Examining the influence of price-quality inference and consumer attitudes on the inclination to buy non-deceptive counterfeit goods: evidence from South Africa

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Abstract

Purpose – The market for counterfeit goods worldwide has continued to grow significantly over the years, attracting the curiosity of researchers in the marketing field. This study aimed to analyse the influence of price-quality inference and attitudes towards economic rewards of purchasing counterfeit products on the intentions to purchase non-deceptive counterfeit products.

Design/methodology/approach – The research adopted a quantitative methodology and utilised the cross-sectional survey method to collect data from a sample of 381 respondents comprising university students. The data was then analysed using the computer software Smart PLS 4.

Findings – The results established that the respondents' price-quality inference of counterfeit products was positively associated with the attitudes towards economic rewards of purchasing counterfeit products and intention to purchase counterfeit products. Furthermore, the study revealed that attitudes towards economic rewards of purchasing counterfeit products partially mediated the influence of price-quality inference on customer intention to acquire non-deceptive counterfeit goods. A multigroup analysis of the proposed relationship did not find any statistically significant differences in the pattern of results concerning the gender groups.

Research limitations/implications – The significance of the study findings is hampered by the singular focus on university students as a reference point for young people's perceptions of counterfeit goods in South Africa. The study, however, presents verifiable evidence that marketers and brand managers of genuine

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products may utilise to develop intervention measures to sway young African consumers away from counterfeits and towards genuine brands.

Originality/value – This is one of the few studies in the literature that addresses young adults' deliberate purchasing of non-deceptive counterfeits in South Africa, an important consumer market in Africa.

Keywords Young adults, Non-deceptive, Purchase, Counterfeit products, South Africa

Paper type Research paper

Introduction

The fact that counterfeiting is a problem in today's global economy is widely acknowledged in business and economic literature (Khan *et al.*, 2021; Samaddar and Menon, 2021). Not only does counterfeiting cause intellectual property holders and legitimate businesses financial loss but it also poses potential hazards to consumers and puts constant pressure on law enforcement agencies around the world that are funded by taxpayers' money to investigate and prevent criminal activity (Office of the United States Trade Representative, 2020). The global expansion in the volume of counterfeit product commerce over the last decade has been unparalleled, making the phenomenon of interest to researchers in a variety of disciplines. According to the Organisation for Economic Co-operation and Development (OECD) (2019), international trade in counterfeits accounted for 3.3% of total global trade in 2016, totalling $509 billion. These statistics are based on border control interceptions and do not include undiscovered operations, locally distributed fake products, or Internet commerce in digital counterfeits. While other parts of the world are infamous for creating and exporting counterfeit goods, poor African countries are major buyers of such goods for a variety of reasons (OECD, 2021).

Counterfeit products, according to Staake (2009), are unlicensed imitations of commercial products. Similarly, Davidson *et al.* (2019, p. 481) defined counterfeits as "low-priced imitations of highly demanded goods that typically look similar to the original but offer inferior quality". Spinks *et al.* (2013) broaden the definition and describe counterfeiting as product tweaking, misbranding, redirection to unsanctioned markets, and simulation, in addition to intellectual property contraventions. Counterfeits are difficult to distinguish from genuine products because they look so similar to the originals (Priporas *et al.*, 2015). They are, however, generally inferior to genuine goods in terms of overall quality and dependability (Wilcox *et al.*, 2009). Notwithstanding their limitations, counterfeits enjoy a large and growing market around the world (Moon *et al.*, 2018), particularly in emerging economies where they have more appeal because of their lower prices and lax enforcement of restrictions (Sharma and Chan, 2011). The increase in demand for counterfeits in recent years has been further boosted by social media (Morra *et al.*, 2018). In addition, the growth of international commerce facilitated by the spread of technology and online commerce and trade makes them more accessible (Kennedy, 2020; Lavorgna, 2015).

Numerous studies (e.g. Baruönü *et al.*, 2018; Priporas *et al.*, 2015; Quoquab *et al.*, 2017; Staake, 2009) emphasise the distinction between deceptive and non-deceptive counterfeiting. The former entails consumers who are unaware of the misrepresentation of being provided replicas as genuine (Bhatia, 2018). In the latter case, sellers make it clear that the goods they are selling are forgeries and buyers wilfully purchase them (Thi and Nguyen, 2017). In that scenario, buyers owe a moral duty for their deeds. In other words, some buyers are duped into purchasing counterfeits, while others are willing accomplices despite the moral depravity of their actions.

Even though the purchase of non-deceptive counterfeits is a well-studied global phenomenon, understanding why different customer groups, particularly those in emerging economies, purchase them remains limited (Kang *et al.*, 2022). This is even though many people in such markets are avid buyers of both genuine and counterfeit goods (OECD, 2021). Because of their limited understanding of these markets' purchasing preferences, brand

managers and marketers are unable to effectively reach them with compelling and educational anti-counterfeiting marketing communications.

Previous studies (Bian and Viloutsou, 2007; Iyer *et al.*, 2022; Souiden *et al.*, 2018) have proposed and validated a variety of predictors for counterfeit consumption behaviour, and their applicability varies across various global contexts. Thus, testing models and frameworks in previously untested environments will ultimately be beneficial to marketing theory and practice, particularly if novel combinations of suggested predictors are empirically tested. Using Ajzen and Fishbein's (1977) theory of reasoned action (TRA) and Thibaut and Kelly's (1959) social exchange theory, the current study investigates how price-quality inference and consumer attitudes towards economic benefits derived from counterfeits influence the deliberate intention to purchase non-deceptive counterfeits. The study solicited opinions on counterfeit products in general from a sample of mostly young respondents (aged 18–30 years) from a university in South Africa's Gauteng province.

Although there is a large body of scientific research on consumers' choices to purchase counterfeit goods, earlier studies tended to group purchasers of these goods as belonging to a single cohesive mass. Based on their age group, this paper examined the attitudes of young consumers who were university students to determine what they thought about counterfeit goods. This age group was chosen for the study because (1) they are believed to be well-informed on a variety of issues due to their frequent use of the Internet (Munsch, 2021), making them more likely to be knowledgeable about counterfeits; (2) members of this age group are susceptible to purchasing counterfeits, particularly luxury counterfeits, due to their relative affordability and desire for prestige goods (Mundel *et al.*, 2017) and (3) the number of consumers in this age group is large (Simon, 2019). Such a large and potentially profitable customer base necessitates research so that brand managers and product marketers can better understand their product preferences (that is, for genuine versus counterfeits). The findings of the study will provide a reasonable representation of potential opportunities and risks for legitimate product manufacturers and distributors in a key African market. Thus, the following research questions are addressed in the study:

RQ1. Do the price-quality inference and attitudes towards the economic benefits derived from counterfeits have a positive impact on the intention to buy non-deceptive counterfeits?

RQ2. Is the relationship between price-quality inference and the intention to purchase non-deceptive counterfeits mediated by consumer attitudes towards economic benefits derived from counterfeits?

For a variety of reasons, South Africa is an ideal location to investigate the phenomenon of counterfeiting. It should be noted that the global counterfeiting trade has been rapidly expanding, with Africa serving as a major destination for the goods and coastal nations such as South Africa receiving most of these illicit goods (Haman, 2010). South Africa has seen an increase in counterfeiting in recent years, and numerous studies (Haman, 2010; Thenga, 2021; Terblanche and Niemann, 2021; van Walbeek, 2014) have investigated this phenomenon (Jones, 2022). Furthermore, Jones (2022) claims that eliminating counterfeit trade in the South African market is critical to the country's economic survival. The preceding literature makes the case for additional research into the counterfeiting phenomenon in South Africa.

Theoretical framework

Several models and theories are used in the literature to explain human behaviour. The primary theoretical frameworks for this study are Ajzen and Fishbein's (1977) TRA and the social exchange theory (Thibault and Kelly, 1959). Because it is argued in this study that a buyer's personal preferences influence their decision to purchase non-deceptive counterfeit

goods and because the TRA explains human behaviour in circumstances requiring voluntary actions, the TRA is an appropriate framework. The model has been used in numerous earlier studies on consumer behaviour (Fitzmaurice, 2005; Fukukawa, 2002; Marcketti and Shelley, 2009; Cesareo and Pastore, 2013), and it has shown a good ability to predict consumer intentions and behaviour. The theory states that volitional human behaviour is consistently predicted by behavioural intentions "unless intent changes before a performance or unless the intention measure does not correspond to the behavioural criterion in terms of action, target, context, time-frame and/or specificity" (Sheppard *et al.*, 1988, p. 325).

