Market Governance Analysis Using Fuzzy-Set QCA: Taking Suzhou Offline Shopping for Seven Days Without Reason as an Example

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Abstract. This paper explores the sustainability factors affecting market governance innovation initiatives via the seven-day unconditional return offline shopping initiative introduced by the Suzhou Municipal Administration of Market Supervision, which is also combined with market governance innovation cases from other regions. With that, this study conducted a qualitative comparative analysis using the computer software fs/QCA3.0, so as to determine the sustainability factors affecting market governance innovation initiatives. The data analysis concludes that the case is systematic, institutionalized, and informational in character.

Keywords: QCA · Informational Market · Market Governance

1 Introduction

Because of the onset of the COVID-19 in January 2020, the offline industry was forced to shut down in its entirety. In March, the pandemic situation began to improve slightly, while the domestic economic situation remained slow throughout the month. Against this backdrop, local governments are actively seeking methods to improve the business climate in order to encourage the development of a fair market and to put the endogenous power of consumption into action. Although the present state of affairs is characterized by improper intervention, power rent-seeking, inaccuracy in policy implementation, and a variety of other risks, the three sides of the disconnected state are the government, consumers, and merchants. The government, consumers, and merchants are the three sides of the disconnected state. If the market environment is unable to be built out of this dilemma, it will not only have an adverse effect on the effectiveness of government governance of the market, but it will also jeopardize the long-term development of the market ecology [5]. It is imperative that new and effective market construction measures be implemented in order to break through this problem.

2 Research Object

The seven-day unconditional return offline shopping in Suzhou is comprised of the four major components listed below.

2.1   Online Return Platform

To facilitate the return service, the Market Supervision Bureau has incorporated the online return service platform into its WeChat official account, "Suzhou Smart '315,'" so that users can just scan the QR code to complete the transaction. After validating the integrity of the returned items, the management service station will submit a refund request to the platform, which will then utilize the government pool to advance the return money to the management service station first. It will also dynamically manage the breakdown of trust experienced by committed merchants and customers, placing companies that do not meet their commitments of no-reason returns or consumers who experience nasty returns on a credit blacklist, and placing consumers on a credit blacklist.

2.2   Offline Management and Service Station

Online return platform and offline management & service station for two-way communication can help the online return platform do a good job in the return service, responsible for receiving all types of goods applied for return by consumers, confirming the transaction records for those goods, inspecting the goods, and then reporting to the platform audit results. It will also be responsible for recording a summary of work situation and establishing a Dynamic Analysis System.

2.3   Offline Temporary Storage Station

For the convenience of foreign visitors, the offline temporary storage station are responsible for temporarily accepting products that have been returned to them by customers. It is responsible for assisting customers in returning items to the management & service station in compliance with the applicable rules, as well as providing timely feedback to the platform and the management & service station, among other things.

2.4   Promise Merchants

Merchandisers who are committed to unconditional return policy should have a unified logo and commitment to the content prominently displayed in their business premises. This logo should indicate the commitment to the content as well as the scope and directory of commodity varieties applicable to no reason to return, their unconditional return process that is easy to follow, return points, acceptors, as well as other important information. Merchants who have made the commitment with the platform should decide the return period for their shop in accordance with the return products commitment list and sign the electronic commitment with the platform.

3   Materials and Methods

3.1   Research Methods

Different from the previous order formed spontaneously by the market, from the perspective of the government, this paper uses the fs/QCA method to discuss the integrity market and market governance from the perspective of government innovation.

3.2   Data Collection

In order to explore the sustainable factors that affect the innovative measures of market governance, and to understand how to create more innovative and influential innovative measures of market governance, this paper combines the innovative measures of "offline seven-day no-reason return" in Suzhou on the basis of literature review. Featured, qualitative comparative (QCA) analysis was performed using fs/QCA3.0 software. A total of 30 market innovation cases were collected nationwide, and 12 market governance innovation cases were selected after screening according to their fit.

