


How are ad scepticism levels of young consumers shaped? Testing with simultaneous quantile regression analysis

Genç tüketicilerin reklama yönelik şüphe düzeyleri nasıl şekilleniyor? Eş anlı kantil regresyon analizi uygulaması

Aslıhan Kıymalıoğlu¹ 

Abstract

¹ Assist. Prof. Dr., Akdeniz University, Antalya, Turkey, aslihan@akdeniz.edu.tr

ORCID: 0000-0002-4908-5493

Advertising is an important persuasion tool for marketing efforts shaping consumer attitudes and behavioural intentions. Among the factors determining consumer attitudes toward advertising is ad scepticism. Comprehending how consumer scepticism toward ads is formed is therefore considered contributory. With this purpose, the research hypothesising the effect of cynicism, self-esteem, and market mavens on ad scepticism was modelled, and 374 observations obtained from members of Generation Z were tested with simultaneous quantile regression analysis. The findings revealed the effect of each variable for different quantile conditions of ad scepticism. The originality of the research is twofold. The first one is using market mavens, which have not been subject to research regarding their effect on ad scepticism and contributing to ad scepticism nomologic framework by supporting the significant effect of this variable. And the second one provides a detailed picture of the effects of independent variables on different levels of ad scepticism.

Keywords: Ad Scepticism, Simultaneous Quantile Regression Analysis, Generation Z

Jel Codes: M31, M37

Öz

Reklam, tüketici tutumlarını ve davranışsal niyetleri şekillendiren pazarlama girişimleri için önemli bir ikna aracıdır. Tüketicilerin reklama yönelik tutumlarını belirleyen faktörlerden biri de reklama yönelik şüphe. Bu nedenle tüketicilerin reklama yönelik şüphe tutumlarının nasıl oluştuğunun anlaşılması önemli ve katkı sağlayıcı niteliktedir. Bu amaçla, sinizm, benlik saygısı ve pazar uzmanlığının reklama yönelik şüphe üzerindeki etkisini modelleyen bir araştırma kurgulanmış ve Z Nesli üyelerinden toplanan 374 veri eş anlı kantil regresyon analizi ile test edilmiştir. Araştırma bulguları reklama yönelik şüphenin farklı kantil düzeyleri için her bir bağımsız değişkenin ne şekilde etkili olduğunu ortaya koymuştur. Çalışma iki açıdan orijinal katkı sağlayıcı niteliktedir. Bunlardan ilki, reklama yönelik şüphe üzerindeki etkisi daha önce herhangi bir araştırmada kullanılmamış olan pazar uzmanlığı değişkeninin araştırılması ve bu değişkenin etkisinin ortaya konulmasıyla birlikte reklama yönelik şüphenin nomolojik ağına katkı sağlayan bir bulgunun elde edilmiş olmasıdır. Çalışmanın bir diğer önemli katkısı ise reklama yönelik şüphenin farklı düzeyleri için bağımsız değişkenlerin etkilerinin detaylı bir şekilde ortaya konulmasıdır.

Anahtar Kelimeler: Reklama Yönelik Şüphe, Eşanlı Kantil Regresyon Analizi, Z Nesli

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Introduction

Consumers are flooded with countless marketing messages from diverse channels every day. All these efforts aim to persuade consumers to behave in the intended way, which is expected to remember or purchase a product or service. Persuasion has been an important research topic in consumer behaviour studies as the success of marketing efforts, particularly advertising, depends on persuading consumers. Hence, understanding the factors affecting this process plays a significant role. These factors are related to the advertising itself or the characteristics of the consumers. And the purpose of this study is to contribute this knowledge by analysing some consumer characteristics within a specific group, generation Z.

The individuals born in the mid-1990s are considered Generation Z (or Gen Z). They were born into a high-technology period, for which this group is also named “iGeneration”. Having a different worldview from previous generations, this group is not similar to other generations in terms of their attitude toward marketing efforts. They live in a dynamic environment depending on technology (Puiu, 2016). And this requires businesses to adopt different marketing strategies to access this group. Gen Z is less brand loyal and more product-focused, asking for more interactive marketing and is more pragmatic. Using digital tools to collaborate with others and cultures worldwide gave them a greater understanding of diversity. It directed them to find their identity (Katz, Ogilvie, Shaw, & Woodhead, 2022).

Gen Z is the next big generation and future consumers; thus, it is important to understand in detail the members of this generation from every perspective. They will become full-fledged consumers who can make or break a brand (Press, 2014). Similar to the differentiation every generation has from its predecessors, Gen Z members have quite different consumer characteristics and expectations. Therefore, this research aims to contribute to this accumulation of knowledge by testing the effect of three personality traits, namely cynicism, self-esteem, and market mavens, on ad scepticism, which is a determinant of consumer behaviour towards marketing promotion efforts among young consumers representing Generation Z. Although there are studies in the literature testing the effect of cynicism and self-esteem on ad scepticism, market mavens have not been handled from this perspective before.