Two factors influence behavioural intentions: attitude towards behaviour and subjective norms (Ajzen and Fishbein, 1977). On the one hand, an attitude is a developed viewpoint towards a subject or object (Ajzen, 1991). Subjective norms, on the other hand, are one's perception of what those in their referent group believe about how he or she should behave (normative beliefs), as well as one's willingness to conform to the opinions of the said group (Leone *et al.*, 1999). Other factors, according to the TRA, only have an indirect influence on behavioural intentions via the two determinants.

In addition to the TRA, the current study was influenced by the social exchange theory. According to the theory, humans are economic animals with rational decision-making abilities (Meira and Henca, 2021). As a result, their actions are explained in terms of costs, rewards and exchanges (Porter, 2018). It is assumed that humans seek relationships that maximise their returns while minimising their costs. Concerning this study, customers may conduct a cost–benefit analysis of the outcomes associated with purchasing counterfeit products given the possibility of both risk and reward. As a result, the social exchange theory was deemed to be an appropriate theoretical framework for understanding why consumers purposefully purchase non-deceptive counterfeit products.

Literature review, conceptual model and hypotheses formulation

The subsections that follow explain the key constructs covered in this study and present a review of the literature on the various relationships between the concepts, culminating in the formulation of a hypothesis to be tested in the study.

Price-quality inference

Price-quality inference refers to the extent to which consumers use price to determine the level of quality that a product possesses (Kardes *et al.*, 2004; Geiger-Oneto *et al.*, 2013). According to Kardes *et al.* (2004), consumers generally believe that price and quality are inextricably linked and that as a product's price rises, so will its quality. This assumption has a significant impact on the extent to which consumers use price to infer quality when deciding whether or not to purchase a particular product (Herstein *et al.*, 2015; Baumgartner, 1995; Bettman *et al.*, 1986; Broniarczyk and Alba, 1994; Pechmann and Ratneshwar, 1992). Understanding the relationship between price and quality is critical when dealing with counterfeit goods because consumers see them as accessible, affordable gateways to authentic brands that they would otherwise be unable to afford (Elsantil and Hamza, 2021). In this study, the relationship will be empirically tested on a sample of young adults from a South African university who represent a distinct consumer category. According to Herstein *et al.* (2015), consumers are not a homogeneous group of like-minded individuals, but rather a diverse group that must be explored as distinct segments if they are to be fully comprehended.

Consumer attitudes

Consumer attitudes are a consumer's evaluation of a product or service based on the information available, which can be positive or negative (Fishbein and Ajzen, 1975;

Folse *et al.*, 2013; Murphy and Zajonc, 1993). According to Ajzen (2018), consumer attitudes have far-reaching implications for consumer purchasing decisions. The current study investigates specific consumer attitudes towards the intention to purchase counterfeit goods. Attitudes have the greatest influence on behavioural intentions, which are a primary predictor of predetermined behaviour (Fishbein and Ajzen, 1975), which could include purchasing counterfeit or bootleg goods, hence the interest in the variable in the current study. Mathieson *et al.*'s (2001) study found that consumer attitudes reflect the psychological propensity of the consumer to behave in a predictable positive or negative pattern about the purchase of counterfeit goods. Given the correlation between consumer attitudes towards counterfeit products and their intent to purchase them, the purpose of this study was to delve deeper into this relationship in a less-studied context. Views on this relationship from economically and socially diverse environments do not always apply to the South African context, highlighting the importance of the current study. The following subsections discuss the current literature on how attitudinal factors relate to behavioural outcomes in the context of counterfeit products in general.

Attitude towards the economic benefits of purchasing counterfeit products and the intention to purchase counterfeit products

Attitudes are a person's mental state, opinions and assessments of something (Ajzen and Fishbein, 1977). In general, consumers who are predisposed to the economic and hedonic benefits of purchasing a product are more likely to buy it, and vice versa (Yoo and Lee, 2009; Lianto, 2015). However, in the case of counterfeits, the relationship between consumer attitudes and purchase intentions is inconsistent and influenced by other factors such as previous purchase behaviour, product and customer attributes and so on (Chiu and Leng, 2016). Several previous studies discovered a positive relationship between one's attitude towards the economic benefits of purchasing counterfeit products and one's intention to purchase counterfeit products (Bian and Veloutsou, 2007; Michaelidou and Christodoulides, 2011; Quoquab *et al.*, 2017; Viot *et al.*, 2014). Riquelme *et al.* (2012) revealed that experienced counterfeit buyers have more positive attitudes towards counterfeits and stronger intentions to buy them than non-users (buyers). Taken together, these studies support the notion that consumer attitudes are critical to understanding how customers respond to a product offering; thus, marketing practitioners cannot afford to ignore them. As a result, the following hypothesis is proposed:

H1. Attitude towards the economic benefits of purchasing counterfeit products is positively related to the intention to purchase counterfeit products.

Price-quality inference and the intention to purchase counterfeit products

Typically, consumers must make purchasing decisions based on limited information about product attributes (Shirai, 2015). To that end, they rely on personal beliefs and intuition to assess product quality (Niemand *et al.*, 2019). Existing research indicates that, in general, customers believe that a product's price reflects its quality (Shirai, 2015). The assumption is that higher prices indicate higher product quality, while lower prices indicate lower quality (Huang *et al.*, 2004). This is referred to as price-quality inference. According to Cronley *et al.* (2005) and Kardes *et al.* (2004), price-quality inferences can be so strong that those who hold them tend to ignore contrary evidence about the relationship between product price and quality. Previous research has shown that consumers are more likely to purchase counterfeits of luxury product brands than authentic versions because the former is less expensive and thus allows them to save money (Herstein *et al.*, 2015). That is one reason why consumers purchase counterfeit luxury brands on purpose, opting to sacrifice product quality for price in

exchange for the prestige and status associated with the brand. To put it another way, buyers of counterfeit product brands are willing to pay for the product's visual and functional characteristics without paying for the associated quality characteristics (Cordell *et al.*, 1996). However, the stronger the original item's price-quality relationship and competitiveness, the less likely customers are to investigate counterfeit goods (Herstein *et al.*, 2015). Importantly, while low-income earners are motivated to buy non-deceptive counterfeits because of their low prices, high-income earners may be motivated to buy such products for other reasons (Park-Poaps and Jiyun, 2018). Against this background, we hypothesise the following:

H2. Price-quality inference has a positive relationship with the intention to purchase counterfeit products.

Price-quality inference and attitude towards economic benefits of buying counterfeit products

Price is usually a major consideration in consumer purchasing decisions, and it influences customer attitudes towards the economic benefits of purchasing counterfeit products (Baruönü *et al.*, 2018). Prior research has found that low-income customers purchase counterfeit versions of luxury goods when they perceive savings opportunities (Phau *et al.*, 2009; Bloch *et al.*, 1993; Matos *et al.*, 2007). Nonetheless, higher-income earners, according to Grossman and Shapiro (1988), have a positive attitude towards purchasing counterfeits that are selling at lower prices when they believe the products are comparable in quality and status to genuine brands. In such cases, customers purchase counterfeits to enjoy higher-quality products at lower prices.

