



Exploring Authenticity's: A Driver of Trust

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ABSTRACT

At the present time, there is intense competition in the coffee industry. To overcome the high competition and maintain consumer loyalty, marketers must consider the unique characteristics of young consumers. This study aims to examine the impact of differences in consumer attitudes based on demographic differences, authenticity, and perceived value on consumer trust in coffee from Indonesia. This study specifically to investigate young Indonesian consumers who come from universities. The sample of respondents in this study was 134, and the analysis was conducted using an ANOVA t-test and multiple regression. According to the study's findings, perceived value significantly affects trust, but authenticity has no impact on it. In addition, our study showed no difference in consumer attitudes based on coffee consumption patterns. These findings have important implications for marketers in developing effective strategies in the highly competitive coffee industry.

Keywords: *authenticity, perceived value, trust.*

1. INTRODUCTION

The rapidly changing environment requires marketers to continuously develop and execute effective marketing campaigns. Brands also involve consumers in the product innovation process [1]. Currently, there is a change in consumer behavior patterns, presenting new challenges for marketers amidst very high competition [2]. Consumers are faced with an influx of new brands and intense advertising every day, making it difficult for brands to stand out. As a result, marketers use various approaches to build brand recognition in the minds of consumers [3], [4].

Even companies with strong brand recognition face challenges from innovative new brands, as marketers must constantly acquire new customers. Generation Y and Z consumers exhibit different behaviors than previous generations, with a high concern for social and environmental issues (Fabiola & Mayangsari, 2020; Grigoreva et al., 2021; Marka & Noor, 2023; Secretaria et al., 2023; Šramková & Sirotiaková, 2021). It is important to know how authenticity is communicated in action [10]. Marketers today are incorporating stories into their campaigns, with the challenge of appearing honest and authentic in society. This is due to changes in the natural, social, and technological environments, which require brands to adapt to evolving consumer needs. As such, building consumer trust and delivering value is critical for brands.

The post-pandemic conditions and the economic crisis pose various challenges for consumers. In this business environment, marketers must convince consumers that their brands are trustworthy, genuine, and offer more value than their competitors. However, due to the current uncertain conditions, marketers may find it difficult to focus on the competition. Effective segmentation is linked to authenticity and customer loyalty levels [11]. For this reason, authenticity is an important factor for marketers to strengthen their brand position in the market [12]–[14]. In addition to identifying target segments, positioning the brand correctly in the minds of consumers is also important for the sustainability of the company.

Portal et al., (2019) explained that nowadays attributes owned by humans are attached to brands, so consumers experience increased recognition of attributes attached to brands, such as authenticity. There has been a lot of research on brand authenticity [16], [17], but there are limited studies that try to examine differences in attitudes based on demographic variables, and the relationship between authenticity, perceived value, and trust. The objectives of this study are, first, to investigate the relationship between amateur coffee consumers' attitudes toward authenticity, perceived value, and trust. Secondly to investigate the influence of authenticity and perceived value variables on trust.

There is evidence to support the notion that younger consumers are more environmentally conscious [18]. Green marketing is a strategy that coffee companies

use to differentiate themselves from the competition and draw in younger, environmentally conscious customers [19], [20]. Many studies in the context of the coffee industry have examined coffee purchase intentions or cafe visit intentions, but there are limited studies that try to analyze the role of trust in local coffee [21]–[25]. Especially for coffee producers in developing countries. Although Indonesia produces coffee, there is still a lack of consumer confidence in the product. Therefore, this study aims to investigate the factors of attitude, value, and authenticity that influence the trustworthiness of local coffee among young consumers. This research is also to explore the determining demographic factors that influence attitudes towards local coffee.

This research focuses on young amateur coffee consumers, as coffee is a leading commodity from Indonesia with various types of coffee beans identified by region of origin. The number of coffee shops offering premium coffee is experiencing substantial growth [26], but the use of commercially produced instant coffee remains high. Indonesian consumers tend to prefer instant coffee. This study examines demographic differences and consumer attitudes based on authenticity, trust and perceived value, including differences based on gender, income level and consumption patterns. Understanding consumer characteristics is essential for marketers to develop effective marketing strategies, particularly in the context of the coffee industry.

