RELATIONSHIP BETWEEN DIGITAL MARKETING CAPABILITY AND CONSUMER BEHAVIOR PURCHASE INTENTION ON DIGITAL PLATFORMS WITH BLOCKCHAIN TECHNOLOGY AS A MODERATING VARIABLE

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The advancement of global technology affects consumers' purchasing behavior. With the popularization of the Internet and mobile tools, people's shopping methods are gradually shifting from offline to digital online via Internet and mobile communications. These marketplaces have very high requirements in terms of marketing capabilities and mobile communications. Digital marketing capabilities (DMC) have become the core of companies' competitiveness. Blockchain technology (BT) is becoming the latest technology to disrupt this industry after big data. Applying BT to the digital purchase platforms to build effective DMC has become an important part of the core competitiveness of many Internet companies. Constructing a consumer behavior model for DMC with a moderating effect of BT based on the research on consumer behavior intentions on digital platforms (DPCI) has become the key objective of our study. Interviews and questionnaire surveys have been mainly conducted with digital platform managers as the key research object. SPSS has been used on the 300 valid questionnaires received. We may conclude that DMC positively affects DPCI, and BT is playing a regulatory role on both of them. Our empirical results enrich the theoretical model of DMC.

Keywords: digital marketing; trust; safety; regulatory environment; digital platforms; consumer behavior intentions

Introduction

DMC is a combination of targeted marketing, direct marketing, decentralized marketing, customer-oriented marketing, dual interactive marketing, remote or global marketing, virtual marketing, paperless transactions, and direct marketing.

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Today, digital platforms have become an everyday phenomenon already. They change the models of the goods and services markets as well as relations within the supply chains and with manufacturers. The market boundaries are becoming more blurred, and this has already affected customers (Evans, 2016). Nowadays, technologies such as big data, artificial intelligence (AI), cloud computing, Internet of Things (IOT), quantum computing, and BT have become important goals of the national strategic development policies, as this is the way how all countries may achieve economic modernization.

There are nearly 30 mln SMEs (small and medium-sized enterprises) in China these days, and more than 90% of them need to transform their marketing methods. Based on the above information, DMC can solve the following four major problems:

1. The problem of asymmetry in information communication between enterprises and consumers.
2. The problem of weak anti-counterfeiting methods applied today.
3. The problem of inefficient sales promotion.
4. The problem of low advertising efficiency.

This article takes digital platform managers as the research objects and BT as a moderator for studying the influence of DMC and DPCI. Our research tasks are as follows:

1. To reveal the mechanism behind the effect of DMC on DPCI, and more fully, to reflect the relationship between DMC and BT;
2. To optimize the management system through the integration of DMC and BT to influence DPCI, and work together to maximize their effectiveness, increase DPCI, to provide a new perspective on DMC.

The expected research results would have several levels of significance.

1. Practical significance: much better understanding of what digital economy is, and how core competencies of companies can be built on it.
2. Methodological significance. This study is using quantitative research methods to explore the mechanism behind the relationship between DMC and DPCI in the Chinese context and it is also using models and research methods to analyze and measure the effects of DMC on DPCI.
3. Theoretical significance. This study uses the stakeholder theory and the relationship marketing theory to conduct empirical research on the relationship between DMC and DPCI for the first time in China (to the best of our knowledge) and to introduce BT as a moderating variable affecting both DMC and DPCI, thus making the research system richer and more comprehensive.

Literature review

Digital marketing capability (DMC)

According to Day (2011), DMC is the ability of a company to use digital resources to perform a set of coordinated digital-related tasks to achieve competitive advantage. Taiminen, H. & Karjaluo, H. (2015) refer to DMC as to the relationship capabilities required to take advantage of digital advantages. DMC and the related functions enable companies to adjust their resource allocation and develop new skills to handle real-time connectivity between stakeholders (Kane et al., 2015).

DMC must be inherently dynamic in order to make responsive and flexible decisions (Teece & Feiler, 2014). Mathews et al. (2016) stated that digital marketing focuses on the

influence of customers, market activities, and Internet marketing functions. Although organizations see digitalization as the main trend these days, they still lag behind consumers when it comes to digital adoption rates.

Fatima (2020) has found that company size and entrepreneurial direction have a moderating effect on DMC and company performance. This author has provided empirical evidence on the performance results of DMC, comparing the impact of DMC on large, medium, and small enterprises. Generally speaking, DMC has responded to the acute practical call to narrow the marketing capability gap between the available resources and the required resources to cope with the complexity and speed of the digital market (Day, 2011).