Previous research in emerging economies on the price-quality inference–attitudes towards counterfeits relationship produced a mixed bag of results. In a study of counterfeit product consumers in Brazil, Matos *et al.* (2007) discovered a positive relationship between price-quality inference and attitudes towards counterfeit products. In a Singapore study, Phau *et al.* (2009) discovered that strong price-quality inference was associated with a negative attitude towards luxury counterfeits. Finally, Chiu *et al.* (2014) discovered a non-significant relationship between price-quality inference and Taiwanese attitudes towards buying counterfeit sporting goods. Overall, these studies emphasise the importance of additional research to establish a convincing body of evidence on the relationship. In this regard, we propose the following hypothesis:

H3. Price-quality inference and attitude towards economic benefits of buying counterfeit products

The mediating role of attitude towards economic benefits of buying counterfeit products

In addition to direct relationships between variables under investigation, indirect relationships are also possible. Numerous empirical studies confirm that attitudes play a significant role in the influence of various personal, social and economic variables on consumers' intentions to purchase various product categories (Moon *et al.*, 2018; Quoquab *et al.*, 2017; Hidayat *et al.*, 2013; Riquelme *et al.*, 2012). Chu (2018) observed that consumer attitudes towards organic foods mediate the effects of health consciousness on the intention to purchase organic foods. Furthermore, Camacho *et al.* (2020) found that product attitudes will mediate the relationship between xenocentrism and purchase intentions. Similarly, Irshad and Ahmad (2019) revealed that consumer attitudes mediate the relationship between hedonic value and purchase intentions. Finally, the attitude variable has been shown to mediate the relationship between consumer knowledge and purchase intention of green products (Wulandari *et al.*, 2015). Despite the preceding findings, the possible intervening effect of consumer attitudes towards non-deceptive counterfeits on the relationship between the decision to purchase counterfeits and its direct determinants in an African context has

received little attention. As a result, the mediating impact of attitudes requires further clarification. Based on the existing literature, it is speculated that consumer attitudes towards the economic benefits of purchasing counterfeit products can be a mechanism by which price-quality inference influences the intention to purchase counterfeits. Therefore, we hypothesise the following:

H4. Attitude towards the economic benefits of buying counterfeit products mediates the relationship between price-quality inference and intention to purchase counterfeits.

Figure 1 illustrates the conceptual model reflecting the interlinkages between the variables under investigation.

Methodology

The research philosophy for this study was positivism, and the research method was quantitative. The design was appropriate for gathering data on attitudes towards the economic benefits of purchasing counterfeit products, intent to purchase counterfeit products, and price-quality inference of counterfeit products because it allows one to investigate the causal relationships.

Sample and data collection

This research was performed among a random sample of 380 students registered at a South African university in the Gauteng province. A primary identifier of this criterion was the student card holding the name and year of enrolment of each student. A list of registered students was used as a sampling frame in the database of the institute. Each name in the list of students registered in the database of the institute had an equal chance of being selected.

The raosoft calculator was used for calculating the sample size (Raosoft Inc., 2004). The calculation considered the total student population enrolment of approximately 30,833, a 5% margin of error, 90% interval of confidence and the recommended 50% distribution, and returned a minimum sample size of 380 respondents. All the 380 questionnaires distributed were completed correctly and returned, resulting in a response rate of 100%. The researcher employed two strategies to encourage full participation from the sampled respondents. The first strategy involved using three research assistants to administer the questionnaire. They were paid a small fee for each completed and returned questionnaire. The second strategy involved giving each respondent who completed the questionnaire a raffle ticket with a prize of 500 Rand (South African currency) if they were chosen. The questionnaires made it clear that the respondents' anonymity would be assured and that the research was for educational

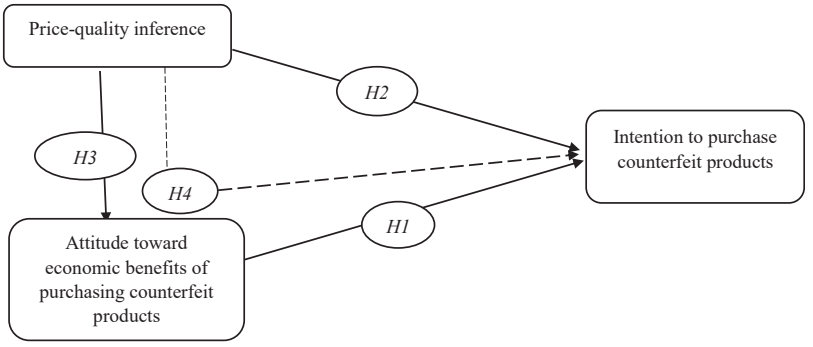

Figure 1.
Conceptual model

purposes only. Before the study, ethical clearance was sought from and granted by the relevant ethics review committee at the institution.

Measurement instrument and questionnaire design

Previous studies were used to operationalise the variables under investigation. The scales were modified to reflect the study context of counterfeit products. Table 1 shows the measurement scales, items used and sources for the scales. The scale indicators were based on a Likert-scale continuum ranging from strongly disagree (1) to strongly agree (5).

Respondent profile

The respondents were asked to report their demographic information, including gender, age, marital status, level of education, occupation, purchase frequency and amount of money spent. Table 2 shows the participants' representation. The profile indicates that females accounted for 50.8% of the total sample; most of the respondents (73.4%) were 25 years old or younger; 94. 2% of the total sample were single and most respondents (62.1%) indicated that they bought counterfeits monthly. Lastly, most of the respondents (72.6%) indicated that they spent at least R250 per month on counterfeit goods.

Analysis of results

The researchers used the computer software Statistical Package for Social Science version 25 to perform descriptive statistical tests. Smart-PLS 4 was used to perform partial least squares

Construct	Description	Source
Attitude towards economic benefits of purchasing counterfeit products	• I buy counterfeit products if I think genuine designer products are too expensive • I buy counterfeit products if I cannot afford to buy designer products • I buy counterfeit products without hesitation if I have a chance to buy the counterfeits • I buy counterfeit products, instead of designer products, if I prefer specific brands • I boast about counterfeit products as if they are genuine brand products • I usually purchase counterfeits when it is difficult to distinguish between the counterfeits and the genuine products	As adapted from Yoo and Lee (2009)
Intention to purchase counterfeit products	• The likelihood of me purchasing a counterfeit product is . . . • My willingness to buy a counterfeit product is . . . • The probability that I would consider buying a counterfeit product is . . . • At the price shown, the chances of me purchasing a counterfeit product are . . . • If I were going to buy a product, I would consider buying a model at the price shown . . .	As adapted from Dodds *et al.* (1991)
Price-quality inference of counterfeit products	• Generally speaking, the higher the price of a product, the higher the quality • The price of a product is a good indicator of its quality • You always have to pay a bit more for the best	As adapted from De Matos *et al.* (2007)

Table 1.
Measurement scales and their sources

	Frequency	Percentage
Gender		
Male	187	49.2%
Female	193	50.8%
Total	*380*	*100%*
Age		
18–19	158	41.6%
20–25	121	31.8%
26–30	101	26.6%
Total	*380*	*100%*
Marital status		
Married	22	5.8%
Single	358	94.2%
Total	*380*	*100%*
Level of education		
High School	179	47.1%
Diploma	27	7.1%
Degree	95	25.0%
Postgraduate	79	20.8%
Total	*380*	*100%*
Occupation		
Student	380	100.0%
Total	*380*	*100%*
Purchase frequency		
Monthly	236	62.1%
Seasonally	65	17.1%
Annually	79	20.8%
Total	*380*	*100%*
Amount of money spent		
Less than *R250	104	27.4%
Between R250 and R500	82	21.6%
Between R501 and R1000	96	25.3%
More than R1000	98	25.8%
Total	*380*	*100%*

Note(s): Rand (*R*) is the South African currency. *R*1 = US$0.057 as of 19 September 2022

Table 2. Sample demographic characteristics

structural equation modelling (PLS-SEM) which was preferred over covariance-based SEM because of its improved statistical power in parameter estimates and the maximisation of understood variance (Tajvidi *et al.*, 2018).

This study's statistical analyses included testing the (1) measurement model, which checked the reliability and validity of constructs, (2) structural model, which examined the path coefficients between observed coefficients and the model's explanatory power and (3) multigroup analysis across gender groups. The current study is particularly interested in the mediation effect of attitude towards economic benefits of purchasing counterfeit products between price-quality inference and intention to purchase counterfeits. Mediation occurs when a third variable intervenes between two other related constructs. In the PLS path model, a change in the exogenous construct causes a change in the mediator variable, which causes a change in the endogenous construct (Hair *et al.*, 2017). As a result, the nature (i.e. the underlying mechanism or process) of the relationship between two constructs depends on a mediator variable. Analysing the strength of the mediator variable's relationships with the

other constructs allows for the validation of the mechanisms underlying the cause–effect relationship between an exogenous and an endogenous construct (Hair *et al.*, 2017).

