

Analyzing Conscientious Service Providers' Behavior on Instagram: A Clustering-Based Approach to Value Co-Creation

Reza Ameri Siyahooei¹  | Masoumeh Hosseinzadeh Shahri² 

Postdoctoral Researcher, Department of Management, Faculty of Social Sciences and Economics,
Alzahra University, Tehran, Iran. (Corresponding author). Email: R.amerisiahoei@alzahra.ac.ir.

¹ Associate Professor, Department of management, Faculty of Social Sciences and Economics, Alzahra
University, Tehran, Iran. Email: mhshahri@alzahra.ac.ir.

ARTICLE INFO

Article type:
Research

Article history

Received: 2025.02.22
Revised: 2024.07.06
Accepted: 2025.08.26
Published: 2025.10.01

Keywords:

Platform-based
business, Value co-
creation,
Collaborative
behavior, Instagram.

JEL Classification:

Abstract:

Service providers are central to the growth and competitiveness of platform-based businesses, and their collaborative and conscientious behavior plays a pivotal role in driving value co-creation across these digital ecosystems. This study examines how service providers' conscientious behavior on the Instagram platform facilitates effective value co-creation, emphasizing its key role in generating mutual benefits for both providers and service recipients. This research is an applied study aimed at examining service providers' collaborative behavior on Instagram using a descriptive survey design. The statistical population comprised all Instagram users acting as service providers, with a purposive, non-probability sample of 235 participants. Based on theoretical foundations and prior studies, collaborative behavior was conceptualized through four dimensions: conscientious behavior, personal interaction, informational behavior, and altruistic behavior. The validity of the research instrument was assessed using confirmatory factor analysis, and its reliability was verified through Cronbach's alpha and composite reliability. Following data collection, K-means clustering was employed to classify service providers, and the research hypotheses were tested. The results identified two clusters: conservative conscientious service providers and perfectionistic conscientious service providers. Further analyses revealed significant relationships of informational behavior, altruistic behavior, and personal interactions with both clusters. Additionally, significant differences were observed in altruistic behavior, personal interactions, and informational behavior between conservative and perfectionistic conscientious service providers.

Cite this article: R. Ameri Siyahooei and M. Hosseinzadeh Shahri (2025). Analyzing Conscientious Service Providers' Behavior on Instagram: A Clustering-Based Approach to Value Co-Creation. *International Journal of Business and Development Studies*, 17 (2), 93-101.
DOI: 10.22111/ijbds.2025.53023.2276.



© The Author(s).

Publisher: University of Sistan and Baluchestan

Introduction

Today, information and communication technology (ICT) is considered the most important driver of transformation and expansion in the world, as its achievements have become deeply intertwined with people's lives, significantly affecting all aspects of business. Consequently, new business models, including platform-based businesses, have emerged globally (Hänninen et al., 2018). The seemingly simple concept of the platform is undergoing fundamental changes in business, with its main goal being to create effective interaction and communication between service providers and service recipients and to facilitate the process of service exchange, a process that paves the way for mutual and sustainable value creation for all platform users (Parker et al., 2016). In this regard, the capabilities of platforms such as the popular Instagram platform enable strong relationships and effective interactions between service providers and recipients. This platform has become a vast social network (Adegbola et al., 2018) that users engage with continuously. However, what is most important for platform-based businesses is a proper understanding of user participation.

Customer participation is defined as the customer's active role in all relevant activities and the provision of necessary information and positive interactions to help successfully deliver services, thereby leading to a better understanding of the value of the services provided (Kim & Tang, 2020). Therefore, this type of participation can be regarded as a complex and multifaceted construct that plays a direct role in the value creation process (Tuan et al., 2019) and has a significant impact on delivering innovative services and improving service quality (Amorim et al., 2014).

Participation in platform-based businesses applies to both service providers and service recipients as platform users. Service providers, as complementary actors, offer services or products that complement the platform's value proposition and play an important role in the ecosystem by leveraging opportunities, engaging in effective communication and interactions, and creating shared value (Tang & Qian, 2020). Therefore, this important category deserves special attention to ensure efficient and effective service provision in platform-based businesses.

Given the essential role of platform-based service providers in today's competitive environment, many researchers believe that several factors affect their collaborative behavior, including conscientious behavior. Recognition and awareness of this component can contribute to developing effective solutions to improve interactions, enhance service quality, and ultimately achieve satisfaction and loyalty. It should be noted that the conscientious behavior of service providers in platform-based businesses refers to a set of voluntary, responsible behaviors that go beyond formal and defined requirements, behaviors demonstrated by service providers to improve the service recipient's experience, support other service providers, and enhance performance. These behaviors stem

from work conscience, moral commitment, and an understanding of social roles (Bettencourt & Brown, 1997).

