Research on Brand Core Competitiveness Enhancement in the Context of Artificial Intelligence

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Abstract With the rapid development of artificial intelligence technology, enterprises are facing a new brand competition environment. The enhancement of brand core competitiveness no longer relies solely on traditional marketing and brand management strategies, and digital transformation and technological innovation have become key factors. This paper utilizes the fsQCA method to study the path of enterprise brand core competitiveness enhancement in the context of artificial intelligence. Through a case study of 20 listed manufacturing enterprises, factors such as technological innovation, enterprise scale, marketing investment, corporate social responsibility and digitalization level are selected as antecedent variables, and how these factors affect the enhancement of brand core competitiveness through different combinations is explored. The results show that technological innovation, digitalization level and enterprise scale have a significant impact on brand core competitiveness, and four different grouping paths (S1, S2, S3 and S4) can explain more than 90% of the brand competitiveness enhancement. Multiple regression analysis further verified the positive influence of path 1 and path 2 on brand core competitiveness, especially the key role of technological innovation in brand value enhancement. In addition, the implementation of corporate social responsibility also plays an indispensable role in the long-term development of the brand. The conclusion of this paper points out that enterprises should pay attention to technological innovation and digital transformation, and build an all-round brand competitiveness enhancement strategy by combining enterprise scale and the implementation of social responsibility.

Index Terms Artificial intelligence, brand core competitiveness, digitalization level, technological innovation, enterprise scale, social responsibility

I.   Introduction

With the changes in the international trade market and the market economy is becoming more and more perfect, the consumer market is becoming more and more open, so that the enterprise at the competitive environment and rivals have changed, the international strong competitors, in the market competition to take the initiative, the market rules of the game are basically formulated by them, which brings a serious challenge to the development of other enterprises [1]-[4]. Brand has become the key to win customer loyalty and enterprise for long-term survival and growth, customer satisfaction, enterprise sales, profits can grow, brand competitiveness and visibility can be improved, customer dissatisfaction, everything is empty, the core competitiveness of the brand to customer satisfaction as the destination [5]-[8]. And brand competition is a symbol of the overall competitiveness of the enterprise, is the product competitiveness, technology competitiveness, management competitiveness of the external performance, is the core competence of the enterprise in the market commoditization performance [9], [10]. Only through the cultivation and enhancement of brand core competitiveness to obtain sustainable competitive advantage.

Strong brand has a wide range of popularity and high reputation, the enterprise can enter a variety of product markets through the brand extension, is the enterprise's original high value-added intangible assets, the value of which is rooted in the minds of consumers, and is protected by law, competitors are unable to imitate [11]-[13]. In addition, the cornerstone of the core competitiveness of the brand "to the quality of survival" has long been the consensus of enterprises, quality is also the life of the brand, is the quality of consumers to ensure that the consumer, but also to give consumers a unique feeling [14], [15]. Knowledge-based, constitute the core competencies of the enterprise's technological innovation capabilities, organizational and management capabilities itself will not be directly shown, must be reflected through excellent products, quality services, while the brand is the logo of the products and services, so the brand is the most effective way to highlight the core competencies of the enterprise in the market [16], [17]. With the development of artificial intelligence, it brings new opportunities to improve the

core competitiveness of brand [18]. Therefore, why this seizes the opportunity to improve competitiveness has become an urgent task that enterprises need to solve.

With the acceleration of global digitalization, enterprises are facing unprecedented challenges and opportunities. The competitiveness of brands, as a bridge between enterprises and consumers, has a direct impact on the market performance and long-term development of enterprises. In recent years, the rise of artificial intelligence technology has had a profound impact on the enhancement of brand competitiveness, especially in enhancing the brand's innovation, intelligence and market responsiveness, which plays a crucial role.

However, traditional research on brand competitiveness focuses on a single management mode or market strategy, ignoring the intertwining and interaction of multiple factors in the three dimensions of technology, organization and environment. Under the wave of digitalization, the construction of brand core competitiveness is no longer a single-dimension task, which requires the joint action of multiple factors such as technological innovation, organizational capability, marketing and social responsibility.