2. RESEARCH MODEL AND HYPOTHESES

2.1 Authenticity

Brand authenticity has become an important topic in marketing research in the last decade due to changes in consumer behavior caused by the availability of information access [27]. Since intrinsic motivation drives authenticity, attribution theory can explain it [28]. Brand authenticity refers to the ability of a brand to fulfill the promises it has communicated with consumers. It is linked to consumer emotions and it is important to examine the social status of consumers in relation to brand authenticity [29].

Marketers' honesty in fulfilling these promises also affects the brand's relationship with consumers, which in turn affects consumer intentions [30]. Today, consumers can easily talk about brands over the internet, so a single issue that is not handled well can have a huge impact on the brand. Different characteristics of the younger generation may affect their attitudes, so this study evaluates differences based on gender, income, and consumption in terms of authenticity.

Hypothesis 1: Consumer attitudes towards authenticity differ by gender, income, and consumption patterns.

2.2 Perceived Value

Value is a concern in the marketing world because marketers face challenges in delivering value to customers [31]. Loyal customers are usually caused by the value perceived by them. Consumers show a positive attitude towards brands that they remember from the past [32]. Today, intense competition makes many brands compete to offer different values. Offering value means offering benefits to consumers. Therefore, brands must be able to position the brand appropriately in the eyes of target consumers to convey value well.

Consumer perceived value is how a person feels about the benefit, performance and results of a product that helps them achieve their goals [33]. This value can include social, emotional well-being, performance, quality, and value for money dimensions [34]. Customer perceived value is a valuable concept for understanding customer experiences and their mental frameworks, which in turn can drive sustainable behavior [35].

Hypothesis 2: Consumer attitudes towards perceived value differ based on gender, income, and consumption patterns.

2.3 Trust

Trust is closely related to brand loyalty. Brand image is related to satisfaction and brand trust [36]. When consumers trust, they will be loyal. With authentic marketing communication, trust in the brand will increase. Consumers need to be moved by using honest stories, and the value offered to them. Brand trust is also influenced by brand authenticity [37]. Trust has a crucial role for consumers when purchasing food, since it influences their perception of related aspects such production technology [38]. Advertising can be used to build consumer trust [39].

Hypothesis 3: Consumer attitudes towards trust differ based on gender, income, and consumption patterns.

Hypothesis 4: Authenticity has a positive and significant effect on trust.

Hypothesis 5: Perceived value has a positive and significant effect on trust

Hypothesis 6: Authenticity and perceived value simultaneously influence trust

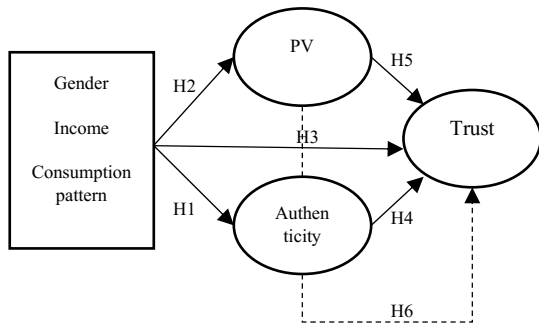


Figure 1 Research Model

3. RESEARCH METHODS

The population is students in the city of Yogyakarta with certain criteria. The sample in this study were undergraduate students at PGRI Yogyakarta University with a respondent age range of 17-26 years. Respondents are amateur coffee consumers who enjoy coffee at coffee shops and at home. The sampling method used was purposive sampling. Data collection using questionnaires through direct surveys. The scale of measuring answers in the questionnaire follows the Likert scale, consisting of (1) score 5 for answers strongly agree; (2) score 4 agree to answer; (3) score 3 moderately agree to answer; (4) score 2 to answer disagree; (5) score 1 for answers

Table 1. Demographic Variables

Demographic Variables	Description	Total	Percent
Gender	Man	36	26,9%
	Woman	98	73,1%
	Total	134	100%
Income	IDR500.000-1.000.000	90	67,2%
	IDR1.000.000-1.500.000	25	18,7%
	IDR2.000.000-2.500.000	9	6,7%
	IDR2.500.000-3.000.000	2	1,5%
	IDR > 3.000.000	8	6,0%
Coffee Consumption	Home	88	65,7%
	Coffee Shop	46	34,3%