Given the unique and vital role of such behaviors in platform-based businesses, designing and utilizing a precise, expertise-based framework in this field is essential and inevitable. Therefore, this study analyzes the conscientious behavior of service providers, with an emphasis on strengthening collaborative behavior. Given the key role of conscientious behavior of service providers in shaping interactions and collaborative behavior on platforms such as Instagram, this study seeks to answer how this type of behavior can strengthen user participation. Finally, it is worth noting that since service providers do not have the same performance based on conscientious behavior, it can be effective in this regard to cluster service providers into separate groups based on similar characteristics and behaviors, which can separate them into groups in which the subjects of each cluster have relatively uniform characteristics. In this regard, the k-means clustering technique, a type of data mining method (Smith, 1956), was employed. After determining the clusters, hypotheses related to the components of cooperative behavior were formulated, and statistical analyses were conducted to examine and confirm or refute these hypotheses.

Literature review

This section first reviews the literature on platform-based businesses. Then, the concepts related to collaborative behavior are examined, focusing on the dimensions of responsible behavior.

Platform-based businesses: Instagram

A platform is a business model in which, unlike traditional models, value is not created through a linear series of activities from input to output, known as a value chain, but through a value network that connects different market parties (Wirtz et al., 2019). Therefore, it provides the infrastructure that brings together service recipients and providers. The main task of a platform is therefore to minimize transaction costs by bringing service recipients and providers closer and enabling value creation (Parker et al., 2016) through innovative and collaborative networks and operational systems (Stoian & Tohanean, 2021).

Platforms connect users to perform economic and social activities. In this regard, the users' willingness to participate has become a decisive factor for platforms (Sussan & Acs, 2017).

Instagram, as one of the most well-known platform businesses in promoting value co-creation (Hajli et al., 2017) and user participation (DeMers, 2017), provides an environment where service providers can easily interact with both service recipients and other service providers. Nevertheless, although Instagram has a high capacity for participation, a noteworthy point is the lack of a specific procedure to promote and strengthen the platform's collaborative behavior to increase its efficiency and effectiveness, which is an important research and

managerial challenge. Some relevant studies in this regard include He et al. (2023), Lim et al. (2015), Liu et al. (2024), Yang et al. (2022), and Huynh et al. (2024).

Conscientious participatory behavior

Participation refers to creating experiences that lead to deeper, more meaningful, and sustainable interactions (Cuillierier, 2019). Researchers in behavioral science define participation as specific behaviors, such as the degree of effort or the level of mental, emotional, and physical involvement in relation to services (Kellogg et al., 1997). What deserves particular attention in the category of participation in order to institutionalize it in businesses is participatory behavior, which is an essential and in-role behavior for value creation (Bove et al., 2009). Value creation, which refers to the highest level of participation and collaboration in business activities and processes, is an approach based on continuous interaction and communication (Tuan et al., 2019).

Unlike most businesses that operate one-sidedly, platform businesses function through a complex two-way model involving service providers and service recipients. To conceptualize and manage collaborative behavior on a platform, it is necessary to address how service providers can be encouraged to interact with service recipients, as realizing such interaction can lead to meeting service recipients' needs, satisfaction, and loyalty, and ultimately to creating a competitive advantage.

Analyzing and examining the collaborative behavior of service providers based on theoretical foundations can encompass various dimensions, including personal interaction (referring to interpersonal relationships that create value), informational behavior (referring to behavior related to information sources and channels), altruistic behavior (referring to motivated behavior aimed at enhancing others' well-being without expecting a reward), and conscientious behavior (referring to acting solely out of loyalty to moral principles or rules, rather than based on consequences). Finally, it is worth mentioning that conscientious behavior, the basis for segmenting service providers in this study, is related to the tendency to plan and prioritize activities, allocate time to assigned tasks (Kelly et al., 2003), adopt more positive attitudes and methods toward tasks (Gellatly, 1996), and use time effectively (William and Johnson, 2005). Relevant research in this regard includes Wegner et al. (2023), Mukhopadhyay and Bouwman (2018), De Bernardi and Moggi (2021), Deng et al. (2017), and Chen and Zhou (2025).

Research Method

After defining the problem and objectives, the research was conducted through the following steps:

- **Identifying the dimensions of collaborative behavior of platform service providers:** Following a comprehensive and in-depth review of theories and research background, the dimensions listed in Table 1 were extracted from

numerous ones as the key dimensions of the collaborative behavior of service providers.

Table 1: Dimensions of collaborative behavior of service providers

Cooperative behavior	Dimensions of collaborative behavior
Service providers	Conscientious behavior; personal interaction; informational behavior; altruistic behavior

• **Determining the population, sample size, and sampling method:** The research population included service providers on the platform, and the sample was selected using an accessible and purposive sampling method. Given the lack of accurate and specific statistics on the number of providers in platform businesses, the sample size was calculated using the formula for an infinite population as follows:

$$n = \frac{S^2 * Z_{\alpha}^2}{d^2}$$

where S^2 represents the variance of the initial sample, which was first estimated by distributing 30 questionnaires and then calculating the variance of the initial sample after collecting the data. Considering that the confidence level of the study was 95%, the Z value was set to 1.96, and the d value (the unavoidable random error in measuring variable observations in the population) was set to 0.05 (Table 2).

Table 2: The sample size of platform-based service providers

Platform users	Number of data	Mean	Variance	Confidence level	Permissible error	Sample size
Service providers	30	4.56	0.153	1.96	0.05	235

According to the results presented in Table 2, the sample size for service providers was determined to be 235.

