



The Effect of Social Media on Dong People Ethnic Culture in Guangxi Province

Jin Mo^{1,2,*}, Faridah Ibrahim¹

¹Infrastructure University Kuala Lumpur, Malaysia.

²Guangxi Polytechnic of Construction, Nanning, Guangxi, China.

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***Corresponding author:** Jin Mo, Infrastructure University Kuala Lumpur, Malaysia; Guangxi Polytechnic of Construction, Nanning, Guangxi, China.

Abstract

The aim of this research is to better understand the impact of social media on how Dong cultural communication uses it as a tool for interconnectedness. The purpose of this chapter is to understand and analyze the survey respondents regarding the use and value of their perceptions of social media affecting Dong culture. As a medium for disseminating Dong culture, social media provides different research contents from commodity trade, tourism, school education, and population migration as factors affecting the dissemination of Dong culture. Young people of Dong use social media to spread Dong culture. The media can also be a place to express opinions on Dong culture. These areas of investigation were explored by distributing questionnaires to the Dong area of Guangxi and using the online survey link on the Wenjuanxing website. The result of this research will also reveal other aspects that influence the spread of Dong culture, especially social media, in order to better understand the reasons that influence the spread of Dong culture. Survey questions for the present research were taken and modified from previous research to account for the impact of social media on Dong culture, which has gained enormous popularity over the past decade and now has millions of users (Luttrell, 2018).

Keywords

Dong Ethnic Culture, Social Media, Communication

1. Background of Research

The Dong nationality has a history of more than 2,000 years and is very rich in traditional culture. Each minority has its own cultural identity (Jin & Ibrahim, 2021). Dong culture is a part of traditional Chinese culture. It has the function of reflecting the characteristics and customs of different ethnic groups, and symbolizes the uniqueness and history of the Dong nationality (Bo, 2016). When the culture has a high international status, it can attract young people to pay attention to the Dong culture, and then skillfully learn and understand the Dong culture, so as to realize the purpose of reversing the status quo and promoting the inheritance of the Dong culture (Wang, 2020).

According to UNESCO (2016), Intangible Cultural Heritage (ICH) is very important as a cultural expression, but also as a social and economic phenomenon as the culture and traditions of societies and/or specific social groups are transmitted (Chen et al., 2020). The recognition of intangible cultural heritage is important for preserving historical and cultural identities, generating economic activity, enhancing aesthetics, increasing the value of surrounding land, and transmitting knowledge from generation to generation (Hasan et al., 2022).

The intangible cultural heritage of the Dong nationality has social functions such as spiritual adjustment, cultural inheritance, social education, ecological maintenance, standardizing social ethics, and promoting economic devel-

opment (Yang, 2014). The connotation of Dong culture is broad, profound and colorful, and its own huge cultural value deserves our serious consideration and experience (Li, 2014). Social media sites offer a variety of communication-free ways for users to express their opinions freely online (Qiu & Zhang, 2021). The use of information and communication technologies has influenced the evolution of cultural heritage transmission. It is believed that the use of information and communication technologies can transform intangible cultural heritage into hybrid spaces and provide them with opportunities to create qualified, interactive and engaging cultural experiences. New media provide a multimodal way of making, communicating and disseminating intangible cultural heritage stories (Tzima et al., 2020). The rise of the Internet economy has enabled the Dong culture to build a bridge of communication with the outside world, allowing more people to better understand the artistic charm of the Dong people in the Internet age. With the help of the e-commerce platform and the transmission effect of live broadcast, the art of the Dong nationality can be spread without leaving home (Shi, 2022).

2. The impact of digital media technology on the dissemination of intangible cultural heritage.

Giglietto et al. (2019) found that the institutionalization of the concept of intangible cultural heritage over the past 15 years has gradually led to the importance of wider human participation in the identification, collection and management of any aspect of cultural heritage sexual expansion. New opportunities provided by advances in digital technologies have fostered the development of broader and deeper community engagement, greatly enhanced dissemination and access opportunities, and led to frameworks that promote grassroots engagement. Ishii et al. (2019) concluded that the popularity of mobile devices such as smartphones in society promotes the "speed" and "convenience" of communication in their research on the development of media richness theory. Communicators have been leveraging technological strengths in different fields as strategies for their media use, which appears to have boosted the use of multiple channels (Ishii et al., 2019).