Table 2. Validity Test and Reliability Test

Item	1	2	3	Cronbach's Alpha
I think Indonesian coffee is the first and only one (Authenticity 1)		,577		,606
I feel guilty if I buy coffee from other countries (Authenticity 2)		,704		
I avoid buying coffee from other countries as much as possible (Authenticity 3)		,708		
I think Indonesians should always buy Indonesian coffee (Authenticity 4)		,714		
I think coffee from other countries is well-made and careful (Perceived Value 1)	,590			,619
I think coffee from other countries shows their high level of technology (Perceived Value 2)	,817			
I think the packaging design of coffee from other countries is very attractive (Perceived Value 3)	,739			
I think coffee from other countries is very reliable (Trust 1)	,730			,553
I think coffee from other countries is worth the price and quality (Trust 2)			,947	
I agree that imports are allowed for coffees that are not available in Indonesia. (Trust 3)	,404			

strongly disagree. The statement on the questionnaire have been modified from those used in other studies [40]–[42].

Data obtained from the questionnaire were analyzed using one-way ANOVA analysis to test differences in attitudes and multiple linear regression to test the influence between variables. Both methods aimed to answer the research questions. The test used SPSS 22 software.

4.2 Hypothesis testing

One-way ANOVA and multiple linear regression analyses were used to test the hypotheses of differences in demographic variables and the influence of authenticity and perceived value on trust. In hypotheses 1 to 3, it was found that gender, income, and coffee consumption patterns did not affect consumer attitudes. The conclusion is that hypotheses 1, 2 and 3 are not

Table 3. Hypothesis 1-3 Test

Description	Variables	F	Sig	Result
Attitude and gender	Authenticity	,080	,778	H1 rejected
	Perceived Value	,662	,417	
	Trust	,826	,365	
Attitude and income	Authenticity	,465	,761	H2 rejected
	Perceived Value	1,633	,170	
	Trust	,342	,849	
Attitude and consumption	Authenticity	1,677	,198	H3 rejected
	Perceived Value	,414	,521	
	Trust	,790	,376	

Table 4. Hypothesis 4-6 Test

Variables	b	t	Sig	Result
Authenticity	,011	,181	,857	H4 rejected
Perceived value	,478	5,683	,000	H5 supported
Authenticity and Perceived Value	Adjusted R ² = ,190	F = 16,172	,000	H6 supported

4. RESULT

4.1 Overview of data collected

The questionnaire was distributed directly so that respondents could directly fill in using Google Form and obtained a total of 134 respondents. A total of 134 respondents can be used in this study. Male respondents totaled 36 and female respondents totaled 98. The number of respondents who consume coffee at home is 88 people, and in coffee shops is 46 people. The majority of respondents had an income of Rp500,000-Rp1,000,000.00. Data on respondents' consumption patterns can be seen in detail in table 1. Testing instrument research to assess validity and reliability. The number of samples used for validity testing was 134 respondent samples. The test tool used in the validity test is factor analysis. The result is that the question items are declared valid. For reliability testing using the Cronbach Alpha method with the results of the Cronbach Alpha value declared good if the results are above 0.6. Validity and reliability test can be seen in table 2.

supported. The following is a table 3 showing hypothesis testing 1-3.

The results of testing hypotheses 4 and 5 (table 4) show that using a significance value of 0.05, the statistically significant variable that partially affects the dependent variable is the perceived value variable, while the authenticity variable has no effect on the dependent variable, namely trust. Hypothesis 4 is not supported, and hypothesis 5 is supported. Meanwhile, the F test has a significance value of 0.000 or $P < 0.05$ which indicates that there is a significant effect of the two independent variables simultaneously on trust so that hypothesis 6 is supported.

5. DISCUSSION

This study aims to answer the question of whether there are differences in consumer attitudes towards three variables, namely authenticity, perceived value, and trust. The test results show that there is no significant difference in consumer attitudes towards these three variables. This indicates that the behavioral

characteristics of the younger generation, in this case amateur coffee drinkers, who became respondents in this study are the same even though the test was conducted by taking into account differences in gender, income level, and consumption patterns. Thus, marketers can consider appropriate marketing strategies to reach the younger generation group.

