The Impact of Business Model Innovation on The Dynamic Capabilities of Online Literature Reading Platforms

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ABSTRACT

With the rapid development of online literature, the needs of readers are increasingly diversified, and the competition among online literature reading platforms is constantly intensifying. Facing the dynamically changing external environment, each platform can only continuously enhance its own dynamic capabilities and carry out business model innovation, in order to develop continuously. This paper takes the Chinese online literature reading platform as the research object to study the relationship between business model innovation and the dynamic capabilities of the online literature reading platform, and collects 201 questionnaires for employees of nine online literature reading platforms. Through regression analysis, the following conclusions are drawn: Business model innovation has a significant positive effect on the perception ability of the platform, the development ability of emerging technologies, the creativity of employees, and the ability to improve user transfer costs.

Keywords: business model; dynamic capability; online literature; innovation

1. INTRODUCTION

1.1. Research background and significance

As China enters the Internet era, the reading market explodes with huge demand, and more and more users are exposed to online literature through the Internet [4]. According to the 44th Statistical Report on the Development Status of the Internet in China, as of June 2019, the existing users of online literature in China accounted for 53.20% of Internet users as a whole, numbering up to 455 million.

Faced with huge market demand and complex changes in the external environment, online literature reading platforms need to continuously enhance their dynamic capabilities, integrate, build or reset internal and external resources, and respond quickly to changes and opportunities in the commercial market and external competitive environment [5].

While a business model is the underlying structure for an organisation to create, deliver and capture the value that the organisation needs [8], business model innovation is the process of organisational change in which a company attempts to create and capture value for its stakeholders through a new value proposition [2]. In the process of business model innovation, a series of new values and resources are created, which are integrated and reconfigured to enhance their dynamic capabilities, which in turn are the source of their core competitiveness [6].

1.2. Research methods and innovations

This paper investigates the impact of business model innovation on the dynamic capability of online literature reading platforms, aiming to provide a theoretical basis for online literature reading platforms to carry out business model innovation to enhance dynamic capability and to further improve the core competitiveness of the platforms. Hierarchical regression method is used to establish the model and observe its regression relationship.

2. RELEVANT THEORETICAL FOUNDATIONS

2.1 Online literature reading platforms

With the rapid development of Internet technology, online literature began to appear in the public eye by virtue of its own convenience. The difference between online literature and traditional literature lies in the different creation process and profit model, and a large amount of capital has been attracted by the potential commercial value of online literature [3]. Compared to the early traditional online literature reading of pure text, the various online literature reading platforms operate commercially on online literature, which now focuses on copyright, is committed to IP incubation, innovative author training model, development of VIP paid reading, and gradually formed film and television works, IP derivative goods, animation games and other cultural industries [7].

2.2 Business model innovation

Business model innovation refers to an enterprise changing its original logical way of acquiring value and acquiring new value through a series of changes, by adjusting or improving the existing business model in order to adapt it to the changing external environment. Business model innovation not only enables enterprises to gain operational benefits in a dynamically changing environment, but also plays an important role in gaining sustainable competitive advantage.

A large number of scholars have studied the specific operational and realisation mechanisms from three perspectives: the components of a business model, the degree of innovation and the step-by-step stages.

Starting from the components of business models, which play an important role in the study of business model innovation, but various scholars' studies have not reached a uniform conclusion on the components of business models so far. Osterwalder and Pigneur point out that business models consist of four elements: products and services, financial situation, infrastructure and customers; Lambert points out that business models consist of products/services/information, revenue, value chain and location, cooperation network, and customer interaction channel. Changes in any of the components of a business model or interactions between the components can affect business model innovation.

From the perspective of the degree of business model innovation, it can be divided into incremental and disruptive innovation. Incremental innovation means taking full account of existing resources while the business logic and industry rules remain basically unchanged and continuously improving technology; disruptive innovation, on the other hand, is using new technology and resources to change the existing business logic and adjust industry rules if necessary.