Based on this, this paper selects brand core competitiveness enhancement under the background of artificial intelligence as the research theme, and applies the fsQCA method to explore the multiple factor paths affecting brand core competitiveness. fsQCA method can analyze the complex causal relationship in depth, and reveals how different combinations of factors can jointly promote the enhancement of core competitiveness of brands.

Specifically, firstly, combining factors such as technological innovation, enterprise scale and marketing investment, we analyze their roles in brand competitiveness enhancement; secondly, we explore the enabling role of digitalization level on brand core competitiveness, and examine the interaction effect between it and other factors; finally, this paper will also consider the role of CSR in brand management, and analyze its contribution to brand value enhancement.

II. Theoretical foundations

II. A.fsQCA research methodology

II. A. 1) Logic of the QCA methodology

Qualitative Comparative Analysis (QCA), a comprehensive analytical approach that takes into account both the dual perspectives of "qualitative exploration" and "quantitative analysis", hinges on its ability to appropriately combine the variable interpretation based on the theoretical framework with the quantitative processing based on Boolean and set theory computing techniques. In the application of the method, on the one hand, the theoretical support behind variable selection and its preset conditions are emphasized; on the other hand, the feature of achieving precise measurement with the aid of mathematical tools is highlighted.

The core concept of the Fuzzy Set Qualitative comparative analysis (fsQCA) method is rooted in the concept of constructing organizational configuration. Here, configuration refers to the collaborative combination of a series of multi-dimensional traits, which interweave to form various patterns for elaborating social functions or effects. No function or effect can be independently caused by a single element, but rather is the product of the interaction and coordination of multiple elements. This method reveals the differential changes of each condition in terms of intensity or level, can skillfully handle the partial membership situations of the set, perform anchor point calibration on the objects to clarify their membership degree in the set, and quantify within the continuous interval from absolutely not belonging to (0) to completely belonging to (1), thereby transcending the simple and rough classification method.

The fsQCA method essentially transforms the range-specific or proportional-scale data into fuzzy sets. Here, "1" and "0" respectively represent the qualitative extreme attribution states (completely included and completely not included), while the values in between are reflected in the quantitative assignment of partial attribution, thus successfully linking the nature and degree of categorical attribution. This analysis method aims to address the underlying causal complexity of social phenomena and is dedicated to bridging the gap between qualitative and quantitative research in traditional social sciences.

II. A. 2) Types of QCA methods

(1) QCA method based on clear set

When using the QCA method for research, the first step is to identify the antecedent and outcome factors. A clear set means that there are only two possibilities for the antecedent and consequent factors, i.e., occurrence or non-occurrence. After determining the antecedent factors and outcome factors, the next step is to prepare the truth table, in this case, corresponding to each case, for each antecedent factor or outcome factor, if it occurs, it will be coded as 1. If it does not occur, it will be coded as 0, and ultimately, it will form the truth table that covers all the cases, and it will be imported into the fsQCA software to carry out further analysis based on the clear set.

(2) Fuzzy set-based fsQCA method

In the fuzzy set-based fsQCA method, the antecedent factors and outcome factors can be calibrated to be values between 0 and 1. We call the calibrated antecedent factors as the antecedent conditions, and the calibrated outcome factors as the outcome variables, with 0-1 representing the affiliation of the antecedent conditions.

The most critical step in fsQCA is to determine the three major thresholds for calibration: the full affiliation threshold, the intersection point, and the full unaffiliation threshold. After determining the three major thresholds, the calibration function of fsQCA software can be applied to calibrate the antecedent and outcome factors, and then further analyzed by standard analysis.

II. B. Operation of fsQCA software

II. B. 1) Identification of antecedent and outcome factors

When the researcher determines that he/she wants to study an actual phenomenon, he/she first identifies the antecedent and consequent factors of the study, and when they are not only present or absent, the fuzzy-set based fsQCA method is more suitable for the study. fsQCA method is characterized by the fact that it can be applied to both small and medium sample sizes (5-50), as well as to empirical studies with large sample sizes. An antecedent factor of 3-8 is appropriate.

