



# Effects of Service Quality Characteristics of the 2018 Webtoon Lore Olympus on User Satisfaction and Reuse Intention of Generation Z in Korea

Y. S. Seo<sup>1</sup>, Austin Kang<sup>2,\*</sup> and Hyo Kim<sup>3</sup>

## ABSTRACT

This study was conducted to examine the Generation Z's satisfaction and reuse intention of the service factors of the webtoon Lore Olympus in Korea. We examined the satisfaction and reuse intentions of Generation Z users who received the service of the US webtoon Lore Olympus at Korean portal site Naver from July 1 to July 31, 2022. Results show that the entertainingness and design characteristics of Lore Olympus significantly affected on Generation Z's satisfaction and reuse intention in Korea. User satisfaction also affected reuse intentions. The webtoon service factors such as entertainingness and design characteristics of Lore Olympus were confirmed to have an effect on Generation Z's satisfaction and reuse intention in Korea.

## Keywords

Lore Olympus, service factors, satisfaction, reuse intention, Webtoon

---

## To cite this article (7<sup>th</sup> APA style):

Seo, Y. S., Kang, A. & Kim, H. (2023). Effects of Service Quality Characteristics of the 2018 Webtoon Lore Olympus on User Satisfaction and Reuse Intention of Generation Z in Korea. *Journal Communication Spectrum: Capturing New Perspectives in Communication* 13(1), 1-12. <https://dx.doi.org/https://doi.org/10.36782/jcs.v13i1.2373>

## INTRODUCTION

Webtoon, a new genre, is an animated cartoon or series of comic strips published online (Lababa, 2022), which is a new compound word made up of “website” and “cartoon, which means comics (Erya, Pustika, 2021). Increasingly, the genre of webtoons became a global phenomenon through hits such as Lore Olympus (2018-ongoing) by Rachel Smythe. More recently, the website turned app ‘Webtoons’ has gained popularity as a platform for digital art that tells stories (Presser, Bravuno, & Côte-Real, 2019). Portrayed as a ‘webcomic’, Rachel Smythe’s *Lore Olympus* is a modern retelling of the myth of Hades and Persephone (Rejter, Paulouskaya & Gerus, 2020). While staying true to the myth, Rachel Smythe uses her platform and narrative to give new life to the story, empowering females and addressing topical issues that are still relevant to the myth issues such as rape, abuse, and identity (Lamerichs, 2020). Smythe uses Persephone as a vehicle to convey the value every person has, emphasising 21st-century postmodern values of the human experience through an ancient narrative (Rejter, Paulouskaya, & Gerus, 2020). Lore Olympus was first launched through Naver WEBTOON’s CANVAS, the webcomic industry’s first free self-publishing platform (Hatfield, 2021). Naver, the largest portal site in Korea, has launched webtoon services and

---

<sup>1</sup> Department of Korean and Chinese Cultures, Hankuk University of Foreign Studies Graduate School, Seoul, South Korea

<sup>2</sup> Department of Forensic Medicine, Seoul National University, Seoul, South Korea

<sup>3</sup> Seoul National University, Seoul, South Korea

\* **Corresponding author:** animus70@snu.ac.kr

contributed to the increase of webtoon consumption since 2003 (Jin, 2015). Webtoon can be accessed in computer and smartphone. Furthermore, webtoon has become more active for Generation Z users based on smartphones (Jeong, Chung, & Kim, 2017). Generation Z were born and raised side by side with the internet, social media, and technology (Turner, 2015). Since Generation Z refers to those born between 1995 and 2010 (Seemiller, Grace, 2017). In addition, their mindset and consumption patterns are different from the previous generation especially in terms of mastery of technology and information (Utami, 2022). This study aims to evaluate how Korea's Generation Z reacts to Lore Olympus, examining the effects of the service quality, user satisfaction and reuse intention.

### **Cultural contents based on Greek mythology**

Greek mythology is frequently referenced in Western culture, which has been present in Renaissance art, English poems, film, other literature, music, and even commercials and music (Junker, 2014). Thus, Greek mythology, along with the Bible, have been the two pillars of Western culture for the past 500 years (Fornaro, Clementi, Fornaro, 2009). Elements of Greek mythology include various gods, humans, demigods, titans, monsters, nymphs, and famous locations. Each of the many different gods and goddesses had his or her own distinctive powers (Lefkowitz, 1990). Since this study cannot cover all the contents of Greek mythology, we focus on the episodes of Hades and Persephone, the two main characters of Lore Olympus. Hades, mythological Greek deity, frequently makes an appearance in popular culture. Owing to his association with death and the afterlife, Hades is frequently portrayed as a villain (Bartsevich, Kulpa, Maciejewska, 2019), showing a series of classic myths that have served as models for modern storytellers (Sánchez-Escalonilla, 2005). Hades had moral meaning in the Middle Ages, whereas he is strikingly absent from the narrative of the Iliad (Heinrichs, 1989). In the music part, several works have been made based on Hades' myth (Gallego, 2010). In the video game section, several games have been created based on the Hades myth (Bartsevich, Kulpa, Maciejewska, 2019).

In Greek myth Persephone is the daughter of Zeus and Demeter (Stevenson, 2006). Persephone became the queen of the underworld after her abduction by her uncle Hades (Bandici, 2013). Hades kidnapped Persephone while she was gathering flowers from a field. Demeter spent a lot of time looking for Persephone with no success before being told that Hades had taken her to be his wife, with the approval of Zeus (Bond, 2009). Persephone is almost always depicted robed and holding a sheaf of grain in classical Greek art (Spaeth, 1994). Contemporary writers rediscover the literary potential of Persephone myth (Golban, 2019), and Persephone is used in contemporary entertainment and popular culture (Schiano, 2018).