From a step-stage perspective, business model innovation can be viewed as a dynamic process of organizational change in which business model innovation is decomposed into different steps based on theories such as life cycle and business model canvas, and the purpose of achieving each step and the way to achieve it are analysed [2].

2.3 Dynamic capabilities

Teece et al. argue that dynamic capabilities are an indispensable capability for firms that can quickly identify opportunities arising from changes in the environment by integrating and reallocating existing resources. Eisenhardt and Martin argue that dynamic capabilities can be categorised into processes such as new product development, organisational decision making processes, organisational knowledge transfer and assimilation through collaboration with stakeholders. Competitive advantage is gained through the acquisition of elements such as knowledge, technology and information to adapt to the changing external business environment [5]. With the development of theories, scholars have noticed that dynamic capabilities need to be interwoven with more research areas to have more appropriate and specific responses to different scenarios.

In the perspective of online literature reading platform, the literary works produced by authors and the reading platform created by enterprises are the direct link between enterprises and readers, and also the most important competition factor between online literature reading platforms. From the perspective of developing new product processes, this paper divides the dynamic capabilities of online literature reading platforms into.

First, perception ability, refers to the judgment of the online literature reading platform on various factors such as readers' demand, competitors and policy changes, and uses them as the basis for predicting future market development.

Second, emerging technology development ability, refers to the Internet, big data and other emerging technologies. These technologies bring profound impact to online literature, combining technology with copyright protection, IP transaction costs, etc., and in turn transforming online literature from a purely text-based form to short videos, film and television dramas and other forms.

Third, employee creativity. Employees are one of the most important resources of enterprises. Employees with creative thinking can effectively improve the ability to innovate products, and thus improve the dynamic ability of the organization. In this paper, in the perspective of online literature reading platform, the main source of

employee creativity contracted authors, so the contracted authors as the object of the study of employee creativity.

Fourth, improve user transfer cost capability. Transfer cost refers to the cost perception of users when they move from one online literature reading platform to another, and improving user transfer cost capability refers to the ability to hinder users from carrying out transfer behaviour and promote users to continue using the original platform.

3. MODEL AND DATA

3.1 Model building

The rapid development of online literature reading platforms is influenced by factors such as readers' demands and changes in the business environment, and platforms need to constantly perceive changes in the external environment when conducting business model innovation, and make corresponding decisions by perceiving readers' changing requirements for online literature, the state's control over online literature titles, and competitors' strategic changes, to improve the organisation's ability to reintegrate and allocate internal and external resources and respond quickly to market changes, which emphasizes the dynamic matching process between corporate capabilities and the environment, so business model innovation will inevitably improve the perceived capabilities of online literature reading platforms. Therefore, the following hypothesis is proposed.

H1: Business model innovation has a significant positive effect on the perceived capability of online literature reading platforms.

One of the reasons why online literature reading platforms continue to innovate their products and processes is the development of emerging technologies, and the development of big data, which has enabled a change from "people looking for information" to "information looking for people", and a shift from full-fledged to personalised [1]. Based on the reader's basic information and historical reading, Big Data will match online literature works to the reader. The development of the short video industry has given a new carrier for the dissemination of online literature, transforming pure text into a new mode of communication that combines "seeing" and "hearing", enabling readers to have an immersive and interactive experience. Blockchain technology, with its open, permanent and untamperable features, can effectively protect the copyright of works. In addition, it does not require a third-party crowdfunding platform for credit endorsement, and consumers can join the whole process from IP production to consumption, which can reduce financing costs and IP transaction costs. Online literature platforms need to continuously focus on the development of emerging technologies when

conducting business model innovation and use emerging technologies to improve organisational competitiveness; therefore, the following hypothesis is proposed.

H2: Business model innovation has a significant positive effect on the ability of online literature reading platforms to develop emerging technologies.

