Sustainable Runggu Strengthening Model: Communal Intellectual Property Protection in Ecotourism Puncak 2000 Siosar, Karo Regency

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Abstract: Runggu is a model of local wisdom of the Karo indigenous community that has an important role in the kinship system, communication and deliberation to make a decision in the Karo indigenous community. Runggu is a collection of "human living treasure" that can protect and preserve the communal intellectual property of the Karo people. Puncak 2000 Siosar has a lot of potential that can be explored by Runggu to be inventoried and recorded as communal intellectual property. The lack of communal intellectual property literacy, communal intellectual property commercialization literacy and customary communal literacy causes communal intellectual property to not be utilized economically for the development of ecotourism of the Karo community in Puncak 2000 Siosar. Even though communal intellectual property is commercialized, indigenous peoples will get fair and equitable benefits sharing that has the potential to improve the welfare of local communities. However, it takes synergy and active collaboration from various relevant stakeholders, especially from the Runggu Karo community in the Puncak 2000 Siosar Ecotourism area to make Karo communal intellectual property a regional superior product. The data analysis technique used in this research is quantitative data analysis technique using statistical methods using SmartPLS software version 4.0. The conclusion of this research is that increasing indigenous communal literacy in the context of communal intellectual property has a double effect. On the one hand, it encourages indigenous peoples to better appreciate and preserve their cultural heritage. On the other hand, this literacy also opens up opportunities for indigenous peoples to utilize their intellectual property commercially.

Keyword: Runggu, Local Wisdom, Communal Intellectual Property, Creative Economy, Tourism..

INTRODUCTION

Puncak 2000 Siosar, a mountainous area in Karo Regency, North Sumatra, has attracted tourists in recent years. Its altitude, which reaches about 2000 meters above sea level, provides unique characteristics in the form of stunning natural panoramas, cool climate, and high potential for

natural tourism development. The name "Puncak 2000" directly refers to the height of its location, which reaches about 2000 meters above sea level. Land Above the Clouds, is also an appropriate 'nickname' for Puncak 2000 Siosar. The authenticity of the natural ecosystem that is still maintained is the main attraction of the Puncak 2000 Siosar area. Extensive green hilly landscapes, dense pine forests, and fresh mountain air quality are a treat for visitors.

Figure 1. Peak 2000 Siosar, Karo Regency.

The tourism sector, such as in Puncak 2000 Siosar, has the potential to catalyze economic growth and can create a multiplier effect that stimulates the growth of other economic sectors. To increase attractiveness and market reach, it is necessary to diversify tourist attractions, such as active participation of indigenous peoples and also environmental conservation efforts. The active participation of indigenous peoples is very important in the planning, development and management of tourism objects by utilizing customary cultural heritage which is the intellectual property of local indigenous communities to become ecotourism objects.

The involvement of indigenous peoples, in this case the Runggu of Karo indigenous peoples as well as environmental conservation efforts must be carried out from the initial planning stage to the development and management of tourism objects. (Sinuhaji et al., 2021). Indigenous cultural heritage is a reflection of the social and cultural construction of a society, in which values are embedded that form a collective identity that connects the past, present and future projections of an indigenous community. In Indonesia, with its high ethnic diversity, customary communities function as complex normative frameworks, reflecting traditional values and social dynamics within an indigenous society. Ownership of cultural heritage is a manifestation of dynamic and multidimensional social relations, involving complex interactions between individuals, families and communities in the context of intergenerational transmission of cultural values. (Dewa Gede Edi Praditha & I Made Bagus Wibisana, 2024).

Economic growth has a significant positive correlation with its level of intellectual property protection. In the context of an increasingly integrated global economy, intellectual property protection is becoming increasingly crucial to drive domestic economic growth. Innovation, driven by human intelligence, knowledge, and technology, is a key factor in meeting the needs of modern society. (Sinaga, 2020). Communal Intellectual Property reflects the accumulation of knowledge, local wisdom, cultural heritage and social practices that have been passed down for generations in an indigenous community, closely intertwined with fundamental cultural

values. (Dharmawan, Ni Ketut Supasti, Putu Aras Samsithawrati, Desak Putu Dewi Kasih, Putri Triari Dwijayanti, 2023).