3.3   Variable Settings

3.3.1   Result Variable

In the 12 selected cases of market governance innovation, the actual governance effects that can be learned from the cases are used as the dependent variables of the model, and the criteria for discrimination are the sustainability and practical effects of market governance innovation, and to minimize the possible occurrences among them.

3.3.2   Condition Variables

3.3.2.1. Leading Roles
Market governance innovation that has "government" as the primary function is classified as "government-led" [4] and assigned the code 1. The spontaneous renewal of the market order by market players is of the "market-induced" type, with a code of 0. For example, in one innovation instance, the government simply plays a supervisory function rather than a leading one, indicating that the innovation case falls into the category of "market-induced."

3.3.2.2. Internet Technology
The primary criteria for assessing whether or not a market governance innovation makes use of Internet technology is whether or not the innovative behavior continues to take place offline [3]. When it comes to market governance innovation, those who utilize Internet technology are defined as "using Internet technology," is code 1, and those who don't utilize Internet technology is a code 0.

3.3.2.3. Practice Platform
The criteria are whether a platform for market governance innovation exists, and the real premise is whether a centralized management platform for market governance innovation exists. Market governance innovation is code 1 if there is a centralized management platform. If this is not the case, the market governance innovation is classified as "without a practice platform" and assigned the code 0.

3.3.2.4 Practical Basis
Market governance innovations that have a specific foundation and foundation prior to the market governance innovation case are rated as "with practice foundation" [2] and given a code of 1. A code of 0 is assigned to them because they are deemed to be "without practical basis." For example, an innovation case may have a matching policy and PR

Table 1. This caption has one line so it is centered.

Variable name	Variable meaning	Distribute
outcome variable		
Effect	Sustainability and role of innovation	Poor sustainability, insignificant effect $= 0$ Good sustainability, significant effect $= 1$
condition variable		
Leader	innovation leader	Market Spontaneous $= 0$ Government-led $= 1$
Internet	coverage	Not using internet technology $= 0$ Use of Internet technology $= 1$
Platform	formality and effectiveness	No practice platform $= 0$ Have a practice platform $= 1$
Basic	The difficulty of advancing	No practice base $= 0$ Have practical foundation $= 1$

effort prior to execution, and as a result, the case is said to be "practically grounded (Table 1)."

4 Data Analysis

According to the formula Consistency:

$$(Xi \leq Yi) = \sum [\min (Xi, \ Yi)]/ \sum Xi \tag{1}$$

If condition X (single condition or condition combination) is a sufficient condition of Y, the fuzzy set score of X should be less than or equal to the fuzzy set score of Y, and the consistency index should be greater than 0.8.

At the same time, the consistency index Consistency (Yi $\leq$ Xi) can also be used to judge whether X is a necessary condition of Y. If it is greater than 0.9, it can be considered that X is a necessary condition of Y.

After the sufficient or necessary condition judgment is completed, the explanatory power of the condition (or combination) X for the result Y can be further judged by the coverage index (Coverage).

According to the formula Coverage

$$(Xi \leq Yi) = \sum [\min (Xi, \ Yi)]/ \sum Yi \tag{2}$$

The larger the value of the coverage index, the greater the empirical explanatory power of X to Y.

Because the Internet technology variable is present in a large percentage of the 12 instances and has a high consistency index value, the choice of this condition provides

Table 2. Proportion table.

Explanatory variables	Consistency	Coverage	The proportion of cases
Leader	0.625000	0.714286	58.3%
Internet	0.875000	0.875000	87.5%
Platform	0.625000	0.833333	50%
Basic	0.625000	0.833333	75%

Table 3. Condition combination analysis table.