II. B. 2) Determine the three main thresholds for data calibration

When determining the antecedent and outcome factors, which may have values that are not between 0 and 1, the data need to be calibrated, and the most critical thing is to determine the three major thresholds needed for calibration. The benchmarks for the three thresholds are the upper quartile, lower quartile, and mean of the factors.

II. B. 3) Data calibration

Import the data directly into the fsQCA software and apply the self-calibration function to calibrate the data. Import the antecedent factor and outcome factor data into the fsQCA software, select Calculation in Variables, select the factor to be calibrated in Calculation, select Calibration Function in Functions, and set x as the name code of the factor to be calibrated, enter the three major thresholds, n1 for the fully affiliated threshold, n2 for the intersection threshold, and n3 for the fully unaffiliated threshold, and press OK to complete the calibration of a large factor, and repeat the process to complete the calibration of all factors.

II. B. 4) Constructional simplification

Selecting the fuzzy truth table algorithm, determining the independent variables and the response variable then selecting Run generates the truth table, which then needs to be simplified. The first step is to delete the configurations in the numeric column where the cumulative percentage reaches 75-80% and beyond. The number in the value column indicates the number of cases corresponding to the construct, representing the frequency value of the construct, and the percentage corresponds to the cumulative percentage of the total number of cases covered by each construct. In the fsQCA software, select the constructs that are not satisfied, choose Edit, and delete. For small sample studies, the frequency threshold should be 1 or 2. When the sample size is larger, a more basic frequency threshold needs to be determined. The next step is to assign a value to the result column for each construct based on the agreement rate. for constructs with an agreement rate lower than 0.75, these constructs are considered to be fundamentally inconsistent with the results, and the results of the constructs with an agreement rate lower than the threshold are assigned the value of 0; otherwise, the result is assigned the value of 1. Through the simplification of the two steps mentioned above, the realization of the simplification of the truth table.

II. B. 5) Standard analysis

Standard analysis is the only analysis that can generate the optimal solution, so the analysis tends to choose standard analysis. After completing the simplification of the truth table, select the standard analysis directly in this interface, and the software will automatically generate the complex solution, the concise solution and the optimized solution.

II. C. Study design

II. C. 1) Analytical framework

Enterprises to create brands and enhance product value is the process of technology, organization and environmental factors of three dimensions of the integrated role, linkage and matching. Among them, digitalization will also produce a certain enabling effect, forming a regulatory optimization effect. According to QCA theory, the matching of the three factors produces a group effect. In the context of artificial intelligence, the group effect may be amplified and become more obvious. Based on this viewpoint, this paper studies the grouping path of composite factors to enhance enterprise brand value.

II. C. 2)   Factor analysis

(1) Technology dimension

Technological innovation is the endogenous driving force for the formation of new products, and it is also the fundamental path for the construction of enterprise brand and the formation of brand spillover effect. Digital technology innovation is a new force in the technological innovation system, which will bring new vitality to technological innovation and produce technological leap effect.

(2) Organizational dimension

Product value-added is the goal of the operation and growth of enterprise organizations, and the effective operation of the organization is mainly reflected in the smooth business process, marketing network expansion and enterprise growth capacity. Digitalization empowers the operation and efficiency of the organization. Digitalization has a great advantage in the smooth flow of business processes and marketing network construction.

(3) Environmental dimension

The external conditions affecting the brand's competitive advantage mainly include the economic and social environment and the policy environment. The economic and social environment makes consumers pay more attention to the service elements behind the products. The policy environment affects the entry barriers of the industry and influences the changes in the attitudes of external stakeholders towards branding.

Based on the above theoretical analysis, in order to further screen the antecedent variables and analyze the group effect of the antecedent variables, the antecedent variables of the three dimensions and digital advancement are considered as follows: 1) Technological innovation is selected as the antecedent variable for the technological dimension. 2) In the organizational dimension, the smooth operation of business processes promotes the value-adding of assets, the improvement of marketing network and the healthy growth of the enterprise. Therefore, enterprise asset size, marketing investment and enterprise growth are selected as organizational dimension variables.3) Social responsibility is taken as a representative variable in environmental dimension. CSR reflects both the responsibility to external stakeholders and the health of the economic and social environment.4) Digitalization level. To explore how the digital development of enterprises can be combined with technological, organizational and environmental dimensions to produce value-added effects on corporate brands.