• **Validity of the Platform-based Service Providers' Participatory Behavior Questionnaire:** The research employed confirmatory factor analysis to examine whether the items related to platform-based service providers' participatory behavior were correctly defined as measures of a specific construct. In factor analysis, factor loadings greater than 0.4 between latent and observable variables indicate that the items are adequately explained by the relevant construct. Also, the t -value shows the significance of the relationship between variables; if this value exceeds the absolute value of 1.96 (based on a 5% error level), the model parameters can be considered statistically significant. The results of the confirmatory factor analysis for the service providers' collaborative behavior items are presented in Table 3.

Table 3: Results of factor analysis for confirming the service providers' collaborative behavior constructs

Structure (symbol)	Measure	Factor loading	t-value
Information Behavior	Providing useful platform information to others	0.73	12.20
	Answering questions raised on the platform online and offline	0.68	11.10
	Providing necessary information to others to correctly express their requests	0.81	14.09
Conscientious behavior	Helping new service providers adapt to the platform environment	0.71	12.01
	Helping colleagues solve problems related to providing platform services	0.80	14.13
	Willingness to coordinate and communicate with other platform service providers	0.79	13.90
	Willingness to assist with the tasks of other service providers on the platform	0.71	12.01
Altruistic behavior	Helping new service providers adapt to the platform environment	0.80	14.42
	Helping colleagues solve problems related to providing platform services	0.91	17.51
	Willingness to coordinate and communicate with other platform service providers	0.82	14.75
	Willingness to assist with the tasks of other service providers on the platform	0.70	11.94
Structure (symbol)	Measure	Factor loading	t-value
Personal interaction	Accurately performing responsibilities in the service delivery process	0.75	12.94
	Friendly behavior with platform users	0.67	11.15
	Kind behavior with platform users	0.77	13.54
	Courtesy behavior with platform users	0.83	15.06
	Respectful behavior with platform users	0.78	13.80
	No rude behavior with platform users	0.66	11.03

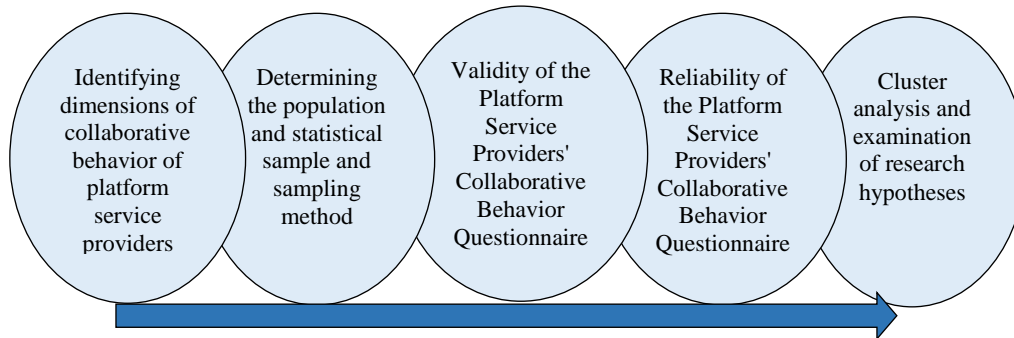
• **Reliability of the Platform-based Service Providers' Participatory Behavior Questionnaire:** The reliability of the items related to service providers' participatory behavior was measured using two statistical indicators: Cronbach's alpha and composite reliability. The results are presented in Table 4.

Table 4: Results of the reliability test based on Cronbach's alpha and composite reliability of service providers' participatory behavior

Composite reliability	Cronbach's alpha coefficient	Participatory behavior
Service providers	0.959	0.960

According to Table 4, Cronbach's alpha was 0.959 and composite reliability was 0.960 for the items related to service providers' cooperative behavior, indicating very good internal consistency of the items and high reliability of the measurement tool.

• **Cluster analysis and investigation of research hypotheses:** In this study, clustering was used as the most common data mining technique to segment service providers based on conscientious behavior. In the segmentation process, subjects are grouped into clusters with similar characteristics to identify comparable groups (Wang & Lee, 2008). In this study, the K-means method, which is widely used due to its simplicity and high efficiency (Cheng & Chen, 2009), was employed among clustering algorithms, and the data were divided into K clusters based on similarity. Following the research data analysis and in order to test the hypotheses, correlation analysis was used to measure the significance of the relationships between the components of the conceptual model. In addition, the student's t-test was applied to examine significant differences between two independent groups.

**Figure 1: Research process**

Data Analysis

Cluster analysis is a common statistical method used to reduce data dimensionality and identify actual groupings. In this method, the members of each cluster are highly similar to each other, while being significantly different from the members of other clusters. In the present study, the Calinski-Harabasz Index, also known as the variance ratio criterion (VRC), was used to determine the optimal number of clusters. The results showed that the optimal number of

clusters was two. The results of performing cluster analysis using the K-means method are presented in Table 5, which includes the mean value of each index and the ranking of the items within and between clusters.