Communal Intellectual Property is an intellectual asset that is collective, dynamic, and intrinsically connected to the cultural identity of a community. The collective cultural heritage of a community is one of the main sources of Communal Intellectual Property, which is closely integrated with their social identity. The communal characteristics of Communal Intellectual Property reflect the deep socio-cultural connections and local wisdom within a community. Thus, legal protection of Communal Intellectual Property becomes very important to ensure its sustainability and maximize its economic value. (Gusti & Dwi, 2023). Government Regulation No. 56 of 2022 on Communal Intellectual Property and Minister of Law and Human Rights Regulation No. 13 of 2017 on Communal Intellectual Property Data Article 1 paragraph 1 defines Communal Intellectual Property as a form of intellectual property collectively owned by a community, including Traditional Cultural Expressions, Traditional Knowledge, Genetic Resources, and Potential Geographical Indications.

Puncak 2000 Siosar, which used to be a popular tourist destination, in early 2024 experienced a significant decline in the quality of the environment and facilities. Many of the tourist facilities previously available at Puncak 2000 Siosar are now non-functional or damaged, reducing the attractiveness for visitors. This has resulted in a decrease in the number of tourist visits and a negative impact on the economy of the surrounding community. This is because the community of Puncak 2000 Siosar only relies on the scenery and momentary tourism trends such as 'instagram-able' photo spots and also the lack of government attention and ineffective management, such as the existence of illegal levies in tourist areas, are the main factors causing these conditions. (Kaloko, 2024). Communal Intellectual Property can be a significant catalyst in the development of innovative products in the ecotourism sector of Puncak 2000 Siosar, Karo Regency. Communal Intellectual Property, which includes traditional knowledge, artistic expressions, and cultural practices, can be used as a foundation for the development of unique and authentic tourism products. For example, typical Karo culinary tourism produced using traditional Karo techniques can be commercialized as a distinctive product that represents local cultural wealth. Studies conducted by the Ministry of Tourism show that the integration of Communal Intellectual Property in the development of tourism products can increase the attractiveness of ecotourism destinations by up to 30% (thirty percent). (K. P. and E. K. R. Indonesia, 2022).

Therefore, research was conducted to find out how Karo customary communal intellectual property in the Puncak 2000 Siosar ecotourism area can be protected by involving indigenous peoples, in this case the Runggu of the Karo indigenous community, to inventory the communal intellectual property so that in the future how products from Karo customary communal intellectual property can build the Puncak 2000 Siosar ecotourism area by increasing ecotourism product innovation and community economic welfare.

METHOD

The research method used in this research is descriptive quantitative research method. This research also includes correlational quantitative research.

This research was conducted to test the Sustainable Runggu Strengthening Model in the community in the Puncak 2000 Siosar area located in Siosar Village, Kacinambun Village and Sukamaju Village, Tigapanah District, Karo Regency, North Sumatra Province against the protection of Communal Intellectual Property in Ecotourism Puncak 2000 Siosar. The research time began in August 2024 to October 2024 at 3 Runggu.

The population in this study is the community in the Puncak 2000 Siosar area located in Siosar Village, Kacinambun Village and Sukamaju Village, Tigapanah District, Karo Regency, North Sumatra Province. The sample in this study were people who were members of Runggu who

were taken using the sampling method with the acquisition of 50 respondents from the village community.

The data used in this study are primary data, namely data obtained directly by researchers from the object of research through distributing questionnaires. The measurement scale used to measure the length and shortness of the intervals in the measuring instrument is a Likert scale. The data analysis technique used in this research is quantitative data analysis technique using statistical methods. The statistical method used is Partial Least Square (PLS). Partial least square is a powerful analysis method because it is not based on many assumptions. (Ghozali, I., & Latan, 2012). As a data analysis technique, PLS uses SmartPLS software version 4.0.