In order to answer the above-explained research purpose, the current study is structured as follows: the literature review section details previous studies on the variables subject to analysis and suggests the hypothesis stating how they are assumed to be related. Then, the methodology section presents how participants are selected, the measures used for data collection and the procedure applied in this process. In the findings part, a preliminary analysis was followed by a test of psychometrics properties of scales and hypothesis testing. And the conclusion section discusses the findings of the analysis. Finally, it provides academic and managerial insights into these findings, suggestions for further research and limitations of the current study.

Conceptual background

This research aims to understand how consumer scepticism towards ads is shaped by three personality traits: cynicism, self-esteem and market mavens, and to see how this effect varies within different quantiles of scepticism. The research model developed for this purpose is presented in Figure 1.

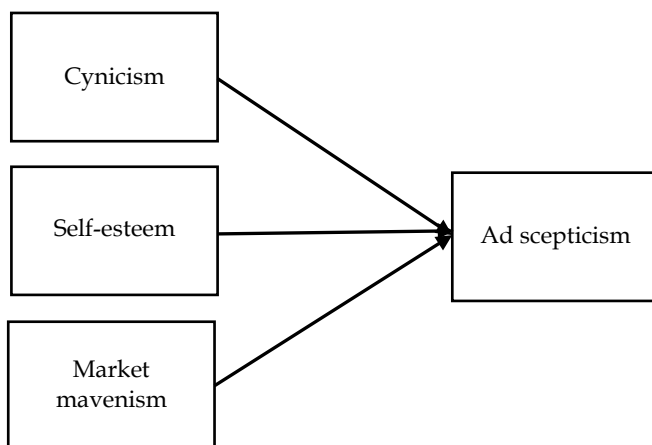


Figure 1: Path Diagram of the Hypothesized Model

Ad scepticism

As a major persuasion tool, advertisements are crucial in shaping consumer behaviour by affecting decision-making. Therefore, it is necessary to understand consumers' attitudes toward advertising and how they are formed to elicit the desired outcome. One factor determining consumers' attitudes toward advertising is ad scepticism. It is a general attitude of doubt toward the ads and is defined as "the tendency toward disbelief of advertising claims" (Obermiller & Spangenberg, 1998). Increasing consumers' scepticism toward ads indicates an increase in their suspicion of the information displayed. This effect would shape the decision-making process. It is, therefore, important to consider their scepticism toward ads while trying to comprehend their attitudes.

Despite the long history of the concept of scepticism, studies on ad scepticism have begun only recently and have been limited. One of the initial studies was by Barksdale and Darden (1972), where they directed advertising-related questions to consumers in a business world query and received replies indicating their scepticism toward ads. A similar finding was obtained by Calfee and Ringold (1994), where they concluded the sceptical attitude of consumers from national attitude surveys. Although it was seen as a source of information, most consumers replied that they did not trust ads. Therefore, the concept is studied under two titles, dispositional and situational ad scepticism, referring to a general tendency to disbelieve the ads and suspicion of specific ads, respectively (Forehand & Grier, 2003; Obermiller & Spangenberg, 1998). Another distinction is made regarding commercial and social ad scepticism (Thakor & Goneau-Lessard, 2009), which is about the suspicion of consumers from the ads of commercial products or the ads directed at a social cause.

The literature is rich in studies measuring consumers' attitudes toward ads and related factors (Goldsmith, Lafferty, & Newell, 2000; Putrevu & Lord, 1994; Read, van Driel, & Potter, 2018; Sjabadhyini et al., 2021). Consumers carry a fundamental scepticism level (Calfee & Ringold, 1994), and it is acknowledged as an ad-related concept (Obermiller & Spangenberg, 1998). Previous studies have employed ad scepticism as a separate construct (Amyx & Lumpkin, 2016; Matthes & Wonneberger, 2014; Thakor & Goneau-Lessard, 2009). The nomologic network developed by Obermiller and Spangenberg (1998) displays the relationship between the constructs. The authors suggest that personality and consumption-related factors affect ad scepticism. Ad scepticism, then, shapes consumer behaviour by mediating factors related to ad content.