Digitization has been a bit slow in the area of intangible heritage, but things will change dramatically with increased smartphone usage. As more and more people use smartphones, it is easier to spread immaterial culture through smartphones (Hahm et al., 2020). According to the 46th China Internet Development Statistical Report, as of June 2020, the number of instant messaging users in China has reached 931 million, of which 85% use social applications, WeChat Moments, 41.6% use Qzone, and 40.4% use Weibo. Social networks cover almost all communication spaces in human society. The high engagement, wide reach, dissemination and multilateralism of social media enable quick, convenient and frequent interactions between intangible cultural heritage and audiences, and facilitate the digital dissemination and sharing of intangible cultural heritage (Chen & Xue, 2021).

3. The development of social media communication of intangible cultural heritage in China

Jin and Ibrahim (2021) found that with the development of digital technology, the use of digital technology to bridge the communication gap with intangible cultural heritage audiences has become an important means. The digital technology of multimedia displays such as text, images, and audio has improved the level of digital protection and dissemination of intangible cultural heritage. The use of digital technologies in the field of intangible cultural heritage is increasingly recognized in academic and professional practice around the world (Aburamadan et al., 2021).

Making the cultural and historical heritage of countries accessible to a broad public, including digitally, is key to their survival, timely recognition and good maintenance (Todorova-Ekmekci, 2021). Video clips have become one of the main trends on Chinese social media. Today, new media platforms such as TikTok offer new potential for the protection, dissemination and activation of intangible cultural heritage. It provides a new stage for China's intangible cultural heritage and helps it return to the center of the public eye (Cao, 2022).

The social network in the digital age not only promotes the unlimited sharing of Chinese intangible cultural heritage art, but also gathers scattered intangible cultural heritage enthusiasts through the network, changing the previous vertical communication mode and mode, and gradually establishing an intangible cultural heritage communication community. The concept of "community" as a metaphor has become more explicit, forming a "circle" closely related to cultural concepts and artistic aesthetics, reflecting the characteristics of circle communication (Chen & Xue, 2021). There are many intangible cultural heritage items that depend on the expansion of the mobile internet. It creates a new connection between everyday life and the wider social base in the way the public likes to see. Short films popular on new media platforms will lead the national trend in the promotion of China's intangible cultural heritage. The short video will give the old craft more stages and allow the inheritor to build cultural confidence (Cao, 2022).

Based on Kaplan and Heinlein (2010), social media is divided into six types of media according to the theory of

media research, namely collaborative projects, blogs, content communities, social networking sites, virtual game worlds and virtual social worlds. Media Abundance Theory (MRT) argues that social media vary in the richness of their meaning, such as the amount of information that can be disseminated in a given time interval. Jin and Ibrahim (2021) proposed how young Dong people choose social media as a tool to spread Dong culture, and whether the media can overcome different knowledge backgrounds or explain unclear issues clearly so that both parties can reach a consensus.

4. Hypothesis

Intangible cultural heritage faces the communication dilemma of narrow audience and lack of heirs. With the development of digital technology, the use of digital communication methods to reduce the communication gap has become an important approach (Xue et al., 2019). The general public interest in art, history and culture has prompted the tourism industry to recognize the potential market niche of cultural tourism. Cultural tourism also facilitates contacts between different customs and populations, leading to cultural contacts (de la Torre et al., 2019).

The process of economic and cultural globalization makes traditional culture inevitably face conflicts from other countries. Where there are tourism activities, with the development of the tourism economy, it is a modernization of accepting new cultural trends and phenomena as well as accepting traditional culture (Nam, 2019). Education, as the most important channel for the inheritance of national culture, has far-reaching influence on inheritance. The increase in educational diversity will have a profound impact on the inheritance of minority cultures. Modern people choose different educational methods to achieve these goals. With modern media technologies such as the Internet, people can meet their learning needs anytime, anywhere. These educational models, such as online education based on new and advanced technologies, are increasingly becoming powerful support platforms for national cultural heritage (Zhang, 2019).

