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How will online platforms facilitate the digital transformation of traditional markets?

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1. Introduction

O2O (Offline to Online) services are expanding across various consumer domains, ranging from large-scale supermarkets to neighborhood shops and ordinary eateries, and specialized online stores (Yao et al., 2023). With the distribution structure already transitioning from offline to online, the era demands digital transformation as essential to meet consumer demands (Sourav & Raghav, 2022). Traditional markets in Korea hold significant value as local communities' cultural and economic foundation. However, even these traditional markets, which have predominantly relied on offline transactions, need to adapt to the evolving trends in distribution structures to ensure survival.

In line with this changing trend, as part of efforts to support traditional markets, it has been actively promoting the introduction of online platforms as a means of digital transformation for traditional markets in South Korea. There is a growing number of cases where not only government and local authorities but also platform companies take the lead in helping traditional markets diversify channels through which consumers can access them by utilizing online platforms.

Accordingly, interest in the digital transformation of traditional markets is increasing, and various forms of support are being poured in. However, empirical research aimed at analyzing

and understanding this from the stakeholders' perspective is still lacking.

Therefore, based on social representation theory, this study aims to enhance the overall understanding and experiences of key participants regarding support for traditional market online platform utilization. Through this, the study intends to diagnose the current state of digital transformation in traditional markets and identify practical challenges encountered during the implementation of these programs.

In particular, this study seeks to comprehensively understand this from the perspectives of both support providers and beneficiaries. In the case of South Korea, many of the beneficiaries of support, the traditional market merchants, belong to the digitally vulnerable demographic, particularly the elderly, who often do not recognize the necessity of digital transformation (Lee et al., 2019). Thus, traditional market merchants receiving support are situated at the rear end of the digital industry, whereas support providers, the platform operators, occupy the forefront of the industry. This inherent disparity in positioning inevitably leads to differences in perception between these two groups.

Therefore, this study aims to extract and compare the common perceptions between support providers (the platform operators) and support beneficiaries (the traditional market merchants). Through this comparative analysis, the study seeks

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to understand the differences in perspectives between each stakeholder group. By facilitating smooth communication among the key actors related to this topic, the study intends to provide insights into the direction and implications of future support for the digital transformation of traditional markets. In this regard, the study formulates the following research questions:

- Research Question 1: How do platform operators and traditional market merchants perceive the support program for traditional market online platforms?

- Research Question 2: What are the differences in perceptions between platform operators and traditional market merchants regarding the support program for online platforms?

2. Methodology and Data

In this study, to foster an understanding of key participants' perceptions of online platform support programs, the theoretical and methodological framework of Social Representations Theory (SRT) was applied. Social Representations Theory examines the meanings and cognitive structures that members of society have regarding social objects from a social psychological perspective. It has been effectively utilized to understand group perceptions of emerging phenomena, particularly in understanding collective perceptions of newly emerging phenomena (Park & Jung, 2023). Similarly, in this study, given its aim to deepen understanding of participants' perceptions of the utilization of online platforms in traditional markets, Social Representations Theory can be applied.

This study conducted interview surveys targeting stakeholders, divided into support providers and beneficiaries, to examine these social representations. Firstly, interviews were conducted with representatives of three platforms currently supporting the utilization of online platforms in

traditional markets in South Korea, as support providers. Subsequently, interviews were conducted with a merchant association from two traditional markets actively participating in online platform support programs in South Korea, as beneficiaries. The interview questions are presented in Table 1.

Table 1. Overview of the Interview

Type	Question
Participation Motivation	<ul style="list-style-type: none"> • What motivated your participation in the support program for online platforms in traditional markets?
Education	<ul style="list-style-type: none"> • How important do you consider education in the support program for online platforms? • What are the key factors you consider important in education on utilizing online platforms?
Challenges of Online Platform Adoption	<ul style="list-style-type: none"> • Were there any challenges during the process of adopting online platforms? • If yes, what were the main challenges encountered during the process of adopting online platforms?
Participant Roles	<ul style="list-style-type: none"> • Who are the main actors in the support program for online platforms? • What roles does each participant play in the operation of the support program for online platforms?
Performance Management	<ul style="list-style-type: none"> • Is the performance of the support program for online platforms being measured and evaluated?
Requirements	<ul style="list-style-type: none"> • What support is needed to revitalize traditional markets?

3. Result

Based on the interview results, content analysis was conducted to extract common themes. The study went through an open coding process based on discussions among three researchers to identify and organize themes from the entire

interview content. As a result, 29 detailed themes were derived. The reliability of the results was verified through a second coding process for the derived detailed themes.

