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The Effects of Authenticity Perception on Used Trading App Service Satisfaction

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Abstract

As the used trading market grows centered on online platforms, it is evolving from practical consumption to pursuing various forms of consumption value. Consumers purchase rare products, enjoy the transaction itself with consumers with the same preference, and investment or eco-friendly value consumption is also increasing. In this regard, the transaction of the second-hand transaction app service must have sincerity in order to respond to various consumption values. In addition, it is necessary to study what components the second-hand trading app service should aim for to secure authenticity and how the usefulness and ease of second-hand trading apps affect the relationship.

The research used a questionnaire method to test hypotheses and surveyed 215 consumers in their 20s, 30s, and 40s who had purchased used clothing online within a year. Among them, 200 responses, excluding outliers, were statistically analyzed using SPSS 21.0 and AMOS 22.0 as confirmatory factor analysis and structural equation models.

This study aims to determine the effect of the authenticity of the online used trading app service on the satisfaction of the used trading app service. To this end, based on the previous research results, the following research hypotheses were established and verified statistically. First, the authenticity of the online used trading app service will significantly impact the satisfaction of the used trading app service. Second, the usefulness of the used trading app service will have a moderating effect on the effect of the authenticity of the used trading app service on the satisfaction of the used trading app service. Third, the ease of the used trading app service will have a moderating effect on the authenticity of the used trading app service on the satisfaction of the used trading app service.

As a result of the study, the authenticity of the used trading app service significantly affected the satisfaction of the used trading app service. Appeared to be The results of this study will help understand used transaction app services where consumption of used products occurs from the viewpoint of product circular use behavior and can be used as a strategic plan to promote the use of used transaction apps in the future.

Keywords : Used Trading APP Service, Authenticity, Accuracy, Connectedness, Integrity, Legitimacy, Originality, Proficiency, App Service Satisfaction

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1. Introduction

The used trading market has recently been overgrown, centered on major online platforms. In the past, second-hand trading was confined to 'practical consumption' to buy old and worn-out products cheaply, but recently, its meaning has expanded and evolved into various forms. Consumers purchase rare products that are difficult to obtain through second-hand transactions or meet other consumers with similar needs and feel pleasure while trading products. In addition, more and more people are selling the products they have purchased at a higher price, using second-hand trading as a financial technique, or aiming to use second-hand goods as part of value consumption. The size of the domestic used market is estimated to be about 24 trillion won by 2021, which is a six-fold increase from 4 trillion won in 2008. As the MZ generation, who value experience over ownership and value for money over face, has emerged as the primary consumer group, the used market is expected to grow further in the future. According to Hana Financial Management Research Institute, the size of the domestic secondary market, which was 4 trillion won in 2008, has grown fivefold to 20 trillion won in 2020, and the global secondary market size will also increase from 27 billion dollars (approximately 32 trillion won) in 2021 to 770 billion won in 2025. It is expected to grow to billion dollars (about 91 trillion won). Large department stores such as Hyundai Department Store, Shinsegae Department Store, and Lotte Department Store are also opening various second-hand pop-up stores and collaborating with them. Recently, the used and refurbished (exhibited or returned products) market has been overgrowing due to rapidly rising prices. Centered on the MZ generation (born in the early 1980s to early 2000s), who prioritize experience and cost-effectiveness over ownership, the use of e-commerce (e-commerce) and used trading platforms is rapidly increasing, and the growth rate is also accelerating.

As the used and refurbished market grows, competition to preoccupy the market is becoming increasingly fierce, such as opening dedicated stores or investing in related businesses. Carrot Market, which started as a used trading platform and is currently expanding its service to a local community platform, has more than 10 million new members this year. As of December 2022, the cumulative number of subscribers to the carrot market reached 32 million. The most significant feature of Carrot Market is that unlike existing used trading platforms or e-commerce, it is operated mainly in local commercial districts. It is evaluated as having high growth potential among C2C (consumer-to-consumer) platforms due to its differentiated positioning that induces consumer transactions in the regional commercial district. This year, the number of used transactions made through the carrot market was 164 million. Among them, the number of 'sharing' cases in which people share unused items with neighbors for free was 10 million. As the trend of eco-friendliness and cost-effectiveness spreads, giving things for free has also appeared.

The scope of this study, based on previous studies, is to establish a research model and hypothesis about the relationship between the components of authenticity and the satisfaction of second-hand transaction app services in the consumption value of transactions implemented by second-hand transaction app services. Moreover, to establish the By exam-

ining the moderating effect empirically, we intend to provide helpful information to increase the satisfaction of the used trading app service based on the theoretical grounds that reveal the influencing factors that the used trading app service should have.

2. Theoretical background

2.1 Definition and Current Status of Used Trading Apps

Recently, the used and refurbished (exhibited or returned products) market has been overgrowing due to rapidly rising prices. Centered on the MZ generation (born in the early 1980s to early 2000s), who prioritize experience and cost-effectiveness over ownership, the use of e-commerce (e-commerce) and used trading platforms is rapidly increasing, and the growth rate is also accelerating. As the used and refurbished market grows, competition to preoccupy the market is becoming increasingly fierce, such as opening dedicated stores or investing in related businesses. According to the distribution industry, the size of the domestic used market in 2022 is estimated at 25 trillion won. This is more than six times the size of 4 trillion won in 2008. Second-hand trading platforms are also on the rise. Carrot Market, a second-hand trading platform, succeeded in attracting a 'Series D' investment of about KRW 180 billion in 2021 and has grown into a 'unicorn', meaning a company with a value of more than KRW 1 trillion, within seven years of its establishment. The number of subscribers increased by 10 million in one year to 32 million as of the end of last year.

A used trading platform refers to creating an ecosystem by building a network so that individuals or professional sellers can buy, sell, exchange, and share items. Since the transaction is carried out without going through a business operator, it can trade goods without any restrictions [Yeo and Lee, 2016]. According to a report released by market researcher Nielsen KoreanClick, the growth of the used trading platform market was not clear before 2016, but a meaningful market was formed with the number of users reaching 2 million in 2018 and consumers who want to trade products With the rapid increase in sales, the used trading platform market has overgrown [Nielsen-KoreanClick, 2020].

