INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES
HRMARS MANAGEMENT ACADEMIC RESEARCH SOCIETY EXPLORING INTELLECTUAL CAPITAL
www.hrmars.com
ISSN: 2222-6990

Relationships between Internal Factors, External Factors, and Marketing Channel Performance of Automobile Manufacturers in China

Meihe Fan, Huam Hon Tat and Chan Sai Keong

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v13-i2/16325 DOI:10.6007/IJARBSS/v13-i2/16325

Received: *16* December *2022,* ***Revised:*** *20* January 2023*,* ***Accepted:*** *06* February 2023

Published Online: *22* February 2023

In-Text Citation: (Fan et al., 2023)

To Cite this Article: Fan, M., Tat, H. H., & Keong, C. S. (2023). Relationships between Internal Factors, External Factors, and Marketing Channel Performance of Automobile Manufacturers in China. *International Journal of Academic Research in Business and Social Sciences*, *13*(2), 1439 – 1455.

Vol. 13, No. 2, 2023, Pg. 1439 – 1455

http://hrmars.com/index.php/pages/detail/IJARBSS | **JOURNAL HOMEPAGE**

Full Terms & Conditions of access and use can be found at
http://hrmars.com/index.php/pages/detail/publication-ethics

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES
HRMARS MANAGEMENT ACADEMIC RESEARCH SOCIETY
EXPLORING INTELLECTUAL CAPITAL
www.hrmars.com
ISSN: 2222-6990

Relationships between Internal Factors, External Factors, and Marketing Channel Performance of Automobile Manufacturers in China

Meihe Fan,[1,2,a] Huam Hon Tat[3,b] and Chan Sai Keong[1,c]
[1]Faculty of Business, Information & Human Sciences, Infrastructure University Kuala Lumpur, De Centrum City, Kajang, Selangor 43000, Malaysia, [2]Business and Trade faculty, Zhengzhou University of Technology, 18 Yingcai Street, Huiji District, Zhengzhou City, Henan Province, China, [3]Putra Business School, Level 3, Office Building of the Deputy Vice Chancellor (Research & Innovation) 43400, UPM, 43400 Seri Kembangan, Selangor, Malaysia
[a]Corresponding Author's Email: 839474026@qq.com
Email: [b]drhuamht@gmail.com, [c]csk@iukl.edu.my

Abstract
In 2021, the Chinese automobile industry reported that channel costs and taxes accounted for more than 40% of the total cost of automobiles. So, for automobile producers, an effective marketing channel is a grind to promote product sales and redefine marketing costs, which enables them to gain a competitive edge in the market competition. The research of marketing channel performance is conducive to reflect the current situation of marketing channel and contributes to optimizing management process. Therefore, through the research on internal and external influencing factors of channel performance of automobile manufacturing enterprises, this paper tries to help automobile manufacturing enterprises make scientific channel choices and reduce channel costs.
Keywords: Channel Performance, Internal Factors, External Factors

Introduction

The automobile industry has historically been a prominent part of China's national economy, whereas when the economic growth is steeply advancing, the automobile industry's annual output has persistently ranked in the lead of the world. However, with the global economy in recession since 2017, China's automobile industry has been adversely impacted without exception. According to the enterprise industry association, China's automobile output reached an all-time high in 2017, with 29.015 million and 28.879 million units produced and sold, respectively (Jiang, 2019). Failing to follow thereafter, output and sales began to fluctuate. Production and sales totaled 27.809 million and 28.081 million, respectively, in 2018. By 2019, the data had fallen to 25.721 million and 25.729 million, correspondingly, with production and sales falling by 7.5 percent and 8.2 percent, and the of production and sales falling by 3.3 and 5.4 percentage points, over the previous year (Shen, 2020). In 2020, the global economy was devastated again by the Covid-19 pandemic. To pull the economy out of the impasse brought about by the global pandemic, governments and

local authorities are eager to create an engine capable of quickly stimulating economic growth, which represents both an opportunity and a challenge for the automotive industry (Yang, 2020).

With the rapid growth of China's automobile industry and the intensification of competition in the automobile market, manufacturers must immediately act upon improving factory efficiency and marketing effectiveness. The factory, on the other hand, is nearing the dilemma from a profit-making perspective. As a result, the automobile industry's marketing channel serves as the central node for generating revenue (Shen, 2020). In the automobile industry, researchers and scholars have focused primarily on two aspects of marketing channels: marketing channel selection and marketing channel conflict. However, there was a scarcity of studies on the performance of marketing channels and the factors that influence it (Yin, 2019). For modern automobile manufacturers, an in-depth understanding of the factors affecting automobile marketing channel performance enables them to reduce channel costs, make prudent channel decisions, and significantly boost competitiveness (Ren & Wang, 2020).

However, in terms of current automobile marketing practice in China, the lack of a systematic and scientific distribution channel performance research system means that automobile channel design and management are still in their infancy, emulating western enterprises and resulting in low marketing channel efficiency (Dai, 2020). This situation has had a significant impact on the competitiveness of Chinese automobile manufacturers (Ren & Wang, 2020). As a result, given the current state of high demand and difficult integration in China's automobile market, a comprehensive analysis of the factors influencing automobile distribution channels will assist automobile manufacturing enterprises in determining their development direction, reducing costs, and increasing market competitiveness.