Previous studies on ad scepticism have researched the construct in its relation to other constructs (Amyx & Lumpkin, 2016; do Paço & Reis, 2012; Mangleburg and Bristol, 1998; Obermiller and Spangenberg, 2000; Singh, Kristensen and Villaseñor, 2009; Thakor and Goneau-Lessard, 2009; Chen and Leu, 2011; Ju, 2017; Majláth, 2017), according to product type (Ford, Smith, & Swasy, 1990; Obermiller et al., 2005) and ad content (Boush et al., 1994; Kerkhof, Fennis, & van de Meijden, 2004; Koslow, 2000). In addition, some studies use ad scepticism as a mediator in shaping consumer behaviour (Bae, 2018; Chari, Christodoulides, Presi, Wenhold, & Casaletto, 2016; Hardesty, Carlson, & Bearden, 2002; Huh, Delorme, & Reid, 2016; Matthes & Wonneberger, 2014). A frequently used scale to measure ad scepticism was developed by Obermiller and Spangenberg (1998) where the authors suggested nine items to measure dispositional ad scepticism. Besides, there are scales that were developed to measure scepticism towards green ads (Mohr et al., 1998) and social ads (Thakor & Goneau-Lessard, 2009).

The literature indicates that the number of studies on ad scepticism is still limited, and further research centring around this concept would contribute to advertising and marketing literature. With regards to generational cohort, only a few studies researched scepticism toward advertising from the perspective of Generation Z (Dobrinić, Gregurec, & Dobrinić, 2021; Ustaahmetoğlu, Öztürk Küçük, & Toklu, 2022). Ad scepticism determines consumer attitudes and behaviour towards ads and advertised products through shaping persuasion. The current study contributes to this literature by testing the effects of cynicism, self-esteem and market mavens as antecedents of ad scepticism among Gen Z.

Cynicism

Advertising is a major tool for marketing, but the flux of messages through various channels has resulted in positive and negative attitudes from consumers. Cynicism, which has its roots in ethical discussions and has been studied from different perspectives in diverse disciplines (Chylinski & Chu, 2010), is one of these negative outcomes. From the perspective of marketing, it is defined as "the suspicion of other people's motives, faithfulness and goodwill. [It] relates directly to the believability of advertising claims, in terms of both their source and their content" (Kanter & Wortzel, 1985). The three-dimensional approach to the construct interprets it in terms of cognitive, affective and behavioural responses (Chylinski & Chu, 2010). Cynicism is considered more of a personality trait than a marketplace belief (Mohr et al., 1998; Obermiller et al., 2005). Cynic individuals will not believe

information from any source and doubt both what is said and the motivation behind it (Kanter & Wortzel, 1985).

Cynical consumers react severely to ads that they consider dishonest, unethical and unreliable. This is because consumers intend to attain the desired ends by using the product or service, achieving the goal or experiencing failure (Khuhro, Khan, Humayon, & Khuhro, 2017). If they face a failure, then they would develop a cynical attitude towards the marketing agent and its claims (Campbell & Kirmani, 2000). As a result, consumers would believe that the marketing agent acts only with self-serving motives (Chylinski & Chu, 2010). This belief will, in turn, lead to ad scepticism.

Previous research tested the relationship between cynicism and ad scepticism, and the findings revealed that cynicism affects ad scepticism positively (Khuhro et al., 2017; Mohr et al., 1998; Obermiller & Spangenberg, 1998; Tan & Tan, 2007). This finding means that more cynical consumers are more prone to be sceptical of ads. This study aims to contribute this knowledge by testing this relationship for Generation Z, which has previously been subject to limited studies (Grow & Yang, 2018). As suggested and verified by previous studies, the first hypothesis of the current research is developed as follows:

H₁: Cynicism is positively related to ad scepticism.

Self-esteem

Self-esteem is about how an individual overall evaluate his value or worth. It is the “evaluative component of a broader representation of self” (Blascovich & Tomaka, 2013). It is defined as “the individual’s positive or negative attitude toward the self as a totality” (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). This personality trait could be stable or fluctuate, covering the whole self or being domain-specific (Consiglio & van Osselaer, 2022). It is an important and popular social sciences construct affecting various outcomes, such as attitudes, decision-making, behaviour, and intentions. It is, therefore, important to study its relationship with various constructs within different disciplines.

In marketing studies, self-esteem has been subject to research from various perspectives (Bi & Zhang, 2022; Consiglio & van Osselaer, 2022; Fu & Xu, 2021; Tsai, Chi, & Hu, 2009). In terms of its relation with ad scepticism, previous research suggested a positive relationship between the two variables, namely self-esteem and ad scepticism (Boush et al., 1994; Kerkhof et al., 2004; Obermiller & Spangenberg, 1998; Thakor & Goneau-Lessard, 2009). It is suggested that when the self-esteem of an individual increases, he will doubt and challenge ad claims more easily. Furthermore, from the generational perspective, studies analysed the self-esteem levels of Generation Z members within diverse topics (Ameen, Cheah, & Kumar, 2022; Bharadwaj, 2022; Noel, Peñafort, & Larios-Gómez, 2021). In line with preceding research findings, the relationship between self-esteem and ad scepticism is hypothesised as follows:

H₂: Self-esteem is positively related to ad scepticism.