II. C. 3)   Research methodology

The purpose of this paper is to explore how enterprises can improve the core competitiveness of their brands in the context of artificial intelligence, and how digital factors can produce group effects with other conditional factors, and to explore effective technological paths. The brand value of an enterprise is the result of multiple factors, which can no longer be fully explained by regression analysis. Therefore, this study chooses fsQCA method to explore how digitalization synergizes and integrates with the three dimensions of enterprise technology, organization and environment to enhance the core competitiveness of enterprise brand [19].

II. C. 4)   Data sources

This paper takes the listed companies in the manufacturing industry of "China's 500 Most Valuable Brands" released by a website as the sample source, and the screening process is as follows: ① Select the Shanghai and Shenzhen A-share listed companies that are listed in the list in 2024 and the industry type is manufacturing. ② Eliminate samples with missing values of variables and samples in abnormal trading status, such as ST stock samples. After screening, a total of 20 samples are obtained. Then, according to the 2024 annual report disclosed by each enterprise, manually organize the relevant information data.

II. C. 5)   Selection of indicators

According to the needs of the study, the selection of indicators is elaborated as follows, and the research variables are defined as shown in Table 1.

Table 1: The definition of the study variable

Variable name	Symbol	Variable definition
Brand core competitiveness	*Lnbv*	The value of the brand of the world brand laboratory
Technical innovation	*Tech*	R&d expenditure/operating income
Enterprise size	*Lnsize*	Total term
Marketing input	*OER*	Sales expense/operating income

Enterprise growth	*Grouth*	(Annual revenue-Last year's revenue)/ Last year's revenue
Corporate social responsibility	*CSRS*	Earnings per share+(The cash received by the seller and the provision of services + Pay the staff and cash for the workers + The taxes paid - Returned tax + Cash to purchase goods and provide labor services + Cash allocated dividends, profits or interest payments + Donation expenses - Environmental spending)/ Total equity
Digital level	*Digital*	Keywords are the weight of all enterprise keywords in the study

(1) Outcome variables

Brand core competitiveness. This paper adopts the World Brand Lab evaluation model to measure brand core competitiveness. This evaluation index system evaluates the brand in an all-round way through financial prediction analysis, BVA toolbox and brand strength coefficient, in addition to continuous tracking of the brand value, so it is applicable to enterprises in continuous operation, and it is one of the evaluation models that have been adopted in domestic and foreign literature.

(2) Conditional variables

a) Enterprise digitization level. Enterprise digitization level cannot be directly measured. When the frequency of digitization-related terms is higher, it proves that enterprises pay more attention to digitization.

b) Technological dimension: the measurement of technological innovation uses the strength of technological innovation investment to measure the degree of technological innovation, i.e., the ratio of R&D expenditures to main business revenue.

c) Organizational dimension: the expansion of enterprise scale helps to improve the enterprise's market influence and positively promotes the enhancement of brand value. In this paper, the logarithm of the total assets of the enterprise is selected for measurement.

Marketing input. Marketing investment is mainly reflected in the direct sales of the enterprise, such as advertising costs, etc., and the sales expense ratio is selected to measure. Enterprise growth. In this paper, the growth rate of operating income is used as an indicator to measure the growth of the enterprise. The higher the growth rate of operating income, indicating that the enterprise has better development potential, the higher the market recognition of the enterprise brand.

d) Environmental Dimension: CSR takes into account the fact that whether an enterprise undertakes social responsibility is inextricably linked to factors such as government, shareholders, and citizen supervision.

III. Empirical studies

III. A. Research on the enhancement path of brand core competitiveness

III. A. 1) Single condition necessity analysis

It is useful to check for necessary conditions before proceeding with an analysis. A necessary condition is a condition that must exist to cause an outcome to occur, but its existence does not necessarily cause the outcome to occur. The single condition necessity analysis is shown in Table 2. The results of the analysis in this study show that the consistency of each single antecedent variable is less than 0.9, which leads to the complexity of improving the core competitiveness of corporate brands.