From the perspective of readers of online literature, the creativity of contracted authors is an important factor in attracting readers. The most important employees of online literature reading platforms are contracted authors, and the training mechanism, salary composition and creative space of authors on each platform are the sources of creativity of contracted authors, and if authors lack innovation in the direction of content and subject matter, and thus create a thousand works in order to pursue content that readers like, online literature will develop in a patterned direction. Therefore, the following hypothesis is proposed.

H3: Business model innovation has a significant positive effect on the creativity of employees on online literature reading platforms.

Increasing transfer costs can enhance readers' loyalty to the platform. For readers, transfer costs are divided into time and money. From the perspective of time, readers have authors who meet their reading interests, a familiar reading interface, etc. in a certain online literature reading platform, and from the perspective of money, readers have paid to read some works, topped up and become members of the platform. When readers move to another platform, they need to re-learn to operate the reading interface, find new authors that meet their interests, and recharge for their works or platform membership, thus increasing the transfer costs for readers. Online literature reading platforms looking for suitable target customer groups, innovative product development processes and optimised revenue models can increase the transfer costs of users, which in turn increases user loyalty and enhances the competitiveness of the platform. Therefore, the following hypothesis is proposed.

H4: Business model innovation has a significant positive effect on enhancing the ability of online literature reading platforms to increase the transfer costs of their users.

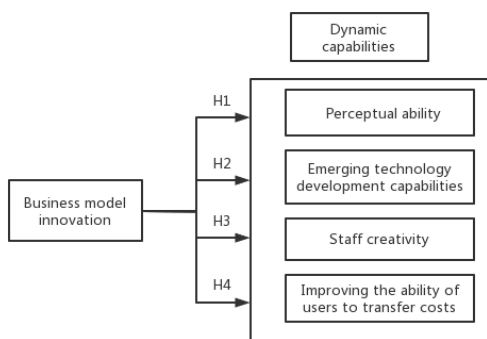The research model in this paper is shown in Figure 1.

Figure 1: Research model

3.2 Source of Data

We take online literary reading platforms as the research object, and choose the employees of nine online literary reading platforms, namely, Dianzhong Literature, iReader Literature, Starting Point Chinese Website, and Zongheng Chinese Website,etc as the research objects. A total of 221 questionnaires were collected through online and offline, and the final number of valid questionnaires obtained was 201 after removing invalid questionnaires such as under-filled and omitted questionnaires.

3.3 Variable measurement

In order to study the influence of business model innovation on the dynamic capability of online literature reading platforms, the explanatory variables were set as business model innovation, measured by eight questions, and the explanatory variables were set as perceived capability, emerging technology development capability, staff creativity, and ability to improve user transfer costs, each dimension measured by four questions. In addition to the above variables, platform age and genre were introduced as control variables. Platform type is characterised by whether the platform is listed or not, with listed platforms taking a value of 1 and unlisted platforms taking a value of 2. Platform age is represented by the difference between the year the company was founded and the year the questionnaire was administered (2022).

4. METHODS AND MATERIALS

4.1 Reliability and validity analysis

Using the statistical software SPSS25.0, the reliability of the explanatory and explanatory variables was firstly tested, and then the validity of the questionnaire as a whole was analysed.

Firstly, the reliability of the business model innovation scale was tested, as shown in Table 1.

Table 1: Reliability analysis of the Business Model Innovation Scale

Question item	Clonbach Alpha after term removal	Standardised alpha
1. company focused on developing new products or services	0.898	
2. The company focuses on developing new users and markets	0.903	
3. The company focuses on developing and acquiring new resources	0.904	
4. The company focuses on developing new activities and processes	0.908	0.916
5. The company focuses on developing new partners	0.904	
6. The company focused on developing new tools for maintaining customer relationships	0.909	
7. The company focused on selling products and services through new channels	0.908	
8. The Company focused on developing new revenue channels	0.901	

The results based on the reliability analysis of the Business Model Innovation Scale yielded a standardised reliability coefficient alpha of 0.916 overall, with each item deleted with a reliability coefficient less than 0.916.