Case Description and Problem Statement

With the rising tide of global economic integration and technological revolution, the competition between automobile manufacturing enterprises is increasingly intensified (Jiang, 2019). At the same time, it presents a new feature that the competition between enterprises is no longer only on the price and cost, but more on the control of channels (Shen, 2020). In 2021, the Chinese automobile industry reported that channel costs and taxes accounted for more than 40% of the total cost of automobiles (Yang, 2018). Therefore, the research on marketing channel management is of great significance. However, in the process of investigating management through channel performance, Chinese scholars rarely study and discuss the factors that affect channel performance in depth, and pay more attention to the construction of indicators to evaluate channel performance. At the same time, by observing and comparing the analysis of influential factors of channel performance by scholars from different countries, this paper finds that there are disputes and differences in the research conclusions of scholars from different countries on the relationship between internal and external factors and channel performance. Therefore, it is of great significance to fundamentally understand the influencing factors that cause changes in channel performance of automobile manufacturing enterprises.

Numerous studies have also attempted to establish a link between internal factors and the performance of marketing channels (Shaver, 2005; Veloso, 2018; Saccani, 2006). Hara (2019) observed that marketing strategy variables have a significant positive effect on the

performance of enterprise marketing channels. Li and Lu (2019) believed that management factors can have a positive effect on the quality and capability of channels. However, some researches revealed no positive or apparent relationship between the internal factors chosen and marketing channel performance. Offermans et al (2020) noticed that the efficiency factor in internal factors has no discernible effect on the performance of marketing channels. Jablonski et al (2019) discovered that the cost of capital has no discernible effect on the performance of marketing channels. Through the above analysis, it is not difficult to find that scholars still have controversy and confusion about the relationship between channel performance and internal factors, which requires more systematic research and analysis.

Similarly, the relationship between external factors and the performance of marketing channels has been extensively studied. Charlene (2015) noted that external factors such as government policy have a direct effect on the realization of marketing channel performance. Vikas et al (2021) recognized a strong positive correlation between customer satisfaction factors and the performance of marketing channels. However, Liao (2021) asserts that there is little correlation between industry regulatory factors and marketing channel performance in terms of external factors. Yang (2018) also discovered a low correlation between factors affecting the product experience and the performance of marketing channels. Given the mixed and inconclusive findings regarding the relationship between external factors and channel performance, there is a need to further investigate this relationship in the Chinese automobile industry.

For Chinese automobile manufacturers, in the face of the COVID-19 and the economic environment of the global recession, if they want to gain an advantage in the fierce competition, they must do something in cost control (Dai, 2020). According to the above analysis, the management costs and taxes of marketing channels account for a large proportion of Chinese automobile manufacturing enterprises. Therefore, it is of great significance for automobile manufacturing enterprises to systematically understand the influencing factors of marketing channels in this difficult environment.

Research Objectives

This study listed two main objectives:

1. To examine the relationship between internal factors and marketing channel performance.
2. To examine the relationship between external factors and marketing channel performance.

Literature Review

Marketing Channel Performance

Distribution channels play a critical role in enhancing enterprises' economic benefits and enabling enterprises to reduce the marketing costs (Yang, 2018). The term "marketing channel performance" is interpreted differently by different authors. Robicheaux and EI-Ansary (1976) defined marketing channel performance as the result of channel members' satisfaction with channel leaders, which is also the ultimate purpose of the relationship between channel members. According to Gaski and Nevin (1985), channel performance is the extent to which the relationship between suppliers and dealers can support dealers in achieving the objectives set by suppliers. In other words, it refers to the members' contributions to the channel. From a marketing perspective, Kotler (2009) defined performance as a more efficient and cost-effective means of meeting customer requirements.

Among them, efficiency refers to satisfying customers, whereas economy refers to satisfying customer needs with the least resources possible.

Internal Factors

Internal factors refer to those that influence the performance evaluation of marketing channels and reflect the quality of marketing channels themselves, which serves as the guarantee for stabilizing the marketing channels (Iba & Lilavanichakul, 2020). Numerous scholars independently evaluate and assess the influence of internal factors on channel performance. Nikulina & Chernukhina (2020) analyzed the impact of strategic factors on channel performance, while Veloso et al (2018) explored the correlation between enterprise service quality and channel performance.

External Factors

External factors are also called external environment. The external environment of enterprises is the general name of the external political environment, social environment, technical environment, economic environment, etc (Huang et al., 2018). The re-examination of enterprise strategy should not only evaluate the current mission, objectives, strategies and policies of the enterprise, but also analyze the enterprise environment to determine the key strategic elements. The enterprise environment includes two parts: external environment and internal environment (Iba & Lilavanichakul, 2020). The external environment of the enterprise is composed of variables that exist outside the organization and are usually not controlled by the senior management in the short term (Kumar, 2016).