Market mavens

Market mavens are “individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to consumer requests for market information” (Feick & Price, 1987). Consumers with this trait are keen to learn marketplace information and share their knowledge with other people. They know many products (Elliott & Warfield, 1993) and unite this expertise with influence (Ruvio & Shoham, 2007). This stance is different from other traits such as opinion leadership or innovators as a market maven’s proficiency is on general market knowledge instead of comprehensive knowledge of certain products or earlier awareness of new products.

Previous research employed market mavens with other consumer-related constructs (Chelminski & Coulter, 2007; Cleveland & Bartikowski, 2018; Reinecke Flynn & Goldsmith, 2017), revealing its antecedents (Flynn, Goldsmith, & Pollitte, 2016; Gauri, Harmon-Kizer, & Talukdar, 2016; Zhang & Lee, 2014) and its significant and positive effect on different consumer behaviour outcomes (Gauri et al., 2016; Hanson, Kukar-Kinney, & Yuan, 2021; Rubio, Villaseñor, & Oubiña, 2015). In terms of generational differences, maven has recently attracted attention and has been subject to a limited number of studies revealing the general attitudes of a certain generation group (Hourigan & Bougoure, 2012; Khan, Fazili, & Bashir, 2022) or comparison between generations (Brosdahl & Carpenter, 2011; Goldring & Azab, 2021).

The nomological framework of Obermiller and Spangenberg (1998) suggested testing the effect of cynicism and self-esteem on ad scepticism as personality variables. Extending this framework via testing other traits would provide significant insights into apprehending consumer behaviour. Market

mavens were selected as a construct expected to contribute to this literature. It is considered a relevant trait and has not been previously tested for its effect on ad scepticism. Market mavens influence other consumers, and as they have comprehensive knowledge, they have self-confidence about the information they receive from marketplace agents. They believe in their ability to evaluate marketplace information correctly and thus think they could not be deceived easily. Therefore, a negative relationship is assumed between mavens and ad scepticism and the third hypothesis of the study was developed as follows:

H₃: Market mavens are negatively related to ad scepticism.

Methodology

Participants and procedure

The study's primary data to answer the research question was collected through self-administered surveys in September-October 2019 using convenience sampling, a prevalently employed method in marketing research. As the data was collected in 2019, ethics committee approval is not required for this research. University students were selected as they homogenously represent Gen Z. Before initiating the survey, the prior version was pretested on ten people to check for wording and clarity.

Before starting the survey, participants were informed that participating in the research was voluntary. They were ensured to protect and properly use the information they would share. No incentive was given to the participants, and the data collection period resulted in 374 usable surveys, 55% males.

Instrument design

The survey instrument consisted of scales regarding four main variables and two demographic questions asking for their gender and the program they are enrolled in at the university. The scales used to measure the variables were adapted from previous studies. All were measured using five-point Likert-type scales and were coded as one representing "strongly disagree" and five indicating "strongly agree". The nine-item scale, measuring the general tendency of the participants towards ads, developed by Obermiller and Spangenberg (1998), was used to measure ad scepticism; Rosenberg's ten-item self-esteem scale was used to measure the self-esteem levels of participants (Greenberger, Chen, Dmitrieva, & Farruggia, 2003), cynicism was measured by the six-items from the study of Kanter and Wortzel (1985), and market mavens were measured by the six items developed by Feick and Price (1987). The Turkish version of the questionnaire was prepared by first translating the items into Turkish and later back-translated by a bilingual expert. To check the comprehensibility of the items, a small sample of participants completed the final version of the questionnaire.

Data analysis

The data analysis procedure was carried out in three main steps. First, data screening procedures were primarily applied to ensure the sample was suitable for subsequent analysis. The second step comprises a validity and reliability check of the scales. And in the final step, quantile regression was conducted to see the effect of cynicism, self-esteem and mavens on ad scepticism and to draw a picture of how participant attitudes vary in terms of the effect of cynicism, self-esteem and market mavens about quantiles of scepticism levels.