### **Hades and Persephone in Lore Olympus**

According to Greek mythology, Hades ruled the underworld alongside his queen, Persephone (Primo, 2018). Hades decided to kidnap Demeter's daughter, Persephone, and make her his wife. Demeter heard the news and informed Zeus of Hades' plans. However, a young and innocent Persephone was kidnapped and trapped in the underworld by Hades. Alarmed, and after several futile pleas to Demeter, Zeus ordered Hades to return Persephone to her mother. Hades disobeyed Zeus' orders and took Persephone as his wife (Jewett, 2013). This became the motif of Lore Olympus. Rachel Smythe's Lore Olympus is a contemporary reimagining of the myth of Hades and Persephone, which is not only stunning and captivating for its artwork, but also for the world building (Rejter, Paulouskaya, Gerus, 2020). Hades, the CEO of Underworld Corp., has absolute authority over both the Underworld and its inhabitants. As Hades is the owner of all of the banks in the Underworld and Olympus, he also has some authority outside of the Underworld. Hades thinks Persephone is too good for someone like him after meeting her. Hades lives a gloomy and lonely life, and Persephone is the one who brought color and love to him (Rejter, Paulouskaya, Gerus, 2020).

### **Characteristics of webtoon**

Webtoons are a form of digital comic that were first produced in South Korea and are typically viewed on mobile phones and computers (Jin, 2015). A webtoon is a digital cartoon designed to be viewed in Internet media (Berlian, Vebrianto, Thahir, 2021). Daum, a Korean Internet portal, opened a webtoon site in 2003, followed by Naver, the largest Internet portal in Korea, in June

2004 (Jin, 2015). Naver subsidiary Line began publication of translations of popular webtoons to English via the Webtoon service in 2014 (Shim et al., 2020). Webtoons have been successfully reproduced in movies, TV dramas, or musicals to generate additional revenue (Shim et al., 2020). For example, TV industry has utilized webtoons as a source of TV drama storytelling (Park, Lee, Lee, 2019). Studies have been conducted on the success factors of webtoon services, Yang, Lee, and Lee (2016) reported that readers' rating, one-source-multi-use (OSMU), user response, author power, genre, picture style are important factors affecting the success of webtoon. In addition, as many webtoons use slang, translation quality has been a big issue (Jin, 2019).

### Generation Z

Generation Z is regarded as a generation that tries to act independently rather than teamwork and can create spaces where they can express themselves (Berkup, 2014). Members of Generation Z have been called "digital natives" even though they are not necessarily technologically literate because they are the first social generation to have grown up with access to the Internet and portable digital technology. (Chicca, Shellenbarger, 2018). In addition, Generation Z uses social media and other sites in order to strengthen bonds with friends and to develop new ones. They interact with people who they otherwise would not have met in the real world (Reinikainen, Kari, Luoma-Aho, 2020). Generation Z prefers to read longer text in printed books and not on digital devices (Kristensen, 2019). However, webtoon is loved by Generation Z because it presents illustrated stories (Novanti, Suprayogi, 2021).

## METHOD

### Research design

This descriptive study examined service quality factors of Lore Olympus, user satisfaction and reuse intention of Generation Z in Korea. Figure 1 shows a modified form of SERVQUAL model developed by Parasuraman et al. (1991). This study selected the seven sub-factors (informativeness, design characteristics, entertainingness, accessibility, web navigation, responsiveness, assurance) as the service quality factors of Lower Olympus, referring to eight factors (informativeness, variety of genres, design characteristics, entertainingness, accessibility, technical convenience, responsiveness, assurance) that were suggested by Jeong et al. (2018) and four factors (entertainment, informativeness, relevance, workability) presented by Shin (2017).

Informativeness is the degree of information users can expect through webtoons, and entertainingness is the degree to which users can change their mood, enjoyment, relieve tension, spend leisure time, etc. (Ryan, Deci, 2000). Design characteristics refer to the artistic value of the produced webtoon content (Lucas, Abd Rahim, 2017). Furthermore, accessibility is the degree of accessibility and access speed of webtoon sites (Hernon, Calvert, 2005). Web navigation refers to the user interface in the website service, including the application of the latest technology, the visual arrangement of the menu bar, the convenience of data search (Lamerichs, 2020). Responsiveness is identified as a crucial determinant of quality as it is a frequent source of satisfaction, and the lack of it is a major source of dissatisfaction (Johnston, 1995). Assurance refers to the courtesy and knowledge of service providers, and their ability to convey a feeling of trust and confidence by providing necessary information (Khan, Su, 2003).

Customer satisfaction is defined as the number of customers, or percentage of total customers, whose reported experience with a provider, its products, or its services exceeds specified satisfaction goals (Angelova, Zekiri, 2011). In this study, user satisfaction is defined as a measurement that determines how happy customers are with Lore Olympus (Rosli, Nayan, 2020). Also, reuse intention is defined as the customers will continue to use Lore Olympus service (Kettinger, Smith, 2009). As it is not easy to maintain loyal customers with a tendency to repeat use, it is necessary to identify variables that could affect their intention to reuse them (Yim, Kannan, 1999). Thus, the following hypotheses were established for the relationship between service factors, user satisfaction and reuse intention of Lore Olympus.