Table 2: Analysis of the necessity of single condition

Conditional variable	Consistency	Coverage
Tech	0.71	0.94
~Tech	0.33	0.47
Lnsize	0.01	0.47
~Lnsize	0.79	0.73
OER	0	0
~OER	0.98	0.63
Grouth	0.16	0.88
~Grouth	0.71	0.5
CSRS	0.79	0.79
~CSRS	0.15	0.32
Digital	0.81	0.72
~Digital	0.32	0.33

III. A. 2) Configuration analysis

Issues of adequacy and necessity of variables in pooled analyses can be illustrated by calculating consistency and coverage. Consistency is the proportion of cases with a particular combination of antecedents that show the same result. Coverage is a measure of the degree of tangency of the conditioning variable to the outcome variable and measures the explanatory power of the results obtained for all cases. With the help of QCA software, 20 cases were analyzed for clear-set qualitative comparative analysis and intermediate solutions were reported, and the results of the group analysis are shown in Table 3 (● indicates that the conditioning variable appears, ⊗ indicates that the conditioning variable does not appear, and a large circle indicates the core condition, while a small circle indicates the edge condition). There are four paths of brand core competitiveness enhancement, and their consistency indexes exceed 0.8, indicating that all four groupings are sufficient conditions for brand core competitiveness enhancement. The coverage of the results reaches 0.9, indicating that the antecedent conditions explain the brand core competitiveness enhancement to a degree of 90%.

Table 3: Configuration analysis results

Conditional variable	Configuration			
	S1	S2	S3	S4
Digital	●	●		
Tech	⊗			⊗
Lnsize	●	●	●	●
OER			⊗	
Grouth	⊗			
CSRS		●	●	●
Consistency	1	1	1	1
Row coverage	0.5	0.2	0.26	0.31
Unique coverage	0.5	0.2	0.26	0.31
Solution consistency	0.9		0.92	
Solution coverage	1		1	

According to the grouping characteristics shown in the table, the path of brand core competitiveness enhancement is analyzed as follows, respectively.

(1) S1: In the grouping path 1, the digitalization level, enterprise scale, and technological innovation are the core conditions, and enterprise growth is the marginal condition. Enterprise growth is the marginal condition. This grouping explains about 50% of the high core competitiveness cases.

(2) S2: In path 2, digitalization level, enterprise scale and CSR are core conditions. This grouping can explain about 20% of the cases of enterprises with high core competitiveness.

(3) S3: In grouping path 3, enterprise scale, marketing investment are core conditions and CSR is a marginal condition. This grouping can explain about 26% of the cases of enterprises with higher core competitiveness.

(4) S4: In grouping path 4, enterprise scale, social responsibility, and technological innovation play a central role in the process of enhancing brand value. This configuration can explain about 31% of the cases of enterprises with high core competitiveness.

III. B. Multiple regression analysis

From the results of the fsQCA study in the previous section, it can be seen that there are four paths to drive brand core competitiveness enhancement in the context of AI. In this section, we will use multiple regression analysis to continue to explore the differences in the effect of different paths on the enhancement of the regional brand value in an attempt to find out the optimal path for the effect.

III. B. 1) Description of variables

The QCA method has an empirical classification advantage and can be categorized into different categories based on the diversity of causes leading to the results, thus each histogram solution obtained in histogram analysis constitutes the type of categorization of the independent variable in the quantitative research methodology, i.e., the independent variable in this section is the four paths to improve the core competitiveness of the brand and the dependent variable is the core competitiveness of the brand. Since the set represented by each path, i.e., each

histogram, is a subset of the result set, data calibration is performed by calculating the set affiliation scores of the histograms corresponding to each type in the specific operation of the data, with the calibrated data taking values ranging between 0 and 1. Following the principle of set operation, the set affiliation score of the intersection of multiple sets contained in each group state is the minimum value of the set affiliation score of each set. As can be seen from the previous section, after calibration, the 20 cases have different degrees of set affiliation scores in each of the five antecedent conditions, and the set affiliation scores of the non-sets of the five conditional variables can be calculated using the formula ~A=1-A. The set affiliation scores of the four paths on each case can be obtained through the intersection of multiple sets operation to complete the processing of the data of the respective variables.