A decisive factor in the boom in consumer-to-consumer transactions is the evolution from the Internet to mobile [Park and Cheon, 2020]. As the used trading platform moved to the mobile environment, the environment was improved so that users could more easily access used trading, and there were functional improvements to minimize fraud damage. Looking at the UV and Google Play Store shopping category rankings in 2020, the mobile used trading platforms in the top 100 shopping categories are 'Carrot Market', 'Lightning Market', 'Used Market Country', 'Hello Market', and 'Auction Used Market'. There is.

In the 2000s, second-hand transactions were carried out on online communities, but with the launch of the mobile second-hand transaction platform 'Lightning Market' developed by Quickcat in 2010, second-hand transactions began to be centered on mobile. Since its launch, Lightning Market has consistently held the No. 1 spot on the used trading platform and has been considered the most successful app. However, 'Carrot Market', a direct transaction-based mobile second-hand trading platform launched in 2015, began to grow significantly as it secured many users.

Among the second-hand trading platforms, the platform with the steepest rise is Carrot Market, with MAU (Monthly Active Users) growing by 176% in one year from about 1.61 million in March 2019 to about 4.46 million in March 2021. During the same period, the MAU of Lightning Market grew by 19% [Na, 2020]. Since then, Carrot Market has surpassed commerce apps, such as 11th in 2020, and ranked second in the overall shopping app category [MobileIndex, 2020].

2.2 Research on Authenticity

Authenticity emerged as an essential concept in various social science fields, and it began to be considered very important, especially in a company's marketing area or branding strategy. As a result, the dictionary concept of authenticity includes all concepts, such as truth, authenticity, genuineness, and sincerity, and becomes the basic concept of brand authenticity research.

Snyder [1979], who discussed authenticity at the philosophical level, defined authenticity as the true ego itself, and otherwise hiding the ego and showing lies in relationships with others is unauthenticity. At the philosophical level, the expression of the true self has been the basis for forming concepts such as consumer communication and consumer ego-centered brand interpretation through unfeigned marketing tools of brand core values at the management level. In other words, it is the basic concept of forming a consumption culture that evaluates the value of consumers rather than being influenced by today's advanced brand-centered communication strategies. Several researchers in contemporary marketing research have illuminated this concept. For example, Park and Kim [2014], Beverland et al. [2008], in the flood of brand marketing revealing commercial purposes, consumers feel brand authenticity in marketing communication that approaches consumers without deceit and defines this element as 'communication authenticity' as a significant factor in brand authenticity evaluation.

Harter [2002] said that authenticity means that one's inner state and behavior are consistent. In other words, it includes two behavioral elements: 'self-awareness' and 'self-regulation'. 'Self-awareness' described by Harter [2002] can be interpreted as the correct recognition of brand core values and establishment of brand identity based on them, and 'self-regulation' can be interpreted as the truthfulness of expression contents and methods in brand marketing IMC. can do.

Kim [2009] defined authenticity as an attitude of life that regards realizing one's true self as a moral ideal as a great virtue of life and defines a good life as a value system. If this is applied and interpreted at the business administration level, the pursuit of sincerity in the communication attitude at the ethical level of a company or brand can inspire sincerity.

Also, Golomb [1995] and Lewis and Bridge [2001] define authenticity by using simple words such as 'original', 'first', 'pure', 'real', and 'reliable'. However, it is much more complicated than the superficial explanation, and its existence can only be recognized with the ego's inner eye. This is also in the same context as Harter's [2002] definition of authenticity as action through 'self-awareness'.

2.3 A Study on Brand Authenticity in Business Administration

These philosophical concerns about au-

thenticity became the source of research on business administration and authenticity at the brand level, and since the 2000s, research on brand authenticity has been actively developed and progressed.

Since Beverland [2005] and Gilmore and Pine [2007] began full-scale research on authenticity in the management field, it has recently been defined and studied from various perspectives in the marketing and brand fields. In research on brand authenticity, brand authenticity is defined as the truthfulness of brand core values, internal/external consistency, faithfulness to the essence itself, and promised value to consumers in various contexts depending on the industry or product characteristics concerning the value pursued by the brand. In addition, it was defined as a symbolic concept such as orientation and self-realization [Brown et al., 2003; Park and Kim, 2014].

Brand authenticity is a concept closely related to the core values of the brand, and what the core values of the brand pursue may differ slightly depending on the industry or product characteristics. In this context, previous studies have examined brand authenticity in various industries. For example, Cohen, E. [1988] examined authenticity in the travel industry, Leigh et al. [2006] on automobile brands, Alexander [2009] on beer brands, Seo and Lee [2013] on fashion brands, and Su, Yoo, and Kim [2014] studied brand authenticity in cosmetics brands. As such, recent studies on brand authenticity have been conducted in the context of various industries or situations, and each study discusses brand authenticity that reflects the characteristics of the industry being studied.

2.4 Derivation of Authenticity Concept Applicable to Used Trading App Service

2.4.1 Derivation of Authenticity Factors of Used Trading App Service

The used trading market has recently been overgrown, centered on major online platforms. In the past, second-hand trading was confined to 'practical consumption' to buy old and worn-out products cheaply, but recently, its meaning has expanded and evolved into various forms. Consumers purchase rare products that are difficult to obtain through second-hand transactions or meet other consumers with similar needs and feel pleasure while trading products. In addition, more and more people are selling the products they have purchased at a higher price, using second-hand trading as a financial technique, or aiming to use second-hand goods as part of value consumption. The size of the domestic used market is estimated to be about 24 trillion won by 2021, which is a six-fold increase from 4 trillion won in 2008. As the MZ generation, who value experience over ownership and value for money over face, has emerged as the primary consumer group, the used market is expected to grow further in the future.