The computer software Smart PLS 4 supports modelling and analysing mediators through the bootstrap procedure whose output captures the direct, indirect and total effects of the predictors. Thus, the bootstrap procedure was used to determine the mediating effects of attitude towards the economic benefits of buying counterfeit products on the relationship between price-quality inference and intention to purchase counterfeits. The results of the mediation test are presented in Table 6.

Measurement model assessment

The reflective measurement model was evaluated for internal consistency (reliability), convergent validity and discriminant validity. Table 3 presents the outcome of the reliability and convergent validity tests.

Composite reliability and the Cronbach's alpha test were used to assess the internal consistency of the items which measured the three constructs examined in this study. As shown in Table 3, for each of the three constructs, the Cronbach's alpha and composite reliability values exceeded the minimum threshold of 0.7 (Field, 2013), indicating adequate levels of (internal consistency) reliability.

Table 3 also shows adequate levels of convergent validity for each of the three study constructs, as indicated by the average variance extracted (AVE) values exceeding the 0.5 recommended minimum threshold (Anderson and Gerbing, 1988).

Discriminant validity, which refers to items measuring different concepts, was ascertained using the Fornell–Larcker (Fornell and Larcker, 1981) and Heterotrait-monotrait ratio (HTMT) techniques. Using the first technique, discriminant validity is achieved if the square root of the AVEs is greater than the inter-factor correlations. With the second approach, discriminant validity is achieved if the HTMT values observed are less than 0.9. The results in Table 4 indicate that all the square roots of the AVEs were greater

Research constructs	Variable	Mean value	Standard deviations	Cronbach's α test	CR	AVE	Factor loadings	VIF (outer) values
PQ	–	–	–	0.838	0.902	0.755	–	
	PQ1	3.976	0.720				0.874	2.052
	PQ2	4.029	0.712				0.886	2.230
	PQ3	4.045	0.700				0.846	1.769
ATT	–	–		0.890	0.916	0.646		
	ATT1	4.068	0.754				0.832	2.676
	ATT2	4.024	0.682				0.826	2.613
	ATT3	3.989	0.736				0.766	1.841
	ATT4	4.021	0.722				0.821	2.188
	ATT5	3.958	0.746				0.794	2.025
	ATT6	3.863	0.796				0.783	1.955
PI	–	–	–	0.870	0.906	0.657		
	PI1	3.887	0.761				0.823	2.276
	PI2	3.861	0.781				0.816	2.189
	PI3	3.987	0.738				0.820	2.097
	PI4	3.992	0.763				0.778	1.904
	PI5	4.079	0.714				0.816	1.968

Note(s): PQ = Price quality inference of counterfeit products; ATT = Attitude towards economic benefits of purchasing counterfeit products; PI = Intention to purchase counterfeit products

Table 3.
Reliability and construct validity test results

than the correlations among the constructs. In addition, all the HTMT values for the correlations between values shown in Table 5 are less than 0.90; thus, the discriminant validity of the measurement model was established. Upon confirming the validity of the measurement model, the structural model was assessed to test the four hypotheses.

Structural model assessment

The suitability of the inner (structural model) (see Figure 2), which concerns the relationships between the endogenous and exogenous variables, was assessed in three steps: (1) evaluation of potential collinearity between the predictor variables, (2) testing the significance of the path coefficients and (3) analysing the predictive power of the hypothesised model.

First, a full collinearity assessment was performed to detect common method bias (Kock, 2015). Common method bias describes an exaggeration in path relationship estimates due to the use of a common method to gather data on the concerned constructs. In PLS-SEM, collinearity problems arise when variance inflation factor (VIF) values exceed 5. Other scholars suggest a value lower than the 3.3 recommended threshold (Hair *et al.*, 2011; Kock, 2015). The results from this study derived the following VIF (outer) values for each variable: attitude towards economic benefits of purchasing counterfeit products (1.841–2.676),

	Attitude towards economic benefits of purchasing counterfeit products	Intention to purchase counterfeit products	Price quality inference of counterfeit products
Attitude towards economic benefits of purchasing counterfeit products	*0.804*		
Intention to purchase counterfeit products	0.744	*0.811*	
Price quality inference of counterfeit products	0.775	0.754	*0.869*

Note(s): *Italic diagonal values are the square root of the AVEs. The values beneath are the inter-factor correlations

Table 4. Discriminant validity (Fornell–Larcker's criterion)

	Heterotrait-monotrait ratio (HTMT)
Intention to purchase counterfeits – Attitude towards counterfeits	0.843
Price-quality inference – Attitude towards counterfeits	0.897
Price-quality inference – Intention to purchase counterfeits	0.882

Table 5. Discriminant validity – Heterotrait-monotrait ratio (HTMT)

Hypothesis	Proposed hypothesis relationship	Beta coefficients (β)	t-statistics	p-values	Decision
H1	ATT → PI	0.444	7.169	0.000	Supported
H2	PQ → PI	0.775	26.311	0.000	Supported
H3	PQ → ATT	0.400	6.361	0.000	Supported
Mediation analysis results					
H4	PQ → ATT → PI	0.310	5.973	0.000	Supported

Note(s): ATT = Attitude towards economic benefits of purchasing counterfeits; PI = Intention to purchase counterfeits; PQ = Price-quality inference

Table 6. Hypothesis testing results

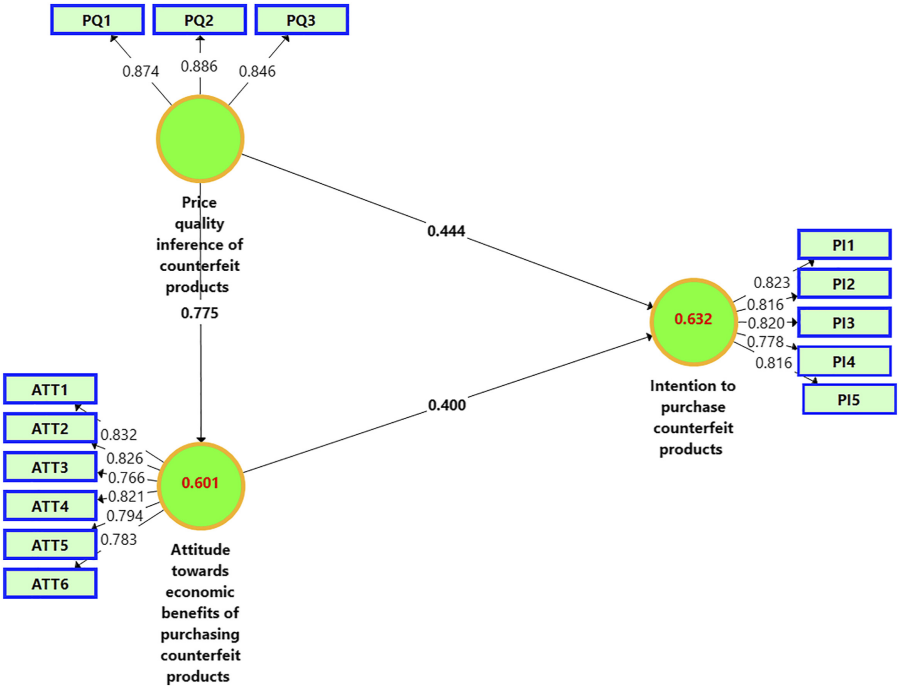

Figure 2.
Structural model

intention to purchase counterfeit products (1.904–2.276) and price-quality inference of counterfeit products (1.769–2.052).