Table 1. Operational Definition

Variables	Definition	Indicator	Size
Communal Intellectual Property Literacy (X)	Intellectual property whose ownership is communal and has economic value while upholding the moral, social and cultural values of the nation.(R. Indonesia, 2022)	1. Traditional Cultural Expressions, 2. Traditional Knowledge, 3. Geographical Indication Potential, 4. Genetic Resources, and 5. Indication of Origin.	Likert
Communal Intellectual Property Commercialization Literacy (Y)	The ability of an individual or group to recognize, manage and commercially exploit the collective intellectual assets owned by the community. This literacy includes an in-depth understanding of the intellectual property legal framework, registration procedures, as well as effective business strategies to monetize those intellectual assets. (Adhi et al., 2021).	1. Recording of Communal Intellectual Property inventory, and 2. Fair and equitable benefit sharing.	Likert
Indigenous Communal Literacy (Z)	The ability of an indigenous community to empower itself through access to and utilization of relevant information. This literacy covers various aspects, ranging from the ability to read and write to the ability to use information technology to manage natural resources and strengthen the community's bargaining position in interactions with the outside world.	1. Understanding culture and tradition: local wisdom and local genius, 2. Social structure, 3. Leadership and institutional systems, 4. Participation in communal life: cooperation and mutual aid, and 5. Communication and collaboration skills.	Likert

The scale used in this measurement is a Likert scale. To reduce the impact of bias and data centralization during analysis, the scale used can be seen in the following table:

Table 2.Measurement Scale

Question	S k o r
Strongly Agree (SS)	1
Agree (S)	2
Disagree (KS)	3
Disagree (TS)	4
Strongly Disagree (STS)	5

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RESULTS AND DISCUSSION

The measurement model analysis (Outer Model) aims to evaluate the construct of the variable under study, the validity (accuracy), and reliability (reliability) of a variable.

1. Evaluation of the Measurement Model (Outer Model).

The structural model is created by designing the relationship between latent variables. The results of construct validity and reliability testing are described at the outer model stage below:

Figure 1. Measurement Model Evaluation Results (Outer Model)
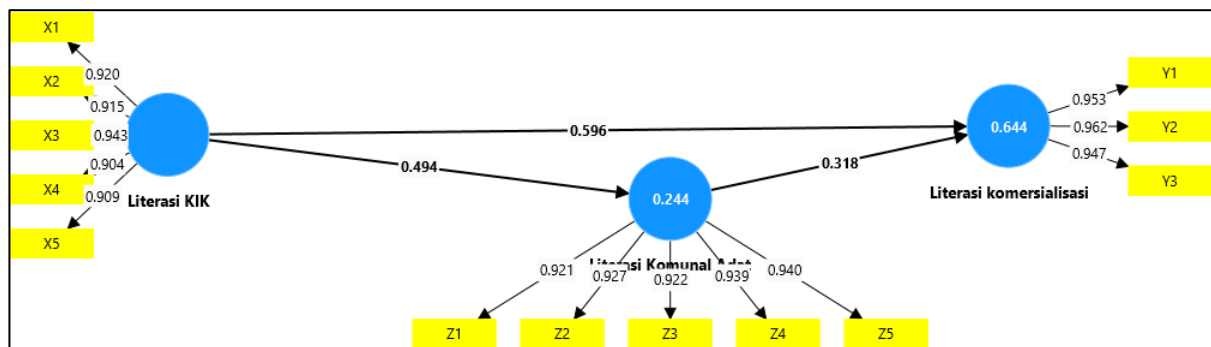
Source: Smart PLS 4.0 Processed Data.

Convergent Validity Test.

The requirement that must be considered is that if the high acquisition result will correlate with the loading factor value which is more than 0.70. (Ghozali, I., & Latan, 2012).