This study aimed to present a practical understanding and perception of the digital transformation support project from the perspectives of support providers and beneficiaries. Therefore, a core-periphery structure analysis was conducted for each group. A co-occurrence matrix of topics represented by codes was first generated for the core-periphery analysis to derive Jaccard similarity values. Subsequently, based on the estimated similarity values, the coreness values were calculated using UCINET, a social network analysis tool, to classify core and peripheral elements.

Table 2. Providers' Perspectives (Platforms)

#	Topic	Coreness
T25	Logistics infrastructure	0.223
T23	Role of promotion	0.137
T15	Increase in sales	0.111
T26	Burden of digital transformation costs	0.068
T28	Alleviating delivery burden	0.067
T6	Importance of offline locations	0.066
T1	Unmet demands	0.065
T10	Importance of education	0.065
T27	Burden of delivery costs	0.062
T20	Difficulties in utilizing digital technology	0.062
T18	Lack of merchants' willingness	0.061
T22	Additional value	0.061
T11	Need for continuous support	0.053
T19	Active participation of merchants	0.052
T21	High age demographic	0.050
T16	Success cases	0.044
T17	Difficulties in the field	0.044
T4	Need for offline environment improvement	0.044
T7	Difficulties in post-management	0.042
T24	Coexistence	0.040
T13	Role of merchant associations	0.028

T14	Poor quality and price competitiveness	0.028
T5	Lack of digital devices	0.023
T8	Absence of performance management indicators	0.022
T9	Need for phased support	0.019
T3	Negative perceptions of traditional markets	0.017
T2	Lack of manpower	0.017
T12	Lack of linkage in support program	0.009

Table 3. Beneficiaries' Perspectives (Merchants)

#	Topic	Coreness
T26	Burden of digital transformation costs	0.135
T11	Need for continuous support	0.125
T12	Lack of linkage in support programs	0.124
T20	Difficulties in utilizing digital technology	0.099
T1	Unmet demands	0.093
T4	Need for offline environment improvement	0.09
T6	Importance of offline locations	0.085
T2	Lack of manpower	0.077
T22	Additional value	0.077
T16	Success cases	0.067
T18	Lack of merchants' willingness	0.066
T5	Lack of digital devices	0.066
T7	Difficulties in post-management	0.064
T3	Negative perceptions of traditional markets	0.052
T13	Role of merchant associations	0.049
T10	Importance of education	0.041
T14	Poor quality and price competitiveness	0.04
T27	Burden of delivery costs	0.029
T9	Need for phased support	0.027
T23	Role of promotion	0.026
T21	High age demographic	0.023
T25	Logistics infrastructure	0.021
T28	Alleviating delivery burden	0.018
T8	Absence of performance management indicators	0.017
T19	Active participation of merchants	0.006
T24	Coexistence	0.002
T15	Increase in sales	0.002
T17	Difficulties in the field	0.001

The core-periphery analysis results for each group are shown in Table 2 and Table 3. From the support providers' perspective, 12 core elements and 16 peripheral elements were identified. Support providers perceived that the digital transformation project alleviates delivery burdens by supporting logistics infrastructure and helps merchants through promotional functions. They also recognized the importance of education but faced difficulties in support due to merchants' lack of willingness and unfamiliarity with basic digital skills. On the other hand, from the beneficiaries' perspective, 13 core elements and 15 peripheral elements were identified. They mentioned that digital transformation is difficult due to the lack of continuity in support projects, despite the need for continuous support. They believed that while digital transformation is important, improving the physical environment of the market itself is also crucial. Both stakeholders commonly pointed out that although various supports are requested from the government and local authorities to revitalize traditional markets, these demands are not being reflected, which they consider a significant issue.

4. Discussion and Conclusion

This study aims to extract and compare the common perceptions of support providers, the platform operators, and support beneficiaries, the traditional market merchants, to understand the differences in perspectives between these stakeholders. The main findings are as follows:

First, both support providers and beneficiaries pointed out the limitations of the sustainability of support projects due to financial constraints for digital transformation. Second, it is suggested that support programs should go beyond merely providing commercial functions and offer additional value. Beneficiaries, particularly merchants, believed that while online support programs are important, improving offline infrastructure is a prerequisite for the meaningful implementation of online support. Lastly, both support providers and beneficiaries consistently requested ongoing support for the revitalization of

traditional markets, but they responded that their requests were not being met, indicating the need for collaboration based on communication with government agencies and local authorities.

Thus, this study provides insights into the practical difficulties perceived by both support providers and beneficiaries regarding digital transformation support projects. The findings of this study are expected to serve as foundational data for the future development of support for the revitalization of traditional markets.

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