Findings

Preliminary analysis and assumption testing

The data was first screened for missing values and replaced with a mean series approach applied to missing values. For hypothesis testing, assumptions of regression analysis were tested. The normal distribution assumption was checked for residuals and independent variables, which resulted in significant p values for all variables except for self-esteem ($swilk_{resid}$: $p=0.004$; $swilk_{cynicism}$: $p=0.007$; $swilk_{self-esteem}$: $p=0.07$; $swilk_{mavenism}$: $p=0.000$). This finding meant that only self-esteem had a normal distribution, but all other variables did not distribute normally. Although multicollinearity (all VIF values were below 1.02), heteroscedasticity (Breusch-Pagan / Cook-Weisberg: $p=0.93 > 0.05$), and model specification tests (Ramsey RESET test: $p=0.06 > 0.05$) of the model were successful, non-normal distribution of the variables unabled using Ordinary Least Squares (OLS) Regression. Transformation tests also did not suggest any successful transformation. Cook's distance was also calculated to determine influence values (Mert, 2016), and the results indicated that twenty-two observations were outliers. Therefore, Quantile Regression Analysis was preferred for testing the relationship between the variables. This analysis provides more robust estimations than OLS regression when the data does not distribute normally and has outliers. Furthermore, it allows drawing a detailed picture of the effect of

independent variables on ad scepticism for each quartile, enabling an in-depth analysis. SPSS conducted reliability and validity assessments, and quantile regression was run with STATA.

Reliability and validity assessment

An Exploratory Factor Analysis (EFA) was conducted to verify the uni-dimensionality of the scales used to measure the constructs in the model. Using Promax rotation, cross-loading items and items with factor loadings less than 0.5 were eliminated. Each scale had a single-factor solution, except for self-esteem, which resulted in a two-factor structure after eliminating two items. Each scale had significant Bartlett's test of sphericity and Kaiser-Meyer-Olkin values above the acceptable level of 0.60 (Hair, Black, Babin, & Anderson, 2010) (Table 1). Cronbach's alpha and composite reliability (CR) measures were used to test the scales' reliability; all were above the threshold level of 0.70 (Nunnally, 1978), except for the Self-Esteem_2 dimension. Factor loading of an item in this dimension also had a value of 0.539, hardly above the acceptable level. Eliminating this item resulted in a two-factor solution, so the remaining items were eliminated individually to see if the factor structure changed. However, the items did not load onto the first dimension of self-esteem. As the psychometric properties of this dimension were found below acceptable levels, the items in this factor were eliminated, and further analyses were made with the remaining five items that constituted a single-factor solution. Average Variance Extracted (AVE) values of each scale were calculated, resulting in values greater than the minimum recommended level of 0.50 (Fornell & Larcker, 1981). Table 1 lists the EFA results of each scale together with Cronbach's alpha, CR and AVE values.

Table 1: Factor Loadings, AVE, CR, and Cronbach's Alpha Values

Factors	Items	Factor Loadings	AVE	CR	α
Ad Scepticism KMO: 0.903 Bartlett's Test of Sphericity: 0.000 Variance explained: 50.9%	I feel I've been accurately informed after viewing most advertisements	0.812	0.804	0.858	0.876
	Advertising is a reliable source of information about the quality and performance of products	0.800			
	Advertising is generally truthful	0.766			
	I believe advertising is informative	0.727			
	Advertising is a truth well told	0.725			
	We can depend on getting the truth in most advertising	0.703			
	Advertising aims to inform the consumer	0.629			
	In general, advertising presents a true picture of the product being advertised	0.624			
Cynicism KMO: 0.846 Bartlett's Test of Sphericity: 0.000 Variance explained: 53%	Most advertising provides consumers with essential information	0.608	0.811	0.861	0.812
	People claim to have ethical standards regarding honesty and morality, but few stick to them when money is at stake	0.805			
	People pretend to care more about one another than they really do	0.791			
	Most people are not really honest by nature	0.775			
	Most people are just out for themselves	0.748			
	Most people inwardly dislike putting themselves out for other people	0.617			
Self-esteem KMO: 0.855 Bartlett's Test of Sphericity: 0.000 Variance explained: 63%	Most people will tell a lie if they could gain by it	0.608	0.697	0.923	0.848
	I certainly feel useless at times	0.861			
	I feel I do not have much to be proud of	0.828			
	At times I think I am no good at all	0.816			
Market mavens KMO: 0.832 Bartlett's Test of Sphericity: 0.000 Variance explained: 51.8%	All in all, I am inclined to feel that I am a failure	0.810	0.609	0.888	0.811
	I wish I could have more respect for myself	0.638			
	My friends think of me as a good source of information when it comes to new products or sales.	0.800			
	People ask me for information about products, places to shop, or sales	0.788			
	If someone asked where to obtain the best buy on several types of products, I could tell him or her where to shop.	0.754			
I like helping people by providing them with information about many kinds of products	I like helping people by providing them with information about many kinds of products	0.706	0.632	0.620	
	Think about a person who has information about a variety of products and likes to share this information with others. This person knows about new products, sales, stores, and so on but does not necessarily feel that he or she is an expert on one particular product. How well would you say that this description fits you?				
	like introducing new brands and products to my friends.				