Table 3. Convergent Validity Test Results

Indicator	*Outer Loading* Value	*Average Variance Extracted* (AVE)	Description
KIK Literacy			
X1.1	0.920		Valid
X1.2	0.915		Valid
X1.3	0.943	0.843	Valid
X1.4	0.904		Valid
X1.5	0.909		Valid
Commercialization literacy			

Y1	0.953		Valid
Y2	0.962	0.910	Valid
Y3	0.947		Valid
Indigenous Communal Literacy			
Z1	0.921		Valid
Z2	0.927		Valid
Z3	0.922	0.865	Valid
Z4	0.939		Valid
Z5	0.940		Valid

Source: Smart PLS 4.0 Processed Data

Based on the table above, it can be seen that the value of each indicator or outer loading is more than 0.7, and based on the table above the AVE value of all variables has a value of> 0.5. These results can be stated that each variable has a good discriminant validity value. So that all indicator items can be said to be valid because they have met the requirements of convergent validity and can be analyzed further.

Reliability.

In SEM-PLS analysis, a construct is declared reliable if it has a composite reliability value> 0.6 and is reinforced by a Cronbach's Alpha value> 0.7. The results of composite reliability testing can be seen in the following table:

Table 4. Outer Model

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
KIK Literacy	0.954	0.956	0.964
Indigenous Communal Literacy	0.961	0.968	0.970
Commercialization literacy	0.950	0.953	0.968

Source: Smart PLS 4.0 Processed Data.

Based on the table, the Composite Reliability value of all variables has exceeded 0.6 and the Cronbach's Alpha value is above 0.7, which means that it has met the reliability assumption.

Discriminant Validity Test.

To assess discriminant validity, the heterotrait-monotrait ratio (HTMT) is used with an acceptable limit value of <0.9 (Hair et al., 2022).

Table 5. Discriminant Validity Test Results.

	KIK Literacy	Indigenous Communal Literacy	Commercialization literacy
KIK Literacy			
Indigenous Communal Literacy	0.509		
Commercialization literacy	0.788	0.635	

Source: Smart PLS 4.0 Processed Data.

The results of measuring discriminant validity with the heterotrait-monotrait ratio (HTMT) can be seen in the table above. All HTMT values show numbers <0.9, so all variables can be said to be valid.

Fornell-larcker.
The Fornell-Larcker criterion is interpreted as a measure that compares the square root of the AVE value with the latent variable relationship. Thus, the square root value of each AVE construct must be greater than its correlation value with other constructs. Below is the value of the Fornell-Larcker criterion:

Table 6. Fornell-larcker.

	KIK Literacy	Indigenous Communal Literacy	Commercialization literacy
KIK Literacy	0.918		
Indigenous Communal Literacy	0.494	0.930	
Commercialization literacy	0.753	0.613	0.954

Source: Smart PLS 4.0 Processed Data.

Based on the results of the Fornell-Larcker criterion test, it shows that the square root value of each AVE construct is greater than the correlation value with other constructs. This shows that the requirements for discriminant validity value have been met and can be accepted.

Cross Loading.
Discriminant validity can also be known based on the Cross Loading value, namely the acquisition of score loading on the same indicator block must be greater than the correlation value between latent variables. The Cross Loading value of this research hypothesis is shown as follows:

Table 7. Cross Loading.

	KIK Literacy	Indigenous Communal Literacy	Commercialization literacy
X1	0.920	0.468	0.630
X2	0.915	0.489	0.705
X3	0.943	0.482	0.731
X4	0.904	0.436	0.727
X5	0.909	0.388	0.657
Y1	0.656	0.604	0.953
Y2	0.755	0.616	0.962
Y3	0.740	0.532	0.947
Z1	0.416	0.921	0.485
Z2	0.448	0.927	0.599
Z3	0.441	0.922	0.544
Z4	0.407	0.939	0.556
Z5	0.562	0.940	0.641

Source: Smart PLS 4.0 Processed Data.

Based on the results of the Cross Loading value above, it shows that the loading factor value for each variable is greater than the Cross Loading value. Therefore, this indicates that all indicators of all variables used in this study are declared valid.