Table 5: Final results of the cluster analysis of platform-based service providers

Cluster	Component	Answering customer questions	Performing required work tasks	Exhibiting expected behaviors	Adherence to defined service delivery procedures	Average
1	Average	3.05	3.12	3.14	3.28	3.15
	Rank within cluster	4	3	2	1	
	Rank between clusters	2	2	2	2	
2	Average	4.28	4.37	4.26	4.24	4.29
	Rank within cluster	2	1	3	4	
	Rank between clusters	1	1	1	1	

The significance of the differences between clusters was examined using analysis of variance, and the results are presented in Table 6. A significance level of less than 0.05 indicates a significant difference between clusters in the components under study.

Table 6. Analysis of variance to examine differences between clusters

Item	Cluster		Error		F	Sig
	Mean square	Degree of freedom	Mean square	Degree of freedom		
Answering the service provider's questions	64.540	1	0.428	233	133.845	0.00
Performing service-related work tasks	67.242	1	0.325	233	207.054	0.00
Exhibiting expected behaviors	54.516	1	0.341	233	159.842	0.00
Adhering to directives and regulations	39.397	1	0.427	233	92.165	0.00

After performing cluster analysis and verifying its validity, clusters must be named for better interpretation and effective exploitation. This naming is based on the distinctive characteristics of each cluster and the values of the different variables within them.

Cluster 1 – Conservative Conscientious Service Providers: This cluster has lower average scores on all items than the other cluster. Service providers in this

group place the highest importance on adhering to defined procedures in providing services and demonstrating expected behaviors, while answering questions from service recipients and performing work tasks beyond the specified limits are of lower priority. It is worth noting that the average scores for all items in this cluster were at a moderate level.

Cluster 2 - Conscientious Perfectionist Service Providers: This cluster has higher averages on all items compared to the other cluster. For service providers in this group, completing required work tasks and answering the questions of service recipients are of great importance. In contrast, behaviors based on adherence to defined procedures and observing formal requirements of service provision have a lower priority than other components. Overall, the average scores of all items in this cluster are evaluated at a very high level.

Findings on Research Hypotheses

Hypothesis 1: There is a significant relationship between informational behavior and conservative conscientious and conscientious perfectionist service providers.

Hypothesis 2: There is a significant relationship between altruistic behavior and conservative conscientious and conscientious perfectionist service providers.

Hypothesis 3: There is a significant relationship between personal interaction and conservative conscientious and perfectionist conscientious service providers.

The research hypotheses were tested using the correlation coefficient test. Based on the results presented in Table 7, if the significance level (Sig) is greater than the specified error level (0.05), the null hypothesis (no significant relationship between the variables) is accepted; otherwise, the null hypothesis is rejected, and the first hypothesis (existence of a significant relationship between the variables) is confirmed.

Table 7: Results of the correlation coefficient test between informational behavior, altruistic behavior, and personal interactions with conservative conscientious and conscientious perfectionist service providers

Research Hypotheses		Service providers	
		Conservative conscientious	Conscientious perfectionist
Informational Behavior	Correlation coefficient	0.404	0.558
	Significant level	0.002	0.000
Altruistic Behavior	Correlation coefficient	0.432	0.371
	Significant level	0.001	0.000
Personal Interactions	Correlation coefficient	0.389	0.632
	Significant level	0.003	0.000

According to Table 7 regarding the relationship between informational behavior and conservative conscientious and perfectionist conscientious employees, it can be concluded that since the significance level is less than 0.05, the null hypothesis is rejected, and Hypothesis 1 (research hypothesis), which assumes a

significant relationship is confirmed. However, the correlation coefficient in the conservative conscientious employee group is lower than that observed in the perfectionist conscientious employee group, indicating a lower intensity of this relationship in the conservative cluster compared to the perfectionist cluster.

Regarding the relationship between altruistic behavior and conservative conscientious and perfectionist conscientious service providers, it can be stated that, given the significance level of less than 0.05, the null hypothesis is rejected, and Hypothesis 1 (research hypothesis), i.e., the existence of a significant relationship, is confirmed. However, the correlation coefficient in the perfectionist conscientious service provider group is lower than that observed in the conservative conscientious service provider group, implying that this relationship is more intense in the conservative cluster than in the perfectionist cluster. Regarding the relationship between personal interactions with conservative conscientious and perfectionist conscientious service providers, the results show that, given the significance level of less than 0.05, the null hypothesis is rejected, and Hypothesis 1 (research hypothesis), indicating a significant relationship, is confirmed.

However, the correlation coefficient in the conservative conscientious service provider group is lower than that in the perfectionist conscientious service provider group, indicating that this relationship is stronger and more intense in the perfectionist cluster than in the conservative cluster.

Hypothesis 4: There is a significant difference in informational behavior between conservative conscientious and perfectionist conscientious service providers.

Hypothesis 5: There is a significant difference in altruistic behavior between conservative conscientious and perfectionist conscientious service providers.

Hypothesis 6: There is a significant difference in personal interaction between conservative conscientious and perfectionist conscientious service providers.

The student's t-test for two independent groups was employed to test these hypotheses. This test was conducted to compare the means of the two groups - conservative conscientious and perfectionist conscientious service providers - across different behavioral dimensions. The results are presented in Table 8.

