

Study on the Sustainability of Ethnic Groups and Social Regions

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Abstract: Economic globalisation has led to changes in the pattern of regional economic development in various countries. These changes have led to many problems, particularly pronounced in ethnic regions. Based on this, this study extracts six factors from the dimensions of ethnic self-awareness and ethnic interaction: self-awareness, self-evaluation, social status, interaction range, frequency of communication, and degree of integration, and constructs a model with cultural identity and self-identity as the core. According to the empirical research on ethnic minorities in Southwest China, it is found that the sustainable development of the regional economy can be promoted by strengthening ethnic self-awareness and ethnic interaction. Moreover, there should be regional differences in the means of strengthening. Based on the ethnic minorities' sense of identity, this study combines the analysis of identity economics to explore how to develop the regional economy of ethnic minority areas while achieving the balanced development of ethnic and cultural values and the economic development of each administrative unit in the region, which is of great significance in promoting the high-quality and sustainable development of the regional economy.

Keywords: cultural identity; identity; ethnic interaction; sustainable regional economic development

1. Introduction

With the acceleration of economic globalisation, countries have vigorously pursued the development strategy of regionalisation, which has effectively promoted rapid economic growth, and regionalised economic development has become the dominant trend. However, the development concept of pursuing economic growth at the expense of balanced and coordinated social development and modernisation processes has several shortcomings (Yeh Tan, 2004). The manifestation of this at the regional level is the regional development gap, i.e. the phenomenon of administrative district economy within the integrated regional economic development. The administrative barriers created by the division of counties form a rigid constraint on the regional economy (Wang Jian, 2004). Second, the cultural level reflects the lack of cultural values. The stagnation in the development of cultural values such as traditions, morals and customs can easily lead to the loss of endogenous motivation of individuals in the region to participate in economic activities. In the long run, this will be detrimental to the sustainable development of the regional economy. For China, another problem should not be overlooked, namely the differences and costs of the imbalance between regional economic development and the development of ethnic areas. Compound forms of the above problems are common in the process of sustainable regional economic development in China's ethnic minority regions. Therefore, it is of great practical significance to explore how to avoid the disadvantages of the phenomenon of the regional economy while taking into account the development of the culture of ethnic areas in the process of promoting sustainable regional economic development.

The regional resource environment is the foundation of regional economic development. The issue of regional competition and cooperation can be regarded as a perennial topic in the study of regional economic integration, and regional cultural identity is the core element that affects the relationship between regional competition and cooperation (Chen Anguo, Chai Zhetao, 2012). Cultural identity is a kind of identification of individuals for their own identity, group affiliation and social characteristics. Therefore, it will have a potential impact on the development of the economy. At the same time, as a social norm, identity influences human behaviour.

We will examine the self-identity and cultural identity of ethnic minorities in Southwest China from

the perspective of building a soft environment for sustainable regional economic development. With self-evaluation, self-awareness and social status as the dimensions, this study takes the empirical research method for ethnic minorities in Southwest China to investigate the self-awareness of ethnic minorities further to properly guide and strengthen the self-identity and cultural identity of ethnic minorities. Secondly, the minority groups were examined from the dimensions of interaction range, communication frequency and integration level. Based on the survey results, the level of interaction with other ethnic groups is measured, and the intrinsic relationship between the level of interaction with other ethnic groups and minority self-identity and cultural identity is further explored. By interpreting the results of the study, the mechanism of the role of ethnic self-identity and the level of interaction with other ethnic groups on ethnic minority identity is further explored. Combined with the potential impact of identity on economic development, the role of ethnic self-identity and ethnic interaction in the process of sustainable economic development in ethnic regions is analysed in order to realise the effective interaction between ethnicity and sustainable regional economic development. It is worth noting that this study takes the two paths of taking the southwest region of China as the subject of interest and the two provinces of Sichuan and Guizhou as the subjects of interest to explore the impact of the soft environment of economic development on the economic development of ethnic minority regions. The horizontal comparison of these two paths can further help us to clarify the relationship between the administrative area economy and the regional economy, and provide references for dealing with regional economic development issues in different administrative areas. At the same time, this study is of practical significance in deepening the concept of regional economic development, enriching the dimension of national economic research, and promoting the construction of the interwoven social structure of various nationalities. In turn, it can effectively promote the development of regional economy in China's ethnic areas. At the same time, the development of regional economy should always adhere to the concept of sustainable development, and the results of this study have a certain reference significance for the allocation of economic resources among regions, the scale and direction of investment among regions, and can play a supporting role in the process of formulating the sustainability strategy of the economic development model of ethnic minority regions.