Notes: AVE = Average Variance Extracted, CR = Composite Reliability, α = Cronbach's Alpha

Source: Author's calculations

Hypothesis testing

Simultaneous Quantile Regression analysis was used to test the hypothesised relationships. This technique concurrently estimates the regression model for different quantiles (Zellner & Theil, 1992). It was preferred as the normality assumption of OLS regression was violated for independent variables. The only transformation method suggested by the tests for market mavens did not lessen the variable's distribution. Therefore, quantile regression analysis was used. This method was developed by Koenker and Bassett (1978) to overcome the non-normal distribution of data and the existence of extreme values. The statistical inferences derived from this method are acknowledged to be closer to the actual situation because the estimates of quantile regression provide marginal effects of the independent variable on certain quantiles of the dependent variable, and this estimate is more rational (Huang, 2022). It is a line estimation connecting quantile points of the dependent variable estimated, whereas OLS regression

estimates a point. The model is preferred for its flexibility in dealing with heterogeneously distributed data to present a “richer characterisation and description of data” (Lin & Benjamin, 2017).

The Quantile Regression (QR) model, which allows the conditional distribution of the dependent variable on the independent variable to be examined at different points, can be written as (Hung, ShangJui-Kou, & Wang, 2010; Koenker, 2005; Koenker & Bassett, 1978):

$$y_i = x_i' \beta_\theta + u_{\theta i} \text{ with } Quant_\theta(y_i|x_i) = x_i \beta_\theta \tag{1}$$

where x_i' is a vector of regressors, β_θ is the vector of parameters to be estimated, and $u_{\theta i}$ is a vector of residuals. $Quant_\theta(y_i|x_i)$ represents the θ^{th} conditional quantile of y_i given x_i' . The θ^{th} regression quantile, $0 < \theta < 1$, solves the following problem:

$$\begin{aligned} \min_{\beta} &= \sum_i \theta |y_i - x_i \beta| + \sum_i (1 - \theta) |y_i - x_i \beta| \\ &= \min_{\beta} \sum_i \rho_\theta u_{\theta i}, \theta \in (0,1) \end{aligned} \tag{2}$$

where, ρ_θ , the check function is defined as:

$$\begin{aligned} \rho_\theta(\varepsilon) &= \theta \varepsilon \quad \text{if } \varepsilon \geq 0 \\ &= (\theta - 1) \varepsilon \quad \text{if } \varepsilon < 0 \end{aligned}$$

In this study, the simultaneous quantile regression was estimated for $\theta=0.20$, $\theta=0.40$, $\theta=0.60$ and $\theta=0.80$ conditional quantiles. Furthermore, when Y is assumed to be the dependent variable (ad scepticism) which is hypothesised to be dependent linearly on $X = (\text{cynicism, self-esteem, market mavens})$, the conditional quantile function of Y is defined as in Eq.3.

$$ADSKEP_i = \beta_0 + \beta_1 CYN_i + \beta_2 SELFEST_i + \beta_3 MKTMAV_i + \varepsilon_i \tag{3}$$

By running Eq.3, it is expected to display the diverse effects of the independent variables (cynicism, self-esteem, and market mavens) across the range of the dependent variable (ad scepticism). The results of the simultaneous quantile regression estimated for four conditional quantiles (0.20, 0.40, 0.60 and 0.80) are displayed in Table 2, and the graphical representation is given in Figure 2.

Table 2: Results of the Simultaneous Quantile Regression Model

Quantiles	Q20	Q40	Q60	Q80
Variables				
Cynicism	0.21 (.022)*	0.28 (.000)*	0.33 (.000)*	0.26 (.003)*
Self-esteem	0.15 (.000)*	0.14 (.010)*	0.18 (.001)*	0.16 (.006)*
Market mavenism	-0.23 (.001)*	-0.23 (.000)*	-0.14 (.030)*	0.03 (.664)
Constant	2.24 (.000)*	2.37 (.000)*	2.09 (.000)*	2.27 (.000)*
Pseudo R ²	0.06	0.06	0.06	0.05
P values are given in parentheses				
*Represents 5% significance levels				

The findings of the analysis tabulated above indicate that all three independent variables significantly affect consumers’ ad scepticism levels. The results of the simultaneous analysis show that cynicism has the highest effect on young consumers in the 60th quantile. Above this level, the effect of cynicism diminishes for consumers with the highest scepticism values. Self-esteem, on the other hand, has a similar effect for all quantile groups of ad-scepticism, which is deduced from the coefficient values for different quantiles. This finding indicates that it does not change highly regarding its effect on ad scepticism values. Self-esteem similarly affects consumers with high and low ad scepticism values. The negative effect of market mavens is similar for the 20th and 40th quantiles and decreases for consumers with higher ad scepticism values. And market mavens do not significantly affect the group with the highest ad scepticism levels.

In the graphics of the regression model, the x-axis represents the quantiles while the y-axis is the coefficients of the independent variables. The solid line displays the estimated coefficients for the quantiles, coefficient estimates of OLS regression are represented with a bold dotted line, and the

shaded region represents the 95% confidence interval. The figure displays the change in coefficients for different quantiles.