In the light of the literature above, this article defines DMC as a dynamic relationship function. Referring to (Fatima, 2020), scale indicators may be used to analyze the specific content of DMC: creating and managing lasting customer relationships through digital media, using digital media to predict changes in customer preferences and also using digital marketing to meet customer needs and achieve the ability to retain customers. This leads us to formulation of the following hypotheses:

Hypothesis H1: DMC is positively correlated with DPCI.

Hypothesis H1a: Creating and managing lasting customer relationships is positively correlated with DPCI.

Hypothesis H1b: Predicting changes in customer preferences is positively correlated with DPCI.

Hypothesis H1c: The ability to use digital marketing to meet customer needs and thus achieve customer retention is positively correlated with DPCI.

Blockchain technology(BT)

BT is based on cryptography, a way of writing and solving codes to safely convey messages (Diffie & Hellman, 1976). Blockchain originally started with distributed ledger technology (DLT) as the basis for bitcoin and other cryptocurrencies (Nakamoto, 2008). It can be used anywhere as a digital, trustworthy, decentralized ledger and it may also have other functions, which is why it is used as a distributed tool by companies in various business fields in a consensus manner (Antonopoulos, 2017).

Blockchain is a kind of digital ledger or a database that can keep all unchanging operating records and transaction content (Drescher, 2017). When applied to business, the benefits of blockchain include cost saving, time saving, simplified procedures, enhanced customer trust system, higher security, higher transparency, less tampering and fraud, and reduced auditing requirements. Thus, BT is known to be reducing overhead and human errors caused by manual processes, it is also reducing transaction costs, etc. (de Oliveira, 2017).

This paper refers to (Treiblemaier, 2019; Clohessy et al., 2019), as both these studies are suitable for the topic of this paper. Security and trust in the case with blockchain are formed by the five characteristics of anonymity, traceability, transparency, smart contract, and distributed accounting. Developed in 2019, the BT scale is composed of the three dimensions of the regulatory environment and can be used as the main reference scale.

Stakeholders

Penrose (1959) wrote that "a company is a collection of human assets and interpersonal relationships", thus laying the foundation for the composition of stakeholders". The pioneer of stakeholder theory, Gwin (1990) was the first scholar who proposed applying stakeholder

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theory to relationship marketing. This article is based on the previous studies, as through in-depth analysis of DPCI it attempts to understand the importance of today's consumer behavior intentions when it comes to expanding DMC. It also strives to establish a digital marketing strategy system based on the stakeholder theory to overcome the strategic limitations of the existing marketing theories.

Relationship marketing theory

Relationship marketing is an interactive process between an organization and the related stakeholders (such as consumers, suppliers, agents, competitors, etc.) which is based on a solid but constantly developing foundation. (Rowley et al., 1997) have put forward the view that any market is composed of transaction networks. Relationship marketing theory also examines the existence of these subsystems (Gronroos, 1994), thus expanding the relationship marketing based on stakeholder groups. Dwyer (1987) pointed out that stakeholder theory and relationship marketing theory have a lot of differences and are inextricably linked. Svendsen pointed out that organizations must first of all respond to the needs of stakeholders (Svendsen, 1998).

Based on the above literature, this article will be studying the relationship between DMC and DPCI which is regarded to be a positive correlation, and the most suitable scale for our purposes seems to be the one suggested by Herhausen et al. (2020). This scale has the total nine dimensions of purchase intentions as the measurement indicators. This leads to formulating the following hypotheses:

Hypothesis H2: BT has a positive regulatory effect on DMC and DPCI.

Hypothesis H2a: BT security has a positive regulatory effect on DMC and DPCI.

Hypothesis H2b: BT trust has a positive regulatory effect on DMC and DPCI.

Hypothesis H2c: BT environmental supervision has a positive regulatory effect on DMC and DPCI.

Table 1 - Summary of the author's models
(made by the author)

H1	DMC is positively correlated with DPCI
H1a	Creating and managing lasting customer relationships is positively correlated with DPCI
H1b	Predicted changes in customer preferences are positively correlated with DPCI
H1c	The ability to use digital marketing to meet customer needs and thus achieve customer retention is positively correlated with DPCI
H2	BT has a positive regulatory effect on DMC and DPCI
H2a	BT security has a positive regulatory effect on DMC and DPCI
H2b	BT trust has a positive regulatory effect on DMC and DPCI
:	
H2c	BT environmental supervision has a positive regulatory effect on DMC and DPCI

From the above, a hypothetical model of DPCI for DMC has been constructed by the author and is shown in the figure below.