2. Literature review

2.1 The constraints of county economies on regional economic integration

In recent years, the main contradiction in Chinese society has become the contradiction between people's growing need for a better life and unbalanced and inadequate development. This "unbalanced and inadequate" development is manifested at the regional level by obvious regional development gaps. The "regional economic system" is one of the reasons for the emergence of this phenomenon. As a regional economic phenomenon with Chinese characteristics, the "regional economy" has gradually become a strong institutional obstacle to regionally coordinated development, as economic development varies from place to place (Sun Jiowen, 2020).

The disadvantage of the "regional economy" is the shielding effect, in which local governments control the flow of resources out of self-interest and build a self-contained and self-sustaining economic structure within the region, making it difficult to allocate resources effectively on a larger spatial scale. In the inter-provincial border area, the performance of the "administrative district economy" is the region's development is seriously marginal, and the inter-provincial fringe areas of economic development is seriously lagging behind.

Actively exploring the way of transforming the "administrative region economy" into the "economic region economy" and reducing the obstacles of administrative barriers to the coordinated development of the region will be conducive to achieving the full allocation of resources in the regional economic areas, building a better pattern of economic development as well as industrial structure, and promoting the coordinated and sustainable development of the regional economy. It is conducive to fully utilising regional economic resources, building a better pattern of economic development and industrial structure, and promoting coordinated and sustainable regional economic development.

2.2 Ethnic interaction and interactive regional economic development

Ethnic interaction refers to the contact, exchange and communication between ethnic groups and the coordination of interethnic relations, i.e. it refers to the process of interaction in ethnic ties and the integration of ethnic relations, which is a way of ethnic survival and ethnic development (Kim Byung-

ho, 2011). The development of productivity and the development of ethnic interaction are closely related. The development of productivity provides the development of social interactions, such as transportation and communication conditions, which constantly promote the development of interactions; the development of interactions can enable the ethnic group to obtain advanced tools, handicrafts, social culture, etc. from other peoples to promote the development of productivity. Whatever form national development takes, it is inseparable from national interaction and exchange. Specifically, this includes economic, political, cultural and social exchanges. Ethnic, economic exchange is an important form of national economic development, and economic exchange is the most important exchange necessary for the survival and development of the nation (Li Wei, 2023). At present, there is a lack of academic explanation of what "intermingling" means, but its meaning in policy guidelines is mostly that ethnic groups learn and absorb each other's production methods, habits and cultural essence, learn and absorb each other's strengths and advantages, and the common factor grows.

Exchanges and interactions between ethnic groups inevitably involve interactions in the economic sphere, and these interactions create a positive cultural environment for the development of the ethnic economy, thereby promoting the development of the economies of ethnic regions. At the same time, the economic development of ethnic areas has a reciprocal effect on ethnic exchanges and interactions, promoting the horizontal deepening of the quality of exchanges and the vertical broadening of the breadth of exchanges.

Therefore, an in-depth analysis of the interactive relationship between the two is of great practical significance in promoting stable and harmonious ethnic relations and regional economic integration.

2.3 The economics of identity

Identity, the concept of "who I am" or "self-image", was first introduced into developmental psychology by Erikson (1962) to describe the consistency of personality as perceived by adolescents or as perceived by others during their formative years. Because of its strong explanatory power, identity has been widely used in sociology, anthropology, and other disciplines.