Next, cause-and-effect relationships among latent variables were evaluated through path analysis (Nusair and Hua, 2010). The path coefficients were obtained by applying a non-parametric, bootstrapping routine (Chin and Dibbern, 2010), with 261 cases and 5,000 samples for the non-return model (two-tailed; 0.05 significance level; no sign changes). The estimation results obtained in this study are presented in Table 6. The information presented include the proposed hypotheses, path coefficients, *t*-statistics and whether a hypothesis is rejected or supported. The literature suggests that $t > 1.96$ is an indicator of relationship significance and that higher path coefficients indicate strong relationships among latent variables (Chin, 1998; Chinomona and Chinomona, 2013). Drawing from the results in Table 6, H1 ($\beta = 0.444$; $t = 7.169$), H2 ($\beta = 0.775$; $t = 26.311$), H3 ($\beta = 0.400$; $t = 6.361$) and H4 ($\beta = 0.310$; $= 5.973$) are all supported. When a mediated relationship is tested, full mediation is confirmed if only the indirect effects of the predictor variable are statistically significant. Because the price-quality inference variable influences the intention to purchase counterfeits both directly and indirectly (via the attitude towards the economic benefits of purchasing counterfeit products), the mediation effect of the attitude towards the economic benefits of purchasing counterfeit products variable on the relationship is only partial.

The structural model's explanatory power was assessed using a coefficient of determination, R^2. This value represents the amount of variance in the outcome variable which is explained by the predictors. In the model, the two endogenous variables (attitude towards economic benefits of purchasing counterfeit products and intention to purchase counterfeit products) had R^2 values of 0.601 and 0.632, respectively, suggesting a strong explanatory power of the structural model (Figure 2).

Lastly, the overall fitness of the model was assessed using the standardised root mean square residual (SRMR) based on the criteria that a good model should have an SRMR value of <0.08 (Henseler, 2017). The structural model in Figure 2 had an SRMR of 0.056, thus suggesting an adequate level of model fitness.

Post hoc analysis: multigroup test

An analysis of the hypothesised relationships using multiple groups based on permutations was done to see if the results were different for male and female respondents. The Smart PLS programme was used to carry out this procedure, which incorporates the measurement invariance of composite models (MICOM). MICOM is divided into three steps: (1) Configurational invariance; (2) Compositional invariance and (3) Equivalence of Composite Mean Values and Composite Variances. The permutation-based confidence intervals supported compositional invariance because the correlations of the three latent variables did not significantly differ between males and females (see Table 7). Full measurement invariance was also established because the permutation-based confidence intervals for the mean values and variances of the three latent variables did not differ significantly between groups (see Table 7).

The study provides empirical evidence about the positive and significant impact of attitudes towards the economic benefits of purchasing counterfeit products on the intention to purchase counterfeit products based on a comparative analysis of gender groups. Females had a slightly higher impact ($\beta = 0.41$) than males ($\beta = 0.39$). Furthermore, the findings confirm a positive and significant effect of attitude towards the economic benefits of purchasing counterfeit products on price-quality inference, with females having a stronger effect ($\beta = 0.78$) than males ($\beta = 0.773$). Finally, the findings show that the price-quality inference variable has a positive and significant mediating effect on the influence of attitude towards the economic benefits of purchasing counterfeit products on the intention to purchase counterfeit products. The effect was greater in the male group ($\beta = 0.454$) than in the female group ($\beta = 0.436$). The differences in the strength of all the relationships, however, were not statistically significant (see Table 8). The preceding findings indicate that the nature of the relationships between the variables covered in this study did not differ between the male and female groups.

Discussion of results

Using a sample of South African university students as respondents, the empirical study examined the effect of price-quality inference and attitudes on the economic benefits of purchasing counterfeits on intention to purchase non-deceptive counterfeits. The significant involvement of young people in the deliberate buying of counterfeits, especially replicas of premium brands, was corroborated by the huge number of respondents ($n = 236$; 62.1%) who indicated that they bought such products on monthly basis.

The outcomes show that young people's intentions to buy non-deceptive counterfeits were influenced by their attitudes. Accordingly, consumers who have a more positive attitude towards the financial benefits of obtaining counterfeits are more likely to purchase pirated goods and vice versa. The findings validate the theories of planned behaviour and reasoned action on assumptions that attitudes are instrumental in developing intentions and behaviour in various situations (Ajzen, 1991; Ajzen and Fishbein, 1977). The findings are not surprising, as previous research from various contexts of consumer purchasing behaviour has shown a similar relationship between the two variables (Bian and Veloutsou, 2007; Michaelidou and Christodoulides, 2011; Quoquab *et al.*, 2017; Viot *et al.*, 2014).

Table 7.
MICOM test results

	Compositional invariance			Equality of means			Equality of variances		
	Original correlation	Correlation permutation mean	Permutation *p*-value	Original difference	Permutation mean difference	Permutation *p*-value	Original difference	Permutation mean difference	Permutation *p*-value
Attitude towards economic benefits of buying counterfeit products	1.000	0.999	0.454	−0.074	0.002	0.484	0.001	−0.001	0.997
Intention to purchase counterfeits	1.000	1.000	0.974	−0.020	0.002	0.834	−0.076	−0.001	0.674
Price-quality inference	1.000	1.000	0.348	−0.048	0.001	0.642	0.073	−0.001	0.698

Path	Original (Males)	Original (Females)	Original difference	Permutation mean difference	2.5%	97.5%	Permutation *p*-value
Attitude towards economic benefits of buying counterfeit products → Intention to purchase counterfeit products	0.379	0.418	−0.038	−0.004	−0.262	0.233	0.773
Attitude towards economic benefits of buying counterfeit products → Price-quality inference	0.773	0.780	−0.007	−0.001	−0.117	0.119	0.916
Price-quality inference → Intention to purchase counterfeit products	0.454	0.436	0.019	0.005	−0.251	0.263	0.885
Attitude towards economic benefits of buying counterfeit products → Price-quality inference → Intention to purchase counterfeit products	0.351	0.340	0.011	0.003	−0.196	0.210	0.898

Table 8.
Multigroup analysis path coefficients

The influence of price-quality inference directly accounted for substantial variance in the respondents' attitudes towards the economic benefits of purchasing counterfeits and the intention to purchase non-deceptive counterfeits. This means that the respondents who associated high selling prices with high product quality were keener to deliberately buy non-deceptive counterfeits, *and vice versa*. The explanation for this is not clear. However, it is possible that the respondents perceived no quality difference between the counterfeits and the authentic products and were prepared to pay almost the same price for either category of goods. Thus, any perceived shortfall in the quality of counterfeits was compensated for by the utilitarian benefits derived through monetary savings made and the personal gratification derived from the status and performance attributes of consuming a replica of an authentic product. Because of this, the respondents were positively predisposed towards counterfeits and demonstrated strong intentions to buy them. The finding corroborates the results from Matos *et al.* (2007) which yielded a similar pattern of results but contradict others who found an inverse relationship between price-quality inference and attitude towards counterfeits (Abdullah and Yu, 2019; Huang *et al.*, 2004).

Furthermore, our research confirmed the indirect impact of price-quality inferences, which was mediated by attitude towards the economic benefits of purchasing non-deceptive counterfeits. When the findings are compared to those of other research (Haseeb and Mukthar, 2016; Quoquab *et al.*, 2017; Singh *et al.*, 2021), it becomes clear that individual attitudes are crucial in transferring the effect of exogenous causes to behavioural consequences. According to the outcome of the mediation test, attitude towards the economic benefits of purchasing counterfeit products may be a mechanism that mediates the relationship between price-quality inference and intention to purchase counterfeits. These results are in line with the works of Viot *et al.* (2014) who determined that the effects of individual deterrents and motivations operate through the attitude towards counterfeiting, which acts as a mediating variable. They also corroborate the findings of Matos *et al.* (2007), whose study found that attitude plays a significant mediational role between predictor variables such as previous experience, price-quality inference, personal gratification, perceived risk, subjective norm and integrity and purchase intention of counterfeit.

Conclusions, implications and suggestions for further research

The findings of this study offer insights into the relationship between price-quality inference, attitude towards the economic rewards from buying counterfeits and purchase intent of counterfeit products. It was revealed that the price-quality inference of counterfeit products had both direct and indirect effects on respondents' intention to purchase counterfeit products. Thus, the attitude towards the economic benefits of buying counterfeit goods partially mediated the influence of price-quality inference on the intention to buy counterfeit goods. A multigroup analysis of the hypothesised relationships did not reveal statistically significant differences between the perceptions of males and females.