Many new technologies have been adopted through media platforms. The academic environment also plays a role in this interaction. Most schools require students to take advantage of the Internet and other technology projects used in academic classrooms (Bowman & Member, 2019). Ensuring cultural sustainability is critical to achieving sustainable generational benefits from development, which is essential for maintaining cultural diversity, inheriting history and providing cultural resources as cultural capital from an economic perspective. The government uses cultural tourism to promote cultural sustainability in minority areas (Du, 2020). With the continuous development of digital technology, strengthening the use of digital methods to enhance the exchange and protection of cultural heritage has become a central issue of global concern. Various digital technologies, such as 3D information systems; big data technologies; augmented reality (AR), virtual reality (VR) and mixed reality (MR) technologies; and digital fabrication technologies, have also been implemented and adopted for cultural heritage dissemination and protection (Xue et al., 2019).

Migrants have a lasting and statistically significant impact on the transmitted value of culture, the transmission of culture from one generation to another (Litina et al., 2016). Population migration has generalization rules for cultural heritage and increases the adaptability of individuals in the group. Population migration has a profound impact on cultural transmission (Lehmann & Feldman, 2008).

Social media has changed the way individuals live their personal, social and professional lives (Powers et al., 2020). Social media is used by billions of people around the world and has quickly become one of the defining technologies of its time (Bowman & Member, 2019; Umunna, 1997). The popularity of social media provides various opportunities for cross-cultural communication in the age of digital media (Pang, 2020). Based on the above research, I propose 4 hypothetical questions:

H1: School education uses media to spread Dong culture.

H2: Commercial trade uses media to spread Dong culture.

H3: Tourism economy uses media to spread Dong culture.

H4: Population migration uses media to spread Dong culture.

5. Media Richness Theory

According to Lengel (1983), the richness of a medium is based on its ability to process rich information. Daft and Lengel (1984) proposed the Media Richness Theory (MRT), whose assumption is the information carrying capacity of the media. Irem Sevinc and John D'Ambra (2004) investigated Daft and Lengel (1984) once proposed theory called Media Richness Theory, which assumed the information carrying capacity of the media. The representative

theory of communication media selection in the context of inter-organizational communication is Media Richness Theory (Sevinc & D'Ambra, 2004). Chen Haoyu (2019) shows that the dissemination of intangible cultural heritage includes a variety of communication theories and modes such as interpersonal communication, mass communication, new media communication, and media richness. Each mode of communication has several corresponding communication media.

Shen Enping and Ma Fengying (2018) has some social media designs whose main purpose is to promote knowledge sharing and creation (such as online communities, Blogs), and some are mainly designed to promote connections between people (such as Facebook, Renren, WeChat). Social media can provide extremely exhaustive knowledge through User-generated Content. Social media with high social presence/media richness is more conducive to sharing tacit knowledge than social media with low media richness (Shen & Ma, 2018).

Media richness is a way to increase social presence, satisfy user relevancy needs, and enhance user loyalty. Two aspects of instant messaging media richness, immediate feedback and personal attention, influence social presence, relevance need satisfaction, and user loyalty (Tseng et al., 2019). Ishii et al. (2019) confirm that evolving technologies have enriched "lean" media in a number of ways, transforming communication. For example, recently, the spread of mobile devices such as smartphones in society has promoted the "speed" and "convenience" of communication. Communicators have been leveraging technological strengths in different fields as a strategy for their media use, which appears to have boosted the use of multiple channels. Furthermore, technical features embedded in "lean" media often facilitate interactions between communicators, which can contribute significantly to perceived media richness.