Due to overflowing marketing (mass marketing) and commercial advertising, competition is intensifying, brand differentiation is becoming increasingly complex, and consumer distrust of brands is growing [Kim et al., 2014]. In addition, it is challenging to maintain product innovation, and traditional advertising and price promotion-oriented marketing are limited due to the upward standardization of manufacturing technology. Furthermore, as information exchange has become easier for modern consumers, opinions and information generated are becoming es-

sential brand evaluation criteria [Kapferer, 2012]. For this reason, the concept of authenticity, which is explained by concepts such as 'sincere', 'genuine', and 'genuine' of products or services in various consumption situations of consumers, has come to be considered significant [Gilmore and Pine, 2007].

Then, what is the concept of authenticity that can be applied to the consumption environment of used trading app services? According to Nunes et al.'s thesis published in the Journal of Marketing in 2021, consumers may apply slightly different levels of importance depending on the purpose and environment of each consumption, but accuracy, connectedness, integrity, and legality (It was said that authenticity was judged according to the criteria of six factors: legitimacy, originality, and proficiency. Accuracy is the degree to which the value of products and services is conveyed transparently and without falsehood to consumers, and connectedness is the degree to which consumers are familiar with products and services and feel connected to them. , and integrity refers to the degree to which a company has the motive to pursue an intrinsic purpose rather than the pursuit of profits continuously and voluntarily. In addition, legitimacy indicates the degree of conformity to tradition, law, and shared social values, and originality indicates the degree to which original values are provided that go beyond general products and services in the market. Moreover, proficiency is the degree to which an expert has the optimal technology based on craftsmanship. In this study, based on the above six components of authenticity, the authenticity of the second-hand transaction app service was intended to examine the effect of satisfaction on the second-hand transaction app service.

2.4.2 The Relationship Between the Authenticity of Used Trading App Service and Service Satisfaction

The assumption that service authenticity can be closely related to service satisfaction can also be examined based on several preceding studies. For example, a study by Bang Cheol Bang [2022] on A/S service experience users mentioned earlier found that service authenticity affects customers' service satisfaction. In addition, Hur and Son [2020]'s study explains the relationship between the service authenticity of sports center leaders and the satisfaction of center users. According to their study, the service authenticity of the instructor perceived by sports center users positively affected customer trust and satisfaction.

In addition, the results of the fact that the authenticity of the service affects the service satisfaction of customers or users are the research conducted by Yoon and Park [2016] in the background of a financial investment company and the general consumers Lee et al. [2015], Lee [2017]'s research on beauty service users, and Yang and Kim [2018]'s research conducted in the background of dental services, etc. are supported by various fields and studies. Therefore, the relationship between authenticity and service satisfaction in the metaverse educational service environment will also be positively related.

Hypothesis 1: The accuracy of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

Hypothesis 2: The self-connectivity of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

Hypothesis 3: The authenticity of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

Hypothesis 4: The legitimacy of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

Hypothesis 5: The uniqueness of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

Hypothesis 6: The excellence of the used trading app service has a positive (+) effect on the satisfaction of the used trading lab service.

2.4.3 A Study on the Moderating Effect of Usefulness and Ease in Used Trading App Service

The technology acceptance model was developed to explain the factors that determine technology acceptance behavior for new technologies and innovative products, and many previous studies have been conducted studies on this, and the results have also been proven [Kim et al., 2005; Adams et al., 1992; Chen et al., 2005]. In addition, studies on technology acceptance behavior have been mainly conducted in the field of information and communication, and in most studies, perceived usefulness and ease have been found to have a significant effect on technology acceptance behavior intention [Nam and Jin, 2013].

For example, in a study of online service system users by Lin et al. [2007], it was found that perceived usefulness and ease significantly affected readiness for new technology and technology acceptance behavioral intention. Recently, studies on the acceptance and utilization of smartphone apps have been conducted in the tourism field, and most previous studies have demonstrated that perceived usefulness and ease significantly influence the behavioral intention of acceptance and utilization of smartphone apps. [Noh, 2015; Lee and Park, 2013]. Kim et al.[2013] examined the relationship between perceived usefulness and ease of acceptance of tourism information through smartphones, intention to use tourism products, and purchase intention. As a result of the study, perceived usefulness and ease had a positive effect on the intention to use, and the intention to use was found to have a significant effect on the purchase intention. In particular, in the study focused on this, backpackers proved that if smartphone utilization is not smooth, such as infrastructure or network for smartphone utilization, risk perception increases, and travel satisfaction has a negative effect. Furthermore, this study showed that the use of smartphones had a significant influence on the outcome variable, and through this, the moderating effect of perceived usefulness and ease of use could be inferred. Therefore, in this study, the following hypotheses were established according to the discussion of previous studies.

Hypothesis 7-1~6: The effect of the authenticity of the used trading app service on the satisfaction of the used trading app service is influenced by the usefulness of the used trading app service.

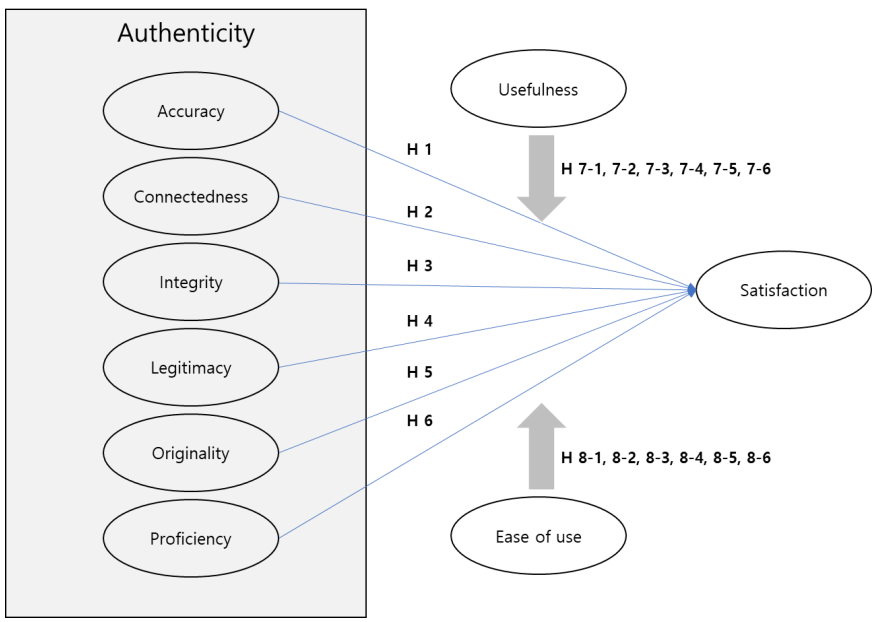
Hypothesis 8-1~6: The effect of the authenticity of the used trading app service on the satisfaction of the used trading app service is influenced by the ease of the used trading app service.