Table 8: Comparison of the two groups of conservative conscientious and perfectionist conscientious service providers in terms of informational behavior, altruistic behavior, and personal interactions

Items	Service providers	Average	Standard deviation	Statistics	Significance level
Informational Behavior	Conservative conscientious	3.567	0.6008	-6.670	0.000
	Conscientious perfectionist	4.170	0.5921		
Altruistic Behavior	Conservative conscientious	3.474	0.657	-5.744	0.000
	Conscientious perfectionist	4.053	0.665		
Altruistic Behavior	Conservative conscientious	3.675	0.583	-7.463	0.000
	Conscientious perfectionist	4.314	0.491		

The student's t-test for two independent groups was used to test the hypothesis of comparing informational behavior between conservative conscientious and perfectionist conscientious employees. Given that the significance level was 0.00, the null hypothesis was rejected. In other words, there is a significant difference in informational behavior between conservative conscientious and perfectionist conscientious employees.

The hypothesis comparing altruistic behavior between conservative conscientious and perfectionist conscientious employees was tested using the student's t-test for independent groups. Since the significance level was 0.00, the null hypothesis was rejected. Thus, there is a significant difference in altruistic behavior between conservative conscientious and perfectionist conscientious employees.

The hypothesis comparing personal interactions between conservative conscientious and perfectionist conscientious service providers was examined using the student's t-test for independent groups. Since the significance level was 0.00, the null hypothesis was rejected. In other words, there is a significant difference in personal interactions between conservative conscientious and perfectionist conscientious service providers.

Conclusion

This study aimed to analyze the conscientious behavior of service providers with an emphasis on strengthening collaborative behavior and adopting a clustering-based approach on the Instagram platform. After explaining the implementation process of the research to achieve the objectives, the dimensions of the collaborative behavior of service providers were identified based on theoretical foundations.

Next, by selecting a statistical population consisting of service providers in platform-based businesses, a non-random and purposive sampling method was used to select 235 service providers. Then, a researcher-made questionnaire was designed, the validity of which was verified by confirmatory factor analysis. Its reliability was also examined through Cronbach's alpha and composite reliability indices. The results of the analyses indicated that the questionnaire had acceptable validity and reliability. Subsequently, the collected data were statistically analyzed. The K-means algorithm was used to cluster service providers based on conscientious behavior. Furthermore, correlation analysis was used to examine the significance of the relationships between the components of the research conceptual model. Finally, the Student's t-test was used to examine significant differences between two independent groups. Based on the results of the cluster analysis using the Kaysers algorithm and examining their validity through analysis of variance, two clusters were detected: conservative conscientious service providers (with lower averages in all items and scores at a medium level) and perfectionist conscientious service providers (with higher averages in all items and scores at a high level).

The results of the correlation coefficient test to examine the research hypotheses revealed a significant relationship between informational behavior with conservative conscientious and perfectionist conscientious employees, and the correlation coefficient in the conservative conscientious employee group was lower than that observed in the perfectionist conscientious employee group, which is consistent with the results of Stoeber and Damian (2016), Wang et al. (2024), and Sampat and Raj, (2022). There was also a significant relationship between altruistic behavior with conservative conscientious and perfectionist conscientious employees, and the correlation coefficient in the perfectionist conscientious employee group was lower than that observed in the conservative conscientious employee, consistent with Coleman et al. (2022) and Samfira and Paloş (2021). Furthermore, there was a significant relationship between personal interactions with conservative conscientious and perfectionist conscientious employees, and the correlation coefficient in the conservative conscientious group was lower than that in the perfectionist conscientious group, consistent with the findings of Smith et al. (2019) and Cruce et al. (2012). These findings confirm the difference in the behavioral patterns of the two clusters from the perspective of different dimensions of collaborative behavior. In addition, by applying the student's t-test for two independent groups regarding other hypotheses, the results indicated a significant difference between the informational behavior of conservative conscientious and perfectionist conscientious employees, consistent with the research of Wang et al. (2021) and Yagil (2008).

There was also a significant difference between the altruistic behavior of conservative and perfectionist conscientious service providers, in line with the

research of Steinemann et al. (2020) and Wang and Chen (2022). Finally, it can be noted that there was a significant difference in the personal interactions of conservative and perfectionist conscientious service providers, in line with the research of Huang and Yu (2024), Lou et al. (2021), and Zhao and Huang (2021). These results show that the type of conscientiousness (conservative or perfectionist) significantly affects different dimensions of collaborative behavior, and the behavioral patterns of these two groups differ from each other.

Like most scientific studies, the present study also faced limitations that should be considered when interpreting the results. First, this study included only service providers active within the cultural context of a developing-country platform market. Since the cultural, social, and behavioral characteristics of users in different countries can significantly impact study outcomes, the generalizability of these findings to other countries should be approached with caution. Therefore, it is suggested that the conceptual framework and implementation procedure of this study be tested and analyzed in other cultural and geographical contexts.

Second, the present study examined platform-based businesses in general and did not consider differences in the types of services provided or different classifications of businesses. Accordingly, it is suggested that future research be designed and implemented by focusing on specific types of services or based on a more precise typology of platform businesses to allow for a deeper and more detailed analysis of the behavior of service providers and recipients.