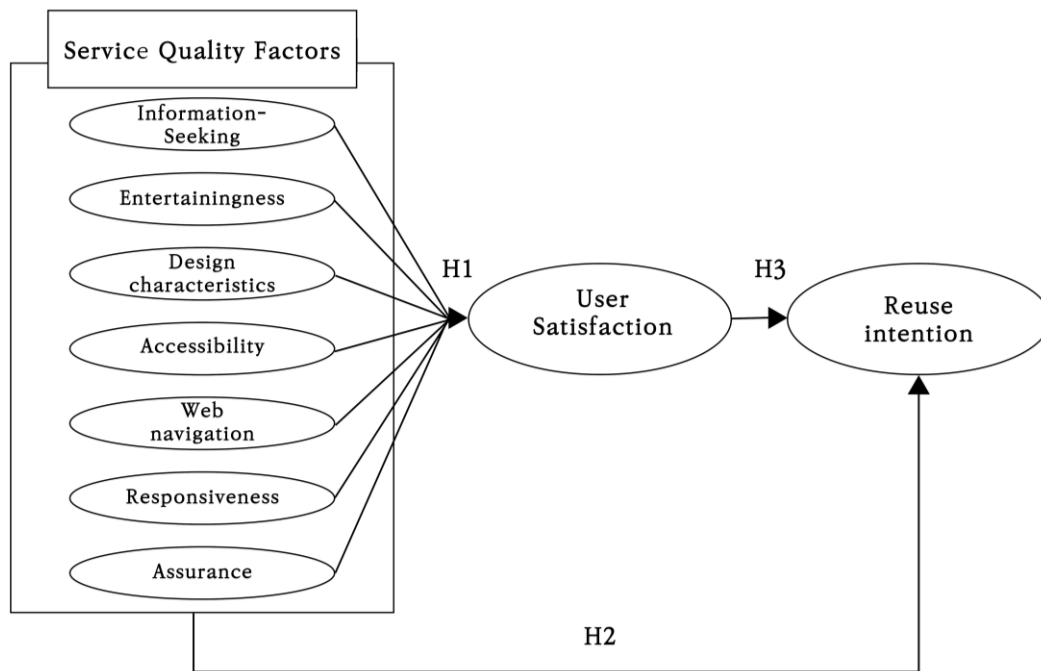


Figure 1. Research Model

H1: The service quality of Lore Olympus shall have a positive effect on user satisfaction of Generation Z in Korea.

H2: The service quality of Lore Olympus shall have a positive effect on reuse intention of Generation Z in Korea.

H3: User satisfaction shall have a positive effect on reuse intention of Generation Z in Korea.

### Research subject

After receiving an explanation regarding the purpose of this study, Generation Z users living in Seoul, who consented to participate and who used Naver webtoon services, were selected. The minimum sample size was obtained using the G\*power 3.1.9.2 program, based on previous studies on user satisfaction and reuse intention. With a significance level of .05, power of .95, and effect size of .30, and the minimum sample size was confirmed to be 148 persons. Therefore, a total of 165 participants were recruited considering the dropout probability of 10%. The survey results showed that 155 questionnaires were used for empirical analysis except for 10 questionnaires including missing or insincere responses (Dospinescu, Anastasiei, & Dospinescu, 2019).

### Data collection

This study conducted a questionnaire survey on the subjects by filling out a questionnaire based on previous researches (Shin, 2017; Jeong et al., 2018). The 43-item survey used in this study consisted of 4 items on general characteristics, 31 items on the service quality factors of Lore Olympus, 4 items on user satisfaction, and 4 items on reuse intention. Responses were provided on a Likert 5-point scale. In this study, all the items related with service quality factors, user satisfaction and reuse intention were measured on a 5-point Likert scale. In this study, exploratory factor analysis (EFA) was performed to verify the validity and reliability of the measurement tool (Table 1). The principal component method was used for the EFA to estimate factor loading and the Varimax method was selected as the rotation method. The results demonstrated that all the factors had a loading value of 0.7 or more for each questionnaire item, and the eigenvalue of each factor was more than 1.0. In addition, Cronbach's  $\alpha$  of all the items was 0.7 or more, indicating high reliability. Also, Kaiser-Meyer-Olkin (KMO) values of each variable were all greater than 0.7, showing that the selection of variables is good. Furthermore, the results of Bartlett's test also show that the factor analysis model is suitable.