The following research model was derived based on the hypotheses on the moderating effect of the authenticity and satisfaction of second-hand trading app services and the usefulness and ease of service apps.

3. Empirical Analysis

3.1 Study Design and Collection of Data

This study aimed to confirm how consumers' perception of authenticity affects satisfaction with second-hand transaction apps, in which consumer participation is recently active in the market. To this end, we conducted a demonstration targeting consumers who have recently frequently accessed second-hand trading apps and have experience trading goods using them. The research used the survey method and was conducted by requesting a specialized market research institute. A total of 215 consumers participated in the survey, and 200 responses were used for analysis, excluding outliers. The gender of the respondents was 51.5% male and 48.5% female, and the age group was 31.5% in their 20s, 31.5% in their 30s, and 37.0% in their 40s. As for the respondent's occupations, the proportion of clerical/management positions was the highest at 44.5%, followed by professional/free positions at 12% and housewives at 10%. As for the second-hand trading app mainly used, "the carrot market was 77.5%, second-hand country 15.5%, and lightning market 6%. The frequency of the re-



〈Figure 1〉 Research Model

〈Table 1〉 Characteristics of the Respondents

Gender			The used trading app that is mainly used		
	frequency	%	app name	frequency	%
male	103	51.5	"used market country"	31	15.5
female	97	48.5	"carrot market"	155	77.5
Age group			"lightning store"	12	6.0
	frequency	%	etc	2	1.0
20's	63	31.5	The used trading app experience		
30's	63	31.5		frequency	%
40's	74	37.0	1-5	60	30.0
Occupation			6-10	50	25.0
	frequency	%	11-20	45	22.5
Agriculture	1	.5	21-30	17	8.5
self-employment	9	4.5	31-50	18	9.0
sales/service positions	14	7.0	51~	10	5.0
general work	9	4.5	Access frequency of used trading apps per week		
Office/business management	89	44.5		frequency	%
professional/free position	24	12.0	1-5	106	53.0
housewife	20	10.0	6-10	66	33.0
undergraduate or graduate student	15	7.5	11-15	8	4.0
etc	19	9.5	16~	20	10.0

spondents' experience of trading through second-hand trading apps was 30% for 1-5 times, 25% for 6-10 times, 22.5% for 11-20 times, and 14% for more than 31 times, indicating that the use of used trading apps is quite active. Could know. Respondents were found to access the used trading app an average of 8.6 times a week, and 10% of respondents answered that they accessed the used trading app more than 16 times. The specific characteristics of the respondents are presented in 〈Table 1〉 below.

3.2 Measurement of Variables

Based on the study of Nunes et al. [2021], the measurement items for authenticity, an independent variable in this study, are accuracy, connectedness, integrity, legitimacy, and origin, Measured around proficiency. First, accuracy was measured as "provision of transparent information on products or sellers," "accurate information on transactions," and "preparation of devices to prevent problems such as deception or fraud," and connectedness was measured as "important Items of "related to the value of life", "familiar service", "relationship inseparable from life", and "providing information I am interested in" were used, and integrity was "not seeking only profit", It was measured as "values that are essential to society" and "values beyond simple second-hand goods transactions". Legitimacy is "Acts in accordance with laws and social norms", "Compliance with market order and rules", "Not aiding and abetting illegal activ-

ities", and originality is "Apps that provide unique services", "Apps that provide the same services" There are few apps that provide services", "services that are difficult to imitate", "with their own distinct color", and proficiency "provides appropriate functions to use", "provides satisfactory functions and performance", measured as "excellent service level".

This study aimed to verify the moderating effect of perceived usefulness and ease of use for consumers' used trading apps. Usability can be defined as the degree to which consumers believe their job performance will improve by using a specific system [Venkatesh and Davis, 1996], and as a measurement item, Venkatesh and Davis [1996] modified the scale and defined "second-hand transactions. It was measured as "very useful for use", "functions are helpful for second-hand transactions", "improves the second-hand transaction process more effectively", and "beneficial service". Perceived ease of use can be defined as the degree to which a consumer feels that no effort is required to use a particular system [Venkatesh and Davis, 1996] and as a measurement tool, based on the scale of Venkatesh and Davis [1996], it is modified according to the situation. For example, "It is easy to learn how to use the app to trade," "It is clear and easy to understand how to use it," and "It is easy to master how to trade." All questions were measured on a 7-point Likert scale (1=not at all, 4=normally, 7=definitely so).

3.3 Results

3.3.1 Evaluation of Measurements

Before verifying the research hypotheses, the process of selecting and elaborating on the measurement items used in this study was carried out. First, reliability analysis and factor analysis were conducted to verify item reliability, convergent validity, and discriminant validity. Since the items used in this study were extracted based on the existing literature and went through a content adjustment process for each item, content validity can be seen as secured.

The reliability and validity analysis results are shown in 〈Table 2〉 below. As a result of reliability analysis using the SPSS statistical program, the Cronbach-α values of all factors were derived from being 0.8 or higher. The factor extraction method of the factor analysis to confirm convergent validity and discriminant validity used the principal component analysis method, and the varimax method among orthogonal factor rotations was used for factor rotation. As a result of the analysis, the total variance explained by the selected measurement tools was 78.6%, and the extracted commonality of each measurement item was satisfactory at 0.5 or higher. The KMO value, which indicates whether the total correlation behavior is suitable for factor analysis, also showed a value greater than 0.5, so a suitable result could be obtained. A total of six factors were derived, and it was confirmed that the factor loading of each factor was well classified and distributed by factor. However, in elaborating on the measurement items, the factors were constituted except for one question of integrity.