2. Structural Model Evaluation (Inner Model Analysis).

Figure 2. Structural Model Evaluation Results (Inner Model Analysis).
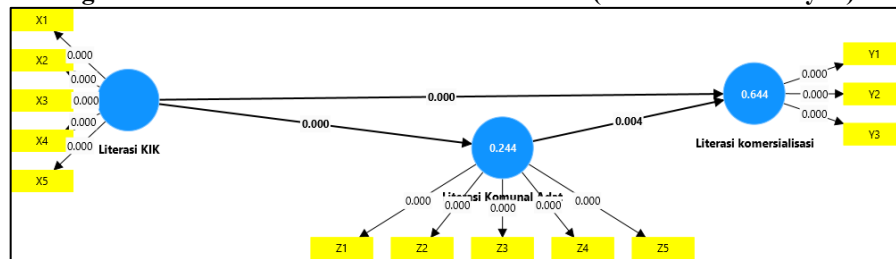
Source: Smart PLS 4.0 Processed Data.

Multicollinearity Test.

The Variation Inflation Factor (VIF) value is the value used to test for model collinearity. VIF values higher than 5.00 indicate that there is a problem with collinearity, as high VIF values can lead to difficulties in interpreting the path coefficients. Conversely, a VIF value that is less than 5.00 indicates that there is no problem with collinearity (Hair, J. F., Hult, T., Ringle, C. M., & Sarstedt, 2022).).

Table 8. Multicollinearity Test Results.

	VIF
KIK Literacy -> Indigenous Communal Literacy	1.000
KIK literacy -> Commercialization literacy	1.323
Indigenous Communal Literacy -> Commercialization Literacy	1.323

Source: Smart PLS 4.0 Processed Data.

Based on the results of the multicoliner test, the inner VIF value is obtained below 5, indicating that there is no multicoliner between variables.

Direct Effect.

Hypothesis testing is done by looking at the original sample estimates (O) value to determine the direction of the relationship between variables, as well as t-statistics (T), and p-values (P) to determine the significance level of the relationship. An original sample value close to +1 indicates a positive relationship, while a value close to -1 indicates a negative relationship. (Hair, J. F., Hult, T., Ringle, C. M., & Sarstedt, 2022).). A t-statistics value of more than 1.96 or a p-value smaller than the significance level (<0.05) indicates that a relationship between variables is significant. The results of testing the research hypothesis can be seen in the following table:

Table 8. *Direct Effect*.

	Original sample (O)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
KIK Literacy -> Indigenous Communal Literacy	0.494	0.109	4.533	0.000
KIK literacy -> Commercialization literacy	0.596	0.099	6.017	0.000
Indigenous Communal Literacy -> Commercialization Literacy	0.318	0.111	2.854	0.004

Source: Smart PLS 4.0 Processed Data.

Based on the table above, the relationship between research variables can be explained as follows:
1.   The first hypothesis **(H1) is accepted**, namely KIK Literacy has a significant effect on commercialization Literacy with a path coefficient (0.596) and p-value (0.000 <0.05). Every increase in KIK Literacy will increase its commercialization Literacy. This implies that the effect of KIK literacy on commercialization literacy is 59.6%.
2.   The second hypothesis **(H2) is accepted**, namely that KIK Literacy has a significant effect on Customary Communal Literacy with a path coefficient (0.494) and p-value (0.000 <0.05). Every increase in KIK Literacy will increase Indigenous Communal Literacy. This implies that the effect of KIK Literacy on Indigenous Communal Literacy is 49.4%.
3.   The third hypothesis **(H3) is accepted**, namely that customary communal literacy has a significant effect on commercialization literacy with a path coefficient (0.318) and p-value (0.004 <0.05). Every increase in customary communal literacy will also increase commercialization literacy. This implies that the influence of customary communal literacy on commercialization literacy is 31.8%.

Indirect Effect.

Table 9. *Indirect Effect*.

	Original sample (O)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
KIK literacy -> Indigenous communal literacy -> Commercialization literacy	0.157	0.061	2.584	0.010

Source: Smart PLS 4.0 Processed Data.