Table I. Results of the Validity and Reliability Analysis

Service quality factors	Rotated component matrix (Varimax)								
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
Informativeness1	.007	.083	.094	.051	.068	.018	.749	.151	.092
Informativeness2	.006	.184	.079	.009	.094	.039	.638	.156	.128
Informativeness3	.139	.053	.054	.008	.073	.011	.682	.124	.077
Informativeness4	.131	.044	.048	.003	.043	.104	.773	.031	.037
Informativeness5	.136	.031	.004	.174	.045	.201	.724	.052	.054
Entertainingness1	.161	.914	.112	.021	.031	.036	.185	.058	.032
Entertainingness2	.034	.776	.121	.024	.051	.054	.211	.023	.051
Entertainingness3	.066	.851	.115	.015	.058	.032	.164	.005	.023
Entertainingness4	.064	.762	.116	.002	.021	.051	.182	.217	.159
Entertainingness5	.098	.921	.111	.015	.005	.028	.166	.214	.173
Design characteristics1	.914	.171	.119	.121	.209	.182	.126	.078	.116
Design characteristics2	.776	.166	.096	.122	.198	.186	.097	.038	.167
Design characteristics3	.851	.154	.082	.113	.221	.167	.111	.095	.154
Design characteristics4	.762	.151	.092	.084	.213	.159	.192	.188	.201
Design characteristics5	.921	.156	.128	.105	.214	.173	.215	.211	.167
Accessibility1	.121	.124	.077	.893	.078	.116	.167	.213	.104
Accessibility2	.138	.116	.131	.844	.038	.166	.218	.228	.073
Accessibility3	.104	.126	.104	.845	.095	.154	.192	.115	.202
Accessibility4	.051	.083	.066	.911	.112	.125	.215	.211	.163
Web navigation1	.291	.155	.088	.146	.869	.173	.167	.213	.104
Web navigation2	.228	.157	.084	.188	.845	.297	.218	.228	.074
Web navigation3	.278	.188	.107	.209	.766	.193	.119	.178	.213
Web navigation4	.291	.131	.102	.201	.834	.217	.211	.167	.227
Responsiveness1	.138	.075	.911	.054	.118	.088	.211	.104	.293
Responsiveness2	.048	.063	.867	.093	.121	.174	.228	.072	.231
Responsiveness3	.127	.134	.796	.099	.166	.162	.178	.202	.234
Responsiveness4	.103	.111	.905	.124	.177	.132	.059	.167	.227
Assurance1	.252	.206	.194	.214	.291	.798	.134	.082	.148
Assurance2	.248	.217	.202	.212	.223	.803	.104	.091	.096
Assurance3	.208	.192	.188	.202	.233	.812	.112	.128	.189
Assurance4	.264	.215	.211	.167	.227	.787	.067	.076	.134
Satisfaction1	.172	.167	.211	.104	.292	.223	.134	.734	.223
Satisfaction2	.067	.218	.228	.072	.233	.203	.104	.785	.166
Satisfaction3	.208	.119	.178	.202	.206	.101	.112	.753	.034
Satisfaction4	.264	.085	.143	.169	.207	.039	.067	.827	.067
Reuse intention1	.066	.051	.181	.242	.122	.226	.167	.066	.818
Reuse intention2	.088	.028	.166	.23	.146	.217	.157	.033	.791
Reuse intention3	.084	.153	.127	.292	.223	.214	.174	.012	.804
Reuse intention4	.107	.186	.097	.234	.204	.078	.118	.064	.796
Eigenvalues	2.931	2.908	2.901	2.899	2.861	2.791	2.349	2.299	2.271
% of variance	9.771	9.692	9.668	9.662	9.535	9.305	7.829	7.665	7.435
Accumulated %	9.771	19.463	29.131	38.793	48.328	57.633	65.462	73.127	80.562
Cronbach's $\alpha$	.923	.914	.856	.885	.868	.843	.852	.901	.911

Kaiser-Meyer-Olkin (KMO) test = 0.871

Bartlett's test = 4.729 ( $p < 0.001$ )

Source: Author's research

### Data analysis

In this study, a total of 155 questionnaires were used for data analysis, and statistical significance was analyzed using the SPSS/WIN23.0 program. In addition to factor analysis, frequency, reliability, and correlation analysis were also performed. Multiple regression analyses were performed to verify the hypotheses.

## RESULTS AND DISCUSSION

### Descriptive Statistics

Table 2 shows the demographic characteristics of the respondents: 83 (53.5%) were female, 94 (60.6%) were between 20 and 24, 142 (91.6%) accessed the webtoon platform with mobile-based devices (e.g., smartphones), 65 (41.9%) accessed 1-2 times per week.

**Table 2.** The demographic characteristics of the respondents

Variables	Content	Frequency	Percentage (%)
<b>Gender</b>	Male	72	46.5
	Female	83	53.5
<b>Age</b>	20-24	94	60.6
	≥25	61	39.4
<b>Device used</b>	PC-based devices	13	8.4
	Mobile-based devices	142	91.6
<b>Number of visits per week</b>	1-2	65	41.9
	3-4	41	26.5
	5-6	27	17.4
	7	22	14.2

Source: Author's research

Table 3 presents the descriptive statistics of variables, showing the results of service quality factors, user satisfaction, and reuse intention measured on a Likert 5-point scale. When examining the Generation Z's perception of sub-factors of service quality of Lore Olympus, the mean of information seeking was  $2.89 \pm 0.66$ , followed by design characteristics ( $3.61 \pm 1.47$ ), entertainingness ( $3.64 \pm 1.45$ ), accessibility ( $3.51 \pm 1.12$ ), web navigation ( $3.10 \pm 0.87$ ), responsiveness ( $2.93 \pm 0.61$ ), and assurance ( $3.01 \pm 0.58$ ). The average of the user satisfaction items was  $3.39 \pm 1.37$ , and the reuse intention was  $3.54 \pm 1.47$ .

**Table 3.** Descriptive Statistics of variables.

Factors	Items	Mean ± S.D.
<b>Informativeness</b>	Acquisition of various information	2.872±0.464
	Acquisition of preferred conversation topics	2.627±0.717
	Acquisition of information not provided by other sites	2.953±0.445
	Identifying trends in society	2.944±0.436
	Acquisition of the latest information	2.936±0.713
<b>Entertainingness</b>	Contribution to mood swings	3.834±0.635
	Enjoyment of using webtoons	3.543±0.522
	Contribution to relieving tension	3.447±0.533
	Contribution to the use of leisure time	3.987±0.532
	Possibility of escaping from reality	3.133±0.459 <sup>d</sup>
<b>Design characteristics</b>	Harmony of the whole screen	3.532±0.495
	Naturalness that seems to exist in the real world	3.413±0.589
	Outstanding visual effects	3.752±0.713
	Appropriate font size	3.822±0.723
	Appropriate number of colors used	3.712±0.483
<b>Accessibility</b>	Easy log on/off	3.532±0.474
	Fast access time	3.543±0.579
	No time restriction	3.546±0.724