Third, this study was conducted over a limited time frame. Given the rapid dynamics of technology and the constant changes in user behavior and attitudes, it is recommended that future research be conducted over longer time frames and with repeated implementations to more effectively identify temporal trends and behavioral dynamics. Finally, it is suggested that the subject under study be examined from the perspective of other types of platform markets to provide a more comprehensive and inclusive model by comparing the results across different platforms.

References:

1. Adegbola, O., Gearhart, S., & Skarda-Mitchell, J. (2018). Using Instagram to engage with (potential) consumers: A study of Forbes most valuable brands' use of Instagram. *Journal of Social Media in Society*, 7(2), 1–17.
2. Amorim, M., Rosa, M. J., & Santos, S. (2014). Managing customer participation and customer interactions in service delivery: The case of museums and educational services. *Organizacija*, 47(3), 166–175. <https://doi.org/10.2478/orga-2014-0015>
3. Bettencourt, L. A., & Brown, S. W. (1997). Contact employees: Relationships among workplace fairness, job satisfaction and prosocial service behaviors. *Journal of Retailing*, 73(1), 39–61. [https://doi.org/10.1016/S0022-4359\(97\)90014-2](https://doi.org/10.1016/S0022-4359(97)90014-2)
4. Bove, L. L., Pervan, S. J., Beatty, S. E., & Shiu, E. M. (2009). Service worker role in encouraging customer organizational citizenship behaviors. *Journal of Business Research*, 62(7), 698–705. <https://doi.org/10.1016/j.jbusres.2008.07.003>
5. Chen, X., & Zhou, Y. (2025). User behavior on value co-creation in human–computer interaction: A meta-analysis and research synthesis. *Electronics*, 14(6), 1071. <https://doi.org/10.3390/electronics14061071>
6. Cheng, C.H., & Chen, Y.S. (2009). Classifying the segmentation of customer value via RFM model and RS theory. *Expert Systems with Applications*, 36(3), 4176–4184. <https://doi.org/10.1016/j.eswa.2008.08.029>
7. Coleman, G., Furnham, A., & Treglown, L. (2022). Exploring the dark side of conscientiousness: The relationship between conscientiousness and its potential derailers: perfectionism and narcissism. *Current Psychology*, 42, 27744–27757. <https://doi.org/10.1007/s12144-022-03828-y>
8. Cruce, S. E., Pashak, T. J., & Handal, P. J. (2012). Conscientious perfectionism, self-evaluative perfectionism, and the five-factor model of personality traits. *Personality and Individual Differences*, 53(3), 268–273. <https://doi.org/10.1016/j.paid.2012.03.013>
9. Cuillierier, A. (2019). Customer engagement through social media (Master's thesis, Metropolia University of Applied Sciences, Helsinki, Finland). Theseus. <https://www.theseus.fi/handle/10024/115812>
10. De Bernardi, P., & Moggi, S. (2021). Digital Platforms and Collaborative Ecosystems: Best Practices and Emerging Issues. In *Intellectual Capital, Smart Technologies and Digitalization* (pp. 225–236). Springer. https://doi.org/10.1007/978-3-030-80737-5_17
11. DeMers, J. (2017). Why Instagram is the top social platform for engagement (and how to use it). *Forbes*. Retrieved from. <https://www.forbes.com/sites/jaysondemers/2017/03/28/why-instagram-is-the-top-social-platform-for-engagement-and-how-to-use-it>
12. Deng, S., Lin, Y., Liu, Y., Chen, X., & Li, H. (2017). How do personality traits shape information-sharing behaviour in social media? Exploring the

- mediating effect of generalized trust. *Information Research: An International Electronic Journal*, 22(3), Article 763. Retrieved from <http://www.informationr.net/ir/22-3/paper763.html>
13. Gellatly, I. R. (1996). Conscientiousness and task performance: Test of a cognitive process model. *Journal of Applied Psychology*, 81(5), 474–482. <https://doi.org/10.1037/0021-9010.81.5.474>
14. Hajli, N., Shanmugam, M., Papagiannidis, S., Zahay, D., & Richard, M. O. (2017). Branding co-creation with members of online brand communities. *Journal of Business Research*, 70, 136–144. <https://doi.org/10.1016/j.jbusres.2016.08.026>
15. Hänninen, M., Smedlund, A., & Mitronen, L. (2018). Digitalization in retailing: Multi-sided platforms as drivers of industry transformation. *Baltic Journal of Management*, 13(2), 152–168. <https://doi.org/10.1108/BJM-04-2017-0109>
16. He, T., Liu, W., Shao, X., & Tian, R. G. (2023). Exploring the digital innovation process and outcome in retail platform ecosystems: Disruptive transformation or incremental change. *Electronic Commerce Research*, 25(1), 465–494. <https://doi.org/10.1007/s10660-023-09699-0>
17. Huang, Y., & Yu, D. (2024). Consumer personality, online social interaction, and deep online consumption behavior. *Scientific Reports*, 14, 29357. <https://doi.org/10.1038/s41598-024-80667-w>
18. Huynh, T. T. G., Luu, T. D., Huynh, T. T., & Chung, T. B. N. (2024). Customer empowerment and engagement on sharing platform in the retailing sector: Testing the mediating effects of service innovation and platform trust. *Journal of Innovation and Entrepreneurship*, 13(1), 68. <https://doi.org/10.1186/s13731-024-00431-2>
19. Kellogg, D. L., Youngdahl, W. E., & Bowen, D. E. (1997). On the relationship between customer participation and satisfaction: Two frameworks. *International Journal of Service Industry Management*, 8(3), 206–219. <https://doi.org/10.1108/09564239710185406>
20. Kelly, W. E., Johnson, J. L., & Miller, M. J. (2003). Conscientiousness and the prediction of task duration. *North American Journal of Psychology*, 5, 443–450.
21. Kim, E., & Tang, L. R. (2020). The role of customer behavior in forming perceived value at restaurants: A multidimensional approach. *International Journal of Hospitality Management*, 87, 102511. <https://doi.org/10.1016/j.ijhm.2020.102511>
22. Lim, B. H., Lu, D., Chen, T., & Kan, M.-Y. (2015). #mytweet via Instagram: Exploring user behaviour across multiple social networks. arXiv. <https://arxiv.org/abs/1507.03510>