Figure 1 - Hypothetical Model of DPCI of DMC
(made by the author)

Research methods

1. Interview method: This article uses the interview method to conduct on-site interviews with the digital platforms managers. The interviewees we've managed to reach out to have been either digital platform managers, or business owners. The total of eight people were interviewed.

2. Questionnaire survey method: In order to understand the reasons that affect the performance of digital marketing platforms, we have also conducted a survey of the people who are directly involved in promotion and/or management of digital platforms.

Due to the epidemic, the number of questionnaires received did not reach the expected number (set initially at 400). However, as the questionnaires were mainly filled out by the people at the supervisor level or above, we have all reasons to believe that they do reflect the currently existing problems in the studied field. The questionnaire has adopted a Likert scale.

Collecting questionnaires and then conducting SPSS analysis on them, we have found that DMC positively affects DPCI, while BT plays a positive role in regulating DMC and DPCI. Thus, our empirical data enriches our initial theoretical assumptions.

Results and discussion

Summary of questionnaires collection.

Table 2 - Valid questionnaires
(made by the author)

		N	%
Valid questionnaires	All questionnaires	309	100.0
	Weeded out	9	2.9%
	Effective	300	97%
	Total	300	100.0

Among the 309 questionnaires retrieved, four turned out to be having duplicated numbers and five were assumed as invalid.

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Table 3 - Reliability analysis results
(made by the author)

Item	Subitems under inspection	Codes	Cronbach's α values	Subscale Cronbach's α values	Cronbach's Alpha
DMC	Creating and managing lasting customer relationships through digital media	DMC ₁	0.743	0.837	0.933
	Using digital media to predict changes in customer preferences	DMC ₂	0.742		
	The ability to use digital marketing to retain customers	DMC ₃	0.834		
DPCI	Platform interactive services enable consumers to reach purchase intentions	DPCI ₁	0.947	0.951	
	The response speed of the platform enables consumers to reach purchase intentions	DPCI ₂	0.944		
	The ease of use of platform services enables consumers to reach purchase intentions	DPCI ₃	0.943		
	The quality of platform information enables consumers to reach purchase intentions	DPCI ₄	0.945		
	Platform service trust allows consumers to reach purchase intentions	DPCI ₅	0.945		
	Platform design enables consumers to reach purchase intentions	DPCI ₆	0.947		
	Platform service security enables consumers to reach purchase intentions	DPCI ₇	0.944		
	Platform services and product quality enable consumers to reach purchase intentions	DPCI ₈	0.946		
	Platform responsibility enables consumers to reach purchase intentions	DPCI ₉	0.945		
BT	Set access permissions for pre-defined customers, increase the customer's sense of security, and make customers generate purchase intentions	BT _{1a}	.974	0.921	
	The non-falsification of the transaction increases the customer's sense of security and the customer has the intention to buy	BT _{1b}	.973		
	Transparency of information communication and transactions promotes the reading of buyers and sellers, makes customers feel safe and makes customers feel more willing to buy	BT _{1c}	.974		
	The complexity of the script used by the network currency is difficult to imitate, and high efficiency of the smart contract increases the customer's sense of security and makes the customer generate purchase intentions	BT _{1d}	.973		
	The distributed ledgers kept by all parties to the transaction are embedded in the ever-growing record blocks, which are controlled by passwords and distributed consensus mechanisms, increase the sense of security among customers and make them generate purchase intentions	BT _{1e}	.974		

	Set access permissions for pre-defined customers to increase customer trust and make customers generate purchase intentions	BT _{2a}	.973	0.933	
	The non-falsification of the transaction increases the trust of the customer and the customer has the intention to buy	BT _{2b}	.973		
	Transparency of information communication and transactions promotes the reading of buyers and sellers, creates trust in customers, and the willingness to buy	BT _{2c}	.973		
	Complexity of the script used by the network currency is difficult to imitate, and efficiency of the smart contract increases the trust among customers and generates purchase intentions	BT _{2d}	.973		
	The distributed ledgers kept by all parties to the transaction are embedded in the ever-growing record blocks which are controlled by passwords and distributed consensus mechanisms to increase customer trust and make customers generate more purchase intentions	BT _{2e}	.974		
	Setting access permissions for pre-defined customers can strengthen the platform supervision environment and make customers generate more purchase intentions	BT _{3a}	.973	0.922	
	The transactions cannot be tampered with, thus strengthening the platform supervision environment, and making customers generate more purchase intentions	BT _{3b}	.973		
	Transparency of information communication and transactions promotes the reading of buyers and sellers, makes customers feel more safe, strengthens the supervision environment of the platform, thus making customers want to buy more	BT _{3c}	.973		
	Complexity of the script used by the network currency is difficult to imitate, while high efficiency of smart contracts enhances the platform supervision environment and makes customers generate more purchase intentions	BT _{3d}	.974		
	The distributed ledgers kept by all parties to the transaction are embedded in the ever-growing record blocks, which are controlled by passwords and distributed consensus mechanisms. The enhanced platform supervision environment enables customers' purchase intentions.	BT _{3e}	.975		