<b>Web navigation</b>	No spatial restriction	3.521±0.733
	Application of the latest technology	3.211±0.488
	Well-arranged menus that are easy to find	3.104±0.778
	Convenience of searching the desired webtoon	3.106±0.594
	Fast loading speed	3.077±0.784
<b>Responsiveness</b>	Willingness to help users	2.912±0.458
	Rapid response to user requests	3.034±0.672
	Ability to quickly resolve system errors	3.012±0.634
	Ability to respond kindly to user inquiries	2.903±0.382
<b>Assurance</b>	Belief that problems will be solved with care	3.012±0.482
	Trust in protecting customer information	2.981±0.718
	Trust in access to webtoon episodes that customers want	3.034±0.661
	Trust in the provision of stable services	3.072±0.583
<b>User satisfaction</b>	Overall satisfaction	3.392±0.421
	An outstanding webtoon	3.401±0.338
	A well-made webtoon	3.416±0.632
	A comfortable experience	3.378±0.426
<b>Reuse intention</b>	Revisiting the Lore Olympus site	3.543±0.463
	Continued use of subsequent series	3.601±0.627
	Intention to use paid service	3.494±0.481
	Intention to share user experience with others	3.528±0.416

Source: Author's research

### Correlation analysis

Table 4 presents the correlation analysis of independent and dependent variables. Among the service quality factors, entertainingness showed a statistically significant correlation between design characteristics (0.96) and accessibility (0.78) ( $p < .001$ ). Web navigation also showed a statistically significant correlation between responsiveness (0.78) and assurance (0.55). On the other hand, information-seeking showed a statistically significant correlation between accessibility (0.47), responsiveness (0.58), and assurance (0.44) at a 99%, but there was no significant correlation between entertainingness (0.02) and design characteristics (-0.01). In addition, the service quality factors such as entertainingness (0.9), design characteristics (0.89), and accessibility (0.71) were found to have a statistically significant correlation with user satisfaction and reuse intention at a 99% confidence level. Besides, there was also a statistically significant correlation (0.9) between user satisfaction and reuse intention ( $p < .001$ ).

**Table 4.** Correlation analysis.

Variables	Informa tiveness	Entertai ningness	Design charact eristics	Accessi bility	Web naviga tion	Respon siveness	Assura nce	User satisfac tion	Reuse intenti on
<b>Informative ness</b>	1								
<b>Entertaining ness</b>	0.02	1							
<b>Design characteristi cs</b>	-0.01	0.96***	1						
<b>Accessibility</b>	.047***	0.78***	0.77***	1					
<b>Web navigation</b>	-0.02	0.12	0.07	0.28*	1				
<b>Responsiven ess</b>	0.58***	0.11	0.09	0.19	0.78***	1			
<b>Assurance</b>	0.44***	0.15	0.13	0.32	0.55***	0.65***	1		
<b>User satisfaction</b>	0.06	0.90***	0.89***	0.71***	0.19	0.18	0.20*	1	
<b>Reuse intention</b>	0.08	0.93***	0.93***	0.70***	0.11	0.18	0.16	0.90***	1

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

Source: Author's research



## Validation of the research hypotheses

### Validation of H1 hypothesis

Multiple linear regression analysis was performed to examine whether service quality factors significantly affected user satisfaction. Multicollinearity is a problem that can occur with regression analysis when there is a high correlation of at least one independent variable with a combination of the other independent variables (Farrar, Glauber, 1967). The variance inflation factor (VIF) and tolerance are two closely related statistics for diagnosing collinearity in multiple regression. In this study, there was no significant multicollinearity ( $VIF < 10$ ) (Kumari, 2008). The regression model indicated that entertainingness ( $\beta = 0.41$ ) and design characteristics ( $\beta = 0.34$ ) significantly affected user satisfaction ( $p < .05$ ). However, other service factors did not have a statistically significant effect on user satisfaction. Therefore, H1 could be partially accepted (Table 5).

**Table 5.** Effect of service quality characteristics on user satisfaction.

Variables	User satisfaction						
	Unstandardized coefficient (B)	Standardized coefficient (β)	Standard error (SE)	t-value	p-value	Tolerance	VIF*
(Constant)	-0.56		0.38	-1.46	.148		
Informativeness	0.06	0.03	0.11	0.52	.605	0.621	2.083
Entertainingness	0.39	0.41	0.15	2.54	.013	0.845	2.158
Design characteristics	0.32	0.34	0.15	2.08	.041	0.802	2.119
Accessibility	0.24	0.19	0.09	2.61	.011	0.718	1.611
Web navigation	0.03	0.02	0.11	0.26	.793	0.624	1.597
Responsiveness	0.04	0.02	0.18	0.22	.825	0.645	1.393
Assurance	0.06	0.03	0.13	0.48	.634	0.657	1.347
<b>R<sup>2</sup>=0.84, Adjusted R<sup>2</sup>= 0.82, F-value=66.77, p-value&lt;0.001</b>							
*VIF=Variance inflation factor							

Source: Author's research

### Validation of H2 hypothesis

Multiple linear regression analysis was performed to examine whether service quality factors significantly affected reuse intention. There was no significant multicollinearity ( $VIF < 10$ ). The regression model indicated that entertainingness ( $\beta = 0.48$ ) and design characteristics ( $\beta = 0.51$ ) significantly affected reuse intention ( $p < .001$ ). However, other service factors did not have a statistically significant effect on reuse intention. Therefore, hypothesis H2 could be partially accepted (Table 6).