Extensive experimental and empirical research has also clearly demonstrated that identity is a powerful driver of individual economic decision-making, and Sahlin-Andersson (1994) argues that the female identity of hospital nurses is reflected in both in-group and nurse-physician interactions and emerges as a criterion and framework for interpreting nurses' actions. In a study of ethnic minority intangible heritage tourism, cultural identity was shown to be a strong driver of consumer purchase intention, and cultural identity can contribute to a long and sustained increase in consumer purchase intention (Zhang and Chen, 2020). Meanwhile, racial identity also significantly affects the marginal behaviour of discount rate and risk aversion (Benjamin et al., 2007), and immigrants' racial identity is significantly related to their labour force participation, income and housing decisions (Constant and Zimmermann, 2007). The economics of identity explains that identity affects group behaviour through externalities. On the one hand, identification can lead to discrimination, stigmatisation and even violence by in-group members against out-group individuals, such as sexism. People's actions usually affect the welfare of others, e.g. peer effects can drastically alter the equilibrium (David and Roland, 2005). On the other hand, identification can lead to and strengthen individual leadership in teams (Steffens, 2020). From a holistic perspective, employees' self-identity utility can positively attract and retain leadership talent (King et al., 2021).

The construction of ethnic minority identity is complex, and the need for empirical research to explore the relationship between the roles is evident if we are to achieve high quality, sustainable regional economic development in ethnic minority areas by analysing the influential role of identity in the economic development of ethnic areas.

3. Methodology

3.1 Research design

This study examines ethnic minority groups in Southwest China from the dimensions of ethnic minority self-awareness and inter-ethnic interaction. Among them, three dimensions, namely self-awareness, self-evaluation and social status, were designed under the level of minority self-awareness to explore the self-awareness of minority members further. At the same time, it included three dimensions of interaction range, frequency of communication and degree of integration. The study analyses the

degree of influence of the indicators of the above two dimensions on minority self-identity and minority cultural identity. Since there is a certain internal relationship between ethnic identity and economic development, we can indirectly conclude the effect of minority self-identity and interaction with other ethnic groups on the development of regional economic integration. Based on the results of previous research, the following research questions will be asked in order to achieve the above research objectives:

Q1: What is the effect of social status, self-evaluation and self-awareness of ethnic minority groups on ethnic minority self-identity?

Q2: What is the effect of social status, self-evaluation and self-awareness of ethnic minority groups on ethnic minorities' sense of cultural identity?

Q3: What are the effects of interaction range, frequency of communication and degree of integration on ethnic minorities' sense of self-identity?

Q4: What are the effects of interaction range, frequency of communication and degree of integration on ethnic minorities' sense of cultural identity?

3.2 Analysed result

According to the research hypothesis proposed in this study, the actual situation was combined with a questionnaire survey. A total of 796 questionnaires were distributed, of which 160 were invalid, leaving 636 valid questionnaires.

Among the groups surveyed, the proportion of men and women was relatively balanced, with 299 men and 337 women. The respondents were mainly concentrated in the age group of 20-30 years, with 72.2%. In terms of ethnicity, the survey included 23 ethnic minorities, including the Miao, Tibetans and Yi. The Miao and Yi accounted for the highest proportions, with 21.1% and 33.8%, respectively, more than half of the total respondents. Meanwhile, there are more respondents from the Bai, Buyi, and Tujia ethnic groups, and the number of the above ethnic groups is relatively equal. In terms of the region of the respondents, the number of respondents from Yunnan, Guizhou and Sichuan is relatively large. The number of respondents from Sichuan and Guizhou is almost equal, with 252 from Sichuan and 274 from Guizhou.

3.2.1 Reliability and validity test

The Cronbach's coefficient was used to test the reliability of the collected questionnaire data, and the Cronbach α obtained was 0.960, indicating that the questionnaire has good reliability. For validity, Bartlett's spherical test was used, and the KMO value obtained was 0.955, indicating that the questionnaire has good validity at the same time.

3.2.2 Correlation analysis

In this study, Pearson analysis was used to analyse the correlation. A two-tailed test was used to clarify the degree of correlation of each indicator under the dimensions of ethnic self-consciousness and interaction with other ethnic groups for ethnic minority identity and cultural identity based on the data results.

(1) Southwest region

According to the results, it can be concluded that the correlation between social status, self-awareness and self-evaluation and ethnic minority identity is 0.610, 0.632 and 0.565, respectively and significant at 0.01 level, while the correlation between social status, self-awareness and self-evaluation and ethnic minority cultural identity is 0.605, 0.686 and 0.683, respectively, and is also significant at the 0.01 level of significance, effectively verifying Q1 and Q2 that social status, self-awareness and self-evaluation have an impact on ethnic minority identity and ethnic minority cultural identity.