Hypotheses Development

In order to more clearly explore the relationship between internal and external factors of Chinese automobile manufacturing enterprises and marketing channel performance, according to previous scholars' research, this study selected strategic factors, management factors, economic factors, efficiency factors, and environmental factors as the sub-factors of internal factors (Merve & Bilen, 2021; Meng, 2019; Bauman et al., 2018; Jablonski et al., 2019). At the same time, competition and cooperation, regulatory factors, technical factors, customer factors and risk factors are selected as the sub-factors of external factors (Bharadwaj & Mitra, 2016; Li, 2021; Dutta & Dutta, 2019). The following is the specific analysis of each factor and the proposal of research assumptions:

Strategic Factors & Marketing Channel Performance

As an essential component of internal factors, enterprise strategy has a close relationship with marketing channel performance. The vast majority of scholarly studies demonstrate that strategic factors can have a direct impact on the marketing channel performance (Filho et al., 2021). And some scholars even consider strategic factors to be the most crucial internal factors of marketing channel performance (Meng, 2019). The impact of these factors on the performance of the automobile marketing channel can be examined from two perspectives: strategic analysis and strategic decision making (Yin, 2019). Bastola (2022) explores the relation between strategic factors and channel performance. The results demonstrated that strategic factors can be regarded as the most important factors for channel performance improvement. Merve and Bilen (2021) similarly recognized that the strategic choice is based on strategic analysis. Strategic analysis is the foundation for strategic decision making and

strategic planning. It is evident from the preceding discussion that strategic factors positively impact channel performance. Therefore, the following hypothesis is formulated:

H1a: There is a positive relationship between strategic factors and marketing channel performance

Management Factors & Marketing Channel Performance

Different scholars have investigated the impact of management factors on marketing channel performance employing key measures, such as enterprise reputation factors, industry prestige factors, enterprise culture factors, development potential factors, personnel education level factors, organizational governance factors, staff turnover rate level, and brand growth factors (Li et al., 2019; Huang et al., 2018). They all believe that management factors have a positive impact on channel performance from different levels. Similarly, Xing (2018) analyzed the influence of corporate culture on the channel performance of garment enterprises. It is evident from the preceding discussion that management factors are indispensable to the channel performance of enterprises. Thus, the following hypothesis is developed:

H1b: There is a positive relationship between management factor and marketing channel performance

Capital and Operational Factors & Marketing Channel Performance

Evaluating the relationships between capital & operation factors and marketing channel performance is now becoming increasingly prevalent. Capital and business factors have a significant influence on the effectiveness of marketing channels, according to the majority of scholars (Bauman et al., 2018). However, some scholars argue that there is no correlation between capital and business factors and the performance of marketing channels (Jablonski et al., 2019). Bauman et al (2018) investigated the effect of participation in direct and intermediated marketing channels and key operational factors on the channel performance of agricultural producers. The results indicate that operational factors positively affect channel performance. Nonetheless, Gao (2016) analyzed the channel performance of Chinese agricultural products enterprises. The results indicate that capital factors have an impact on channel performance, but not one that is statistically significant. From the preceding discussion, it can be deduced that the relationship between capital & operational factors and marketing channel performance is ambiguous and requires additional investigation. Therefore, the following testable hypothesis is developed:

H1c: There is a positive relationship between capital & operational factors and marketing channel performance

Efficiency Factors & Marketing Channel Performance

Mehta et al (2002) analyzed the relationship between channel communication efficiency and channel performance during channel operation and confirmed that channel communication efficiency can directly impact the channel performance. According to Panda and Sreekumar (2012), in the process of studying channel selection in agricultural economy, the level of channel performance is impacted by efficiency factors, which are crucial in determining channel selection. Yang et al (2012) drew a similar conclusion after investigating the channel

efficiency level of Chinese companies: efficiency factors have a significant impact on the channel performance level. It is evident from the preceding discussion that efficiency factors have a significant impact on the performance of marketing channels. Therefore, the following hypothesis is formulated:

H1d: There is a positive relationship between efficiency factors and marketing channel performance

Co-competition Factors & Marketing Channel Performance

According to Dutta and Dutta (2019), competition and cooperation factors consist primarily of industry competition, channel conflict, and the formation of strategic alliances. Ashari et al (2014) mentioned the role of competition and cooperation factors when analyzing the impact of information communication technology on the business performance of SMTEs, and they believed that competition and cooperation factors can significantly affect the level of enterprise performance. Xu and Wang (2018) analyze the influence of competition and cooperation strategy on the channel supply chain. The findings indicate a positive correlation between competition and cooperation strategy and channel supply chain effectiveness. It is evident from the preceding discussion that competition and cooperation factors positively influence channel performance. So, the following hypothesis is formulated:

H2a: There is a positive relationship between co-competition factors and marketing channel performance