**Table 6.** Effect of service quality characteristics on reuse intention

Variables	Reuse intention						
	Unstandardized coefficient (B)	Standardized coefficient (β)	Standard error (SE)	t-value	p-value	Tolerance	VIF*
(Constant)	-0.46		0.33	-1.41	.166		
Informativeness	0.11	0.05	0.11	1.05	.297	0.546	1.824
Entertainingness	0.49	0.48	0.13	3.67	<.001	0.769	1.962
Design characteristics	0.51	0.51	0.13	3.81	<.001	0.698	1.826
Accessibility	-0.07	-0.05	0.08	-0.91	.369	0.609	1.925
Web navigation	-0.16	-0.11	0.10	-1.63	.107	0.536	1.837
Responsiveness	0.41	0.16	0.16	2.56	.012	0.472	1.646
Assurance	-0.10	-0.04	0.12	-0.86	.391	0.548	1.384
<b>R<sup>2</sup>=0.89, Adjusted R<sup>2</sup>= 0.88, F-value=108.12, p-value&lt;0.001</b>							



\*VIF=Variance inflation factor

Source: Author's research

### Validation of H3 hypothesis

Linear regression analysis was performed to examine whether user satisfaction significantly predicted reuse intention. The regression model indicated that the predictors explained 91% of the variance, and a collective significant effect was found ( $F=425.82$ ,  $p<0.001$ ,  $R^2 = 0.81$ ). In other words, user satisfaction had a significant effect on reuse intention ( $\beta=0.91$ ,  $t=20.64$ ,  $p<0.001$ ). Therefore, H3 was accepted (Table 7).

**Table 7.** Effect of user satisfaction on reuse intention

Variables	Reuse intention						VIF*
	Unstandardized coefficient (B)	Standardized coefficient ( $\beta$ )	Standard error (SE)	t-value	p-value	Tolerance	
(Constant)	0.26		0.17	1.49	.14		
User satisfaction	0.97	0.91	0.05	20.64	<.001	0.546	1.824

$R^2=0.81$ , Adjusted  $R^2= 0.81$ , F-value=425.82, p-value<0.001

\*VIF=Variance inflation factor

Source: Author's research

### Discussion

This study aimed to analyze the effects of service quality characteristics of Lore Olympus on user satisfaction and reuse intention of Generation Z in Korea. Generation Z is reported to be the first true digital native generation who has grown up in the middle of an era of developed information technology (Chicca, Shellenbarger, 2018). Due to the popularity of webtoons among Koreans, a cross-media phenomena has developed, whereby webtoon content is adapted for use in other media, including movies and TV dramas (Park, Lee, Lee, 2019). Since the middle of the 2000s, the cross-media phenomenon of webtoons has developed. Therefore, the modern webtoon industry not only generates direct revenue from selling the material but is also increasing industrial values to generate more substantial income (Kim, 2018). As mentioned above, the user's reaction is one of many factors that determine the sustainability of webtoon services (Yang, Lee, Lee, 2016).

Considering this, this study examined the service factors of the webtoon "Lore Olympus", the satisfaction of users belonging to Generation Z in Korea, and their reuse intention. Generation Z is said to be the generation of digital natives, who has grown up in a digital, technology-saturated world (Childers, Boatwright, 2021). They stay online most of their time, studying or working online, on social media for 3 to 6 hours a day, watching movies and entertainment content online, etc. (Grigoreva, Garifova, & Polovkina, 2021). Generation Z favors webtoon as a medium, considering webtoon as a transmitter of information, disseminator of cultural values, and source of entertainment (Utami, 2022). Naver's webtoon is the largest webtoon platform with 82 million monthly users, most of whom belong to Generation Z (Nam, Jung, 2022). According to the results, Korea's Generation Z also valued the entertainingness of webtoons. Bosshart and Macconi (1998) define enjoyment as a pleasurable reception phenomenon composed of the physical system, personality, emotions and cognition, and the social system. According to their views on entertainment, Lore Olympus is an adaptation of Greek mythology for a modern setting, and has entertainingness that delights users, which appears to be a factor influencing satisfaction. It is reported that the design (or image) characteristics of webtoons as well as storytelling also affect the satisfaction of webtoons (Kim, Lee, 2021). It was confirmed that design characteristics, along with the entertainingness of Lore Olympus, affect user satisfaction and reuse intention of Generation Z in Korea.

Informativeness is another characteristic of webtoons (Utami, 2022) and Lore Olympus also provides information about Greek mythology. However, informativeness in this study did not have a significant effect on user satisfaction or reuse intention, because the relationship between Hades

and Persephone of Lore Olympus was different from the Greek mythology. In particular, the storytelling of this webtoon that Hades raped Persephone prevents Lore Olympus from being used as an educational medium. In other words, despite several webtoons also promotes the production of Korean cultural products through the OSMU strategy (Seo, Park, 2020), Lore Olympus is limited in its scalability due to rape-related content. It was found that accessibility, web navigation, responsiveness, and assurance, which are quality characteristics of webtoon service, did not significantly affect the satisfaction or reuse intention of Generation Z in Korea, who used Lore Olympus. As a result, the webtoon service factors such as entertainingness and design characteristics of Lore Olympus were confirmed to have an effect on Generation Z's satisfaction and reuse intention, while they were not significantly affected by other factors including informativeness, accessibility, web navigation, responsiveness, and assurance.

However, this study has the following limitations. First, this study did not examine the influence of other mediating variables among the webtoon service factors, satisfaction, and reuse intention. It is possible that the difference in the level of knowledge or familiarity with Greek mythology between webtoon users and the artist may have affected user satisfaction. Therefore, follow-up research should examine the mediating or moderating effects of variables, such as the level of knowledge or familiarity with the Greek mythology of the subjects. Second, this study evaluated user satisfaction and reuse intention for users belonging to Generation Z in Korea. Thus, it was not possible to confirm whether the satisfaction level of Korean Generation Z users for Lower Olympus was lower than those of users in other countries. Third, this study analyzed the opinions of users who read the Korean version of Lore Olympus, not the English version. Therefore, it should be considered that the qualitative difference in the translation of the text included in the webtoon could lead to a difference in satisfaction.