Secondly, the correlation between the interaction range, frequency of communication, and Degree of integration and ethnic minority identity is 0.566, 0.571, and 0.567, respectively, and $P < 0.01$, which indicates that the correlation between the variables is significant. Meanwhile, the correlation between interaction range, frequency of communication, degree of integration and ethnic minority cultural identity is 0.609, 0.609, and 0.636 with $P < 0.01$, respectively, indicating that the correlation between the variables is significant. Validating Q3 and Q4, interaction range, frequency of communication, and degree of integration affect ethnic identity and ethnic cultural identity.

That is, there is a significant correlation between ethnic self-consciousness (social status, self-

awareness and self-evaluation) and interaction with other ethnic groups (interaction range, frequency of communication and degree of integration) and ethnic minority identity and ethnic minority cultural identity. Their correlation coefficients are between 0.5 and 0.7, indicating a strong correlation and positive influence.

(2) Sichuan Province

According to the results, it can be concluded that in terms of self-identity towards ethnic minorities, social status, self-awareness, self-evaluation, interaction range, frequency of communication, degree of integration in Sichuan Province and the results for the whole Southwest region are not much different overall. Among them, social status, self-awareness, self-evaluation, interaction range, frequency of communication and degree of integration are correlated with ethnic minority self-identity. The correlations are 0.546, 0.599, 0.504, 0.645, 0.610, and 0.575, respectively, and $P < 0.01$, indicating that the correlations between the variables are significant, which effectively verifies that research questions 1 and 3, social status, self-awareness, and self-evaluation have an effect on ethnic minority self-identity. However, the variable with the highest degree of correlation with ethnic minority self-identity has shifted from social status under the perspective of ethnic self-awareness to interaction range under the dimension of interaction with other ethnic groups.

Secondly, the degree of correlation between the scope of interaction, frequency of communication, degree of integration, social status, self-awareness, self-evaluation and cultural identity of ethnic minorities showed a small overall decrease compared to the South West region. Among these, self-evaluation in the ethnic self-awareness dimension and the degree of integration in the interaction with other ethnic groups showed the greatest decrease. The indicators under the two dimensions are significant at the 1% level, indicating that the correlation between the variables is significant. Their correlation coefficients are all between 0.5 and 0.7, indicating a strong correlation between the variables and a positive influence relationship. Research questions 2 and 4 were tested.

Namely, the relationship between ethnic self-identity (social status, self-awareness, self-evaluation) and other ethnic interaction (interaction range, frequency of communication, degree of integration) and ethnic minority self-identity, as well as ethnic minority cultural identity is less than 0.01, indicating that the correlation between the variables is significant. The values of their correlation coefficients are all in the range of 0.4 to 0.7, indicating that the correlation between the variables is close and that there is a positive influence relationship.

(3) Guizhou Province

According to the results, the correlations between social status, self-awareness and self-evaluation and ethnic minority self-identity are 0.562, 0.589, 0.675, respectively, and the P-value is less than 0.01, indicating that the correlation between variables is significant. The correlations between social status, self-awareness, self-evaluation and cultural identity of ethnic minorities are 0.559, 0.622, 0.616, respectively and are significant at 1% level, effectively verifying research question 1 and question 2. That is, social status, self-awareness, and self-evaluation have an effect on ethnic minority self-identity and ethnic minority cultural identity.

Secondly, the correlation between interaction range, frequency of communication and degree of integration and self-identity of ethnic minorities are 0.699, 0.670 and 0.706, respectively. Meanwhile, the interaction range, frequency of communication, degree of integration and cultural identity of ethnic minorities have a correlation of 0.509, 0.507 and 0.544, respectively, and their significance is less than 0.01, which indicates that the correlation is significant. To validate research question 3 and research question 4, interaction range, frequency of communication and degree of integration affect minority self-identity and minority cultural identity.