Regulatory Factors & Marketing Channel Performance

Watson et al (2015) analyzed a number of factors that have a significant impact on channel performance and concluded that regulatory factors are dependent factors that play an essential role in channel performance. According to Bi et al (2016), when they analyzed the channel performance of China's manufacturing industry, regulatory factors have certain impact on channel performance, however, the impact effect is not meaningful, and it cannot be ascertained that there is a positive and significant relationship between the two. From the preceding discussion, it can be deduced that the relationship between regulatory factors and marketing channel performance is ambiguous and requires additional studies. The following testable hypothesis is therefore developed:

H2b: There is positive relationship between regulatory factors and marketing channel performance

Technical Factors & Marketing Channel Performance

According to Saurabh and Singh (2021), technical factors are the reference factors for analyzing and comprehending the situation of the same industry and the competitive landscape. When studying hotel marketing channel innovation, O'Connor and Frew (2004) study the effect of technical factors on channel performance. Technical factors will directly affect channel performance and have a positive impact on channel performance, as evidenced by the results. When analyzing the channel selection of Zimbabwean soybean product manufacturers, Chalwe (2011) noted that technical factors play a major role on channel performance and can have a direct impact on channel performance. From the preceding discussion, it can be inferred that regulatory factors are generally regarded as significant channel performance factors. So, the following hypothesis is formulated:

H2c: There is a positive relationship between technical factors and marketing channel performance

Customer Factors & Marketing Channel Performance

According to Otto et al (2020), customer satisfaction as a strategic lever for enhancing business performance is a common business practice. However, just over 25 years of empirical research by scholars have yielded sometimes contradictory evidence. They consist of (i) whether satisfaction-performance effects are generalizable Jacobson and Mizik (2009); Lehmann and Reibstein (2006), (ii) whether customer satisfaction is indeed critical to firm performance (Kumar, 2016), (iii) whether satisfaction is more critical to selected performance metrics than others (Bharadwaj and Mitra 2016), and (iv) whether satisfaction is more appropriately depicted as a mediator of strategic marketing effects as opposed to being depicted as another exogenous determinant of firm performance (Homburg et al. 2014; Rubera and Kirca 2017), and (v) whether the satisfaction-performance field itself is in a state of limbo (Fornell et al., 2016). Further, Bharadwaj and Mitra (2016) question whether the next primary replication or extended study will be adequate to address these multiple research issues. The authors analyzed 251 correlations from 96 studies published between 1991 and 2017 in order to reach their conclusion. Therefore, the following testable hypothesis is developed:

H2d: There is a positive relationship between customer factors and marketing channel performance

Risk Factors & Marketing Channel Performance

The primary risk factors on marketing channels in the automotive industry are the alteration of government policies, the occurrence of emergencies, economic cycle fluctuations, financing, investment, and operation (Li, 2021). Liu et al (2008) analyzed the effect of risk factors on channel performance and concluded that risk factors can affect the stability of channels, with the deterioration of channel stability having a direct impact on marketing channel performance. Jablonski et al (2019) determined that in the field of agricultural products, the influence of risk factors on channel performance is substantial and may directly lead to a positive impact. It is evident from the preceding discussion that there is a positive correlation between risk factors and marketing channel performance. So, the following hypothesis is formulated::

H2e: There is a positive relationship between risk factors and marketing channel performance

Conceptual Framework and Hypotheses

The hypothesized model links the relationship between internal factors, external factors, and marketing channel performance of automobile manufacturers in Figure1. The internal factors are investigated from the perspectives of strategic factors, management factors, capital and operational factors and efficiency factors. The external factors are redefined from the perspectives of co-competition factors, regulatory factors, technical factors, customer factors and risk factors.