With the development of 5G and artificial intelligence technology, intangible cultural heritage resources are integrated from graphics, text, three-dimensional, and images in all directions, diversification, and three-dimensionality, realizing the mining and integration of intangible cultural heritage resources geographical and historical dimensions, and the audience's emotional multidimensional mining and integration (Chen & Xue, 2021). How important new digital media tools and platforms and digital marketing, as well as word-of-mouth referrals and dissemination in social networks, are to promote current and future cultural heritage (Todorova-Ekmekci, 2021).

Gonzalez's (2012) findings show that PR professionals perceive social media to be a richer medium for disseminating information than traditional media, while PR professionals believe that the messages, they send via social media are more effective than messages sent via traditional media High media richness. PR professionals are using social media to reach their audiences, primarily through forums such as Facebook, Twitter, and LinkedIn (Gonzalez, 2012). In the Alamäki et al., (2019) research, video was considered as a tool and an emotionally triggering medium for those participants who were somewhat uncertain about their options. This suggests that stronger logical connections between visual cues, storylines, and service content enhance media effectiveness.

6. Research Method

The correct selection of appropriate research methods is a key decision in conducting effective scientific research, which is primarily based on linking research objectives to the characteristics of existing research methods (Yannis & Nikolaos, 2018). Qualitative investigations are appropriate when the relevant variables producing the results are not evident or when the number of subjects or results is insufficient for statistical analysis. Essentially, qualitative research helps us understand the nature, strengths, and interactions of variables. Like quantitative research, qualitative research addresses cause-and-effect relationships and involves observation and interpretation of events. Unlike quantitative research, it seeks to answer the "what" question rather than "how often." Thus, rather than taking a simplified, simplified view of measuring and accounting for the occurrence of states or events, qualitative approaches take a holistic view that preserves the complexity of human behavior (Lakshman et al., 2000). According to Anderson and Gerbing (1988) report, the minimum sample size should be at least 384.

This research applies descriptive statistics to analyze quantitative survey results by using the 26.0 version of the Social Science Statistical Package (SPSS). This software package provides effective software that can be widely used to count programs that yield consistent correct answers (Cronk, 2017). The results of the data analysis draw the main factors affecting the cultural spread of the Dong nationality, and the data will answer the hypothetical questions. From the 384 respondents a bigger percentage was women, at 62.5%, compared to 37.5% of male respondents. Participants in the research were from Sanjiang Dong Autonomous County in Liuzhou City, Guangxi Province, China.

Before the actual was undertaken, the researcher did a reliability analysis on the sample. The results were shown in Table 1.

Table 1. Reliability Results for Key Factors

The key factor	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Commercial	.975	.975	6
Tourism	.986	.986	6
Education	.986	.986	6
Migration	.981	.981	7
Social Media	.980	.980	6
Dissemination	.992	.992	9

Cronbach's alpha test was carried out on the six aspects of the research questions affecting the spread of Dong culture, and the results of each were above 97.5%. The above data show that the results of this questionnaire survey data analysis have high internal consistency and high reliability. This provides a solid foundation for data analysis.

7. Data Analysis

This research proposes four research hypotheses and empirically tests them through factor analysis and linear regression analysis. To test the correlation analysis with these four research hypotheses, we propose a series of linear regression models to identify important factors affecting the cultural spread of the Dong ethnic group. In addition, regression models were used to show various associations between the independent and dependent variables of each model.

Principal component analysis (PCA) and factor analysis (also known as principal factor analysis or principal axis decomposition) are two methods of identifying structure within a set of variables. Many analyses involve a large number of variables that are difficult to explain (Boivin & Ng, 2006; Yong & Pearce, 2013; Foundation & Radio, 2017). Using PCA or factor analysis helps to find interrelationships between variables (often called terms) to find a small number of uniform variables called factors. We can test this hypothesis with the interaction between IV and covariates. We can test this hypothesis with the interaction between IV and covariates. In the simplest terms, regression is a method of predicting an outcome based on a given set of input (predictor) variables. An interaction is a product variable that is a combination of two variables. We usually multiply one variable by another to find their interaction (Mat Roni & Djajadikerta, 2021).