Comparing the results of the analyses with those of the first two regions, it is not difficult to see that the degree of influence of the scope of interaction, frequency of communication and degree of integration on ethnic minority self-identity under the dimensions of ethnic interactions reaches a peak in Guizhou, far exceeding that of the rest of Guizhou, far exceeding that of the rest of the two regions. Meanwhile, the correlation between the scope of interaction, frequency of communication, degree of integration, social status, self-awareness, self-evaluation and cultural identity of ethnic minorities is higher than that of Southwest China. The degree of correlation between the scope of interaction, frequency of communication, degree of integration, social status, self-awareness, self-evaluation and cultural identity of ethnic minorities also showed an overall decrease compared to the Southwest region. However, compared to the decline in Sichuan Province, the decline there is more moderate.

3.2.3 Multiple linear regression analysis

We used multiple linear regression to conduct analyses from the perspectives of minority self-identity and other-ethnicity interactions, with the entire Southwest region, Sichuan Province, and Guizhou Province as the subjects of interest, in order to explore further their causal relationships with minority self-identity and minority cultural identity.

(1) Southwest Region

Table 1: The impact of ethnic self-consciousness and other ethnic interactions on cultural identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	-0.095	.492		-.194	.847		
X1	.569	.120	.477	4.751	.000	.665	1.503
X6	.432	.121	.360	3.585	.001	.665	1.503
R ²				0.557			
F				41.428			
P				<0.001			
Note: Dependent variable: the cultural identity of ethnic minorities							

As can be seen from Table 1, starting from the dimensions of ethnic minority self-awareness and interaction with other ethnic groups, social status, self-awareness, self-evaluation, interaction area, frequency of communication and degree of integration, respectively, under these two dimensions, indicating that the model fits well and the results of multiple linear regression analysis with $R^2=0.557$, indicating that the model fits well and the calculation results are meaningful. The results of multiple linear regression analysis of the cultural identity of ethnic minorities as the independent variable are meaningful, $R^2=0.557$, which indicates that the model fits well, and the results can reflect the influence of self-awareness, and degree of integration on the cultural identity of ethnic minorities authentically and reliably. $F=41.428$, $P<0.001$, indicating that this regression equation is significant.

The VIF is less than 5, and the tolerance is greater than 0.5, indicating that there is no multicollinearity between the variables. The significance of both variables is less than 0.05, indicating that both self-awareness ($\beta=0.569$, $P<0.001$) in the ethnic self-awareness dimension and the degree of integration ($\beta=0.432$, $P<0.001$) in the interaction with other ethnic groups dimension have a significant positive effect on cultural identity.

Table 2: The impact of ethnic self-awareness and interaction with other ethnic groups on self-identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	.968	.473		2.045	.045		
X1	.475	.115	.457	4.119	.000	.665	1.503
X6	.317	.116	.303	2.732	.008	.665	1.503
R ²				0.444			
F				44.528			
P				<0.001			
Note: Dependent variable: self-identity of ethnic minorities							

As can be seen from the results in Table 2, the results of multiple linear regression analysis with social status, self-awareness, self-evaluation, interaction range, frequency of communication and degree of integration as independent variables and ethnic minority cultural identity as the dependent variable, the results of multiple linear regression analysis are meaningful, $R^2=0.444$, indicating that the model is well fitted. The arithmetic results can be very realistic and reliable to reflect the influence of self-awareness and degree of integration on ethnic minority cultural identity. $F=44.528$, $P<0.001$, indicating that this regression equation is significant.

The VIF is less than 5, and the tolerance is greater than 0.5, indicating that there is no multicollinearity between the variables. The significance of both variables is less than 0.05, indicating that both self-consciousness ($\beta=0.475$, $P<0.001$) under the dimension of ethnic self-consciousness and the degree of integration ($\beta=0.317$, $P<0.05$) under the dimension of interaction with other ethnic groups have

significant positive effects.

(2) Sichuan Province

Table 3: The impact of ethnic self-consciousness and other ethnic interactions on cultural identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	.359	.296		1.211	.227		
X1	.662	.059	.590	11.303	.000	.749	1.335
X5	.247	.069	.186	3.573	.000	.749	1.335
R ²				0.492			
F				120.754			
P				<0.001			
Note: Dependent variable: the cultural identity of ethnic minorities							

Table 3, shows the results of multiple linear regression analyses with social status, self-awareness, self-evaluation, interaction area, frequency of communication, degree of integration as independent variables and ethnic minority's cultural identity as dependent variable. The results of multiple linear regression analysis with identity as the dependent variable are meaningful, $R^2=0.492$, which indicates that the model's goodness of fit is good, and the results can reflect the influence of self-awareness and frequency of communication on ethnic minorities' cultural identity authentically and reliably. $F=120.754$, $P<0.001$, indicating that this regression equation is significant.