4. The fourth hypothesis **(H4) is accepted**, namely that Indigenous Communal Literacy is able to mediate the effect of KIK Literacy on commercialization Literacy with *path coefficient* (0.157) and p-value (0.010 <0.05). so it can be concluded that the effect of Indigenous Communal Literacy is able to mediate the relationship between KIK Literacy and commercialization Literacy is 15.7%.

Evaluation of Model Quality and Fit.
R Square Value.
There are three categories in grouping R-square values. If the R-square value is 0.75, it is in the strong category; for an R-square value of 0.50, it is in the moderate category and 0.25 is in the weak category (Hair et al, 2010). The R-square value of the dependent variable obtained in this research model can be seen in Table 10 below:

Table 10. R Square value.

	R-square	Adjusted R-square
Indigenous Communal Literacy	0.244	0.227
Commercialization literacy	0.644	0.627

Source: Smart PLS 4.0 Processed Data.

Based on Table 10 above, the results of data processing through SmartPLS resulted in an R Square value of the commercialization literacy variable of 0.644. This value explains that the strength of KIK Literacy, and Customary Communal Literacy in predicting commercialization literacy is 0.644 or 64.4% in moderate criteria. While the R Square value of the Customary

Communal Literacy variable is 0.244. This value explains that the strength of KIK Literacy in predicting Indigenous Communal Literacy is 0.244 or 24.4% in the weak criteria.

Q Square.

In addition to the R-Square value, the Q-square value is also used to determine the goodness of the model, where the higher the Q-Square value indicates that the structural model fits the data better. (Hair, J. F., Hult, T., Ringle, C. M., & Sarstedt, 2022). . The Q-square test in this study can be seen in the following table:

Table 11. Q Square value.

	Q²predict	RMSE
Indigenous Communal Literacy	0.204	0.924
Commercialization literacy	0.544	0.696

Source: Smart PLS 4.0 Processed Data.

Based on the table above, it is known that the sum of the Q-Square values on the two endogenous variables (Commercialization Literacy, and Indigenous Communal Literacy) is more than 0. By looking at this value, it can be concluded that this study has a good observation value because the Q square value> 0 (zero). Thus, this research model is declared to meet the requirements of goodness (model fit).

F Square Value.

An f square value of 0.02 is considered small, 0.15 is considered medium, and 0.35 is considered large. Values less than 0.02 can be ignored or considered no effect (Hair, J. F., Hult, T., Ringle, C. M., & Sarstedt, 2022).

Table 12. F Square value.

	f-square
KIK Literacy -> Indigenous Communal Literacy	0.323
KIK literacy -> Commercialization literacy	0.753
Indigenous Communal Literacy -> Commercialization Literacy	0.215

Source: Smart PLS 4.0 Processed Data.

Based on the F Square value table above, there is a large size effect with the F Square > 0.35 criterion, namely the effect of KIK Literacy on Commercialization Literacy. Furthermore, the medium size effect, which is between 0.15 - 0.35, is the effect of KIK Literacy on Indigenous Communal Literacy and the effect of Indigenous Communal Literacy on Commercialization Literacy. While no effect is ignored because it has an f square value <0.02.

Communal Intellectual Property not only has profound cultural value, but also significant economic potential. The rights to Communal Intellectual Property are collectively owned by the community that has created, maintained and developed it for generations. Although individual contributions in the process of creating Communal Intellectual Property are very important, the rights to Communal Intellectual Property remain attached to the community as a whole. (Kusumaningtyas et al., 2022).

Runggu is a part of the Karo indigenous community. Runggu is a social institution that is deeply embedded in the life of Karo indigenous people. More than just a meeting, runggu is a deliberative process that involves all members of the community in decision-making. In a broader context, runggu can be understood as a manifestation of the values of collectivism,

mutual cooperation, and respect for social hierarchy that characterize Karo society. (Sukarna, 2016) .