Condition combination	Row Coverage	Unique Coverage	Consistency
INTERNET*PLATFORM* ~ BASICS	0.25	0.25	1
LEADER*INTERNET*BASICS	0.25	0.125	1
LEADER*PLATFORM*BASICS	0.25	0.125	1
~ LEADER* ~ INTERNET* ~ PLATFORM*BASICS	0.125	0.125	1
Result coverage	0.75		
Consistency of results	1		

significant explanatory power for the findings obtained in the first setup of the condition variable, as shown by this Table 2. To be more specific, when looking at the necessity of individual condition variables, the consistency of the Internet technology variable exceeds 0.8, which indicates that it is a sufficient condition for the outcome variable. Furthermore, through further coverage, it is discovered that it can explain approximately 87.5% of the cases, in other words, 87.5% of the market governance innovation cases involve the use of Internet technology, which has a strong explanatory power. The consistency and coverage of the other variables and other conditional variables are not low, but they can only explain the occurrence of the results to a limited extent, and they are not sufficient or necessary conditions for the occurrence of the results. Furthermore, given that the market governance results are "multiple and complex concurrent causation," further investigation of the combination of conditional variables is required to obtain additional information about the market governance results.

5   Results and Discussions

5.1   Condition Combination Analysis

As can be seen from the above Table 3, there are four paths to improve the sustainability of market governance policies:

- Using Internet technology *with practice platform *without practice foundation
- Government-led *use of Internet technology* have a practical basis
- Government-led *with a practical platform *have a practical basis
- Market inducement * not using Internet technology * no practical platform * have a practical basis

Combined with the results of QCA analysis, it is known that, compared with other cases, Suzhou's "offline seven-day no-reason return" market governance innovation measures have the innovative value of government-led, combined with Internet technology, running on a unified practice platform, and having the basis of early practice., in line with the characteristics of sustainable market governance innovation policies.

5.2   Characteristics Analysis

5.2.1   Systematization of the Process: Positioning, Structure, Method, and Platform Are All Covered by a Systematic Return System.

In contrast to the fragmented and one-sided governmental innovations that have been implemented in many locations, Suzhou's "seven-day unconditional offline return" focuses on the whole issue and is devoted to the establishment of a systematic and comprehensive return system. Many market construction policies have a limited number of participating subjects, according to the study, whereas Suzhou's "offline seven-day unconditional returns" policy has achieved full coverage of the region, merchants, and commodities, while integrating multiple subjects in order to systematically promote the operation of unconditional returns. In addition, the government innovation has constructed a comprehensive return system, which includes functional positioning, organizational structure, return process, two-way linkage platform, and other components, in order to be integrated into a comprehensive service system and serve consumers more effectively and efficiently.

5.2.2   Institutionalization: Establish an Uniform System Procedure While Allowing Merchants the Freedom to Operate Independently

Some policy innovations are fragmented, short-lived, and short-sighted due to unscientific decision-making [1], changes in higher-level leadership, and the short-sighted effect of performance projects. As a result, it is difficult to build a standardized system, which results in inefficient implementation and sustainability. It is impossible to have a significant influence on society without the assistance of the institutional process. In order to ensure a complete and systematic system from the outset, the "offline seven-day unconditional return" has established clear and detailed regulations governing the construction of an online platform, the use of an offline platform, the synergy between online and offline platforms, and the specific return process. When in real operation, the return system also makes room for the market to adapt to its own demands. For example, the precise scope of returnable items, the time period, the return procedure, and so on may all be tailored to meet the individual needs of retailers and customers while respecting standards.

5.2.3 Informatization: Promoting the Development of an Information-Based Economy

Suzhou's offline shopping seven-day. Unconditional return will focus on building an online information platform to achieve better and more convenient return services, while implementing a blacklist system for defaulting merchants and consumers based on big data analysis to promote the construction of an honest market.

6 Conclusions

It is a collaborative effort between the government, businesses, and consumers that has resulted in a three-tiered push between the policy environment, market order, and credit system in Suzhou's "offline seven-day unconditional return" innovation. It will eventually contribute to the stimulation of consumer vitality, the development of the domestic economic cycle pattern, and the modernization of the governance system and governance capability at the market level as a result of the collaborative engagement of different parties.

Suzhou will also make up for the shortcomings and prevent potential risks by improving the return platform and system, strengthening multi-linkage and merchant incentives, and expanding publicity and promotion to provide the momentum for the Chinese economic carriage. This will be done in the context of the national market supervision bureau vigorously advocating "seven-day unconditional return" offline shopping and the successful spread of Suzhou's innovative experience to the entire.

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