The VIF is less than 5, and the tolerance is greater than 0.5, indicating that there is also no multicollinearity between the variables. The significance of both variables is less than 0.05, indicating that both self-awareness ($\beta=0.662$, $P<0.001$) in the ethnic self-awareness dimension and frequency of communication ($\beta=0.247$, $P<0.001$) in the interaction with other ethnic groups dimension have significant positive effects on ethnic minority cultural identity.

Table 4: The impact of ethnic self-awareness and inter-ethnic Interaction on Self-identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	.796	.234		3.395	.001		
X1	.286	.047	.326	6.127	.000	.679	1.473
X6	.143	.057	.156	2.515	.013	.502	1.992
X4	.403	.068	.368	5.913	.000	.497	2.014
R^2				0.522			
F				90.449			
P				<0.001			
Note: Dependent variable: self-identity of ethnic minorities							

Table 4, shows the results of multiple linear regression analysis with social status, self-awareness, self-evaluation, interaction range, frequency of communication and degree of integration as independent variables and ethnic minority cultural identity as dependent variable, the results of multiple linear regression analysis are meaningful, $R^2=0.522$, which indicates that the model is well fitted, and the arithmetic results can reflect the effects of self-awareness, interaction range and degree of integration on ethnic minority cultural identity in a very realistic and reliable way. $F=90.449$, $P<0.001$, indicating that this regression equation is significant.

The VIFs are less than 5, indicating that there is no multicollinearity problem between self-awareness under the ethnic self-awareness dimension and the degree of integration and interaction range under the interaction with other ethnic groups dimension. The significance of all three is less than 0.05, indicating that self-awareness under the ethnic self-awareness dimension ($\beta=0.286$, $P<0.001$) and the degree of integration under the interaction with other ethnic groups dimension ($\beta=0.143$, $P<0.05$), interaction range ($\beta=0.403$, $P<0.001$) all have significant positive effects on ethnic minority self-identity.

Table 5 shows the results of multiple linear regression analysis with social status, self-awareness, self-evaluation, interaction area, frequency of communication, degree of integration as independent variables and ethnic minority cultural identity as independent variables and ethnic minority cultural

identity as dependent variable, the results of multiple linear regression analysis are meaningful, $R^2=0.470$, indicating that the model is well fitted. The results can reflect the influence of self-awareness, self-evaluation and interaction area on ethnic minority cultural identity in a very realistic and reliable way. $F=79.667$, $P<0.001$, indicating that this regression equation is significant.

Table 5: The Impact of Ethnic Self-Consciousness and Interethnic Interaction on Cultural Identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	.555	.251		2.212	.028		
X1	.344	.058	.366	5.926	.000	.515	1.944
X3	.266	.076	.249	3.501	.001	.389	2.571
X4	.208	.069	.174	2.997	.003	.583	1.715
R ²				0.470			
F				79.667			
P				<0.001			
Note: Dependent variable: cultural identity of ethnic minorities							

The VIF is less than 5, and the tolerance values of self-awareness in the ethnic self-awareness dimension and interaction range in the other ethnic group dimension are greater than 0.05, indicating that there is no multicollinearity between these two variables and the remaining variables. The tolerance value for self-awareness is slightly less than 0.5, indicating that it may have a multicollinearity problem. The significance of all three is less than 0.05, indicating that self-awareness ($\beta=0.344$, $P<0.001$), self-evaluation ($\beta=0.266$, $P<0.001$) under the dimension of ethnic self-awareness, and interaction range under the dimension of interaction with other ethnic groups ($\beta=0.208$, $P<0.05$) have a significant positive effect relationship on ethnic minority cultural identity.