III. B. 2)   Findings

(1) Descriptive statistics and correlation analysis

Descriptive statistics and correlation analysis were performed in SPSS and the descriptive statistics of the variables are shown in Table 4. The correlation coefficients of the variables are shown in Table 5 (*significant when $p < 0.05$, **significant when $p < 0.01$, **significant when $p < 0.001$). From the matrix of correlation coefficients in the table, it can be found that Path 1, Path 2, Path 3, and Path 4 regional brand values have a positive correlation, and Path 1 shows a significant positive correlation.

Table 4: Descriptive statistical results of variables

Variable	Sample size	Mean	Standard deviation	Minimum value	Maximum value
Brand core competitiveness	20	0.4957	0.4155	0	1
Path 1	20	0.1287	0.2134	0	0.7600
Path 2	20	0.149	0.2943	0	0.9740
Path 3	20	0.1293	0.2609	0	0.9530
Path 4	20	0.1543	0.2484	0	0.8603

Table 5: Correlation coefficient of variables

	Brand core competitiveness	Path 1	Path 2	Path 3	Path 4
Brand core competitiveness	1				
Path 1	0.406**	1			
Path 2	0.343	-0.195	1		
Path 3	0.176	-0.192	0.637	1	
Path 4	0.364	0.572*	-0.219	-0.142	1

(2) Regression analysis

To ensure that the model does not have the problem of multicollinearity, in the data preprocessing session, the variables of the regression model are analyzed by the variance inflation factor (VIF), and the results show that the mean value of VIF of each variable is lower than the threshold value of 2, which ensures the validity of the model estimation [20]. The results of the multiple regression analysis are shown in Table 6. The results show that Path 1 and Path 2 have a significant positive effect on the enhancement of brand core competitiveness, and the path under technological innovation has a greater contribution to the value enhancement, which fits with previous studies. Technological innovation not only makes great contributions in the formation and development of regional brands, but also has a unique advantageous position in regional economic development. At the same time, CSR also makes important contributions. The means by which CSR affects the core competitiveness of a brand are mainly of two types, one is to formulate internal policies to effectively lead the group behavior within the industrial cluster, and the other is to formulate external policies to build a good business environment. By integrating and coordinating regional resources, a good external environment is built to provide suitable soil for brand cultivation so that brands can enjoy the necessary protection. Secondly, maintain the reputation of regional brands and keep the healthy image of regional brands.

Table 6: Multiple regression analysis results

	Path 1	Path 2	Path 3	Path 4
Path 1	0.355*(1.852)			
Path 2		0.483**(2.361)		
Path 3			-0.026(-0.133)	

Path 4				0.266(1.359)

IV. Conclusion

In the process of enhancing brand core competitiveness, enterprises must comprehensively consider the interaction of multidimensional factors such as technology, organization, environment and digitalization. According to the empirical analysis in this paper, all four different enhancement paths (S1, S2, S3, S4) play an important role in the enhancement of brand core competitiveness, in which technological innovation and enterprise scale are the most critical core conditions, while CSR and marketing investment act as peripheral conditions to further enhance the brand's competitive advantage. The findings also suggest that the level of digitization plays a positive enabling role in the enhancement of brand competitiveness, especially in the case of technological innovation and large firm size, and that digitization can greatly contribute to the enhancement of brand value.

In addition, this paper also finds that the assumption of corporate social responsibility is of great significance to the maintenance and enhancement of brand value, especially in the environment of fierce market competition, enterprises can establish a good brand image through the fulfillment of social responsibility, which in turn enhances the brand's market recognition and consumer trust. Therefore, in the process of promoting brand core competitiveness, enterprises not only need to focus on technological innovation and market expansion, but also need to actively fulfill their social responsibility to form an all-round brand competitiveness enhancement strategy.

This study provides important theoretical basis and practical guidance for enterprises in the process of digital transformation, especially in brand management, marketing strategy and social responsibility fulfillment.