In runggu, it is usually identified with conversations between the families concerned (sukut), in this case those who want to carry out marriage/death customs or those who want to do runggu. Usually the runggu is about consensus and respect for different opinions. Runggu can be done when the sangkep nggeluh are present and complete such as kalimbubu, senina and anak beru. In the runggu, the deliberation is led by anak beru from the family. The anak beru will ask the family if the kalimbubu, senina/sembuyak, anak beru are present or not. If one of the sangkep nggeluhnya is not present, the deliberation cannot be carried out. Because they must be present in decision-making (Sembiring, 2020). This emphasizes that they must be present in decision-making. This confirms that these three elements are very closely related (S. Tarigan, 2008). The Runggu tradition is generally used and becomes customary in carrying out death or marriage issues, but over time in 2016 the Runggu tradition was again intensified for handling the natural disaster of the eruption of Mount Sinabung. Since then, Runggu has become a customary actor for every activity or problem needed.

Runggu is one of the communal intellectual property of the Karo people, which is included in the type of traditional knowledge, but the Runggu culture has not been recognized by the Karo indigenous people as a Communal Intellectual Property: Traditional Knowledge. Traditional knowledge refers to all forms of knowledge, skills and practices that are communally owned by a community group. It is an intellectual asset that is shared by a community.

Figure 3. Runggu Kalak Karo in the making of Traditional Medicine
(Atania Christianti Br Ginting, 2021)

Trites, including a communal intellectual property: traditional knowledge. Trites or terites or pagit-pagit is a typical dish of the Karo tribe in North Sumatra, which has a deep cultural meaning. Trites is one of the manifestations of the culinary wealth of the Karo tribe, which is full of symbolic meaning. (Muhammad Fauzi Alfachrezzy, Muhammad Elfath Devgan, Lila Pelita Hati, 2023). The main ingredient of trites comes from the stomach contents of ruminants, especially cows, which are still fresh and have not undergone a fermentation process. These stomach contents, which are rich in nutrients, are processed in such a way that they retain their original characteristics of resembling dense grasses (Purba et al., 2018). (Purba et al., 2018). The extract from the hull content is then the basis for making trites broth. (Isnainy Fazryn & Nuriza Dora, 2024).. Trites can be said to be a traditional knowledge for reasons of skill or manufacturing skills, but it can also fall into the realm of genetic resources, because trites contain biodiversity components that can be inherited, can be useful or have the potential to be utilized by humans (Purba et al., 2018). (Purba et al., 2018) .

Figure 4. Filtering of ruminant entrails (left); Trites soup with meat (right).
(Purba et al., 2018)

Traditional cultural expressions are collective manifestations of a community's intellectual creativity that are passed down through generations. These expressions include various forms of works, both tangible and intangible, that reflect the values, knowledge, and social practices unique to a community group. The traditional cultural expressions of the Karo people that have been inventoried and recorded in the Communal Intellectual Property Database are Piso Surit Dance. (Directorate General of Intellectual Property and Ministry of Law and Human Rights, 2024b) and Keteng-Keteng musical instrument (Directorate General of Intellectual Property and Ministry of Law and Human Rights of the Republic of Indonesia, 2024a) in 2022.

Traditional ceremonies and rituals are also included in communal intellectual property: traditional cultural expressions. Merdang Merdem or working year is a social ritual of the Karo community that is carried out periodically every year to celebrate a successful harvest and strengthen social cohesion. This tradition not only has a spiritual dimension, but also serves as a mechanism to maintain good relations between individuals and groups within the community. As an integral part of Karo cultural heritage, Merdang Merdem is a manifestation of the values of mutual cooperation and gratitude. (E. Susanti et al., 2023).. The Merdang Merdem event is a rich artistic and cultural showcase, where the younger generation plays an active role in preserving ancestral traditions. Various forms of artistic expression, ranging from dancing, singing, to traditional instrumental music performances, are an integral part of this celebration. (Sibero & Sibero, 2017).