The results of deriving AVE values for discriminant validity verification are shown in 〈Table 3〉 below. Again, it was confirmed that the smallest value among the square roots was more significant than the most considerable value among the correlation coefficients of each factor.

〈Table 2〉 Reliability and Factor Analysis Results

Measurement	Reliability Cronbach-α	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Commo-nality	Explained total variance
accuracy 1	0.816	.315	.125	.194	.703	.136	.221	.700	78.6%
accuracy 2		.140	.166	.219	.730	.228	.063	.683	
accuracy 3		.138	.160	.248	.825	.136	.050	.810	
connectedness 1	0.848	.642	.112	.202	.428	.230	.161	.722	
connectedness 2		.729	.413	.111	.121	.062	.077	.736	
connectedness 3		.771	.073	.252	.209	.357	.066	.838	
connectedness 4		.679	.271	.019	.132	.201	.270	.651	
integrity 1	0.802	.194	.054	.466	.169	.216	.741	.839	
integrity 2		.454	.274	.129	.152	.218	.611	.777	
legitimacy 1	0.890	.202	.219	.856	.234	.179	.074	.906	
legitimacy 2		.160	.271	.726	.317	.128	.187	.780	
legitimacy 3		.067	.353	.659	.291	.182	.260	.748	
originality 1	0.861	.235	.148	.340	.202	.763	.123	.827	
originality 2		.364	.087	.161	.211	.813	.112	.885	
originality 3		.119	.429	-.007	.246	.641	.395	.817	
proficiency 1	0.879	.252	.819	.162	.103	.065	.109	.786	
proficiency 2		.268	.801	.246	.110	.121	.122	.814	
proficiency 3		.105	.750	.268	.253	.213	.032	.753	

〈Table 3〉 Correlation between Constructs and AVE

Measurements	Correlation between Constructs					
	accuracy	connectedness	integrity	legitimacy	originality	proficiency
accuracy	1.000					
connectedness	0.232	1.000				
Integrity	0.383	0.287	1.000			
legitimacy	0.351	0.433	0.404	1.000		
originality	0.283	0.195	0.453	0.233	1.000	
proficiency	0.328	0.097	0.146	0.191	0.183	1.000
AVE	0.569	0.500	0.461	0.565	0.551	0.625

3.3.2 Hypothesis Testing

The statistical analysis method for hypothesis testing in this study was regression analysis. Regression analysis was performed by converting each factor score derived from factor analysis into a variable. First, as a result of the goodness of fit verification of the regression analysis model, a significant ANOVA result was obtained, as shown in 〈Table 4〉 below, and the R squared value, which means the explanatory power of the variables in the model, was 0.559. In addition, as a result of checking multicollinearity by the correlation between independent variables, all VIF (variance inflation factors) values were less than 10, so it was judged that there were no variables with multicollinearity.

The results of the regression analysis for the verification of hypotheses 1 to 6 on the main effect of the research model are shown in 〈Table 5〉 below. As a result of the analysis, accuracy, connectedness, integrity, legiti-

〈Table 4〉 Regression Model Analysis Result

Model summary			ANOVA			
R	R square	Modified R square	Model	sum of squares	F	Sig.
.747a	.559	.545	Regression Model	111.149	40.697	.000a
			residual	87.851		
			total	199.000		

〈Table 5〉 Results of Regression Analysis on the Main Effect of the Authenticity Factor

Model	Unstandardized Coefficient		Sandardized Coefficient	t	Sig.
	B	SE.	beta		
accuracy	.286	.048	.286	5.972	.000
connectedness	.621	.048	.621	12.992	.000
integrity	.208	.048	.208	4.357	.000
legitimacy	.134	.048	.134	2.797	.006
originality	.112	.048	.112	2.336	.021
proficiency	.131	.048	.131	2.733	.007

* dependent variable: satisfaction

macy, originality, and proficiency, which are authenticity factors for used trading apps, were statistically significant in consumer satisfaction. It was confirmed to have a positive effect.

This study hypothesizes that the authenticity factor for second-hand trading apps will moderate the app's usefulness and ease of use in the causal relationship of satisfaction. Verification of the moderating effect was conducted through hierarchical regression analysis. The moderating effect was verified through regression analysis of the regression model, including only the independent variable, the regression model including the independent variable and the moderating variable, and the regression model including the independent variable, the moderating variable, and the interaction term. In this analysis process, the increase in the R-squared value of the regression model, including the interaction term and the statistical significance, was confirmed. First, the test results of hypotheses 7-1 to 7-6 on the moderating effect of usefulness are shown in 〈Table 6〉 below. The moderating effect of usefulness was found in accuracy, connectedness, and originality. It was analyzed that there was a negative moderating effect on accuracy and self-connectedness and a positive moderating effect on uniqueness. In other words, it was found that the effect of accuracy and self-connectivity on satisfaction decreased when the usefulness of used trading apps was recognized as high. This means that when used trading apps effectively improve second-hand trading and feel very useful, the influence of accuracy related to providing accurate information or connectedness related to life values and connection or familiarity is lowered. In addition, it was found that the satisfaction effect of originality related to the perception that it is a unique service is further strengthened when it is perceived as beneficial.