Table 6: The impact of ethnic self-awareness and inter-ethnic interaction on Self-identity

Model	Unstandardised coefficients		Standardised coefficients	t	Significance	Covariance statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	.012	.211		.058	.954		
X1	.192	.049	.210	3.934	.000	.514	1.944
X3	.183	.071	.176	2.574	.011	.313	3.194
X4	.382	.081	.329	4.727	.000	.303	3.300
X6	.208	.090	.187	2.322	.021	.226	4.434
R ²				.605			
F				103.073			
P				<0.001			
Note: Dependent variable: self-identity of ethnic minorities							

Table 6 The results of multiple linear regression analysis with social status, self-awareness, self-evaluation, interaction area, frequency of communication, degree of integration as independent variables and minority self The results of multiple linear regression analysis with identity as the dependent variable are meaningful, $R^2=0.605$, which indicates that the model is well fitted. The results can reflect the influence of self-awareness and degree of integration on the cultural identity of ethnic minorities in a very real and reliable way. $F=103.073$, $P<0.001$, indicating that this regression equation is significant.

The VIFs are less than 5, and the tolerance value of self-awareness under the ethnic self-awareness dimension is greater than 0.05, indicating no multicollinearity between this variable and the other variables. The tolerance values of Self-evaluation, Interaction range and degree of integration are slightly less than 0.5, indicating that they may have multicollinearity problems. The significance of all three is less than 0.05, indicating that self-awareness ($\beta=0.192$, $P<0.001$), self-evaluation ($\beta=0.183$, $P<0.05$) under the ethnic self-awareness dimension and degree of integration ($\beta=0.382$, $P<0.001$), interaction range ($\beta=0.208$, $P<0.05$) have a significant positive influence relationship on ethnic minority self-identity.

4. Conclusion

Based on the current situation of economic development of ethnic minorities in Southwest China, this

study takes Southwest China, Sichuan Province, and Guizhou Province as the subjects of interest. It explores the dimensions of self-awareness, social status, self-evaluation, and interaction range under the dimensions of self-awareness, social status, self-evaluation, and interaction range of ethnic minorities in Southwest China, Sichuan Province, and Guizhou Province. It will explore the dimensions of self-awareness, social status, self-evaluation, and interaction range of ethnic minorities in Southwest China, Sichuan Province, and Guizhou Province, respectively, frequency of communication, and degree of integration on ethnic minorities' self-identity and cultural identity. We will also analyse the impact of their influence on ethnic minorities' sense of national identity on the sustainable development of regional economies in ethnic areas.

First, the ethnic self-consciousness and inter-ethnic interaction of ethnic minority groups in Southwest China, Sichuan Province and Guizhou Province will positively impact ethnic minority self-identity and cultural identity. That is, all the research questions in this study are validly verified. However, regarding the indicators under each dimension, the experimental results of the subjects of interest in the three regions show significant differences.

Regarding ethnic minorities' cultural identity, Self-awareness under the dimension of ethnic self-awareness has a positive effect on ethnic minorities' cultural identity in all three regions, with the highest degree of effect in Sichuan Province and the lowest in Guizhou Province. The stronger the Self-awareness of ethnic minorities, the higher the individual's sense of their cultural identity. This strong sense of cultural identity can be transformed into an endogenous motivation for ethnic minority groups to carry out economic activities, and promote their commitment to sustainable regional economic development in ethnic areas, thus contributing to the take-off of regional economic development in ethnic areas in China. Apart from self-awareness, the factors affecting ethnic minorities' cultural identity vary from region to region. Degree of integration under the dimension of interaction between other ethnic groups has a positive influence on the cultural identity of ethnic minorities in Southwest China; Frequency of communication has a positive influence on the cultural identity of ethnic minorities in Sichuan Province; Guizhou Province has a positive influence on the cultural identity of ethnic minorities; Self-evaluation and Interaction have a positive influence on the cultural identity of ethnic minorities. To explore the reasons for these differences, the root cause is the obvious difference in the policies for the regional economic development of ethnic areas, regardless of the historical and cultural factors of the ethnic minority groups in each region. The different responses of local governments to national policies lead to different results, and the differences in government policies are also the result of administrators' "localisation". Therefore, regional differences are also reasonable. Regional economic and cultural differences are also the basis for regional cooperation. Ensuring a good deployment of differentiated resources in cooperation between ethnic regions can fully realise the conservation of regional resources and the efficient development of the economy in ethnic regions, i.e., it is conducive to the high-quality and sustainable development of ethnic regions.