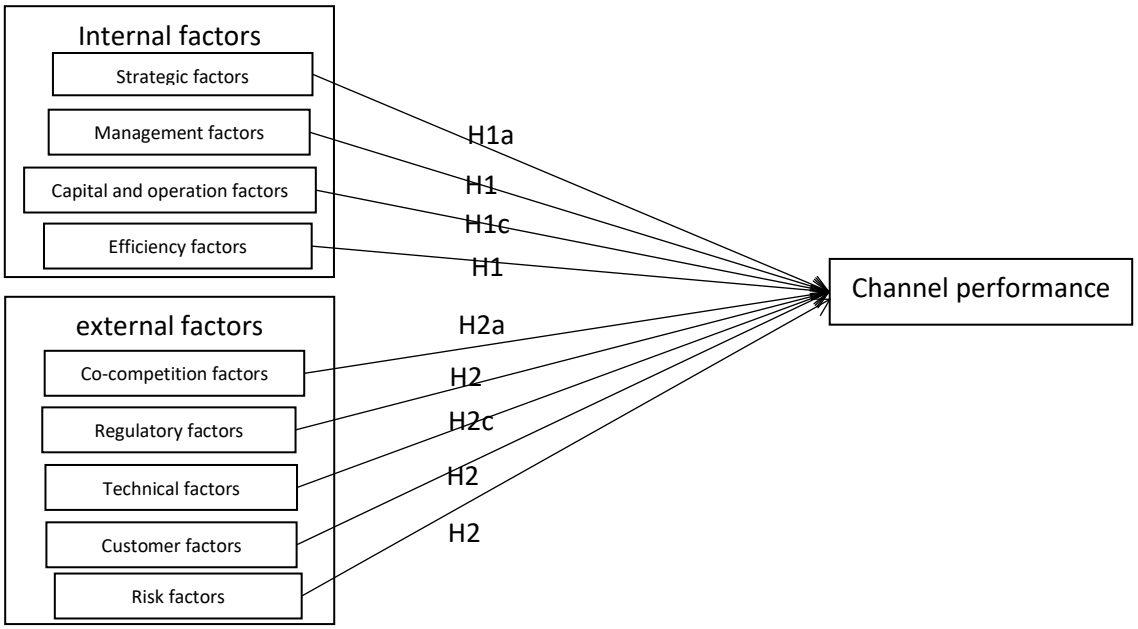

FIGURE 1: conceptual model

Research Methodology

Research Design

The Research Design is a framework or plan for a study that serves as a guide for data collection and analysis (Creswell, 2017). There are various classes of research designs, namely exploratory, descriptive, and explanatory (Saunders, 2016). Exploratory research entails the preliminary research of a hypothetical or theoretical concept. Attempts to explore and explain while providing additional information on the topic (Theron, 2019). According to Zikmund et al (2009), descriptive research describes the characteristics of objects, people, groups, organizations, or environment by addressing who, what, when, where, and how question. Explanatory research was conducted to investigate a phenomenon in a timely manner that had not been studied before or had not been adequately explained previously. Its purpose is to provide supplemental information when only a limited amount is available (Williams & Quave, 2019). The study utilized an explanatory research design to determine the relationship between internal and external factors and marketing channel performance in China. Explanatory research design is primarily concerned with explaining relationships among variables (Theron, 2019). Investigating how or why a phenomenon occurs is the purpose of explanatory research. Consequently, this type of research is prevalently one of the first stages in the research process, serving as a starting pad for further research (Baskerville & Pries-Heje, 2010).

This study collected data through the use of mailed questionnaires. When survey data are collected by mail, the questionnaire is mailed to each respondent with a request to return it by a specified date (Swoboda et al., 1997). This method boasts the advantage of being cost - effective. It offers the researcher access to people in remote areas who may be difficult to contact in person or by telephone (Newton et al., 1998).

Population and Sampling

The researcher used data from the 2021 list of automobile manufacturing enterprises in all provinces, cities, and counties of China to create a comprehensive and current sampling frame.

To determine the sample size of the study, the researcher inputs data into the formula developed by Taro Yamane (1967) to calculate sample size. A 95% confidence level and P=0.5 are assumed for Equation below:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size, and e is the level of precision.

Table 1
Sample Size Calculator

Confidence Level	95%
Total Population	15685
Margin of Error	5%
Sample Size (calculator originated)	390

Unit of analysis: Individuals

Research Instrument

This study adopted the quantitative methods using a questionnaire survey tool to collect the primary data of online respondents in a Wenjuanxing form format. Data in this study were collected through mail survey using self-reported questionnaires. Self-reported questionnaire was used because it is more effective, reduces administrative cost, and can be sent to many people as possible (Dillman, 2007). Internal factors, external factors and marketing channel performance were adapted from previous studies for the variables in the questionnaire. The initial questionnaire was drafted first in English and then translated into Chinese; then the draft was back-translated into English. By comparing the original English questionnaire, discrepancies, if any, could be discovered and rectified. There are four sections to this questionnaire. The first section of this questionnaire describes its purpose and research methodology; the second section asks respondents to provide relevant information. The third section consists of nine indicators measuring internal factors, external factors that influence the marketing channel performance of automobile-manufacturing enterprises. The fourth section analyzes the efficiency and quality of the marketing channel performance measurement scale of automobile manufacturing enterprises. The questionnaire was measured with a Likert 5 scale and scored with a 1-5 point scale. 1. Completely disagree; 2. Disagree; 3. Uncertain; 4. Agree; 5. Completely agree.

Data Analysis and Results

Data analysis was conducted through collected questionnaire . SPSS was used to analyse the data collected by using the technique such as normality test, descriptive analysis, reliability test and multiple regression.

Response Rate

We sent 651 questionnaires and collected 396 from the manufacturer managers. The research objects generally have 5 years or more of management experience in automobile manufacturing enterprises. Among them, 32% have 5 to 15 years of work experience, 42.5% have 15 to 25 years of work experience, and 18% have 25 years or more of work experience. Only 7.5% of the subjects had 5 years of management experience or less. Therefore, the usable questionnaires were 396 sets with a response rate of 60.82%.

Profile of Respondents

Table 2 shows the descriptive analysis of this study which is consists of a minimum, maximum, mean, and standard deviation. The Table 2 indicates that the highest mean value are the management factors (3.45) and technical factors (3.45). Besides, the second highest mean value are the channel performance (3.41) and customer factors (3.41). On the other hand, there are two variables with the lowest means value: regulatory factors (3.23) and capital and operational factors (3.27). Meanwhile, for the standard deviation, the highest dispersion was attained by customer factors which is 0.856. This is followed by competition and cooperation factors (0.848), regulatory factors (0.848) and risk factors (0.841) .