The results give rise to some practical implications. Firstly, marketers of authentic products, especially luxury goods, should invest more in creating appropriate brand images by designing superior brand encounters or experiences which convince consumers of the superior value of genuine brands compared to imitations, thereby justifying the higher prices charged. In other words, a product's price should be perceived to be relative to its value which it provides. Once a product appears to be overpriced relative to its perceived worth, consumers are less likely to purchase it, and deliberately opt for lower-price counterfeits. This strategy is likely to be effective when applied to young customers who have enough disposable income to spend on authentic products but choose counterfeit because there is no discernible difference in brand value between them and the originals.

Secondly, depending on the product, emphasising the guaranteed safety features and brand functionality of the pertinent products may be key selling points that marketers can employ to sway respondents' opinions of original brands in their favour. Marketers should also draw attention to brand characteristics that are difficult for copycats to duplicate.

Thirdly, to discourage young consumers from buying counterfeits, marketers should focus on appealing to attitudes in their interactions with existing and potential customers. They can do this by crafting impactful marketing communication strategies using omnichannel approaches. Depending on whom the message is aimed at, communication campaigns should be tailored to emphasise both the negative aspects of consuming counterfeits and the positive aspects of consuming authentic brands. The government and trade regulation bodies can also contribute to such campaigns by creating awareness of the importance of conducting trade of genuine products to the performance of the national economy. Customers, according to Herstein *et al.* (2015), are not a homogeneous mass and must therefore be approached, in marketing terms, as subgroups which react differently to marketing messages.

Fourthly, marketers and entrepreneurs can use the findings of this study to explore different business development strategies to increase the market reach and appeal of authentic product brands among university students, thereby reducing the problem of non-deceptive counterfeit product consumption among South African young adults. One option is to sell both brand new items and lower-priced second-hand authentic brands. The availability of lower-priced options has the potential to make the sale of counterfeits both unprofitable and unsustainable.

Lastly, the trade regulation department and law enforcement agencies in South Africa must institutionalise and enforce tough measures to contain the proliferation of non-deceptive counterfeit goods considering the finding that respondents were more likely to buy counterfeits if they felt they would receive some financial benefit.

Although the study adds to theory and practice, it has some limitations related to data collection and interpretation. As a result, it opens the door for future non-deceptive counterfeit goods research. The first shortcoming of this study is that it focuses on a narrow range of variables. Findings from previous studies conducted in other contexts reveal a diverse set of factors that can potentially influence customers' purchasing decisions. Future research on similar topics in the South African context should test complex models comprising a range of antecedent variables, both personal and contextual, that can predict the purchase of counterfeit goods. Examples of variables whose effect can examine include the role of morality, religiosity, economic situation, risk perception and materialism among others.

Because all the respondents were registered students at the same university, their perceptions of counterfeit goods may have been influenced by the shared context. As a result, future research will need to include a diverse set of respondents to develop more thorough and realistic perspectives concerning causal relationships.

The present study's use of a cross-sectional survey to examine the causal relationship between the study variables presents a methodology design-related challenge. Measuring the variable before and after exposing the respondents to treatment would serve as a robust test of causality. As a result, feature studies should employ more reliable and valid research designs to produce accurate findings regarding the hypothesised causal relationships.

References

Abdullah, Q.A. and Yu, J. (2019), "Attitudes and purchase intention towards counterfeiting luxurious fashion products among Yemeni students in China", *American Journal of Economics*, Vol. 9 No. 2, pp. 53-64.

Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50, pp. 179-211.

Ajzen, I. (2018), "Consumer attitudes and behavior", *Handbook of Consumer Psychology*, Lawrence Erlbaum, New York, pp. 529-552.

Ajzen, I. and Fishbein, M. (1975), "A Bayesian analysis of attribution processes", *Psychological Bulletin*, Vol. 82 No. 2, pp. 261-277, doi: 10.1037/h0076477.

Ajzen, I. and Fishbein, M. (1977), "Attitude-behavior relations: a theoretical analysis and review of empirical research", *Psychological Bulletin*, Vol. 84 No. 5, pp. 888-918.

Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, p. 411.

Baruönü, Ö., Melis, L. and Yi, K. (2018), "A review of counterfeiting research on demand-side: analyzing prior progress and identifying future directions", *The Journal of World Intellectual Property*, Vol. 21, pp. 458-480.

Baumgartner, H. (1995), "On the utility of consumers' theories in judgments of covariation", *Journal of Consumer Research*, Vol. 21, pp. 634-643.

Bettman, J.,R., John, D.R. and Scott, C.A. (1986), "Covariation assessment by consumers", *Journal of Consumer Research*, Vol. 13, pp. 316-326.

Bhatia, V. (2018), "Examining consumers' attitude towards purchase of counterfeit fashion products", *Journal of Indian Business Research Business Research*, Vol. 10 No. 2, pp. 193-207.

Bian, X. and Veloutsou, C. (2007), "Consumers ' attitudes regarding non-deceptive counterfeit brands in the UK and China", *Brand Management*, Vol. 14 No. 3, pp. 211-222.

Bloch, P.H., Bush, R.F. and Campbell, L. (1993), "Consumer 'accomplices' in product counterfeiting: a demand-side investigation", *Journal of Consumer Marketing*, Vol. 10 No. 4, pp. 27-36.

Broniarczyck, S.M. and Joseph, W.A. (1994), "Theory versus data in prediction and correlation tasks", *Organizational Behavior and Human Decision Processes*, Vol. 57, pp. 117-139.

Camacho, L.J., Salazar-Concha, C. and Ramirez-Correa, P. (2020), "The influence of xenocentrism on purchase intentions of the consumer: the mediating role of product attitudes", *Sustainability*, Vol. 12 No. 4, pp. 1-12.

Cesareo, L. and Pastore, A. (2013), "Consumers ' attitude and behavior towards online music piracy and subscription-based services", *Journal of Consumer Marketing*, Vol. 31 Nos 6/7, pp. 515-525.

Chin, W.W. (1998), "Commentary: issues and opinion on structural equation modelling", *MIS Quarterly*, Vol. 22 No. 1, pp. vii-xvi.

Chin, W.W. and Dibbern, J. (2010), "An introduction to a permutation-based procedure for multi-group PLS analysis: results of tests of differences on simulated data and a cross cultural analysis of the sourcing of information system services between Germany and the USA", in *Handbook of Partial Least Squares*, Springer, Berlin, Heidelberg, pp. 171-193.

Chinomona, R. and Chinomona, E. (2013), "The influence of employees' perceptions of organizational politics on turnover intentions in Zimbabwe's SME sector", *South African Journal of Business Management*, Vol. 44 No. 2, pp. 15-24.

Chiu, W. and Leng, H.K. (2016), "Consumers' intention to purchase counterfeit sporting goods in Singapore and taiwan", *Asia Pacific Journal of Marketing and Logistics*, Vol. 28 No. 1, pp. 23-36.

Chiu, W., Lee, K.-Y. and Won, D. (2014), "Consumer behavior toward counterfeit sporting goods", *Social Behavior and Personality*, Vol. 42 No. 4, pp. 615-624.

Chu, K.M. (2018), "Mediating influences of attitude on internal and external factors influencing consumers' intention to purchase organic foods in China", *Sustainability*, Vol. 10 No. 12, p. 4690.

Cordell, V.V., Wongtada, N. and Kieschnick, R. L. (1996), "Counterfeit purchase intentions: role of lawfulness attitudes and product traits as determinants", *Journal of Business Research*, Vol. 35, pp. 41-53.

Cronley, M.L., Posavac, S.S., Meyer, T., Kardes, F.R. and Kellaris, J.J. (2005), "A selective hypothesis testing perspective on price-quality inference and inference-based choice", *Journal of Consumer Psychology*, Vol. 15 No. 2, pp. 159-169.

Davidson, A., Nepomuceno, M.V. and Laroche, M. (2019), "Shame on you: when materialism leads to purchase intentions toward counterfeit products", *Journal of Business Ethics*, Vol. 155 No. 2, pp. 479-494.