Regarding the self-identity of ethnic minorities, the self-identity of ethnic minorities in all three subjects of interest has a positive relationship with Self-awareness and degree of integration. Meanwhile, the types of influencing factors are richer in Sichuan and Guizhou provinces. The Interaction range under the Interaction dimension of other ethnic groups also positively influences the self-identity of ethnic minorities in Sichuan. In addition to the above three indicators, Self-evaluation also positively influences ethnic minorities' self-identity in Guizhou. It can be seen that in order to strengthen the sense of self-identity of ethnic minorities in large-scale ethnic areas across administrative regions, it is necessary to pay attention to the direction and depth of policy formulation and to analyse the kernel of the self-identity of ethnic minorities in-depth vertically. On the other hand, to strengthen the self-identity of ethnic minorities in relatively small ethnic areas, we should focus on the aspect and breadth of policy formulation and strengthen the self-identity of ethnic minorities in a multi-dimensional and multi-means way to mobilise their vitality in engaging in the economic activities of the ethnic areas and to promote the development of the economy of the ethnic areas.

China is a unified multi-ethnic country, and the southwest region is a concentrated area of ethnic minorities, with a wide variety of ethnic minorities. It is located inland and along the borders, where diversified history, culture, geography, and other conditions intertwine to form a complex economic development situation. To achieve the revitalisation and development of the regional economy in ethnic areas is not only an economic issue but also a cultural and political issue. It is of great significance to take into account the interaction between ethnic groups, economy and policies in order to solve the problem of sustainable regional economic development in ethnic areas.

References

- [1] Ye, T. (2004). *Sustainable development of regional economy*. *Academia*, 105, 16-17.
- [2] Wang, J. (2004). *The proposal of "compound administration": A new approach to resolving the conflict between regional economic integration and administrative division in contemporary China*. *China Administrative Management*, 225, 44-45.
- [3] Chen, A. G., & Chai, Z. T. (2012). *Rebuilding regional cultural identity and promoting urban regional economic cooperation*. *Journal of Hebei University of Economics and Trade*, 33, 73-74.
- [4] Sun, J. W. (2020). *On the evolution of "administrative regional economy" from the perspective of regional coordinated development*. *Regional Economic Review*, 6, 25-26.
- [5] Jin, B. G., Xiao, R., & Bi, Y. G. (2011). *On the integration of ethnic exchanges*. *Journal of Xinjiang Normal University*, 32, 67-68.
- [6] Li, W. (2023). *Realising the full embedding of all ethnic groups: theoretical connotations, practical dimensions and guarantee mechanisms*. *Frontiers*, 441, 34-35.
- [7] Erikson, E. H. (1962). *Youth: Fidelity and Diversity*. *Daedalus*, 91(1), 5-7.
- [8] Sahlin-Andersson, K. (1994). *Group identities as the building blocks of organisations: A story about nurses' daily work*. *Scandinavian Journal of Management*, 10(2), 55-341.
- [9] Steffens, N. K., Haslam, S. A., Peters, K., & Quiggin, J. (2020). *Identity economics meets identity leadership: Exploring the consequences of elevated CEO pay*. *Leadership Quarterly*, 31(3), 12-16.
- [10] Zhang, G. G., Chen, X. Y., Law, R., & Zhang, M. (2020). *Sustainability of heritage tourism: A structural perspective from cultural identity and consumption intention*. *Sustainability*, 12(21), 12-13.
- [11] King, C., Madera, J. M., Lee, L., Murillo, E., Baum, T., & Solnet, D. (2021). *Reimagining attraction and retention of hospitality management talent: A multilevel identity perspective*. *Journal of Business Research*, 136, 257-261.
- [12] Benjamin, D. J., Choi, J. J., & Strickland, A. J. (2007). *Social identity and preferences* (NBER Working Paper No.13309).
- [13] Austen-Smith, D., & Fryer, R. G. (2005). *An economics analysis of acting white*. *The Quarterly Journal of Economics*, 120(2), 83-551.
- [14] Constant, A., & Zimmermann, K. F. (2007). *Measuring ethnic identity and its impact on economic behaviour* (IZA Discussion Paper No. 3063).