Thus, the total of nine questionnaires was disregarded from the sample to be taken for further analysis.

Reliability and validity analysis

These two are the indicators that reflect the consistency and/or stability of the measurement results. The higher the reliability of the measurement, the more credible the measurement result is.

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In order to make the results more convincing, this article has carried out specific tests on each dimension of the measurement. The above shows that the test results are all above 0.74, thus indicating that the data in this questionnaire has a very high credibility level.

Validity analysis

Table 4 - Validity analysis
(made by the author)

KMO & Bartlett test results					
Items	Codes	Adequate sampling	Bartlett sphericity test		
		Kaiser-Meyer-Olkin Measure	Approximate chi-square	df	Sig.
Digital Marketing Capability	DMC	.710	368.119	3	.000
Digital Platform Consumer Purchasing Intention	DPCI	.947	2333.590	36	.000
Blockchain Technology	BT	.965	5149.877	105	.000

The value of KMO is between 0-1. What is also examined here is the partial correlation between the variables in question. The KMO value of DMC is 0.71, and for DPCI it is 0.947. There is a significant difference in the unit matrix, the correlation of the internal variables is relatively large, and the detection result is very good. The BT detection result is 0.965, as shown in Table 4 above. This value is significant. The measurement results are very good and suitable for factor analysis.

Descriptive analysis

Descriptive statistical analysis of the sample data through such indicators as maximum value, minimum value, mean, variance, standard deviation, skewness and kurtosis, analyze the distribution patterns and the characteristics of the sample data, thus testing whether the sample data meets the research hypothesis logic.

From the results of the descriptive statistical analysis of the characteristics of the sample data in Tab. 5, the average value of each item is between 3.87-4.1667, which shows that the distribution is relatively balanced.

The standard deviation of each item is between 0.849-0.98372, thus indicating that the sample data dispersion is small. Klein (1998) believed that when the absolute value of the sample data skewness is less than 3 and the absolute value of kurtosis is less than 8, it can be considered that the observed variable basically conforms to the normal distribution. From the above statistical results, the absolute value of skewness of all the items is ≤ 1.158 , and the absolute value of kurtosis is ≤ 1.733 , which is much smaller than the reference value proposed in (Klein, 1998). Therefore, it can be considered that the sample data basically conforms to the normal distribution and meets the basic requirements of the research hypothesis for the analysis of data in this paper.

In the dimension of DMC, it is 3.87 to 3.95, and the standard deviation is between 0.952 and 0.984, thus indicating that digital marketing platform managers generally believe that DMC can increase DPCI. In the dimensions of DPCI, the mean value is within the range of 3.96-4.17, and the standard deviation is within 0.849-0.909, thus indicating that these

behaviors of digital platform consumers can indeed increase consumption by improving the status of digital platforms. The average value of the BT dimension is within 3.87-4.02, and the standard deviation is 0.865-0.957, thus indicating that DMC can enhance DPCI through BT.

Table 5 - Descriptive Analysis (N = 300)
(made by the author)

