

# STRUCTURAL EQUATION MODELLING AND MULTIVARIATE RESEARCH (SMMR)



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# THE EFFECT OF CONTENT RICHNESS, VIDEO QUALITY AND SOURCE RELIABILITY ON USER SATISFACTION ON INSTAGRAM

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#### **ABSTRACT**

In this study, the effects of content richness, video quality and source reliability on user satisfaction of university students on Instagram were investigated with the help of a proposed model. Firstly, a research model based on the literature was developed and a data collection tool based on the model was designed simultaneously. Then, the data were collected online through a link and the proposed research model was tested with partial least squares structural equation modelling (PLS-SEM) method. Accordingly, it is predicted that content richness, video quality and source reliability increase Instagram user satisfaction, and as satisfaction increases, behavioural intention to use Instagram will increase.

#### 1. INTRODUCTION

Social media is a platform where people with similar interests can connect and share ideas. Digital/new media technologies such as applications, functions and content generation enable the exchange of information among users. Social media use is increasing in all age groups, especially among young people. The current development of social media has changed the way individuals, societies and organisations relate and communicate with each other, share information, organise and do business. In addition, social media saves time, labour and money.

The features and possibilities of social media especially support educators to support education and training processes with active, creative, collaborative learning, to increase students' interaction with each other, with the course and with the educator, and to use and develop their research, questioning and problem solving skills. In addition, it shortens the communication in education and the process of both parties reaching each other.

This study focuses on Instagram, one of the social media with a large number of active users. Although Instagram, which is a good social media tool, is a social media application based on sharing pictures, it provides convenience for education thanks to its features such as questionnaires and question answering. Due to its ease of learning and use, Instagram is a social media tool that is widely used especially by young people. Social networks, which offer features that are renewed every day, offer users continuously improvable features in terms of learning.

A literature review was conducted to compare this study with other published studies.

#### 2. LITEREATURE REVIEW

Many studies have been conducted in the literature on "the effect of content richness, video quality and source reliability on user satisfaction on Instagram". Solmaz et al. (2013) conducted a study at a state university in order to measure how and in what way university students use social media and found that almost all of the students use social media. The majority of students access social media every day and spend a significant part of their time here. Saraçoğlu and Aküzüm (2017) stated that university students' attitudes towards social media did not differ much in terms of gender, but male students showed a significantly more positive attitude than female students in terms of social media gaining social competence. In support of this result, in Argın's (2013) study, it was determined that the scores of students' social competence and social isolation sub-dimensions showed a significant difference according to the gender of the students and both differences were found to be in favour of male students. This result can be interpreted as that male students have higher social competence and are more isolated from social life with social media sites.

Yılmazsoy and Kahraman (2017) stated that students' views on Facebook addiction and Facebook use for educational purposes were positive. It was determined that there was a significant relationship between students' levels of using Facebook for educational purposes and gender and faculty variables, but there was no significant difference with the status of having a smartphone and having a personal computer. Üstün et al. (2018) investigated how students receiving education through distance education utilise social media for educational purposes. Data were collected from the students by questionnaire method. In general, it is seen that students use social media mostly for communication and socialisation purposes.

Students' use of the Internet and Instagram for educational purposes is an issue that should not be ignored in this respect. Social media platforms contribute to research and development

processes by providing data access, data monitoring, data analysis, data presentation and data generation tools. It provides the opportunity to easily learn what the masses think about a subject, the opinions of the experts of the subject and its effects on people. Instagram is also an area where students can share their own work. In this way, students can record how their careers continue in digital environments, the resources they access over the internet in many fields and many other things. Considering all of these, it can be thought that Instagram can contribute a lot to education.

In this study, the effects of content richness, video quality and source reliability on user satisfaction of university students on Instagram were investigated with the help of a proposed model. Firstly, a research model based on the literature was developed and a data collection tool based on the model was designed simultaneously. Then, the data were collected online through a link and the proposed research model was tested with partial least squares structural equation modelling (PLS-SEM) method.

#### 3. MATERIAL AND METHOD

# 3.1. Data Collection Tool and Sample

The research data were collected between March-May/2023 by conducting an online survey. A 5-point Likert scale was used for the items used in the study. The sample of the study consists of 252 university students who voluntarily responded to the online survey shared via social media. The survey questions and the model used in the study were inspired by the studies of Chintalapati and Daruri (2017), Lee and Lehto (2013), Abu-Taieh et al. (2022) and Brecht (2012).

### 3.2. Research Model and Hypotheses

The research model explaining the effect of content richness, video quality and source credibility on user satisfaction on Instagram is given in Figure 1. Content richness, video quality and source credibility on Instagram are exogenous (independent) variables in the model. User satisfaction and behavioural intention are endogenous (both dependent and independent) variables.