In the regression model, we analyzed the following indicators to explain the variation of the dependent variable: the coefficient of determination R-squared (r^2), which represents the variation of the dependent variable occupied by the independent variable in the regression equation. R-squared (r^2) represents the percentage of total variation in the value of the dependent variable that is attributable to or explained in the regression equation (DiFonzo & Bordia, 1998). Parameter estimates of betas and corresponding P-values (P.significance) are also important metrics in regression analysis. If the P value of the independent variable is less than the significance level, which is 0.05 in this research, it means that the independent variable has a significant relationship with the dependent variable, and other independent variables remain unchanged in the regression equation (Cohen & Cohen, 1975; Dodhia, 2005).

A total of four regression models were estimated to test all the hypotheses in this research. The regression model used in this research to investigate the relationship between structures in the hypothesized proposed contingency model is shown below. In these regression analyses, media usage to spread Dong culture is the dependent variable, while school education, business trade, tourism economy, and population migration are independent variables. Four control variables were also included in the regression equation as independent variables. The hypothesized effects of antecedents on these four directions are presented in the regression model. Regression models were used to identify and analyze the role of four moderator variables—school education, business trade, tourism economy, population migration—on the impact of media usage to spread Dong culture. Their moderating effects were investigated by introducing them into regression model relationships.

According to the analysis results (Table 2), the obtained KMO MSA value is 0.976, which is commendable, indicating that since the KMO MSA value is greater than 0.9, this variable can be further analyzed. Bartlett's significant value sphericity test shows a quantity of 0.000, which means the variable is worth entering into subsequent analysis. The results strongly suggest that the correlation components are generated using the 2. component solution and the

mode matrix of the rotated component matrix. The eigenvalues of the first two factors are 33.452 and 1.793, respectively. All remaining eigenvalues are less than 1.0. This conclusion is partially supported by the Scree plot (where the eigenvalue 1.0 is represented by a horizontal dashed line. The total variance can reflect the contribution rate of the factors to the variable explanation. The data show that the variance of the common factor is higher than 0.782, indicating that all factors contribute to the two variables. The explanations are very good, there are two factors, the total contribution rate is 88.1%, indicating that the data in the table can explain the independent variables well.

According to the eigenvalues of the factors and the rotated factor matrix, the principal component analysis method is used to extract two factors as common factors, and the maximum variance method in the factor rotation method is used to arrange them, so that the relationship between variables and factors are clear. The researchers grouped and renamed those with numerical comparisons > 0.7. According to this value, these factors are extracted and combined into a common factor. Prepare the regression analysis below. I combined the independent variables affecting the cultural spread of the Dong people into a common factor. According to the analysis results of this rotated component matrix, I categorize the first column of factors as social media, and the second column as factors that affect communication, such as business, school education, tourism economy, population migration, etc.

Table 2. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.976
	Approx. Chi-Square	34512.828
Bartlett's Test of Sphericity	df	780
	Sig.	.000

Table 3. Correlations

Correlations				
		Media usage to spread Dong culture	Factor 1	Factor 2
Pearson Correlation	Media usage to spread Dong culture	1.000	.532	.829
	Factor 1	.532	1.000	.000
	Factor 2	.829	.000	1.000
Sig.(1. tailed)	Media usage to spread Dong culture	.	.000	.000
	Factor 1	.000	.	.500
	REGR factor score 2 for analysis 1	.000	.500	.
N	Media usage to spread Dong culture	384	384	384
	Factor 1	384	384	384
	Factor 2	384	384	384

Table 4. Model.1 Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985	.970	.970	.11850

Table 5. ANOVA

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173.106	2	86.553	6163.249	.000
	Residual	5.351	381	.014		
	Total	178.456	383			

Table 6. Coefficients

Model	Coefficients					Collinearity Statistics		
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance	VIF
	B	Std. Error	Beta					
(Constant)	4.311	.006			712.922	.000		
1 Factor1(social media)	.363	.006	.532		59.989	.000	1.000	1.000
Facto (factors affecting)	.566	.006	.829		93.423	.000	1.000	1.000

The data results in Table 3 show that the Pearson correlation coefficients of factor 1 and factor 2 and the independent variables are 0.532 and 0.829, respectively, and the P value is 0. According to the analysis of the results of the Pearson correlation coefficient, there is a significant correlation and significance between the two dependent variables and the independent variables directly.