	Descriptive statistics							
	Minimum value	Maximum value	Mean	Standard deviation	Skewness		Kurtosis	
	Statistics	Statistics	Statistics	Statistics	Statistics	Standard error	Statistics	Standard error
DMC ₁	1.00	5.00	3.8833	.95188	-.631	.141	.051	.281
DMC ₂	1.00	5.00	3.9533	.98372	-1.158	.141	1.332	.281
DMC ₃	1.00	5.00	3.8667	.97916	-.741	.141	.248	.281
DPCI ₁	1.00	5.00	3.9600	.84900	-.716	.141	.602	.281
DPCI ₂	1.00	5.00	4.0300	.86695	-.957	.141	1.138	.281
DPCI ₃	1.00	5.00	4.0333	.86102	-.824	.141	.703	.281
DPCI ₄	1.00	5.00	4.0700	.89504	-1.011	.141	1.023	.281
DPCI ₅	1.00	5.00	4.1200	.86878	-1.128	.141	1.521	.281
DPCI ₆	1.00	5.00	3.9767	.88623	-.854	.141	.896	.281
DPCI ₇	1.00	5.00	4.0867	.89918	-1.005	.141	1.085	.281
DPCI ₈	1.00	5.00	4.1667	.87260	-1.182	.141	1.733	.281
DPCI ₉	1.00	5.00	4.0233	.90859	-.962	.141	.946	.281
BLCH _{1a}	1.00	5.00	3.8900	.91690	-.724	.141	.657	.281
BLCH _{1b}	1.00	5.00	3.9700	.90840	-.830	.141	.796	.281
BLCH _{1c}	1.00	5.00	3.9933	.92166	-.864	.141	.756	.281
BLCH _{1d}	1.00	5.00	3.9967	.93070	-.971	.141	1.026	.281
BLCH _{1e}	1.00	5.00	3.9933	.91437	-.832	.141	.625	.281
BLCH _{2a}	1.00	5.00	3.8700	.96759	-.629	.141	.149	.281
BLCH _{2b}	1.00	5.00	4.0133	.89582	-.841	.141	.898	.281
BLCH _{2c}	1.00	5.00	3.9700	.93381	-.957	.141	1.079	.281
BLCH _{2d}	1.00	5.00	4.0300	.93022	-1.089	.141	1.403	.281
BLCH _{2e}	1.00	5.00	3.9800	.90683	-.800	.141	.619	.281
BLCH _{3a}	1.00	5.00	3.9733	.95691	-.938	.141	.855	.281
BLCH _{3b}	1.00	5.00	3.9933	.92528	-.879	.141	.873	.281
BLCH _{3c}	1.00	5.00	3.9933	.86552	-.891	.141	1.295	.281
BLCH _{3d}	1.00	5.00	4.0267	.88046	-.792	.141	.627	.281
BLCH _{3e}	1.00	5.00	3.9467	.93456	-.760	.141	.469	.281

Regulation detection

According to Herhausen D. et al. (2020) results concerning the moderating effect test, if the regression coefficient is significant, the moderating effect is proved.

M1 is the regression of the dependent variable DPCI on the control variable; M2 is the regression of adding the modulating variable BT and the independent variable; M3 is the regression of adding the independent variable levels and the interaction terms of the modulating variable. The running results are shown in Tab. 6.

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Table 6 - Moderating variable test
(made by the author)

General hypothesis adjustment test				Sub-hypothesis adjustment test			
Item	Dependent variable: DPCI			Item	Dependent variable: DPCI		
	M1	M2	M3		M1	M2	M3
Control variable							
GENDER	-.050	-.034 ^b	-.030 ^b	GENDER	-.035	-.028 ^b	-.021 ^b
AGE	.089	.060 ^b	.061 ^b	AGE	.091	.068 ^b	.072 ^b
EDUCATION	.030	.009 ^b	.012 ^b	EDUCATION	.035	.013 ^b	.023 ^b
PROFESSION	.009	-.004 ^b	-.004 ^b	EDUCATION	.011	-.006 ^b	-.015 ^b
POSITION	.049	.036 ^b	.037 ^b	POSITION	.043	.025 ^b	.015 ^b
Your proficiency in computer or mobile phone use	.047	.048 ^b	.049 ^b	Your proficiency in computer or mobile phone use	.057	.054 ^b	.055 ^b
Independent variable							
DMC	.577	.576	.802	DMC1	.134	.129	.494
				DMC2	.151	.155	.420
				DMC3	.296	.295	-.073
Moderating variable							
BT		.077	.293	BT		.071	0.333
Interactive item							
DMC×BT			-.054	DMC1×BT			-.089
				DMC2×BT			-.063
				DMC3×BT			.090
R	.656 ^a	.667 ^b	.668 ^b	R	.666 ^a	.676 ^b	.682 ^b
R ²	.431	.445	.446	R ²	.443	.457	.466
ΔR ²	.431	.014	.015	ΔR ²	.443	.014	.013
F	112.265	29.129	25.988	F	58.644	24.296	19.173
ΔF	112.265	1.238	1.282	ΔF	58.644	1.221	1.163

It can be seen from Tab. 6 that after the BT moderating variables are added, the coefficient of the independent variable DMC is significantly reduced (from 0.577 to -0.054) and the F value of the model is also significant at the level of $P < 0.05$, which proves BT plays a mediating role between DMC and DPCI.