23. Liu, Z., Li, Z., Zhang, Y., Mutukumira, A. N., Feng, Y., Cui, Y., Wang, S., Wang, J., & Wang, S. (2024). Comparing Business, Innovation, and Platform Ecosystems: A Systematic Review of the Literature. *Biomimetics*, 9(4), 216. <https://doi.org/10.3390/biomimetics9040216>
24. Lou, L., Li, L., Yang, S.-B., & Koh, J. (2021). Promoting user participation of shared mobility in the sharing economy: Evidence from Chinese bike sharing services. *Sustainability*, 13(3), Article 1533. <https://doi.org/10.3390/su13031533>
25. Mukhopadhyay, S., & Bouwman, H. (2018). Multi-actor collaboration in platform-based ecosystem: opportunities and challenges. *Journal of Information Technology Case and Application Research*, 20(10), 1–8. <https://doi.org/10.1080/15228053.2018.1479160>
26. Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. W. W. Norton & Company.
27. Samfira, E. M., & Paşoş, R. (2021). Teachers' personality, perfectionism, and self-efficacy as predictors for coping strategies based on personal resources. *Frontiers in Psychology*, 12, Article 751930. <https://doi.org/10.3389/fpsyg.2021.751930>
28. Sampat, B., & Raj, S. (2022). Fake or real news? Understanding the gratifications and personality traits of individuals sharing fake news on social media platforms. *Aslib Journal of Information Management*, 74(5), 840–876. <https://doi.org/10.1108/AJIM-08-2021-0232>
29. Smith M.M, Sherry S.B, Vidovic V, Saklofske DH, Stoeber J, Benoit A. (2019). Perfectionism and the Five-Factor Model of Personality: A Meta-Analytic Review. *Pers Soc Psychol Rev*. 2019 Sep/Oct;23(4):367-390. <https://doi.org/10.1177/1088868318814973>.
30. Smith, W. R. (1956). Product differentiation and market segmentation as alternative marketing strategies. *Journal of Marketing*, 21(1), 3–8. <https://doi.org/10.1177/002224295602100102>
31. Steinemann, S. T., Geelan, B. J., Zaehring, S., Mutuura, K., Wolkow, E., Frasseck, L., & Opwis, K. (2020). Potentials and pitfalls of increasing prosocial behavior and self-efficacy over time using an online personalized platform. *PLOS ONE*, 15(6), e0234422. <https://doi.org/10.1371/journal.pone.0234422>
32. Stoeber, J., & Damian, L. (2016). Perfectionism in employees: Work engagement, workaholism, and burnout. In F. Sirois & D. Molnar (Eds.), *Perfectionism, Health, and Well-Being* (pp. 265–283). Springer. https://doi.org/10.1007/978-3-319-18582-8_12
33. Stoian, C. A., & Tohanean, D. (2021). Platform business models – A case study of the technology industry. *Journal of Economics and Management Sciences*, 4(1), 18. <https://doi.org/10.30560/jems.v4n1p18>
34. Sussan, F., & Acs, Z. J. (2017). The digital entrepreneurial ecosystem. *Small Business Economics*, 49(1), 55–73. <https://doi.org/10.1007/s11187-017-9867-5>