〈Table 6〉 Result of Verifying the Moderating Effect of Usefulness

Hypothesis	Independent variable	Beta	t	Sig.	R square	Modified R square
H 7-1	accuracy	0.246	4.686	0.000	0.483	0.476
	usefulness	0.615	11.839	0.000		
	accu x useful	-0.233	-4.469	0.000*		
H 7-2	connectedness	0.419	7.430	0.000	0.540	0.053
	usefulness	0.385	6.751	0.000		
	connec x useful	-0.168	-3.421	0.001*		
H 7-3	integrity	0.175	3.085	0.002	0.419	0.410
	usefulness	0.613	11.244	0.000		
	integ x useful	0.002	0.033	0.974		
H 7-4	legitimacy	0.124	2.769	0.008	0.483	0.053
	usefulness	0.615	10.923	0.000		
	legit x useful	-0.008	-0.138	0.891		
H 7-5	originality	0.112	2.324	0.023	0.483	0.053
	usefulness	0.642	11.608	0.000		
	origin x useful	0.163	2.745	0.007*		
H 7-6	proficiency	0.121	2.174	0.031	0.483	0.053
	usefulness	0.620	11.223	0.000		
	profi x useful	-0.012	-0.216	0.829		

* dependent variable: satisfaction.

〈Table 7〉 Result of Verification of the Moderating Effect of Ease of Use

Hypothesis	Independent variable	Beta	t	Sig.	R square	Modified R square
H 8-1	accuracy	.215	3.751	.000	0.377	0.367
	ease of use	.545	9.467	.000		
	accu x ease	-.017	-.290	.772		
H 8-2	connectedness	.432	7.479	.000	0.501	0.493
	ease of use	.363	6.360	.000		
	connec x ease	-.100	-1.935	.054		
H 8-3	integrity	.212	2.906	.008	0.348	0.338
	ease of use	.557	9.538	.000		
	integ x ease	.047	.816	.415		
H 8-4	legitimacy	.154	2.640	.009	0.356	0.346
	ease of use	.569	9.833	.000		
	legit x ease	-.065	-1.101	.272		
H 8-5	originality	.194	2.636	.003	0.356	0.346
	ease of use	.607	10.200	.000		
	origin x ease	.128	2.148	.033		
H 8-6	proficiency	.081	1.427	.155	0.366	0.356
	ease of use	.547	9.484	.000		
	profi x ease	-.164	-2.860	.005		

* dependent variable: satisfaction.

The results of the verification of hypotheses 8-1 to 8-6 on the moderating effect of ease of use are shown in 〈Table 7〉 below. The moderating effect on originality and proficiency was statistically significant among the six authenticity factors. In the case of uniqueness, a positive moderating effect was shown, and in the case of excellence, it was analyzed that there was a negative moderating effect. In other words, when the convenience of use of the used trading app is recognized as high, the perception that it is a unique service further strengthens the influence on satisfaction. However, it was found that when usability is high, the satisfaction effect of excellence related to functional excellence is reduced.

4. Research Results

This study aims to define the components of service authenticity in the used trading app service and to understand the effect of each authenticity component on service satisfaction. To this end, through the review of existing studies, the authenticity components of used trading app services were defined as accuracy, connectedness, integrity, legitimacy, originality, and proficiency. The influence of each factor on the service satisfaction of the used trading app was confirmed. Furthermore, as a result of examining the statistical causal relationship through regression analysis, it was found that all six service authenticity factors had a significant effect on service satisfaction. The detailed research results can be summarized as follows.

First, as an authenticity component of second-hand transaction app service, accuracy is a concept related to how transparently and without falsehood the value of products and services is conveyed to consumers. Transaction services provided by second-hand trading apps must be composed of accurate content that can lead to trust between traders, and consumers evaluate such highly accurate transaction services as genuine trading services. It was confirmed that the service authenticity perception of this accuracy positively affected the satisfaction of the transaction service.

Second, as a component of the authenticity of the second-hand transaction app service, connectedness refers to how familiar consumers are with products and services within the second-hand transaction app environment and how connected they feel. In the used trading app space, you can feel whether the trading product or service is more intimate with the provider and reflects essential life values. , it was confirmed that consumers are more satisfied with transaction services with high self-connectivity.

Third, integrity as a component of the authenticity of the second-hand transaction app service means that the transaction service provided within the second-hand transaction app environment has a sincere heart for transactions. When the transaction service in the second-hand transaction app has a pure mindset and intention to achieve the intrinsic value of the transaction, consumers perceive the transaction service as authentic. In addition, it was confirmed that the perception of authenticity centered on authenticity positively affected the value and satisfaction of transaction services.

Fourth, legitimacy as an authenticity component of second-hand trading app service means how appropriate it is to the current tradition, law, and shared social values. In the used trading app environment, you can experience behaviors that conform to laws and

social norms, comply with market orders and rules, and experience regulatory services that do not interfere with illegal activities. This legitimacy makes consumers perceive the used transaction app service as a genuine transaction activity and positively affects the satisfaction of the transaction service.

Fifth, origin as a component of the authenticity of the second-hand transaction app service refers to a transaction service that provides a unique value beyond general products and services in the market that can only be experienced within the second-hand transaction app. The experience of this unique and exciting trading process will motivate traders and increase satisfaction. As a result of the study, it was confirmed that this uniqueness is a significant factor in the authenticity of the transaction service and positively affects satisfaction.

Sixth, proficiency as an authenticity component of the second-hand transaction app service refers to a transaction service in which products and services that can only be experienced within the second-hand transaction app are professional and have optimal technology based on craftsmanship. The experience of the trading process based on these professional and optimal technologies will stimulate traders' motivation and increase their satisfaction. As a result of the study, it was confirmed that this uniqueness is a significant factor in the authenticity of the transaction service and positively affects satisfaction.

Seventh, the moderating effect of usefulness appeared in accuracy, connectedness, and originality. It was found that the influence of accuracy and self-connectivity on satisfaction decreased when the usefulness of used trading apps was perceived as high. As for the moderating effect of ease of use, among the six authenticity factors, the moderating effect of originality and proficiency was found to be statistically significant. In the case of recognizing that the used trading app has high usability, it was found that the perception that it is a unique service further strengthens the influence on satisfaction. However, it was found that when usability is high, the satisfaction effect of excellence related to functional excellence is reduced.

In conclusion, this study consists of accuracy, connectedness, integrity, legitimacy, originality, and proficiency as transaction service authenticity factors in the used transaction app environment. It was confirmed through empirical evidence that each authenticity factor has a positive effect on service satisfaction, and it is meaningful in that the moderating effect of usefulness and convenience of use differs depending on the factor.