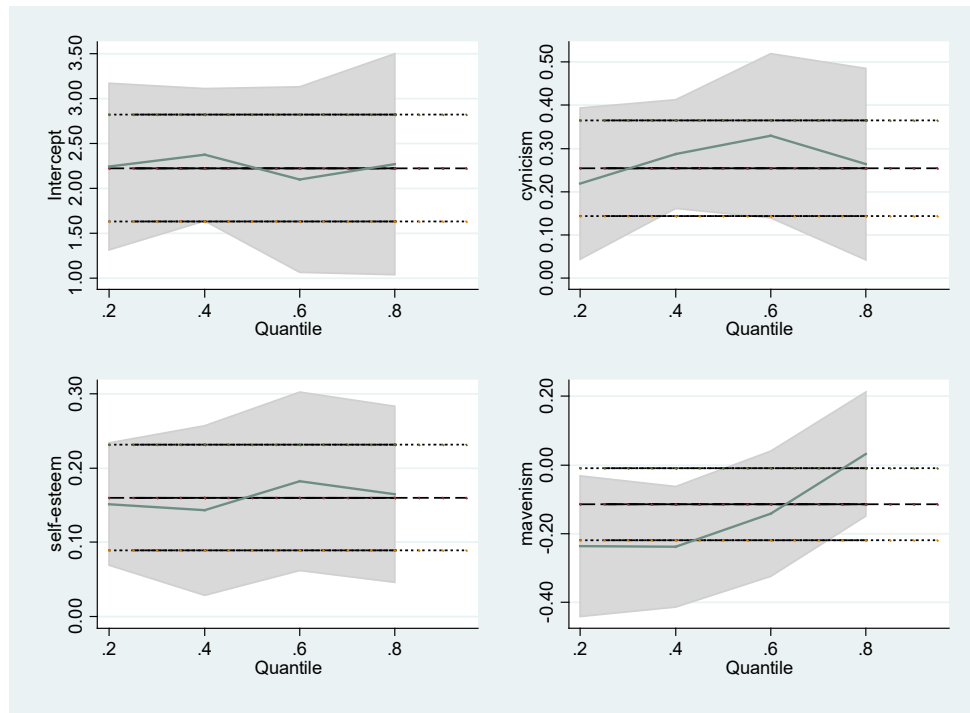


Figure 2: Graphical Representation of Simultaneous Quantile Regression Model

Conclusion

The purpose of the current study is to test the effect of three personal characteristics on the ad scepticism of consumers. Previous research findings hypothesised that cynicism, self-esteem and market mavens significantly affect ad scepticism, whereas cynicism and self-esteem positively affect ad scepticism, whereas market mavens affect it negatively. A simultaneous quantile regression analysis was used to test the hypothesis and reveal how the effect varies within different quantiles.

The study's first hypothesis suggested cynicism's positive and significant effect on ad scepticism, supporting H_1 . The coefficients display a kind of bell-shaped curve. This finding can be interpreted as the significant yet changing effect of cynicism on ad scepticism, where cynicism has the highest effect on individuals with mid-level scepticism. Previous research supported this finding verifying the positive effect of cynicism on ad scepticism (Khuhro et al., 2017; Mohr et al., 1998). However, prior research revealed this relationship only through a single coefficient. The current research extends this knowledge by disclosing how this effect changes for different values of ad scepticism. It can be concluded that cynicism significantly affects low sceptics, but the coefficient value is low. As an individual's scepticism level of an individual increases, so does his cynicism level. The cynicism coefficient again falls for high sceptics, meaning it becomes a less significant determinant of ad scepticism.

The second hypothesis suggested that self-esteem plays a significant, positive role in ad scepticism, supporting literature on this relationship (Boush et al., 1994; Kerkhof et al., 2004). It was also supported for all quantiles. When the coefficients are analysed, it can be seen that self-esteem level does not change much between quantiles, indicating that self-esteem has the same effect on low, medium or high-level sceptics. This finding can be interpreted from two approaches for low and high sceptics. For consumers with low scepticism levels, self-esteem could be acting as a factor decreasing their suspicion, making them feel certain of their knowledge and evaluation, therefore not having any scepticism of ads. For highly sceptic consumers, this trait could be working oppositely. Their intelligence leads to resistance to the persuasive content of ads and more questioning of the ad contents and therefore causes them to display scepticism towards ads.

