results of data processing above, the action of product innovation and the process of weavers and Ulos business people can motivate individuals to show an emphasis that benefits the environment. Process innovation as a change in the attitude of Ulos stakeholders on the principle of greening. The green sustainability process aims to encourage

weavers to choose green materials such as natural dyes, machineless weaving that conserves resources, influences others, takes initiative and avoids the extinction of Ulos in accordance with its authenticity values. The process emphasizes on the relevance of green sustainability, it is seen that PDI and PCI are proven to improve GSB. Sustainability of green branding can only be achieved when there is product and process innovation or H<sub>1</sub> and H<sub>2</sub> proved significant in improving GSB.

Table 3. Measurement Model

			Estimate	S.E.	C.R.	P	Assessment
GSB	<	PDI	0.329	0.038	8.757	***	Supported
GSB	<	PCI	0.750	0.053	14.110	***	Supported
SPS	<	GSB	0.057	0.039	1.463	0.144	Rejected
OMG	<	GSB	0.331	0.140	2.357	0.018	Supported
OMG	<	SPS	10.198	7.326	1.392	0.164	Rejected
MPF	<	GSB	0.011	0.148	0.074	0.941	Rejected
MPF	<	OMG	-0.021	0.157	-0.134	0.893	Rejected

Source: primary data processed, 2022

PDI and PCI are recommendations for micro-entrepreneurs, observers and marketers to be able to separate (groups) of stakeholders and position ulos with brands based on original values, green products and local processes. Through product and process innovation enables entrepreneurs and weavers to manage green brands and sustainability. Revitalizing ulos values while still using regional identity as shared value creation provides flexibility to create strong public support and co-created spaces, ultimately leading to a dynamic and sustainable "brand". The principle of branding as a local cluster ulos product is the result of weaver collaboration with entrepreneurs. Partnerships, groupings, supply chain innovation, organizational networks, sharing economies, and open innovation are sustainability concepts that entrepreneurs must embrace alongside weavers in order to keep a platform for green brands. Thus, weavers and entrepreneurs can create added value of the ulos brand by minimizing the impact on natural systems, using natural colors, placing the principles of well-being for weavers, welfare for consumers, respecting Batak Toba culture, preserving cultural heritage by choosing logistics and green facilities.

The next result, that GSG showed able to improve Order Management (OMG). It is thus answered that H<sub>5</sub> is proven. Not so GSG against SPS and MPF, where GSG is not directly able to improve supplier section and marketing performance. H<sub>3</sub> and H<sub>4</sub> show that GSG is not capable of directly increasing SPS and MPF. It is very likely to be influenced by order

management and increasingly complex fulfilment decision making and requires a sophisticated information and communication technology infrastructure. Whereas most weavers include having an education below the average basic education and a relatively old age. Thus, green sustainability still requires time to adjust to the conditions of weavers and micro-entrepreneurs. Although some entrepreneurs seem to have knowledge through the level of education but in the sustainability of the green brand Ulos requires knowledge and transformation. Suppose the need for rapid changes in green sustainability technology could conflict with the requirements of profit acceleration as raw materials will become more expensive, processes, and green adjustment principles (Davis-Sramek, et al., 2020), (Simanjuntak & Banjarnahor, 2021) including: expanding the service network to provide a wider range to weaver groups and should this be initiated by entrepreneurs or retailers who are considered more capable. adapt and initiate in creating SPS and MPF values.

The driving factors of green sustainability of conventional ulos products and processes, where green refers to aspects of environmental sustainability are human capital that have a positive effect on green and conventional innovation; financial constraints have a temporary negative effect until the product has a positive effect on green marketing performance; and corporate social responsibility and public subsidies have a positive effect on selection suppliers. In addition to identifying several different drivers for each type of quality management as the influence of public support on green sustainability innovation (Simanjuntak, Sinaga, & Simanjuntak, 2022). The sustainability model of the green ulos brand is heavily influenced by excellence, firmness of management relevance for innovation, R&D capabilities especially information and knowledge, human capital (weavers with entrepreneurs) and social responsibility (indigenous peoples). Ulos MSME which focuses primarily on practices at the product, process, and organizational levels with the main consideration of green sustainability is strategic to be able to survive, reactive, anticipatory, innovation-based, and rooted sustainability. Sustainability of ulos product can be achieved if there are the following: availability of green resources and competencies, individual value, market demand, environmental investment and economic benefits (Dambiski et al., 2021), revitalization and design activities, green purchasing capabilities, collaboration, and environmental management initiatives. These criteria are supplier collaboration and internal management initiatives for buyers when deciding on supplier selection, but they are essential to MSME's green innovation capabilities.