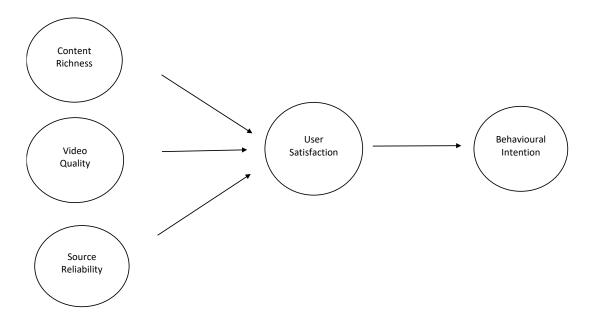


Figure 1 Research model

The factors and their definitions, which are included in the research model and whose effects on each other are investigated, are given in Table 1.

Table 1
Definitions of factors

Factor	Description		
	Content richness means that an existing content is informative		
Content richness in Instagram	and useful for the needs of a targeted audience and that it is		
	presented with visuals, video and audio.		
Video Quality	Refers to the good image (resolution, brightness and contrast,		
video Quanty	etc.) and sound (volume and cleanliness, etc.) of a video.		
Source Reliability	The fact that the content shared on Instagram is original, accurate		
Source Renability	and user-oriented expresses source reliability.		
User Satisfaction	It is a measure of how much the products, services and user		
OSCI Satisfaction	expectations regarding them are met by Instagram.		
Behavioural Intention	It can be defined as a person's desire to use Instagram and their		
	determination to turn it into action.		

The following hypotheses are proposed for the relationships between the factors in the model proposed in the study.

Kwak (2012) emphasised that the media richness theory proposed by Kwak (2012) should be classified as 'lean' or 'rich' according to the information in the content. For example, instant feedback, communication channels, language diversity and focus on the medium (Daft et al., 1987) make the content rich. This theory states that the media richness proposed by Daft and Lengel (1986) is moving towards leaner media (Daft et al., 1987). Since the content richness expressed by the authors is quite good in Instagram, it is one of the most used social media tools due to the fact that it satisfies users from many segments.

H1: Content richness in Instagram positively and significantly affects user satisfaction.

The good quality of the videos shared on Instagram helps users to have a pleasant time. For this reason, the quality of videos is important in terms of increasing user satisfaction.

H2: Video quality on Instagram positively and significantly affects user satisfaction.

Reliable sources of content on Instagram directly affect users' lives and finances. Therefore, healthy content created from reliable sources will increase user satisfaction.

H3: Source reliability of content on Instagram positively and significantly affects user satisfaction.

Looking at the literature, many studies show that there is a relationship between user satisfaction and intention to use. User satisfaction refers to how Instagram is evaluated by users. This satisfaction is shaped depending on the experiences of Instagram users. User satisfaction that increases positively increases the intention to use Instagram.

H4: As Instagram user satisfaction increases, intention to use increases.

The hypotheses proposed in this study were tested using SmartPLS 4 package programme.

#### 4. FINDINGS

# 4.1. Measurement Model

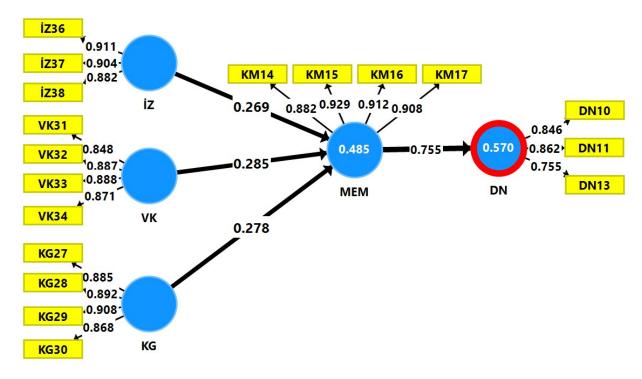
In the evaluation of construct reliability and validity, Composite Reliability (CR), Cronbach Alpha (CA) and Average Variance Extracted (AVE) values are generally examined. It is recommended that the Composite Reliability (CR) and Cronbach Alpha (CA) values should be greater than 0.70 (Hair et al., 1998) and the Average Variance Extracted (AVE) value should be higher than 0.50 (Fornell & Larcker, 1981). At the same time, factor loadings should be greater than 0.70.

When Table 2 is analysed, it is seen that AVE values are greater than 0.50, CA and CR values are greater than 0.70. Accordingly, the convergence validity of the model obtained is ensured.

Table 2. *Construct reliability and validity* 

Factors	Cronbach Alfa (CA)	Composite reliability (CR)	Average Variance Extracted (AVE)
DN	0.759	0.862	0.676
KG	0.911	0.937	0.789
MEM	0.929	0.949	0.824
VK	0.897	0.928	0.763
İZ	0.882	0.927	0.809

According to the measurement model given in Figure 2, it is seen that all factor loadings are greater than 0.70.