In addition, the test results also show that both independent variables, authenticity and perceived value, affect trust simultaneously. Authenticity is seen as important by consumers, but this authenticity must be accompanied by value perceived by consumers. If a brand looks authentic, but does not provide added value to consumers, then it will be useless. Therefore, marketers need to create added value for consumers as this is proven to be related to trust. In the current context, authenticity is necessary, but there needs to be added value for consumers to trust.

6. CONCLUSION

This study provides insight for marketers that the characteristics of the younger generation towards brands are not different, and proves that trust is related to authenticity and consumer perceived value. This study has several shortcomings related to the reliability of the research instrument as seen from the low reliability of the question items, and the model that does not adequately explain the dependent variable as evidenced by the low R Square value. Future research needs to increase the sample of respondents, add variables that are thought to affect the trust variable, and improve the question items in the study so that the instrument used is able to measure more accurately.

AUTHORS' CONTRIBUTIONS

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REFERENCES

- [1] R. Alarcón López, S. Ruiz de Maya, and I.] López López, "Sharing Co-Creation Experiences Contributes To Consumer Satisfaction," *Online Information Review*, vol. 41, no. 7, pp. 969–984, 2017.
- [2] M. R. Miah, A. Hossain, R. Shikder, T. Saha, and M. Neger, "Evaluating the impact of social media on online shopping behavior during COVID-19 pandemic: A Bangladeshi consumers' perspectives," *Heliyon*, vol. 8, no. 9, p. e10600, Sep. 2022, doi: 10.1016/j.heliyon.2022.e10600.
- [3] A. A. Alalwan, N. P. Rana, Y. K. Dwivedi, and R. Algharabat, "Social media in marketing: A review and analysis of the existing literature," *Telematics and Informatics*, vol. 34, no. 7, pp. 1177–1190, Nov. 2017, doi: 10.1016/j.tele.2017.05.008.
- [4] I. A. Mir, "Impact of Entertainment Motivational Drivers on User Acceptance of Online Social Network Banner Advertising: A Gratification Perspective," *Zagreb International Review of Economics and Business*, vol. 20, no. 1, pp. 19–47, May 2017, doi: 10.1515/zireb-2017-0006.
- [5] M. M. Marka and S. Noor, "Gen-Z Consumer Behavior: What Factors are Affecting Repurchase Intention of Online Ticket Reservation?," *Journal of Applied Management Research*, vol. 3, no. 1, pp. 26–32, Jun. 2023, doi: 10.36441/jamr.v3i1.1579.
- [6] Norberto M. Secretaria, Amelia Girly L. Aranas, Christina Y. Pacubas, and Leovigilda L. Bithay, "Understanding Gen Z Consumer Preferences For Pricing Methods: A Case Study In Cebu, Philippines," *EPRA International Journal of Multidisciplinary Research (IJMR)*, pp. 229–241, Mar. 2023, doi: 10.36713/epra12720.
- [7] E. A. Grigoreva, L. F. Garifova, and E. A. Polovkina, "Consumer Behavior in the Information Economy: Generation Z," *International Journal of Financial Research*, vol. 12, no. 2, p. 164, Jan. 2021, doi: 10.5430/ijfr.v12n2p164.
- [8] M. Šramková and M. Sirotiaková, "Consumer Behaviour of Generation Z in the Context of Dual Quality of Daily Consumption Products on EU market," *SHS Web of Conferences*, vol. 92, p. 06038, Jan. 2021, doi: 10.1051/shsconf/20219206038.
- [9] K. Fabiola and L. Mayangsari, "The Influence of Green Skepticism, Environmental Knowledge and Environmental Concern on Generation Z's Green Purchase Intentions in Indonesia," *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, vol. 5, no. 8, pp. 96–105, Aug. 2020, doi: 10.47405/mjssh.v5i8.470.