Table 2
Decriptive Statistics of Variables

VarName	Obs	Mean	SD	Min	Max
CP	396	3.41	0.677	1	5
S	396	3.40	0.823	1	5
M	396	3.45	0.818	1	5
CA	396	3.27	0.825	1	5
E	396	3.39	0.820	1	5
CO	396	3.28	0.848	1	5
RE	396	3.23	0.848	1	5
T	396	3.45	0.821	1	5
CU	396	3.41	0.856	1	5
RI	396	3.34	0.841	1	5

Reliability Test

Reliability refers to the consistency, stability and reliability of test results (Belyakov et al., 2018). The reliability coefficients from the results of reliability analysis obtained showed that including sub dimension and total dimension are greater than 0.8, indicating that the reliability of the questionnaire is good. The Table 3 shows the highest scores of reliability test among the variables was channel performance (Cronbach's Alpha = 0.901), followed by customer factors (Cronbach's Alpha = 0.859), regulatory factors (Cronbach's Alpha = 0.852),

risk factors (Cronbach's Alpha = 0.850), efficiency factors (Cronbach's Alpha = 0.847), management factors (Cronbach's Alpha = 0.839), capital and operational factors (Cronbach's Alpha = 0.838), technical factors (Cronbach's Alpha = 0.837), competition and cooperation factors (Cronbach's Alpha = 0.833), strategic factors (Cronbach's Alpha = 0.828). Cronbach's alpha values for all the items are more than 0.8. Therefore, all the variables are well-established with an acceptable level of reliability

Table 3
Reliability Analysis

	N of Items	Cronbach's Alpha
CP	10	.901
S	4	.828
M	4	.839
CA	4	.838
E	4	.847
CO	4	.833
RE	4	.852
T	4	.837
CU	4	.859
RI	4	.850
ALL	46	.963

Regression Analysis

Table 4 is the result of regression analysis. The coefficient of regression analysis is positive and significant (with an asterisk, the significance level is shown in the table notes), indicating that the corresponding factors have a significant positive effect on the dependent variables. Specifically, among the internal factors, the coefficient of S to CP is 0.238***, indicating that there is a significant positive relationship between strategic factors and channel performance; The coefficient of M to CP is 0.176***, indicating that there is a significant positive relationship between management factors and channel performance; The coefficient of CA to CP is 0.149***, indicating that there is a significant positive relationship between capital and operation factors and channel performance; The coefficient of E to CP is 0.155***, indicating that there is a significant positive relationship between efficiency factors and channel performance.

Among the external factors, the coefficient of CO to CP is 0.148***, indicating that there is a significant positive relationship between the competition and cooperation factors and channel performance; The coefficient of RE to CP is 0.154***, indicating that there is a significant positive relationship between regulatory factors and channel performance; the coefficient of T to CP is 0.110***, indicating that there is a significant positive relationship between technical factors and channel performance; The coefficient of CU to CP is 0.149***, indicating that there is a significant positive relationship between customer factors and channel synergy and channel performance; The coefficient of RI to CP is 0.144***, indicating that there is a significant positive relationship between risk factors and channel synergy and channel performance.

Table 4
OLS regression results

	Internal Factors	External Factors
	CP	CP
S	0.238***	
	(0.04)	
M	0.176***	
	(0.04)	
CA	0.149***	
	(0.04)	
E	0.155***	
	(0.04)	
CO		0.148***
		(0.04)
RE		0.154***
		(0.04)
T		0.110***
		(0.04)
CU		0.149***
		(0.04)
RI		0.144***
		(0.04)
_cons	0.978***	1.059***
	(0.13)	(0.12)
N	396	396
r2	0.489	0.49
r2_a	0.48	0.48
VIF_mean	1.66	1.85

Note: Standard errors in parentheses, * p<0.05, ** p<0.01, *** p<0.001

Discussion and Conclusion

Discussion of Findings based on Research Objectives

RO1: To examine the relationship between internal factors and marketing channel performance.

Based on the findings, The four sub-factors selected have a significant positive relationship with channel performance. First of all, the research results confirm that strategic factors have a significant positive relationship with channel performance. This finding is in line with the previous studies (Filho et al., 2021; Meng, 2019; Bastola, 2022). As a result, hypothesis 1a is supported in this investigation.

Besides, the research results also confirmed that management factors have a direct positive and significant relationship with channel performance. This is the same as Li et al (2019); The research conclusions of Huang et al (2018) are consistent. Thus, hypothesis 1b is supported in this study. In addition, This study also verified the relationship between capital&operational factors and marketing channel performance. The research results confirm the research conclusion of (Bauman et al., 2018). Therefore, hypothesis 1c is supported in this study.

Moreover, this study examines the relationship between efficiency factors and marketing channel performance. This study proved that efficiency factors brings a strong effect on marketing channel performance which is aligned with the previous studies of (Mehta et al., 2002; Panda and Sreekumar, 2012; Yang et al., 2012). Hence, hypothesis 1d in this study is supported. In overall, it is proved that strategic factors, management factors, capital&operational factors and efficiency factors have significant positive effects on channel performance

RO2: To examine the relationship between external factors and marketing channel performance.