References

[1] Kamkankaew, P., Phattarowas, V., Khumwongpin, S., Limpiaongkhanan, P., & Sribenjachot, S. (2022). Increasing competitive environment dynamics and the need of hyper-competition for businesses. International Journal of Sociologies and Anthropologies Science Reviews, 2(5), 9-20.

[2] Sołoducho-Pelc, L., & Sulich, A. (2020). Between sustainable and temporary competitive advantages in the unstable business environment. Sustainability, 12(21), 8832.

[3] Rehman, F. U., & Prokop, V. (2023). Interplay in management practices, innovation, business environment, degree of competition and environmental policies: a comparative study. Business Process Management Journal, 29(3), 858-892.

[4] Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. Sustainability, 11(3), 729.

[5] Gökalp, A. (2019). The power of brand loyalty in creating enterprise value. In Brand Culture and Identity: Concepts, Methodologies, Tools, and Applications (pp. 922-955). IGI Global.

[6] Bu, Q., Jin, Y., & Li, Z. (2020). How does a customer prefer community or brand? The impacts of customer experience on customer loyalty based on the perspective of value co-creation. Journal of Contemporary Marketing Science, 3(3), 281-302.

[7] Yang, C. H., & Tsou, M. W. (2017). Does an own-brand produce higher profitability? Evidence from Taiwan's manufacturing firms. Journal of business & industrial marketing, 32(7), 925-936.

[8] Rantung, D. I., Mandagi, D. W., Wuryaningrat, N. F., & Lelengboto, A. L. P. (2023). Small Medium Enterprises brand gestalt: A key driver of customer satisfaction and repurchase intention. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8(6), 4.

[9] Ferreira, J., & Coelho, A. (2020). Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. International Journal of Innovation Science, 12(3), 255-286.

[10] Zameer, H., Wang, Y., & Yasmeen, H. (2020). Reinforcing green competitive advantage through green production, creativity and green brand image: Implications for cleaner production in China. Journal of cleaner production, 247, 119119.

[11] Lin, B. (2018). The accounting analysis of the intangible cultural heritage enterprises' brand value—take the Chinese medicine industry as an example. American Journal of Industrial and Business Management, 8(7), 1716-1731.

[12] Nikhashemi, S. R., & Delgado-Ballester, E. (2022). Branding antecedents of consumer need for uniqueness: a behavioural approach to globalness vs. localness. Journal of Marketing Communications, 28(4), 392-427.

[13] Liu, Y. L., Ho, L. M., & Liu, F. (2018). The brand management evaluation indicators model of agri-Tourism farms: A core competence perspective. Open Access Library Journal, 5(8), 1-9.

[14] Winzar, H., Baumann, C., & Chu, W. (2018). Brand competitiveness: Introducing the customer-based brand value (CBBV)–competitiveness chain. International Journal of Contemporary Hospitality Management, 30(1), 637-660.

[15] Shi, J., & Xiao, Y. (2024). Research on the pathways to high-quality development of tourism SMEs: A perspective of value assigned by quality, standards and brand. Heliyon, 10(23).

[16] Yoganathan, V., McLeay, F., Osburg, V. S., & Hart, D. (2018). The Core Value Compass: visually evaluating the goodness of brands that do good. Journal of Brand Management, 25, 68-83.

[17] Yujun, M., Shuyuan, S., & Weixin, L. (2018). Brand management and core competitiveness enhancement of mining companies. Journal of Mines, Metals and Fuels, 724-727.

[18] Varsha, P. S., Akter, S., Kumar, A., Gochhait, S., & Patagundi, B. (2021). The impact of artificial intelligence on branding: a bibliometric analysis (1982-2019). Journal of Global Information Management (JGIM), 29(4), 221-246.

[19] Man Qin & Jing Wang. (2025). Far away or close, marine fisheries spatial coagglomeration and fisheries' economic benefits in coastal cities of China—Based on machine learning algorithm and fsQCA method. Ocean and Coastal Management,267,107708-107708.

[20] Kenan Koçkaya. (2025). Estimation of Türkiye's Solar Panel Waste Using Artificial Neural Networks (ANNs): A Comparative Analysis of ANNs and Multiple Regression Analysis. Sustainability,17(9),4085-4085.