Table 4 shows the regression equation model for this time. The model data shows that the correlation coefficient r is 0.985, the goodness of fit r^2 coefficient is 0.970, the adjusted r^2 coefficient is 0.899, and the standard error of the estimated value is 0.1185, which means that factor 1 and factor 2 can explain 97% of the dependent variable. Table 5 ANOVA is the analysis of variance, and the data is shown as 0, which indicates that the two common factors have significant differences in the independent variable social media communication of Dong culture. Table 6 shows the coefficients in the regression analysis, the regression coefficient of factor 1 is 0.363, the standard error is 0.006, the regression coefficient t-test value is 59.989, and the P value is 0. The regression coefficient for factor 2 is 0.566, the standard error is 0.006, the regression coefficient t-test value is 93.423, and the P value is 0. Satisfying the 95% confidence zone, it can be considered that the regression coefficient has significant significance, and the two factors have a significant positive effect on the independent variable. The regression equation can be obtained: $Y=4.310+.363 \times F1+0.566 \times F2$.

The results show that the variables have the following formula: $Y=4.310+.363 \times F1+0.566 \times F2$.

This shows that there is a stable functional relationship between Dong cultural dissemination and social media and influencing factors, and the model established this time is effective. On the basis of the above analysis, more in-depth analysis can be carried out. For example, the proportion or influence of each influencing factor on the spread of Dong culture.

The data results in Table 7 above show that the Pearson correlation coefficients of the dependent variables and independent variables of school education, business trade, and tourism economy population migration are 0.869, 0.841, 0.874, and 0.923, respectively, and all P values are 0. According to the analysis of the Pearson correlation coefficient results, there is a direct correlation between the significance of the four dependent variables and the independent variables.

Table 7. Correlations

		Correlations				
		Media usage to spread Dong culture	School education (X1)	Commercial trade (X2)	Tourism economy (X3)	Population migration (X4)
Pearson Correlation	Media usage to spread Dong culture (Y)	1.000	.869	.841	.874	.923

Table 8. Model Summary

Model Summary					
	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
School education	1	.869	.756	.755	.33770
Commercial trade	2	.841	.708	.707	.36940
Tourism economy	3	.874	.763	.763	.33252
Population migration	4	.923	.853	.852	.26243

Table 9. ANOVA

		ANOVA				
Model		Sum of Squares	df	Mean Square	F	Sig.
School education	Regression	134.891	1	134.891	1182.803	.000
Commercial trade	Regression	126.330	1	126.330	925.779	.000
Tourism economy	Regression	136.218	1	136.218	1231.938	.000
Population migration	Regression	152.149	1	152.149	2209.271	.000

Table 10. Coefficients

		Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.761	.105		7.267	.000	
	School education	.826	.024	.869	34.392	.000	1.000
2	(Constant)	.914	.113		8.072	.000	
	Commercial trade	.789	.026	.841	30.427	.000	1.000
3	(Constant)	.675	.105		6.430	.000	
	Tourism economy	.838	.024	.874	35.099	.000	1.000
4	(Constant)	.466	.083		5.620	.000	
	Population migration	.897	.019	.923	47.003	.000	1.000

The regression equation model is shown in Table 8. The school education model data shows that the correlation coefficient r is 0.869, the goodness of fit r^2 coefficient is 0.756, the adjusted r^2 coefficient is 0.755, and the estimated standard error is 0.33770, that is, the dependent variable can explain 75.5% of the dependent variable. The commercial trade model data shows that the correlation coefficient r is 0.841, the goodness of fit r^2 coefficient is 0.708, the adjusted r^2 coefficient is 0.707, and the estimated standard error is 0.33252, that is, the dependent variable can explain 70.7% of the dependent variable. The tourism economic model data shows that the correlation coefficient r is 0.874, the goodness of fit r^2 coefficient is 0.763, the adjusted r^2 coefficient is 0.763, and the estimated standard error is 0.33252, that is, the dependent variable can explain 76.3% of the dependent variable. The population migration model data shows that the correlation coefficient r is 0.923, the goodness of fit r^2 coefficient is 0.853, the adjusted r^2 coefficient is 0.852, and the estimated standard error is 0.26243, that is, the dependent variable can explain 85.2% of the dependent variable.