Traditional houses are also one of the protections of traditional cultural expressions. The traditional Karo house is known as 'Si Waluh Jabu' which means a house inhabited by eight families. (H. G. Tarigan, 1990). The protection of traditional cultural expressions is not only on the traditional house but especially also on the architecture and landscape of the traditional house. (S. Tarigan, 2016) . In the Karo community, there is also a culture of the ceremony of entering a new house, namely the traditional ceremony of mengket 'mbaru' house (Hutahaean et al., 2016). (Hutahaean et al., 2024).

One of the   potential geographical indications of the Karo community in the ecotourism area of Puncak 2000 Siosar is sweet orange fruit or known as Berastagi orange. Puncak 2000 Siosar, Karo, besides being known as 'the land above the clouds', is also known as a self-picked orange agro-tourism village. Berastagi oranges grown and produced from the land of Puncak 2000 Siosar are recognized as sweeter and tastier than those grown from other areas in Karo Regency. The Karo Regency area is known as an agro-tourism site for oranges, fruits and other vegetables. (Simatupang et al., 2022).. Berastagi oranges are well known in various parts of Indonesia as local oranges that are very sweet and contain high vitamin-C among other oranges (Fitriana & Fitri, 2020). (Fitriana & Fitri, 2020) Being a potential geographical indication for the Puncak 2000 Siosar community, Karo.

The last type of communal intellectual property is indications of origin. Indications of origin are cultural heritage that is not directly related to natural factors and can usually be used in trade. One of the Indications of Origin of the Karo community is a typical Karo snack, namely Cimpa. (S. Tarigan, 2017). Cimpa is a typical food of the Karo people in the form of wet cakes made from pulut rice. (Alfan et al., 2023).. Cimpa must be presented during Karo traditional events, such as Merdang Merdem, the traditional ceremony of mengket rumah 'mbaru, the traditional ceremony of erdemu bayu (traditional wedding party), the traditional ceremony of death and other Karo traditional ceremonies (Hutagalung et al., 2024). (Hutagalung et al., 2024).. Cimpa also consists of several types, including cimpa gulame, cimpa lepat, cimpa sago, cimpa bulung nangka, cimpa onong-onong, cimpa bohan, cimpa lemet, cimpa jagung, cimpa gadung, cimpa berna rice, cimpa jambai, cimpa sago, cimpa gawer-gawer and cimpa tuang. (S. Tarigan, 2017). Actually, there are many types of cimpa, but the most familiar or often served is cimpa onong-onong. (Alfan et al., 2023).

The utilization of Communal Intellectual Property (CIK) plays a central role in driving the growth of the creative economy. KIK serves as a strategic asset that can trigger local economic development. Traditional cultural expressions, such as batik motifs and traditional dances, have significant global commercialization potential, creating substantial economic added value. Traditional knowledge, for example regarding medicinal plants and agricultural techniques, can form the basis for the development of biotechnology-based innovations. Furthermore, geographical indications can increase the added value of local products and strengthen their competitiveness in the international market. (Siswoyo, 2024).

Secondly, the commercialization of communal intellectual property contributes significantly to the improvement of the community's standard of living. Through the development and protection of communal intellectual property, communities can increase their economic income from the commercialization of communal intellectual property-based products. Furthermore, the utilization of KIK plays a crucial role in the preservation of cultural heritage and local wisdom, thus enabling communities to maintain their cultural identity. (Siswoyo, 2024).

CONCLUSION

Communal intellectual property literacy plays an important role in improving indigenous communal literacy and communal intellectual property commercialization literacy, with important indirect effects through indigenous communal literacy. This suggests that increased awareness and understanding of communal intellectual property can lead to better communal intellectual property commercialization outcomes, with adat communal literacy acting as a key mediator. Communal intellectual property literacy is an important prerequisite in efforts to commercialize communal intellectual assets. By understanding the economic value of their intellectual property, indigenous peoples can take more strategic steps to capitalize on the commercial potential of these assets. Increasing indigenous communal literacy in the context of communal intellectual property has a dual effect. On the one hand, it encourages indigenous peoples to better value and preserve their cultural heritage. On the other hand, it also opens up opportunities for indigenous peoples to commercially utilize their intellectual property.

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