# E. CONCLUSION

The sustainability of the green brand is in line with the ecolabel industry, which is the official symbol. The green brand is designed to cause less environmental damage than other products in the same category. At its core, it is a system for measuring the environmental performance of producers of goods and services through energy efficiency and recycled materials. The selection of "green" brands of ulos products and service aims to guide consumer choice towards products that add value to the sustainability of nature and society. Although this does not directly impact marketing performance and supplier selection does not mean the presence of green sustainability co-create becomes neglected. This situation is likely to be controlled by various factors, such as the readiness of weaver resources to adapt to the initial concept of ulos with market needs that tend to show modifications to globalization. However, green sustainability is a strategy to identify "green" environmentally friendly products in each category needing to be improved (Kummitha & Kummitha, 2021). Green sustainability creates information symmetry between entrepreneurs, weavers and consumers. Green Sustainability creates added value through interactive information. Green sustainability is changing the behaviour of entrepreneurs and weavers by stimulating consumers to choose environmentally friendly and resource-efficient Ulos products. The application of the ulos business paradigm that revitalizes ulos with the types of raw materials and natural dyes is an in-depth situational analysis of the company's environmental aspects, markets, products, production processes and management (Dziubaniuk & Nyholm, 2021). Synergy from implementing green branding devices equipped with corporate and stakeholder social responsibility approaches builds an integrated model corpus for applying product eco-design on MSMEs Ulos.

The results of the value of the green sustainability brand ulos determine the value of cocreation that is flexible, thus, suitable, and tested to explore the production of ulos by the values of authenticity. The production of ulos by applying a value-based co-creation framework of original values illustrates the relationship of mutual creation between entrepreneurs, and weavers, as long as there is a valuescape-based agreement. These interactive relationships then result in psychological states and processes such as sensations, perceptions, images, feelings and emotions to return to previous ulos values (Sevisari & Reichenberger, 2020). Furthermore, value green scape integrates further influential dimensions into the co-creation experience. The labelled extent consists of operand and operant resources, which can be donated, managed, and utilized to influence real shared creation experiences (Mitrega, Spacil & Pfajfar, 2020). Based on socio-psychological interpretations of value co-creation, the study explored participation-

based social interactions and practices in creating sustainable fabrics from the perspective of Batak cultural observers.

SDL shows how to develop more effective services by revitalizing the production system to incorporate green branding as a commitment to processing and prioritizing ulos service values (Westrup, 2018). The need and desire for the revitalization of Ulos Toba must be followed by the leading role of weavers and entrepreneurs as essential actors in the service system for the sustainability of Ulos green products. Therefore, MSME entrepreneurs need to take the preservation of ulos values seriously and diagnose problems and develop service models to increase the creation of green sustainability value. SDL has the potential to be used as a tool for creating services (Simanjuntak & Sukresna, 2022).

The perspective of SDL theory shows the need for developing new service innovations by investigating the general prerequisites and principles for developing sustainability. Dominant logic treats services as a category of market offerings to create and manage like ulos products. SDL tends to see value as something embedded in the service offering, which is associated with the dominant logic of goods (Yu & Sangiorgi, 2017). The concept of value in traditional ulos green sustainability is incompatible with contemporary understandings of value created jointly by companies and customers and uniquely defined by customers in authentic value creation situations. It looks more difficult nowadays to return to the original product, as in the past, the ulos cloth was produced without value co-creation (Vargo & Lusch, 2004). Along with this modern concept of value, there is increasing recognition that products must focus on the customer experience (value-in-use), not just offerings (Lusch, Vargo, & Akaka, 2011). However, there is almost no holistic process model from a value co-creation perspective to guide entrepreneurs and weavers in providing service design as a potential approach to bridge the value creation of ulos authenticity by orienting green-centric processes (Ballantyne & Varey, 2008). Service design concepts have been developed referring to a subset of "green" processes associated with rendering activities to define service concepts, structures, or infrastructure.

The study findings will benefit academics, the managerial practice of MSME practitioners, and policymakers seeking to improve the sustainability and resilience of Ulos business and its cultural values.

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