Similarly, the SPSS25.0 statistical software was used to test the reliability of platform perception capability, emerging technology development capability, employee creativity, and ability to increase user transfer costs. The overall standardized reliability coefficient α of the platform perception ability scale was 0.822, and the reliability coefficient of each item after deletion was less than 0.822. The overall standardized reliability coefficient α of the platform emerging technology development ability scale was 0.855, and the reliability coefficient of each item after deletion was less than 0.855. The overall standardized reliability factor of the Employee Creation Power Table α 0.900, and the reliability coefficient after each item is deleted is less than 0.900. The overall standardized reliability coefficient of the platform to increase user transfer cost was 0.832, and the reliability coefficient of each item after deletion was less than 0.832. The reliability coefficients of each variable after deletion were less than the overall standardized reliability coefficient, indicating that the variable measures had good reliability.

The validity of the questionnaire as a whole was tested by the statistical software SPSS 25.0, and the result of the KMO test was 0.830, and the probability of significance of Bartlett's value was p < 0.001, so this questionnaire has good validity.

4.2 Correlation analysis

The correlation test of each variable is performed by SPSS25.0 statistical software, The results of the correlation test provide preliminary evidence for the hypothesis of this paper.

From the data results, the correlation coefficient between the perception ability of online literature reading platform and business model innovation is 0.826, while the p-value is less than 0.01; the correlation coefficient between the emerging technology development ability of online literature reading platform and business model innovation is 0.918, while the p-value is less than 0.01; the correlation coefficient between the creativity of employees of online literature reading platform and business model innovation is 0.892, while the p-value is less than 0.01; The correlation coefficient between the ability of the online literature reading platform to improve the transfer cost of users and business model innovation is 0.868, while the p-value is less than 0.01. The above data indicate that, at the level of 0.01, business model innovation has a significant impact on the perceived ability of the online literature reading platform, the ability of the platform to develop new technologies, the creativity of the platform's employees, and the ability of

the platform to improve the transfer cost of users. The ability of transfer costs of online literature reading users all have significant positive effects.

4.3 Hierarchical regression analysis

Using hierarchical regression analysis to test the hypotheses. Figure 2 shows that model 1, model 3, model 5 and model 7 are the base models, and the business model innovation variables are added to form model 2, model 4, model 6 and model 8 respectively.

Through model 2, model 4, model 6 and model 8, the regression coefficients between business model innovation and the perceived ability of online literature reading platforms, the ability of platforms to develop emerging technologies, the creativity of platform employees and the ability of platforms to increase the transfer costs of online literature reading users are 0.741, 0.893, 0.775 and 0.765 respectively, while the p-values of each variable are less than 0.001, yielding a confidence interval of 0.001 confidence interval, business model innovation has a significant positive effect on the perceived ability of online literature reading platforms, the ability of platforms to develop emerging technologies, the creativity of platform employees, and the ability of platforms to increase the transfer costs of online literature reading users. Therefore, Hypothesis 1, Hypothesis 2, Hypothesis 3 and Hypothesis 4 above are all valid.

	Perceptual capacity		Emerging technology development capacity	
	Model 1	Model 2	Model 3	Model 4
Platform age	0.292***	0.005	0.274***	-0.073*
Platform type	-0.566***	-0.168***	-0.578***	-0.099**
Business model innovation		0.741***		0.893***
R^2	0.369	0.703	0.374	0.859
adj. R^2	0.363	0.699	0.368	0.857
F	57.983	155.507	59.251	401.652

	Staff creativity		Improving the ability of users to transfer costs	
	Model 5	Model 6	Model 7	Model 8
Platform age	0.563***	0.263***	0.581***	0.285***
Platform type	-0.478***	-0.062	-0.429***	-0.019
Business model innovation		0.775***		0.765***
R^2	0.487	0.852	0.467	0.823
adj. R^2	0.482	0.850	0.462	0.82
F	93.984	378.576	86.867	305.034

Figure 2: Results of regression analysis of business model innovation and dynamic capacity of online literature reading platforms