4.1 Theoretical and Practical Implications

In conclusion, the implications of this study are as follows. First, this study is meaningful in examining the service authenticity of the growing used trading app service. To this end, authenticity components were derived by referring to existing studies, and it was confirmed that the components derived through empirical analysis positively affected service satisfaction.

Moreover, as service authenticity factors, six components of accuracy, connectedness, integrity, legitimacy, originality, and proficiency were identified, and the dependent variable, service satisfaction, was high. Therefore, it implies that it has been confirmed that the definition of the level has an impact.

The strategic implications that can be presented to the industry through this study are

as follows. First, the research results confirmed the current status and development direction of transaction services using the second-hand transaction app service space, and the need for a sincere service proposal using the second-hand transaction app service space in the future was suggested. As non-face-to-face transactions have been activated through the current corona situation, companies are actively developing and providing transaction services using the second-hand transaction app service space to provide a better second-hand transaction app service. In this situation, the perception of the transaction service's authenticity from the transaction beneficiary's point of view affects the attitude toward the transaction service. Based on these research results, second-hand trading companies need to consider genuine trading services in providing trading services using second-hand trading apps.

Second, this study is meaningful because it specifically suggested the authenticity factor in the used transaction app service. Even in the case of non-face-to-face transactions, it is necessary to provide services with a sincere attitude toward transactions and to make efforts to provide transactions based on accurate information that meets the needs of transaction participants by understanding the minds of transaction participants and inducing active self-connection based on legitimacy. It is necessary to devise a device that can do this and induce active participation in the transaction of the transaction participants. It is also pointed out that it is necessary to actively utilize elements that suggest various measures to supplement truthfulness so that you can feel that you are dealing with accurate information and engage in transactions by borrowing a unique and exciting method. When it can be guaranteed that it is a product with differentiated value even though it is a second-hand transaction, when a transaction service is planned and provided based on the authenticity of these second-hand transaction app services, it can become a valuable second-hand transaction app service. Satisfaction can be obtained.

4.2 Research Limitations and Future Research Topics

This study studied the components of service authenticity in the second-hand transaction app service, which has recently been growing significantly in the IT industry. Two hundred samples of people in their 20s and 40s were analyzed for this study. However, the second-hand trading app service is still increasing in a wide variety of consumers, and since the sample number of 200 is relatively small, there is a limit to an in-depth analysis by age group. In this respect, this study has limitations due to the small number of samples.

In addition, this study has a limitation in that it has not been able to conduct a study to identify the moderating role of used transaction app service content as a service control variable that was not included in this study. As pointed out above, in future studies, a larger group will be targeted, and There is a need to conduct research by classifying age groups. Furthermore, in-depth research needs to be conducted based on comparing groups in an environment where sufficient customer experiences have been achieved, as second-hand transaction app services are conducted in various forms. In addition, it is necessary to study the role of the moderating variable of the transaction content, which is a moderating variable.

References

[1] Adams, D. A., Nelson, R. R., and Todd, P. A., "Perceived usefulness, ease of use, and usage of information technology: A replication", Vol. 16, No. 2, MIS Quarterly, 1992, pp. 227-247.

[2] Alexander, N., "Brand authentication: Creating and maintaining brand auras", European Journal of Marketing, Vol. 43, No. 3/4, 2009, pp. 551-562.

[3] Appstory, "Lightning Store vs. the Carrot Market, What's a better-used app?", 1boon, 2019.

[4] Bernard, A. B. and Jensen, J. B., Exporting and productivity, 1999.

[5] Beverland, M. B., Lindgreen, A., and Vink, M. W., "Projecting authenticity through advertising: Consumer judgments of advertisers' claims", Journal of Advertising, Vol. 37, No. 1, 2008, pp. 5-15.

[6] Brown, K. W. and Ryan, R. M., "The benefits of being present: Mindfulness and its role in psychological well-being", Journal of Personality and Social Psychology, Vol. 84, No. 4, 2003, p. 822.

[7] Cohen, E., "Authenticity and commoditization in tourism", Annals of Tourism Research, Vol. 15, No. 3, 1988, pp. 371-386.

[8] Dayour, F., Park, S., and Kimbu, A. N., "Backpackers' perceived risks towards smartphone usage and risk reduction strategies: A mixed methods study", Tourism Management, 2019, pp. 72, 52-68.

[9] Gilmore, J. H. and Pine, B. J., "Authenticity: What consumers really want", Harvard Business Press, 2007.

[10] Golomb, M., Fava, M., Abraham, M., and Rosenbaum, J. F., "Gender differences in personality disorders", The American Journal of Psychiatry, Vol. 152, No. 4, 1995, pp. 579-582.

[11] Google Play Store Shopping Category Ranking, https://play.google.com/store, 2020.

[12] Harter, S., "Authenticity", In C. R. Snyder and S. J. Lopez (Eds.), Handbook of positive psychology (pp. 382-394), Oxford University Press, 2002.

[13] Hur, J. and Son, W.-H., "The effect of customers' perceived service authenticity on service quality, customer satisfaction, customer trust, and loyalty of sport center instructors", Korean Journal of Sports Science, Vol. 29, No. 4, 2020, pp. 567-578.

[14] Kapferer, J. N. and Bastien, V., "The luxury strategy: Break the rules of marketing to build luxury brands", Kogan Page Publishers, 2012.

[15] Kim, H. J., "The Origin and Structure of Authenticity", Korean Journal of Sociology, Vol. 43, No. 5, 2009, pp. 1-29.

[16] Kim, J., Lee, C., and Kim, J., "A Study of Examining the Relationship between Adoption of Smartphone-Based Tourism Information and Use Intention", Korean Journal of Tourism Research, Vol. 27, No. 6, 2013, pp. 15-38.

[17] Kim, S. H., Park, H. J., and Lee, E. Y., "Brand Attributes Related to the Perceived Brand Authenticity", Journal of the Korea Contents Association, Vol. 14, No. 11, 2014, pp. 398-410.