Therefore, our hypothesis H2 has been verified.

The regression coefficients of the interaction terms between the three factors of DMC and BT are significant. BT respectively positively regulates the influence of the three factors of DMC on DPCI. After the regression of the three-dimensional interaction items of DMC were added, the coefficients of the three factors of marketing power were significantly reduced (0.134, 0.151, 0.296 to -0.089, -0.063, 0.090), and R² increased from 0.431 before the interaction to 0.013, thus indicating that the interaction of the three factors of DMC and DPCI promotes corporate performance behavior.

This proves that the hypotheses H2, H2a; H2b, H3c are all verified.

Correlation analysis

Table 7 - Correlation analysis
(made by the author)

		DMC1	DMC2	DMC3	DPCI
DMC1	Pearson Correlation	1	.716**	.590**	.539**
	Significance (bilateral)		.000	.000	.000
DMC2	Pearson Correlation	.716**	1	.591**	.548**
	Significance (bilateral)	.000		.000	.000
DMC3	Pearson Correlation	.590**	.591**	1	.608**
	Significance (bilateral)	.000	.000		.000
DPCI	Pearson Correlation	.539**	.548**	.608**	1
	Significance (bilateral)	.000	.000	.000	

** . Significantly correlated at the .01 level (two-sided)

The results presented in Tab. 7 confirm that the correlation between DMC1 and DPCI is 0.539, DMC2 and DPCI — 0.548, and between DMC 3 and DPCI it is 0.608. The results also show that there is no problem of collinearity here.

Table 8 - Summary of the relationship model between DMC and DPCI
(made by the author)

H1	DMC is positively correlated with DPCI	Result
H1a	Creating and managing lasting customer relationships is positively correlated with DPCI	Confirmed
H1b	Predicted changes in customer preferences are positively correlated with DPCI	Confirmed
H1c	The ability to use digital marketing to meet customer needs to achieve customer retention is positively correlated with DPCI.	Confirmed
H2	BT has a positive regulatory effect on DMC and DPCI	Confirmed
H2a	BT security has a positive regulatory effect on DMC and DPCI	Confirmed
H2b	BT trust has a positive regulatory effect on DMC and DPCI	Confirmed
H2c	BT environmental supervision has a positive regulatory effect on DMC and DPCI	Confirmed

According to the above test, the relationship model between DMC and DPCI is as follows

Figure 2 - Final model of the relationship between the variables in question
(made by the author)

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Conclusions and recommendations

Factors hindering digitalization include lack of digital maturity and functionality (Day, 2011; Kane et al., 2015), unclear digital performance gains (Leeflang et al., 2014), and the need to transform organizational functions and international business (IB) to support the digitization process. These challenges require the expansion of digital marketing functions and performance. D. Herhausen (2020) defines DMC as continuous dynamic interaction between interdependent trusted parties that enables any participant to take advantage of its value. This article puts forward the following suggestions:

- a) DMC mainly comes from the resources invested in establishing relationships between enterprises and customers;
- b) DMC strengthens company's internal operating system and integrates with BT to enhance core competitiveness.

Research limitations and future research directions

1. Research sample aspect. The survey in this study has covered business owners or supervisors of some small and medium digital platforms in Jiangsu, Zhejiang, Shanghai, Guangxi, Beijing, Shandong, and several other places. Although most of the research models and research hypotheses constructed are supported and verified by the sample data, the research results and conclusions cannot be treated as universally applicable still and thus need further verification.

2. The research aspect. This research has been organized during the pandemic times, thus, questionnaire collection has been mainly online, and the collection channel is relatively simple. Also, the research objects selection process has been affected by many factors. Some of these factors cannot be fully explained operating the variables selected for this article specifically.

In the context of the digital age, the research on digital platforms is becoming one of the main research fields of the future "digital economy+". Future research also needs to dig deeper into technological innovations, BT, big data statistics, and platform systems. The research ideas can be expanded by putting forward constructive and operable suggestions as well as countermeasures based on the suggestions.

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<i>Paper submitted</i>	<i>12 August 2021</i>
<i>Paper accepted for publishing</i>	<i>20 October 2021</i>
<i>Paper published online</i>	<i>30 November 2021</i>