## CONCLUSION

This study was conducted to examine the Generation Z's satisfaction and reuse intention of the service factors of Lore Olympus in Korea. The following conclusions were drawn by analyzing data from survey reports of 155 participants in Korea. The service quality factors of Lore Olympus such as entertainingness and design characteristics significantly affected Generation Z's satisfaction and reuse intention in Korea. Also, user satisfaction had a significant effect on reuse intention. This study can be meaningful, in that, it examined the service quality, user satisfaction, and reuse intention of Generation Z in Korea.

## References

- Angelova, B., & Zekiri, J. (2011). Measuring customer satisfaction with service quality using American Customer Satisfaction Model (ACSI Model). *International journal of academic research in business and social sciences*, 1(3), 232.
- Bandici, A. (2013). The Composition of the Monodrama Proserpina. *Scientific Journal of Humanistic Studies*, 5(8).
- Barbatsis, G. (2004). Reception theory. In *Handbook of Visual Communication* (pp. 293-316). Routledge.
- Bartsevich, V., Kulpa, K. A., & Maciejewska, A. M. (2019). Death as a Beginning: Transformation of Hades, Persephone and Cleopatra in Children's and Youth Culture. *Clotho*, 1(2), 55-72.
- Berkup, S. B. (2014). Working with generations X and Y in generation Z period: Management of different generations in business life. *Mediterranean journal of social Sciences*, 5(19), 218-218.
- Berlian, M., Vebrianto, R., & Thahir, M. (2021). Development of Webtoon Non-Test Instrument as Education Media. *International Journal of Evaluation and Research in Education*, 10(1), 185-192.
- Bond, C. (2009). " Proserpin gathering flowers": a Miltonic simile in its mythic context. *Milton Studies*, 50, 106-124.
- Bosshart, L & Macconi (1998). Media Entertainment, *Communication Research Trends*, 18(3), 3-8.
- Chicca, J., Shellenbarger, T. (2018). Connecting with Generation Z: Approaches in nursing education. *Teaching and Learning in Nursing*, 13(3), 180-184.

- Childers, C., Boatwright, B. (2021). Do digital natives recognize digital influence? Generational differences and understanding of social media influencers. *Journal of Current Issues & Research in Advertising*, 42(4), 425-442.
- Dospinescu, O., Anastasiei, B., & Dospinescu, N. (2019). Key factors determining the expected benefit of customers when using bank cards: An analysis on millennials and generation Z in Romania. *Symmetry*, 11(12), 1449.
- Erya, W. I., Pustika, R. (2021). Students' perception towards the use of webtoon to improve reading comprehension skill. *Journal of English Language Teaching and Learning*, 2(1), 51-56.
- Farrar, D. E., Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The Review of Economic and Statistics*, 92-107.
- Faul, F. Erdfelder, E., Lang, & Buchner, A. (2007). G\* Power 3: A flexible statistical power analysis program for the social, reuse, and biochemical science. *Reuse Research Methods*, 39, 175-191
- Fornaro, M., Clementi, N., & Fornaro, P. (2009). Medicine and psychiatry in Western culture: Ancient Greek myths and modern prejudices. *Annals of General Psychiatry*, 8(1), 1-8.
- Gallego, G. S. (2010). Interpreting the Trauermarsch in "Hades". *Papers on Joyce*, 16, 139-150.
- Golban, T. (2019). Who Plays the Hunger Games: Artemis or Persephone? The myth of Persephone in Suzanne Collins's Trilogy The Hunger Games. *Trakya Üniversitesi Edebiyat Fakültesi Dergisi*, 9(18), 100-124.
- Grigoreva, E. A., Garifova, L. F., & Polovkina, E. A. (2021). Consumer Behavior in the Information Economy: Generation Z. *International Journal of Financial Research*, 12(2), 164-171.
- Hatfield, C. (2021). Webcomics by Sean Kleefeld. *Children's Literature Association Quarterly*, 46(2), 206-210.
- Heinrichs, K. (1989). Love and Hell: The Denizens of Hades in the Love Poems of the Middle Ages. *Neophilologus*, 73(4), 593.
- Hernon, P., Calvert, P. (2005). E-service quality in libraries: Exploring its features and dimensions. *Library & Information Science Research*, 27(3), 377-404.
- Jeong, S., Chung, H. K., & Kim, C. G. (2017, July). Advertising in the Webtoon of Cosmetics Brand-Focusing on 'tn' Youth Cosmetics Brands. In *International Conference on Computational Science/Intelligence & Applied Informatics* (pp. 137-149). Springer, Cham.
- Jeong, S.H., Kim, J.E., & Yoo, H.J. (2018). A study on applying Kano model to webtoon service. *Journal of Service Management*, 19(3), 107-131.
- Jewett, C. M. (2013). Revising the Southern Myth: Persephone Violated in Faulkner's Sanctuary and McCarthy's Child of God. *The Faulkner Journal*, 27(1), 77-95.
- Jin, D. Y. (2015). Digital convergence of Korea's webtoons: Transmedia storytelling. *Communication Research and Practice*, 1(3), 193-209.
- Jin, D.Y. (2019). Korean Webtoonist Yoon Tae Ho: History, Webtoon Industry, and Transmedia Storytelling. *International Journal of Communication (19328036)*, 13.
- Johnston, R. (1995). The determinants of service quality: satisfiers and dissatisfiers. *International journal of service industry management*, 6(5), 53-71
- Junker, K. (2014). Book Review: Greek Myth and Western Art. The Presence of the Past. *The Classical Review*, 64(1), 273.
- Kettinger, W. J., & Smith, J. (2009). Understanding the consequences of information systems service quality on IS service reuse. *Information & Management*, 46(6), 335-341.
- Khan, M. M., & Su, K. D. (2003). Service quality expectations of travellers visiting Cheju Island in Korea. *Journal of Ecotourism*, 2(2), 114-125.
- Kim, T. Y. (2018). A Study about Product Placement (PPL) to the Web Comic (Webtoon) platform in a Cross Media Environment. *Indian Journal of Public Health Research & Development*, 9(8).
- Kim, Y., & Lee, H. (2021). Motivation and reuse: How does motivation affect sustainable use intention for brand webtoons?. *Sustainability*, 13(4), 1620.
- Yim, C. K., & Kannan, P. K. (1999). Consumer behavioral loyalty. *Journal of business research*, 44(2), 75-92.
- Kristensen, L. B. K., & Solvoll, M. (2019). Digital payments for a digital generation. *Nordic Journal of Media Studies*, 1(1), 125-136.
- Kumari, S. S. (2008). Multicollinearity: Estimation and elimination. *Journal of Contemporary research in Management*, 3(1), 87-95.