35. Tang, F., & Qian, Z. (2020). Leveraging interdependencies among platform and complementors in innovation ecosystem. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0239972>
36. Tuan, L., Rajendran, D., Rowley, C., & Khai, D. (2019). Customer value co-creation in the business-to-business tourism context: The roles of corporate social responsibility and customer empowering behaviors. *Journal of Hospitality and Tourism Management*, 39, 137–149. <https://doi.org/10.1016/j.jhtm.2019.02.002>
37. Wang, C., Zhao, X., & Hong, J. (2024). A Meta-Analysis of the Effects of Interaction on Value Co-Creation in Online Collaborative Innovation Communities Based on the Service Ecosystem Framework. *Behavioral Sciences*, 14(12), 1177. <https://doi.org/10.3390/bs14121177>
38. Wang, Y. J., & Lee, H. S. (2008). A clustering method to identify representative financial ratios. *Information Sciences*, 178(4), 1087–1097. <https://doi.org/10.1016/j.ins.2007.09.016>
39. Wang, Y., & Chen, L. (2022). Conscientiousness, perfectionism, and prosocial collaboration in platform businesses. *Journal of Business Research*, 148, 456–465. <https://doi.org/10.1016/j.jbusres.2022.06.020>
40. Wang, Y.-C., Xu, S., & Ma, E. (2021). Serve perfectly, being happier: A perfectionistic perspective on customer-driven hotel employee citizenship behavior and well-being. *International Journal of Hospitality Management*, 96, 102984. <https://doi.org/10.1016/j.ijhm.2021.102984>
41. Wegner, D., Borba da Silveira, A., Marconatto, D., & Mitrega, M. (2023). A systematic review of collaborative digital platforms: Structuring the domain and research agenda. *Review of Managerial Science*, 17(4), 1235–1272. <https://doi.org/10.1007/s11846-023-00695-0>
42. William, K.E., & Johnson, J.L. (2005). Time use efficiency and the five-factor model of personality. *Education*, 125(3), 511–516.
43. Wirtz, J., So, K.K.F., Mody, M.A., Liu, S.Q., & Chun, H.H. (2019). Platforms in the peer-to-peer sharing economy. *Journal of Service Management*, 30(4), 452–483. <https://doi.org/10.1108/JOSM-11-2018-0369>
44. Yagil, D. (2008). Service provider attributes. In B. Schneider & D. E. Bowen (Eds.), *Handbook of service marketing and management* (pp. 173–194). SAGE Publications.
45. Yang, C., Guo, L., & Zhou, S. X. (2022). Customer satisfaction, advertising competition, and platform performance. *Production and Operations Management*, 31(4), 1576–1594. <https://doi.org/10.1111/poms.13632>
46. Zhao, L., & Huang, M. (2021). Personality traits and social interaction differences in platform businesses. *Information & Management*, 58(7), 103530. <https://doi.org/10.1016/j.im.2021.103530>

تحلیل رفتار وظیفه‌شناسانه ارائه‌دهندگان خدمات در اینستاگرام: رویکردی مبتنی بر خوشه‌بندی در خلق مشترک ارزش

چکیده

ارائه‌دهندگان خدمات نقش محوری در رشد و رقابت‌پذیری کسب‌وکارهای مبتنی بر پلتفرم ایفا می‌کنند و رفتارهای مشارکتی و مسئولانه آنان نقشی تعیین‌کننده در پیشبرد هم‌آفرینی ارزش در اکوسیستم‌های دیجیتال ایفا می‌کند. این پژوهش به بررسی چگونگی تأثیر رفتار وظیفه‌شناسانه ارائه‌دهندگان خدمات در پلتفرم اینستاگرام بر تسهیل هم‌آفرینی مؤثر ارزش می‌پردازد و بر نقش کلیدی آن در ایجاد منافع متقابل برای هر دو گروه ارائه‌دهندگان و دریافت‌کنندگان خدمات تأکید می‌کند. پژوهش حاضر یک مطالعه کاربردی است که با هدف بررسی رفتار مشارکتی ارائه‌دهندگان خدمات در پلتفرم اینستاگرام و با بهره‌گیری از طرح پیمایشی توصیفی انجام شده است. جامعه آماری پژوهش شامل کلیه کاربران اینستاگرام بود که به‌عنوان ارائه‌دهنده خدمات فعالیت می‌کردند و نمونه‌ای هدفمند و غیراحتمالی متشکل از ۲۳۵ شرکت‌کننده انتخاب شد. بر اساس مطالعه مبانی نظری و مرور پیشینه پژوهش، ابعاد رفتار مشارکتی ارائه‌دهندگان خدمات شامل چهار مؤلفه «رفتار وظیفه‌شناسانه»، «تعاملات شخصی»، «رفتار اطلاعاتی» و «رفتار نوع‌دوستانه» شناسایی شدند. سپس روایی ابزار پژوهش با استفاده از تحلیل عاملی تأییدی و پایایی آن از طریق ضریب آلفای کرونباخ و پایایی ترکیبی تأیید شد. در ادامه، پس از خوشه‌بندی داده‌ها با استفاده از روش کامینز، فرضیه‌های پژوهش مورد آزمون قرار گرفتند. نتایج تحلیل‌ها وجود دو خوشه شامل ارائه‌دهندگان خدمات وظیفه‌شناس محافظه‌کار و ارائه‌دهندگان خدمات وظیفه‌شناس کمال‌گرا را نشان داد. تحلیل‌های تکمیلی نشان داد که بین رفتار اطلاعاتی، رفتار نوع‌دوستانه و تعاملات شخصی با هر دو خوشه روابط معناداری وجود دارد. علاوه بر این، تفاوت‌های معناداری در رفتار نوع‌دوستانه، تعاملات شخصی و رفتار اطلاعاتی بین دو گروه ارائه‌دهندگان خدمات وظیفه‌شناس محافظه‌کار و کمال‌گرا مشاهده شد.

واژگان کلیدی: کسب‌وکارهای مبتنی بر پلتفرم، هم‌آفرینی ارزش، رفتار مشارکتی، اینستاگرام.