De Matos, C.A., Ituassu, C.T. and Rossi, C.A.V. (2007), "Consumer attitudes toward counterfeits: a review and extension", *Journal of Consumer Marketing*, Vol. 24 No. 1, pp. 36-47, doi: 10.1108/07363760710720975.

Dodds, W.B., Monroe, K.B. and Grewal, D. (1991), "Effects of price, brand, and store information on buyers' product evaluations", *Journal of Marketing Research*, Vol. 28 No. 3, pp. 307-319.

Elsantil, Y.G. and Hamza, E.G.A. (2021), "A review of internal and external factors underlying the purchase of counterfeit products", *Academy of Strategic Management Journal*, Vol. 20 No. 1, pp. 1-13.

Field, A. (2013), *Discovering Statistics Using IBM SPSS Statistics*, Sage, Los Angeles.

Fitzmaurice, J. (2005), "Incorporating consumers ' motivations into the theory of reasoned action", *Psychology and Marketing*, Vol. 22 No. 11, pp. 911-929.

Folse, J.A.G., Burton, S. and Netemeyer, R.G. (2013), "Defending brands: effects of alignment of spokes character personality traits and corporate transgressions on brand trust and attitudes", *Journal of Advertising*, Vol. 42 No. 4, pp. 331-342.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50, doi: 10.1177/002224378101800104.

Fukukawa, K. (2002), "Developing a framework for ethically questionable behavior in consumption", *Journal of Business Ethics*, Vol. 41, pp. 99-119.

Geiger-Oneto, S., Gelb, B.D., Walker, D. and Hess, J.D. (2013), "Buying status by choosing or rejecting luxury brands and their counterfeits", *Journal of the Academy of Marketing Science*, Vol. 41 No. 3, pp. 357-372.

Grossman, G.M. and Shapiro, C. (1988), "Foreign counterfeiting of status goods", *Quarterly Journal of Economics*, Vol. 103 No. 1, pp. 79-100.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: indeed, a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 137-149, doi: 10.2753/MTP1069-6679190202.

Hair, J.F., Jr., Hult, G.T.M., Ringle, C. and Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., Sage Publications, Thousand Oaks, CA.

Haman, M. (2010), "Africa rising to the anti-counterfeiting challenge", *Journal of Intellectual Property Law and Practice*, Vol. 5 No. 5, pp. 344-349.

Haseeb, A. and Mukhtar, A. (2016), "Antecedents of consumer's purchase intention of counterfeit luxury product", *Journal of Marketing and Consumer Research*, Vol. 28 No. 1, pp. 15-25.

Henseler, J. (2017), "Bridging design and behavioral research with variance-based structural equation modelling", *Journal of Advertising*, Vol. 46 No. 1, pp. 178-192.

Herstein, R., Drori, N., Berger, R. and Barnes, B.R. (2015), "Anticounterfeiting strategies and their influence on attitudes of different counterfeit consumer types", *Psychology and Marketing*, Vol. 32 No. 8, pp. 842-859.

Hidayat, A., Hema, A. and Diwasasri, A. (2013), "Factors influencing attitudes and intention to purchase counterfeit luxury brands among Indonesian consumers", *International Journal of Marketing Studies*, Vol. 5 No. 4, pp. 143-151, doi: 10.1080/00913367.2013.795124.

Huang, J.H., Lee, B.C.Y. and Ho, S.H. (2004), "Consumer attitude toward gray market goods", *International Marketing Review*, Vol. 21 No. 6, pp. 598-614.

Irshad, M. and Ahmad, M.S. (2019), "Impact of customers' online motivations on the online purchase intentions: mediating role of consumers' attitudes towards social media marketing", *Business and Economic Review*, Vol. 11 No. 3, pp. 89-111.

Iyer, R., Babin, B.J., Eastman, J.K. and Griffin, M. (2022), "Drivers of attitudes toward luxury and counterfeit products: the moderating role of interpersonal influence", *International Marketing Review*, Vol. 39 No. 2, pp. 242-268.

Jones, T. (2022), "A simple understanding of counterfeit law in South Africa: intellectual Property Law", *Go Legal Industry News and Insight*, available at: https://www.golegal.co.za/counterfeiters-legal-brand-protection/ (accessed 7 November 2022).

Kang, I., Koo, J., Han, J.H. and Yoo, S. (2022), "Millennial consumers perceptions on luxury goods: capturing antecedents for brand resonance in the emerging market context", *Journal of International Consumer Marketing*, Vol. 34 No. 2, pp. 214-230.

Kardes, F.R., Cronley, M.L., Kellaris, J.J., Posavac, S.S., Cronley, M.L., Kellaris, J.J. and Posavac, S.S. (2004), "The role of selective information processing in price-quality inference", *Journal of Consumer Research*, Vol. 31 No. 2, pp. 368-374.

Kennedy, J.P. (2020), "Counterfeit products online", in Holt, T. and Bossler, A. (Eds), *The Palgrave Handbook of International Cybercrime and Cyberdeviance*, Palgrave Macmillan, Cham, doi: 10.1007/978-3-319-78440-3_46.

Khan, S., Fazili, A.I. and Bashir, I. (2021), "Counterfeit luxury consumption: a review and research agenda", *Journal of Consumer Behaviour*, Vol. 20 No. 2, pp. 337-367.

Kock, N. (2015), "Common method bias in PLS-SEM: a full collinearity assessment approach", *International Journal of E-Collaboration*, Vol. 11 No. 4, pp. 1-10, doi: 10.4018/ijec.2015100101.

Lavorgna, A. (2015), "The online trade in counterfeit pharmaceuticals: new criminal opportunities, trends and challenges", *European Journal of Criminology*, Vol. 12 No. 2, pp. 226-241.

Leone, L., Perugini, M. and Ercolani, A.P. (1999), "A comparison of three models of attitude ± behavior relationships in the studying behavior domain", *European Journal of Social Psychology*, Vol. 29, pp. 161-189.

Lianto, V.T. (2015), "The impact of past behavior, attitude towards counterfeit, self-characteristic, and purchase intention of original crocs towards consumer purchase intention of counterfeit crocs", *iBuss Management*, Vol. 3 No. 2, pp. 119-130.

Marcketti, S.B. and Shelley, M.C. (2009), "Consumer concern, knowledge and attitude towards counterfeit apparel products", *International Journal of Consumer Studies*, Vol. 33, pp. 327-337.

Mathieson, K., Peacock, E. and Chin, W.W. (2001), "Extending the technology acceptance model: the influence of perceived user resources", *ACM SigMIS Database*, Vol. 32 No. 3, pp. 86-112.

Matos, C.A., Ituassu, C.T. and Rossi, C.A. (2007), "Consumer attitudes toward counterfeits: a review and extension", *Journal of Consumer Marketing*, Vol. 24 No. 1, pp. 36-47.

Matos, C.A.D., Alberto, C. and Rossi, V. (2007), "Consumer attitudes toward counterfeits: a review and extension", *Journal of Consumer Marketing*, Vol. 24 No. 1, pp. 36-47.

Meira, J.V.D.S. and Hancer, M. (2021), "Using the social exchange theory to explore the employee-organization relationship in the hospitality industry", *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 2, pp. 670-692, doi: 10.1108/IJCHM-06-2020-0538.

Michaelidou, N. and Christodoulides, G. (2011), "Antecedents of attitude and intention towards counterfeit symbolic and experiential products", *Journal of Marketing Management*, Vol. 27, pp. 9-10.

Moon, M.A., Javaid, B., Kiran, M., Awan, H.M. and Farooq, A. (2018), "Consumer perceptions of counterfeit clothing and apparel products attributes", *Marketing Intelligence and Planning*, Vol. 36 No. 7, pp. 794-808.

Morra, M.C., Gelosa, V., Ceruti, F. and Mazzucchelli, A. (2018), "Original or counterfeit luxury fashion brands? The effect of social media on purchase intention", *Journal of Global Fashion Marketing*, Vol. 9 No. 1, pp. 24-39.

Mundel, J., Huddleston, P. and Vodermeier, M. (2017), "An exploratory study of consumers' perceptions: what are affordable luxuries?", *Journal of Retailing and Consumer Services*, Vol. 35, pp. 68-75.