Note: *, **, *** indicate significant at the 5%, 1% and 0.1% levels respectively

5. CONCLUSIONS

5.1 Results

Taking online literature reading platforms as an example, this paper researches and collates previous

literature on business model innovation and dynamic capabilities to study the impact of business model innovation on the dynamic capabilities of online literature reading platforms, and draws the following conclusions through hierarchical regression analysis: First, business model innovation has a significant positive effect on the perceived capabilities of online literature reading platforms. By developing new product processes through business model innovation, the platform can improve its own perceptive ability to the external environment, while identifying and exploiting development opportunities. Second, business model innovation has a significant positive effect on the emerging technology development capabilities of online literature reading platforms. As platforms focus on developing new products and services and reforming their organisational structure and business processes, the platform's emerging technological capabilities will also continue to develop. Third, business model innovation has a significant positive effect on the creativity of the employees of the online literature reading platform. The innovation of the platform's business model provides a place and opportunity for employees' creativity and offers the possibility for companies to create value by using more remarkable and innovative thinking. Fourth, business model innovation has a significant positive effect on enhancing the ability of online literature reading platforms to increase the transfer costs of users. One of the key factors that prevent users from engaging in transfer behaviour is the cost of transfer, and innovation in platform business models allows for the development of new products and services, new tools for building and maintaining customer relationships, and can increase the transfer costs of users.

5.2 Contribution

The contribution of this paper is to focus on a specific industry, and to study the impact of business model innovation on dynamic capabilities of online literature reading platforms from the perspective of developing new product processes, adding evidence to the claim that business model innovation affects dynamic capabilities through empirical analysis.

5.3 Suggestions

With the continuous development of online literature and the increasing competition in online literature reading platforms, this paper makes the following recommendations:

First, managers of online literature reading platforms need to keep up with the times and establish the concept of continuous innovation in the fickle external environment.

Second, companies need to pay attention to business models and constantly innovate business models. Business models are the basis for an organisation to create and acquire its foundations, and business model innovation is a multi-factor linkage, comprehensive and systematic innovation activity, and organisations need to look at things in a dynamic and developmental way, using new methods and logic to create and acquire value.

Third, by embedding specific industry and unique scenarios into the study of dynamic capabilities, learning and understanding the impact of business model innovation on an organisation's dynamic capabilities, purposefully creating new resources, revising existing resources and recombining old and new resources.

Last, hierarchical regression analysis is used to perform reasonable statistics on the data and the relationships contained. This combination with management is very meaningful. However, we also need to understand that the assumptions of experimentation are much simpler than the assumptions of reality, so we need to study them further.

REFERENCES

[1] Bai Yanyan, Dong Erlin (2017). Big data and the future of digital reading. J. China Publishing Journal, (12): 18-20.

[2] Chen jin, Yang yang, Yu Junbo (2022). Business model innovation research review and outlook. J. Soft Science.

[3] Gao Xiangyu (2020), A study on the operation of online literature - an example of Starting point Chinese net. J. Research on Transmission Competence, 4(12): 183-184.

[4] He min (2019). A study on the going out of online novels by China Literature. D. Hunan: Hunan Normal University, (12).

[5] Jiao Hao, Yang Jifeng, Ying Ying (2021). A Review of Dynamic Capability Research and Suggestions for Conducting Contextualized Research in China. J. Management World, 37(05): 191-210+14+22-24.

[6] Jia Jianzhong, Cai Haojian (2021). The interaction between dynamic capabilities of retail firms and business model innovation: based on the mediating role of exploratory/exploitative learning. J. Journal of Commercial Economics, (23): 105-108.

[7] Mao Jie, Liu Yilu, Zhu Ning, Tan Xiumei (2022). A study on the dilemma of online literature development in the context of commercialization. J. Sinogram Culture, (02): 55-56.

[8] Teece D J (2010). Business Models, Business Strategy and Innovation. J.Long Range Planning, 43(2/3): 172-194.