Similarly, the sub-factors of the five external factors selected in this study also passed the hypothesis test of regression analysis. Specifically, the results of this study show that co-competition factors have a significant positive relationship with marketing channel performance. The conclusion of this study confirmed (Ashari et al., 2014; Xu and Wang, 2018). Therefore, hypothesis 2a is supported in this study.

Secondly, this study proved that regulatory factors brings a strong effect on marketing channel performance which is aligned with the previous studies of (Watson et al., 2015; Bi et al., 2016). Thus, hypothesis 2b is supported in this study. Besides, the research results also confirmed that technical factors have a direct positive and significant relationship with channel performance. This is the same as (O'Connor and Frew, 2004; Chalwe, 2011). Hence, hypothesis 2c is supported in this study.

Finally, the research results confirm that technical factors have a significant positive relationship with channel performance. This finding is in line with the previous studies (Otto et al., 2020). Therefore, hypothesis 2d is supported in this study. Moreover, the results of this study show that risk factors have a significant positive relationship with marketing channel performance which is aligned with the previous studies of (Liu et al., 2008; Jablonski et al., 2019). In general, the survey results show that enterprises need to fully consider issues when dealing with the impact of external factors on channel performance, and especially pay more attention to the factors with great impact

Research Implications

This study may enable a better insight into the factors that impact the marketing channel performance of automobile manufacturing enterprises and proposes a framework for analyzing marketing channel performance of automobile manufacturing enterprises utilizing internal and external factors as independent variables and channel synergy factors as intermediary variables. The establishment of this framework will facilitate comprehending the performance growth drivers of automobile manufacturing companies and in establishing a corporate culture that capitalizes on channel communication. In addition, this study should help in promoting and augmenting the establishment of a theoretical system based on channel performance influencing factors.

On a practical level, this study can provide scientifically based marketing advice to Chinese automobile manufacturers and facilitate them in identifying suitable channels. This study's analysis can equip automobile manufacturing enterprises in determining the significant

influencing variables that impact marketing channel performance, as well as in strengthening channel management levels, empowering channel vitality, reducing expenses, and amplifying enterprise competitiveness. All at the same, as the mediating factor of this research, the in-depth study of channel synergy can enable enterprises in recognizing the impact of channel synergy on internal and external factors, thus further underlining the importance of marketing channel stability and reliability.

Limitation and Future Directions

The first limitation is that this study only analyzes the internal and external factors that have a direct impact on channel performance, and does not further explore the mediating factors and moderating factors that may also have an impact on channel performance. For example, the relationships between channel performance and channel synergy have attracted a growing amount of attention (Guillermo & Masoud, 2019). Some scholars also analyzed the moderating effect of channel combination strategy on channel performance (Jiang, 2011). Therefore, in the subsequent analysis, we will integrate the analysis of intermediary factors and regulatory factors into my research, making my analysis of channel performance more comprehensive.

Secondly, this study only used the mail questionnaire to collect data. The leaders of automobile manufacturing enterprises filled in the questionnaire according to their subjective understanding. The accuracy of their answers may be biased, and the content they filled in may not fully and truly reflect the real marketing situation of the enterprise. If in depth interview and other methods are used, the quality of data collection may be higher and more scientific.

In the future, this study plans to introduce mediating factors to improve the study. At the same time, drawing on the research methods of other scholars, this study plans to use structural equations to validate the research hypothesis again. So as to discuss the influencing factors of channel performance of automobile manufacturing enterprises more comprehensively and scientifically.

Conclusion

This study takes Chinese automobile manufacturing enterprises as the research object. Based on the summary of the existing theoretical research, a questionnaire was designed and 396 responses were obtained. According to the survey results, there is a positive and significant relationship between channel performance and strategic factors, management factors, economic factors, efficiency factors, and environmental factors in internal factors and competition and cooperation, regulatory factors, technical factors, customer factors and risk factors in external factors.

Based on the above discussion, this study is of great significance for Chinese automobile manufacturing enterprises to carry out channel innovation and channel selection and help the enterprise leadership reduce costs in the management and selection of marketing channels. The research conclusion shows that enterprises should focus on the analysis of the impact of internal and external factors on channel performance when formulating marketing channel strategies and fully consider the problem, not only focus on one aspect of the impact factors.

Significance of Study

The purpose of this research is to explore the correlation between internal factors, external factors and marketing channel performance. There are few systematic studies on the variables impacting the marketing channel performance of automobile manufacturers in China. Chinese scholars have conducted few studies on the effect of intermediaries on marketing channel performance. Consequently , this study should prove fairly valuable on theoretical, and practical level.

On a theoretical level, the establishment of this framework will facilitate comprehending the performance growth drivers of automobile manufacturing companies and in establishing a corporate culture that capitalizes on channel communication. In addition, this study should help in promoting and augmenting the establishment of a theoretical system based on channel performance influencing factors.