[18] Kim, T., Lee, H., and Lee, J. H., "A Path Investigation on Use Behavior of Hotel Accounting Information System: Explained by the Technology Acceptance Model", Journal of Tourism Sciences, Vol. 28, No. 4, 2005, pp. 313-334.

[19] Lee, H. Y., "The Effect of the Authenticity and Emotional Expression of Beauty Service Workers on Customer Satisfac-

tion and Long-Term Relationship Orientation", Journal of the Korean Society of Cosmetology, Vol. 23, No. 5, 2017, pp. 942-953.

〔20〕 Lee, J., Yi, J. J., Park, K., and Yi, Y., "Your Fake Smile Hurts My Heart!: The Effect of Employee Authenticity and Manipulative Intent on Customer Perceived Value and Satisfaction", Korean Management Review, Vol. 44, No. 4, 2015, pp. 1013-1042.

〔21〕 Lee, T. H. and Park, I. W., "Study on Utilization and Circulation toward Smartphone Application of Travel Agencies Based on the Extended Technology Acceptance Model(ETAM)", Journal of Tourism Sciences, Vol. 37, No. 6, 2013, pp. 287-308.

〔22〕 Leigh, T. W., Peters, C., and Shelton, J., "The consumer quest for authenticity: The multiplicity of meanings within the MG subculture of Consumption", Journal of the Academy of Marketing Science, Vol. 34, No. 4, 2006, pp. 481-493.

〔23〕 Lewis, D. and Bridge, D., "The soul of the new consumer", London: Brealy, 2001.

〔24〕 Lin, C. H., Shih, H. Y., and Sher, P. J., "Integrating technology readiness into technology acceptance: The TRAM model", Psychology & Marketing, Vol. 24, No. 7, 2007, pp. 641-657.

〔25〕 MobileIndex, "Used Trade Apps Market Analysis", Seoul: MobileIndex, 2020.

〔26〕 Na, G. W., "Rapid growth in recession 'Used Trade Apps' -Danggeun Market·Jungo Nara·Bungae Jangter 'Three Waves of War.' Maeil Business, 2020, https://www.mk.co.kr/news/business/view/2020/05/472198/.

〔27〕 Nam, S. and Jin, C., "A Meta-analysis of Relationship between Constructs of the Technology Acceptance Model: Focusing on the Research Papers Published for Smartphone in Korean Journals", Asia-Pacific Journal of Business Venturing and Entrepreneurship, Vol. 8, No. 4, 2013, pp. 67-79.

〔28〕 Nielsen-KoreanClick, "10 Million Mobile Used Trading Users. Nielsen Koreanclick (Online), 2020, http://www.koreanclick.com/insights/newsletter_view .html?code=topic&id=583&page=1&utm_source=board &utm_medium=board&utm_campaign=topic&utm_content=20200723.

〔29〕 Nunes, J. C., Ordanini, A., and Giambastiani, G., "The concept of authenticity: What it means to consumers", Journal of Marketing, Vol. 85, No. 4, 2021, pp. 1-20.

〔30〕 Park, E. and Kim, K. J., "An integrated adoption model of mobile cloud services: Exploration of key determinants and extension of technology acceptance model", Telematics and Informatics, Vol. 31, No. 3, 2014, pp. 376-385.

〔31〕 Park, K. E. and Cheon, H. J., "A Study on Consumers' Experience C2C Secondhand Goods Transaction", Journal of Consumer Policy Studies, Vol. 51, No. 3, 2020, pp. 81-108.

〔32〕 Park, S. H. and Kim, Y. K., "Developing a Scale for Measuring of Authenticity of Brand", The Korean Journal of Advertising and Public Relations, Vol. 16, No. 2, 2014, pp. 46-86.

〔33〕 Roh, M., "A Study on User Acceptance of Mobile Airline Ticketing Apps Based on Technology Acceptance Model", Journal of the Aviation Management Society of Korea, Vol. 13, No. 5, 2015, pp. 69-94.

〔34〕 Seo, S. and Lee, Y., "Quantitative research for investigating internal structure and the influence on brand attachment, commitment, loyalty of fashion brand

authenticity", Journal of the Korean Society of Costume, Vol. 63, No. 7, 2013, pp. 148-163.

〔35〕 Snyder, M., Self-monitoring processes. In Advances in experimental social psychology (Vol. 12, pp. 85-128). Academic Press, 1979.

〔36〕 Su, Y., Yoo, H. S., and Kim, H., "A study on the influence on brand attachment and loyalty of cosmetic brand authenticity", Journal of Channel and Retailing, Vol. 19, No. 2, 2014, pp. 87-111.

〔37〕 Venkatesh, V., and Davis, F. D., "A model of the antecedents of perceived ease of use: Development and test", Decision Sciences, Vol. 27, No. 3, 1996, pp. 451-481.

〔38〕 Wu, L. and Chen, J. L., "An extension of trust and TAM model with TPB in the initial adoption of online tax: an empirical study", International Journal of Human-Computer Studies, Vol. 62, No. 6, 2005, pp. 784-808.

〔39〕 Yang, J., Bang, Y., and Kwon, H., "The Effect of Sincerity and Service Value on Customer Trust, Satisfaction and Customer Citizenship Behavior", Management Information Systems Review, Vol. 41, No. 3, 2022, pp. 155-169.

〔40〕 Yang, Z. and Kim, S., "Effects of Service Authenticity on Reputation, Trust, Customer Satisfaction and Loyalty: Focused on Dental Service", Journal of Marketing Studies, Vol. 26, No. 2, 2018, pp. 48-63.

〔41〕 Yeo, J. S. and Lee, J. Y., "Consumer Participation and Expansion Plans of Collaborative Consumption", Consumer Policy and Education Review, Vol. 12, No. 1, 2016, pp. 95-118.

〔42〕 Yun, J. B. and Park, H. S., "The Effect of Service Authenticity and Service Quality on the Customer Satisfaction and Customer Loyalty in Financial Investment Company", Journal of the Korea Contents Association, Vol. 16, No. 3, 2016, pp. 742-759.

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