IZ: Content richness on Instagram, VK: Video quality, KG: Source reliability, MEM: User satisfaction, DN: Behavioural intention Figure 2 Measurement model results

Discriminant validity of the measurement model is checked by comparing the square root of AVE value of each construct with the correlation between that construct and other constructs. As a result of these comparisons, if the square root of AVE is greater, discriminant validity is achieved (Fornell & Larcker, 1981). In Table 3, the square root of AVE is greater than the correlation coefficients between all constructs. Therefore, it can be stated that discriminant validity is achieved.

Table 3

Discriminant validity - Fornell-Larcker Criterion

Discriminant valua	ty I officit Burche	1 of their EditeRet Cittle ton			
	DN	KG	MEM	VK	İZ
DN	0.822				
KG	0.436	0.888			
MEM	0.755	0.527	0.908		
VK	0.513	0.435	0.609	0.874	
İZ	0.498	0.466	0.614	0.755	0.899

#### 4.2. Structural Model

SRMR and NFI values were analysed for the goodness of fit of the model. SRMR value less than 0.10 indicates that the model has an acceptable fit. SRMR value for the model was calculated as 0.058. NFI value generally takes values between 0 and 1. The NFI value for the

model was calculated as 0.861. Since the NFI value is close to 1, it can be said that the model has a good fit. Accordingly, the model has an acceptable fit.

The results of the hypothesis test are shown in Table 4. When the p-values are analysed, it is seen that the hypotheses are supported.

Table 4

Direct effect coefficients

Hypothesis	Relationship	Path Coefficient	t-value	P-value	Results
$H_1$	KG -> MEM	0.278	4.643	0.001	Supported
$H_2$	MEM -> DN	0.755	21.451	0.001	Supported
Н3	VK -> MEM	0.285	3.040	0.002	Supported
H <sub>4</sub>	İZ -> MEM	0.269	3.061	0.002	Supported

The results of the structural model are given in Figure 3.

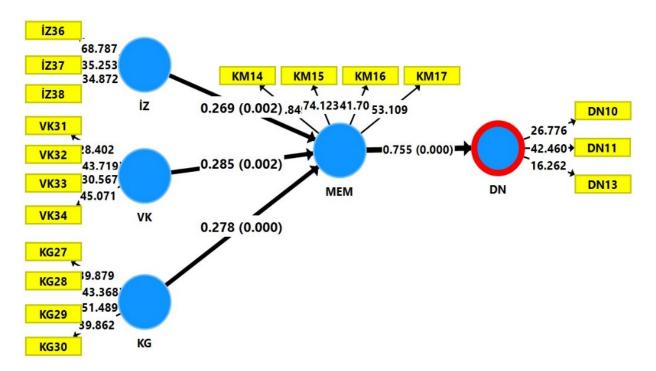


Figure 3 Structural model results

#### 5. CONCLUSIONS AND RECOMMENDATIONS

In the study, the data collected from the volunteer participants in the online survey shared with social media were analysed using the 'Partial Least Squares Structural Equation Modelling' method using SmartPLS 4 package program. Accordingly, the hypothesis test results were evaluated by looking at the p-values and all proposed hypotheses were supported. The levels of influence of the variables on each other are summarised as items. According to the results of the analysis, when the content richness on Instagram increases by one unit, user satisfaction

increases positively and by 0.269 unit; when the video quality on Instagram increases by one unit, user satisfaction increases positively and by 0.285 unit; when the source reliability of the content on Instagram increases by one unit, user satisfaction increases positively and by 0.278 unit; and when Instagram user satisfaction increases by one unit, intention to use Instagram increases by 0.755 unit. The results showed that content richness, video quality and source reliability on Instagram are very important determinants of user satisfaction. From the findings, it can be said that Instagram user satisfaction is very effective on the intention to use Instagram.

According to the results of the analyses, the use of online social networking for entertainment purposes was similar to other articles. Differently, there are also articles in which online social network participation of university students has significant effects on social learning processes and outcomes.

Today, one of the important elements and indicators that determine the quality of education in a country is the quality educational content produced in social networks. When an education is well promoted through social media richness, users are likely to avoid looking at other social media applications that promote the same educational content. Therefore, social media organisations should increase the richness of content due to its importance in encouraging social media users' behavioural intention to use. As a recommendation for this;

- Discussion environments can be created by opening forums on social networks. In this
  way, in addition to brainstorming, sharing ideas and information on the subject, students'
  curiosity can be aroused by attracting their attention. For this purpose, question-answer
  surveys can be developed on educational pages on Instagram.
- Lecturers can support students to use such social media more actively by directing them to use social media more for educational purposes.
- By conducting field studies on the contribution of social network use to educationeducation process and educational content, concrete suggestions can be made for future research by revealing the current situation.
- In addition, the limitations of this study can be improved by increasing the number of
  participants, re-examining non-significant research results, and including other
  variables that affect public attitudes such as emotional variables and content
  characteristics.

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