Table 9 ANOVA is the analysis of variance, and the four data show that P is 0, indicating that the dependent variables are all significantly different in the use of media used to spread Dong culture.

The coefficients in the regression analysis are shown in Table 10. The regression coefficient of school education is 0.826, the standard error is 0.024, the t-test value of the regression coefficient is 34.392, and the P value is 0. The regression coefficient of tourism economy is 0.838, the standard error is 0.024, the t-test value of the regression coefficient is 35.099, and the P value is 0. The regression coefficient of population migration was 0.897, the standard error was 0.019, the t-test value of the regression coefficient was 47.003, and the P value was 0. All four items meet the 95% confidence interval, and it can be considered that the regression coefficient results are significant, the dependent variable is significant, and has a significant positive impact on the independent variable. Four regression equations can be obtained:

$$1. Y = 0.826X_1 + 0.761.$$

$$2. Y = 0.789X_2 + 0.914.$$

$$3. Y = 0.838X_3 + 0.675.$$

$$4. Y = 0.897X_4 + 0.466.$$

The results show that the variable formula shows that there is a stable functional relationship between school education, commercial trade, tourism economy, population migration and the use of media used to spread Dong culture, and the model established this time is effective. For research convenience, the trend of the dependent variable here is constant. According to the research and analysis results, school education, business trade, tourism economy, and population migration are the main factors that affect the use of media to spread Dong culture. The above data and regression model results prove that the four hypotheses of the research hold true.

8. Conclusion

All four models show a positive correlation with the influence of Dong cultural transmission, which is highly significant at the significant level. All data support all null hypotheses. This means that all pairs of errors or residuals are independent and regression analysis is useful (Cooksey, 2020).

The regression analysis and discussion in this paper embeds an empirical investigation of four research hypotheses. Psychometric analysis (interpretative alpha and twiddle factor analysis) techniques for scales used for hypothesis testing (business trade scale, school education scale, tourism economy scale, population migration scale, social media scale). The results of explanatory alpha factor analysis and rotational exploratory factor analysis showed that all scales had high inter-item reliability and construct validity. In addition, we used multiple regression techniques and linear regression techniques to investigate the degree of statistical support for research hypotheses.

This study is the first empirical work to examine the influence of various digital media on the dissemination of Dong culture and the preferences of Dong youths in using social media. Past studies (e.g., Sundar, 2008; Shao & Pan, 2019; Ishii et al., 2019) have clearly shown that social interactivity and media richness are important technological implications for promoting cultural transmission, and their effects are mediated by the interactivity of social media, the communication characteristics of mobile media, and the shared understanding of cultural influences.

With the development of China's 5G network and media, Guangxi Province has paid increasing attention to the protection and dissemination of Dong culture (Zhu, 2016) as well as utilizing the Dong as a tourist attraction and maintaining national pride in order to realize the inheritance of ethnic culture and communication development (Liao, 2019). In addition, previous studies paid little attention to social media dissemination of Dong culture, or did not explore the interrelationships between school education, business trade, tourism economy and population migration and the dissemination of Dong culture.

As a complement to previous research, this study focuses on the impact of social media on the communication of Dong culture in the context of digital media. The researchers reiterated the importance of proper use of social media to spread Dong culture, covering a wide range of topics, including school education, commerce, tourism economy, and population migration in Dong areas. Although this study only focuses on the Dong nationality in Guangxi, China, the findings can be applied to the inheritance and dissemination of intangible cultural heritage in other ethnic villages in China or in developing countries.

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