The final hypothesis is about the negative effect of market mavens on ad scepticism. This trait has not been subject to research previously regarding its effect on ad scepticism. Therefore, it could not be compared with previous findings. This personality characteristic was added to extend an in-depth understanding of ad scepticism. It was hypothesised to have a negative relationship with ad scepticism as market mavens have the self-confidence that leads to their assurance of the advertising content they

receive from marketing agents and are not sceptical of it. The results of simultaneous quantile analysis partially supported the hypothesis, indicating that market mavens have a significant negative effect on ad scepticism when the scepticism levels of consumers are low. But, as the scepticism level increases to higher levels, mavens do not have a significant effect. Marketplace knowledge influences consumers with low- and mid-level scepticism, but this knowledge does not affect high sceptics. This finding could be ascribed to consumers with high scepticism scrutinising advertising content in more detail and questioning advertiser intent. And their scepticism seems to overcome their confidence in their marketplace knowledge.

Overall, the study's findings could be concluded to provide insights into the effects of some personality characteristics of the consumer on their scepticism levels towards ads. The findings reveal that the change in levels of personality variables of consumers have varying effects on different levels of their ad scepticism. The effect of cynicism diminishes for consumers with high scepticism, though still positive and significant. The self-esteem variable has a similar value for diverse consumer groups of ad scepticism. Like cynicism, the negative and significant effect of market mavens starts to decrease for consumers as consumer ad scepticism level increases. However, market mavens do not significantly affect the highest ad sceptics. These findings are expected to close the gap of detailed understanding on how personality characteristics shape ad scepticism. Previous studies testing these relationships with methods using point estimates does not provide information on how the effects change for different levels of ad scepticism. We could grasp for which group the effect works significantly. Thus, the obtained findings are expected to provide both academic and practical implications in designing research for detailed analysis of the variables related to ad scepticism and developing proper advertising strategies for reassuring consumers about the intent of the ads.

Implications, further research and limitations

The current study has two main theoretical contributions. The first one is testing the effect of market mavens on ad scepticism, which has not been studied before. The main purpose of marketing efforts is to persuade consumers in the intended direction. And advertising is a major tool in this process. Therefore, a thorough understanding of the factors shaping consumer persuasion is vital for the success of marketing efforts. As ad scepticism is one of these factors leading to negative consumer attitudes towards the ads, it is considered meaningful to diversify and test the effect of consumer traits on this construct. Furthermore, testing the effect of this variable in a specific generation is expected to provide valuable insights for the academic literature, as Gen Z is the big consumer group of the near future.

The second theoretical contribution is providing a detailed picture of the effects of consumer characteristics using simultaneous quantile regression analysis. Previous research revealed the effects of consumer characteristics for a single point of ad scepticism. However, displaying these effects for different levels of ad scepticism draws a more meaningful picture of the relationships. Using this method in consumer behaviour research would enrich the literature. Traditional regression analysis using the conditional mean of the response has several limitations, one of which is not being able to be extended to noncentral locations (Hao & Naiman, 2007). The noncentral locations have not been addressed and analysed with traditional regression analysis. This analysis shows the changes in the dependent variable throughout the distribution. It provides a more comprehensive understanding of how the response variable, in our case ad scepticism, is affected by the predictor variables: cynicism, self-esteem and market mavens. Therefore, this study is expected to remind social scientists of this horizon for their analysis.

The study has implications for practitioners also. As mentioned above, measuring consumer attitudes is important in understanding their persuasion process. Personal and demographic characteristics affect this attitude, and practitioners could develop more cooperative marketing efforts if they understand consumers better. Consumers tend to consider ads as both a source of information and still doubt their content and the motives of the advertiser. Practitioners with detailed insight into consumer thinking could develop more proper and convincing advertising strategies. The disbelief of consumers in advertising inhibits their positive attitude and subsequent behaviours regarding the advertised product. Therefore, understanding how diverse characteristics shape ad scepticism would enable developing relevant marketing tactics, such as content to decrease consumers' suspicion or to assure them of their knowledge. Ad claims could be an effective tool in decreasing the suspicion of consumers. Strong claims ensuring the consumers' assurance of themselves and their market knowledge could be used for this purpose. Furthermore, the endorsers used in the ads could help in decreasing the cynicism of the consumers

In line with the findings, current research implies some opportunities for further research. Ad scepticism is a trait that still requires further detailing. Therefore, in addition to further verifying the

personal and demographic characteristics subject to research using different samples, novel variables, such as extroversion and open-mindedness, could be added to see their effect on ad scepticism. Using the analysis that provides a more detailed picture of the already revealed relationships could also be a meaningful contribution to the literature. Additionally, comparative research between generations could inform us of the different aspects of the generations, which would help develop proper marketing strategies. Some limitations of the current study need to be stated. The first one is testing only a limited number of predictors in the model. Other variables having a greater contribution to the model have been excluded. The second limitation is using a sample from Generation Z and ignoring other generations. The study provides insight only for this age group, thus, cannot be generalised.

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