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- [10] S. Leppänen, J. S. Møller, T. R. Nørreby, and A. Stæhr, "Authenticity, Normativity and Social Media," *Discourse, Context and Media*, vol. 8, no. June, pp. 1–5, 2015, doi: 10.1016/j.dcm.2015.05.008.
- [11] J. Napoli, S. J. Dickinson, M. B. Beverland, and F. Farrelly, "Measuring consumer-based brand authenticity," *J Bus Res*, vol. 67, pp. 1090–1098, 2014.
- [12] K. Fritz, V. Schoenmueller, and M. Bruhn, "Authenticity in branding – exploring antecedents and consequences of brand authenticity," *Eur J Mark*, vol. 51, no. 2, pp. 324–348, Feb. 2017, doi: 10.1108/EJM-10-2014-0633.
- [13] J. Napoli, S. J. Dickinson, M. B. Beverland, and F. Farrelly, "Measuring consumer-based brand authenticity," *J Bus Res*, vol. 67, no. 6, pp. 1090–1098, Jun. 2014, doi: 10.1016/j.jbusres.2013.06.001.
- [14] J. Södergren, "Brand authenticity: 25 Years of research," *Int J Consum Stud*, vol. 45, no. 4, pp. 645–663, Jul. 2021, doi: 10.1111/ijcs.12651.
- [15] S. Portal, R. Abratt, and M. Bendixen, "The role of brand authenticity in developing brand trust," *Journal of Strategic Marketing*, vol. 27, no. 8, pp. 714–729, Nov. 2019, doi: 10.1080/0965254X.2018.1466828.
- [16] A. Dwivedi and R. McDonald, "Building brand authenticity in fast-moving consumer goods via consumer perceptions of brand marketing communications," *Eur J Mark*, vol. 52, no. 7/8, pp. 1387–1411, Jun. 2018, doi: 10.1108/EJM-11-2016-0665.
- [17] H. Oh, P. H. M. Prado, J. C. Korelo, and F. Frizzo, "The effect of brand authenticity on consumer–brand relationships," *Journal of Product & Brand Management*, vol. 28, no. 2, pp. 231–241, Mar. 2019, doi: 10.1108/JPBM-09-2017-1567.
- [18] N. Ahmed, C. Li, A. Khan, S. A. Qalati, S. Naz, and F. Rana, "Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness," *Journal of Environmental Planning and Management*, vol. 64, no. 5, pp. 796–822, Apr. 2021, doi: 10.1080/09640568.2020.1785404.
- [19] P. Průša and T. Sadílek, "Green Consumer Behavior: The Case of Czech Consumers of Generation Y," *Soc Mar Q*, vol. 25, no. 4, pp. 243–255, Dec. 2019, doi: 10.1177/1524500419881783.
- [20] K. Dutta, "Green Marketing - A Marketing Practice with E-Marketing," *SSRN Electronic Journal*, 2012, doi: 10.2139/ssrn.2492663.
- [21] K. van der Merwe and T. Maree, "The behavioural intentions of specialty coffee consumers in South Africa," *Int J Consum Stud*, vol. 40, no. 4, pp. 501–508, Jul. 2016, doi: 10.1111/ijcs.12275.
- [22] S. Yun and T. Kim, "What Do Coffee Shop Entrepreneurs Need to Do to Raise Pro-Environmental Customer Behavioral Intentions?," *Sustainability*, vol. 11, no. 9, p. 2666, May 2019, doi: 10.3390/su11092666.
- [23] A. Samoggia and B. Riedel, "Coffee consumption and purchasing behavior review: Insights for further research," *Appetite*, vol. 129, pp. 70–81, Oct. 2018, doi: 10.1016/j.appet.2018.07.002.
- [24] K. H. Lee, M. A. Bonn, and M. Cho, "Consumer motives for purchasing organic coffee," *International Journal of Contemporary Hospitality Management*, vol. 27, no. 6, pp. 1157–1180, Aug. 2015, doi: 10.1108/IJCHM-02-2014-0060.
- [25] J. Shim, J. Moon, M. Song, and W. S. Lee, "Antecedents of Purchase Intention at Starbucks in the Context of Covid-19 Pandemic," *Sustainability*, vol. 13, no. 4, p. 1758, Feb. 2021, doi: 10.3390/su13041758.
- [26] P. P. Dhisasmito and S. Kumar, "Understanding customer loyalty in the coffee shop industry (A survey in Jakarta, Indonesia)," *British Food Journal*, vol. 122, no. 7, pp. 2253–2271, Jun. 2020, doi: 10.1108/BFJ-10-2019-0763.
- [27] N. Athwal and L. C. Harris, "Examining how brand authenticity is established and maintained: the case of the Reverso," *Journal of Marketing Management*, vol. 34, no. 3–4, pp. 347–369, Feb. 2018, doi: 10.1080/0267257X.2018.1447008.
- [28] C. M. Kowalczyk and K. R. Pounders, "Transforming celebrities through social media: the role of authenticity and emotional attachment," *Journal of Product & Brand Management*, vol. 25, no. 4, pp. 345–356, Jul. 2016, doi: 10.1108/JPBM-09-2015-0969.