- Lababa, L. (2022). Improving students reading ability by using webtoon at seventh grade of MTS DDI Kulo. *Uniqbu Journal of Social Sciences*, 3(2), 156-162.
- Lamerichs, N. (2020). Scrolling, swiping, selling: Understanding Webtoons and the data-driven participatory culture around comics. 17(2), 1-19.
- Lefkowitz, M. R. (1990). Mythology: The Myth of Joseph Campbell. *The American Scholar*, 59(3), 429-434.
- Lucas, T., & Abd Rahim, R. (2017). The similarities and nuances of explicit design characteristics of well-received online instructional animations. *Animation*, 12(1), 80-99.
- Nam, J., & Jung, Y. (2022). Exploring fans' participation in digital media: Transcreation of webtoons. *Telecommunications Policy*, 102407.
- Novanti, E. A., & Suprayogi, S. (2021). Webtoon's potentials to enhance efl students' vocabulary. *Journal of Research on Language Education*, 2(2), 83-87.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Perceived service quality as a customer-based performance measure: An empirical examination of organizational barriers using an extended service quality model. *Human resource management*, 30(3), 335-364.
- Park, J. H., Lee, J., & Lee, Y. (2019). Do Webtoon-Based TV Dramas Represent Transmedia Storytelling? Industrial Factors Leading to Webtoon-Based TV Dramas. *International Journal of Communication (19328036)*, 13.
- Primo, C. (2018). Balancing gender and power: How Disney's Hercules fails to go the distance. *Social Sciences*, 7(11), 240.
- Reinikainen, H., Kari, J. T., & Luoma-Aho, V. (2020). Generation Z and organizational listening on social media. *Media and Communication*, 8(2), 185-196.
- Rejter, D., Paulouskaya, H., & Gerus, A. (2020). "It Never Hurts to Keep Looking for Sunshine": The Motif of Depression in Works for Children and Youth Inspired by Classical Antiquity. *Clotho*, 2(2), 127-154.
- Rosli, N., & Nayan, S. M. (2020). Why Customer First?. *Journal of Undergraduate Social Science and Technology*, 2(2). 2018-2021.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Nam, J., & Jung, Y. (2022). Exploring fans' participation in digital media: Transcreation of webtoons. *Telecommunications Policy*, 102407
- Sánchez-Escalonilla, A. (2005). The hero as a visitor in hell: The descent into death in film structure. *Journal of Popular Film and Television*, 32(4), 149-156.
- Schiano, S. (2018). The Rape of Persephone in Children's Media: Feminist Receptions of Classical Mythology. *Berkeley Undergraduate Journal of Classics*, 6(2).
- Seemiller, C., & Grace, M. (2017). Generation Z: Educating and engaging the next generation of students. *About Campus*, 22(3), 21-26.
- Seo, J. W., & Park, H. (2020). A Study on the Strengths of Cultural Content Company in the Long-Tail Market: Case of Kakao-Page. *Journal of Convergence for Information Technology*, 10(11), 117-130.
- Shim, A., Yecies, B., Ren, X., & Wang, D. (2020). Cultural intermediation and the basis of trust among webtoon and webnovel communities. *Information, Communication & Society*, 23(6), 833-848.
- Shin, H. S. (2017). Effects of attributes factors of brand webtoon on purchase intention: Intention of word of mouth as a mediating variable. *Journal of International Trade & Commerce*, 13(5), 125-141.
- Spaeth, B. S. (1994). The goddess Ceres in the Ara Pacis Augustae and the Carthage relief. *American Journal of Archaeology*, 98(1), 65-100.
- Stevenson, W. (2006). The Myth of Demeter and Persephone in A Jest of God. *Studies in Canadian Literature*, 1(1), 120-123.
- Turner, A. (2015). Generation Z: Technology and social interest. *The journal of individual Psychology*, 71(2), 103-113.
- Utami, A. D. W. (2022). Promoting East Java Culinary Practices in Webtoon from the Generation Z Perspective. *KnE Social Sciences*, 198-205.
- Yang, J. H., Lee, J. Y., & Lee, S. W. (2016). Factors Affecting Webtoon's Success: An Empirical Study. *The Journal of the Korea Contents Association*, 16(5), 194-204.