On a practical level, this study can provide scientifically based marketing advice to Chinese automobile manufacturers and facilitate them in identifying suitable channels. This study's analysis can equip automobile manufacturing enterprises in determining the significant influencing variables that impact marketing channel performance, as well as in strengthening channel management levels, empowering channel vitality, reducing expenses, and amplifying enterprise competitiveness.

References

Ashari, H. A., Heidari, M., & Parvaresh, S. (2014). Improving SMTEs' business performance through strategic use of information communication technology: ICT and tourism challenges and opportunities. International Journal of Academic Research in Accounting, Finance and Management Sciences, 4(3):1-20.

Bauman, A., McFadden, D. T., & Jablonski, B. B. (2018). The financial performance implications of differential marketing strategies: Exploring farms that pursue local markets as a core competitive advantage. Agricultural and Resource Economics Review, 47(3): 477-504.

Bi, K., Huang, P., & Wang, X. (2016). Innovation performance and influencing factors of low-carbon technological innovation under the global value chain: A case of Chinese manufacturing industry. Technological Forecasting and Social Change, 111:275-284.

Chalwe, S. (2011). Factors influencing bean producers' choice of marketing channels in Zambia. University of Zambia: Zambia.

Dai, H. (2020). Research on the integration of automobile marketing channel management mode and the improvement of dealer competitiveness. Modern business, (30): 53-55.

Dutta, G., & Dutta, A. (2019). The Effects of Brand Cognition Process in Automobile Marketing in the Developed Countries. International Journal of Asian Business and Information Management (IJABIM), 10(1):65-77.

Filho, A. M. D. O., Olave, M. E. L., & Barreto, I. D. D. C. (2021). Strategic factors of network organisations and their influence on inter-organisational learning. International Journal of Learning and Intellectual Capital, 18(1):69-92.

Gao, F. (2016). Review and Prospect of research on the effect of sensory stimulation on consumer behavior. Brand research, (02): 63-70.

Huang, C. X. (2018). On the expansion of automobile marketing channels in the new era. Tax, (13): 166-167.

Jablonski, B. B., Sullins, M., & McFadden, T. D. (2019). Community-supported agriculture marketing performance: Results from pilot market channel assessments in Colorado. Sustainability, 11(10):2950.

Jiang, H. D. (2019). Xi zhongyun try the "auto parts + Internet" model. China informatization, (03):36-37.

Li, Z. Q., Ye, W. J., Chen, Y. C., & Lin, Q. H. (2019). Impact of micro tea enterprise social network on tea marketing channel performance. Forestry economic issues, (06):650-658.

Mehta, R., Dubinsky, A. J., & Anderson, R. E. (2002). Marketing channel management and the sales manager. Industrial Marketing Management, 31(5): 429-439.

Meng, X. H., An, Y. W., & Luo, J. Q. (2019). Research on radar signal gene formation mechanism and multi-level modeling method. Modern radar, (02): 72-77.

Merve, M., & Bilen, O. (2021).Strategic Analysis of the Turkish Over-the-Counter Drugs and Non-pharmaceutical Products Market. Turkish journal of pharmaceutical sciences, (3):17-21.

Otto, A. S., Szymanski, D. M., & Varadarajan, R. (2020). Customer satisfaction and firm performance: insights from over a quarter century of empirical research. Journal of the Academy of Marketing Science, 48(3): 543-564.

O'Connor, P., & Frew, A. J. (2004). An evaluation methodology for hotel electronic channels of distribution. International journal of hospitality Management, 23(2): 179-199.

Panda, R. K., & Sreekumar. (2012). Marketing channel choice and marketing efficiency assessment in agribusiness. Journal of international food & agribusiness marketing, 24(3): 213-230.

Ren, J. J., & Wang, R. Y. (2020). Analysis and Countermeasures of environmental risk characteristics of suppliers in the automotive industry. Automotive Industry Research, (04): 39-43.

Shareef, M. A., Dwivedi, Y. K., & Kumar, V. (2016). Mobile marketing channel. In Mobile Marketing Channel, Springer, Cham, pp.25-45.

Shen, G.Y. (2020). Economic operation of automobile industry in 2019. Fine and special chemicals (03):27.

Watson IV, G. F., Worm, S., Palmatier, R. W., & Ganesan, S. (2015). The evolution of marketing channels: Trends and research directions. Journal of Retailing, 91(4): 546-568.

Xu, F., & Wang, H. (2018). Competitive–Cooperative strategy based on altruistic behavior for dual-channel supply chains. Sustainability, 10(6): 2103.

Yang, Z., Su, C., & Fam, K. S. (2012). Dealing with institutional distances in international marketing channels: Governance strategies that engender legitimacy and efficiency. Journal of Marketing, 76(3): 41-55.

Yang, Z. Y. (2020). Responding to the epidemic: how can active fiscal policy be more effective. Financial Science, (04):7-13.

Yin, Z. (2019). Research on performance evaluation of distribution channel of ZS Electric Company. Hebei University. Master's thesis.