- [29] J. Södergren, "Brand Authenticity : 25 Years of Research," *International Journal of Consumer Studies* published, vol. 45, no. 4, pp. 1–18, 2021, doi: 10.1111/ijcs.12651.
- [30] K. Fritz, V. Schoenmueller, and M. Bruhn, "Authenticity in Branding – Exploring Antecedents and Consequences of Brand Authenticity," *Eur J Mark*, vol. 51, no. 2, pp. 324–348, 2017, doi: 10.1108/EJM-10-2014-0633.
- [31] E. J. Nijssen and R. T. Frambach, "Delivering Customer Value: Executing Marketing Strategy," in *Creating Customer Value Through Strategic Marketing Planning*, Boston, MA: Springer US, 2001, pp. 111–130. doi: 10.1007/978-1-4757-3277-1_7.
- [32] A. B. Shields and J. W. Johnson, "What Did You Do to My Brand? The Moderating Effect of Brand Nostalgia on Consumer Responses to Changes in a Brand," *Psychol Mark*, vol. 33, no. 9, pp. 713–728, Sep. 2016, doi: 10.1002/mar.20912.
- [33] E. Iannitto, "The Customer Value: A Bibliographical Review," *Int J Mark Stud*, vol. 11, no. 3, p. 106, Aug. 2019, doi: 10.5539/ijms.v11n3p106.
- [34] Md. A. A. Khan, H. Hashim, Y. Ab. Aziz, and Z. Samdin, "Consumer Community On Tourism Social Media And Consumer Perceived Value: Review Paper," Oct. 2020, pp. 452–462. doi: 10.15405/epsbs.2020.10.40.
- [35] M. M. Noorasikin, M. Ahmad, Y. Mashitoh, and A. Khairul Akmaliah, "Ethical Consumer Perceived Value in Sustaining Recycling Behaviour," *SHS Web of Conferences*, vol. 56, p. 01003, Nov. 2018, doi: 10.1051/shsconf/20185601003.
- [36] H. J. Song, J. H. Wang, and H. Han, "Effect of image, satisfaction, trust, love, and respect on loyalty formation for name-brand coffee shops," *International Journal of Hospitality ...*, 2019.
- [37] M. Schallehn, C. Burmann, and N. Riley, "Brand Authenticity: Model Development and Empirical Testing," *Journal of Product & Brand Management*, vol. 23, no. 3, pp. 192–199, 2014, doi: <https://doi.org/10.1108/JPBM-06-2013-0339>.
- [38] J. E. Hobbs and E. Goddard, "Consumers and trust," *Food Policy*, vol. 52, pp. 71–74, Apr. 2015, doi: 10.1016/j.foodpol.2014.10.017.
- [39] K. Bachnik and R. Nowacki, "How to Build Consumer Trust: Socially Responsible or Controversial Advertising," *Sustainability*, vol. 10, no. 7, p. 2173, Jun. 2018, doi: 10.3390/su10072173.
- [40] W. Wang, H. He, and Y. Li, "Animosity and willingness to buy foreign products: Moderating factors in decision-making of Chinese consumers," *Asia Pacific Business Review*, vol. 19, no. 1, pp. 32–52, Jan. 2013, doi: 10.1080/13602381.2011.640133.
- [41] M. Schallehn, C. Burmann, and N. Riley, "Brand authenticity: model development and empirical testing," *Journal of Product & Brand Management*, vol. 23, no. 3, pp. 192–199, May 2014, doi: 10.1108/JPBM-06-2013-0339.
- [42] J. G. Moulard, R. D. Raggio, and J. A. G. Folse, "Brand Authenticity: Testing the Antecedents and Outcomes of Brand Management's Passion for its Products," *Psychol Mark*, vol. 33, no. 6, pp. 421–436, Jun. 2016, doi: 10.1002/mar.20888.

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