Munsch, A. (2021), "Millennial and generation Z digital marketing communication and advertising effectiveness: a qualitative exploration", *Journal of Global Scholars of Marketing Science*, Vol. 31 No. 1, pp. 10-29.

Murphy, S.T. and Zajonc, R.B. (1993), "Affect, cognition, and awareness: affective priming with optimal and suboptimal stimulus exposures", *Journal of Personality and Social Psychology*, Vol. 64 No. 5, pp. 723-739, doi: 10.1037/0022-3514.64.5.723.

Niemand, T., Mai, R. and Kraus, S. (2019), "The zero-price effect models: the moderating effects of free mentality and price-quality inference", *Psychology and Health*, Vol. 36, pp. 773-790.

Nusair, K. and Hua, N. (2010), "Comparative assessment of structural equation modeling and multiple regression research methodologies: E-commerce context", *Tourism Management*, Vol. 31 No. 3, pp. 314-324.

Office of the United States Trade Representative (2020), "2020 review of notorious markets for counterfeiting and piracy", available at: https://ustr.gov/sites/default/files/files/Press/Releases/2020%20Review%20of%20Notorious%20Markets%20for%20Counterfeiting%20and%20Piracy%20(final).pdf (accessed 21 April 2022).

Organisation for Economic Co-operation and Development (2021a), "Trade in fake goods is now 3.3% of world trade and rising", available at: https://www.oecd.org/newsroom/trade-in-fake-goods-is-now-33-of-world-trade-and-rising.htm (accessed 21 April 2022).

Organisation for Economic Co-operation and Development (2021b), *Global Trade in Fakes: A Worrying Threat, Illicit Trade*, OECD Publishing, Paris, doi: 10.1787/74c81154-en.

Park-Poaps, H. and Jiyun, K. (2018), "An experiment on non-luxury fashion counterfeit purchase: the effects of brand reputation, fashion attributes, and attitudes toward counterfeiting", *Journal of Brand Management*, Vol. 25, pp. 185-196.

Pechmann, C. and Ratneshwar, S. (1992), "Consumer covariation judgments: theory or data driven?", *Journal of Consumer Research*, Vol. 19, pp. 373-386.

Phau, I., Teah, M. and Lee, A. (2009), "Targeting buyers of counterfeits of luxury brands: a study on attitudes of Singaporean consumers", *Journal of Targeting, Measurement and Analysis of Marketing*, Vol. 17 No. 1, pp. 3-15.

Porter, C.M. (2018), "Long live social exchange theory", *Industrial and Organizational Psychology*, Vol. 11 No. 3, pp. 498-504.

Priporas, C., Kamenidou, I., Kapoulas, A. and Papadopoulou, F.M. (2015), "Counterfeit purchase typologies during an economic crisis", *European Business Review*, Vol. 27 No. 1, pp. 2-16.

Quoquab, F., Pahlevan, S., Mohammad, J. and Thurasamy, R. (2017), "Factors affecting consumers' intention to purchase counterfeit product", *Asia Pacific Journal of Marketing and Logistics*, Vol. 29 No. 4, pp. 837-853.

Raosoft Incorporated (2004), "Sample size calculator", viewed 27 January 2022, available at: http://www.raosoft.com/samplesize.html.

Riquelme, H.E., Mahdi, E., Abbas, S. and Rios, R.E. (2012), "Intention to purchase fake products in an Islamic country", *Education, Business and Society: Contemporary Middle Eastern Issues Education*, Vol. 5 No. 1, pp. 6-22.

Samaddar, K. and Menon, P. (2021), "Non-deceptive counterfeit products: a morphological analysis of literature and future research agenda", *Journal of Strategic Marketing*, pp. 1-24.

Sharma, P. and Chan, R.Y.K. (2011), "Counterfeit proneness: conceptualisation and scale development Counterfeit proneness: conceptualisation and scale", *Journal of Marketing Management*, Vol. 27 Nos 5-6, pp. 602-626.

Sheppard, B.H., Hartwick, J., Warshaw, P.R., Sheppard, B.H. and Warshaw, P.R. (1988), "The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research", *Journal of Consumer Research*, Vol. 15 No. 3, pp. 325-343.

Shirai, M. (2015), "Impact of 'high quality, low price' appeal on consumer evaluations impact of 'high quality, low price' appeal on", *Journal of Promotion Management*, Vol. 21 No. 6, pp. 776-797.

Simon, J.L. (2019), *The Economics of Population Growth*, Princeton University Press, New Jersey.

Singh, D.P., Kastanakis, M.N., Paul, J. and Felix, R. (2021), "Non-deceptive counterfeit purchase behavior of luxury fashion products", *Journal of Consumer Behaviour*, Vol. 20 No. 5, pp. 1078-1091.

Souiden, N., Ladhari, R. and Zarrouk Amri, A. (2018), "Is buying counterfeit sinful? Investigation of consumers' attitudes and purchase intentions of counterfeit products in a Muslim country", *International Journal of Consumer Studies*, Vol. 42 No. 6, pp. 687-703.

Spink, J., Moyer, D.C., Park, H. and Heinonen, J.A. (2013), "Defining the types of counterfeiters, counterfeiting, and offender organizations", *Crime Science*, Vol. 2 No. 8, pp. 1-10.

Staake, T. (2009), "The emergence of counterfeit trade: a literature review", *European Journal of Marketing*, Vol. 43 Nos 3/4, pp. 320-349.

Tajvidi, M., Richard, M.O., Wang, Y. and Hajli, N. (2018), "Brand co-creation through social commerce information sharing: the role of social media", *Journal of Business Research*, Vol. 121, pp. 476-486, doi: 10.1016/j.jbusres.2018.06.008.

Terblanche, C. and Niemann, W. (2021), "Counterfeiting: exploring mitigation capabilities and resilience in South African pharmaceutical supply chains", *Acta Commercii*, Vol. 21 No. 1, pp. 1-13.

Thenga, G. (2021), "An evaluative study of criminalistics: a case of South African counterfeiting and knock-off menace", *Open Journal for Legal Studies*, Vol. 4 No. 2, pp. 45-60.

Thi, M. and Nguyen, T. (2017), "Antecedents of the intention and behavior toward purchase of counterfeit luxury goods in an emerging economy: a study of antecedents of the intention of counterfeit luxury goods in an emerging economy", *Organisations and Markets in Emerging Economies*, Vol. 8 No. 2, pp. 73-90.

Thibaut, J.W. and Kelley, H.H. (1959), *The Social Psychology of Groups*, Routledge, New York.

van Walbeek, C. (2014), "Measuring changes in the illicit cigarette market using government revenue data: the example of South Africa", *Tobacco Control*, Vol. 23 No. 1, pp. 69-74.

Viot, C., Le Roux, A. and Krémer, F. (2014), "Attitude towards the purchase of counterfeits: antecedents and effect on intention to purchase", *Recherche et Applications en Marketing (English Edition)*, Vol. 29 No. 2, pp. 3-31.

Wilcox, K., Kim, H.M. and Sen, S. (2009), "Why do consumers buy counterfeit luxury brands?", *Journal of Marketing Research*, Vol. 46 No. 2, pp. 247-259.

Wulandari, A.S.A., Rahyuda, I.K. and Yasa, N.N.K. (2015), "The role of attitude in mediating consumer knowledge influence towards the purchase intention of green product", *Jurnal Dinamika Manajemen*, Vol. 6 No. 2, pp. 133-144.

Yoo, B. and Lee, S.H. (2009), "Buy genuine luxury fashion products or counterfeits?", *Advances in Consumer Research*, Vol. 36, pp. 280-286.

Further reading

McDonald, M. and Roberts, C. (1994), "Products piracy: the problem that will not go away", *Journal of Product and Brand Management*, Vol. 3 No. 4, pp. 55-65.

Rigdon, E.E., Ringle, C.M. and Sarstedt, M. (2010), "Structural modeling of heterogeneous data with partial least squares", in Malhotra, N.K. (Ed.), *Review of Marketing Research*, Emerald Group Publishing, Bradford, pp. 255-296.

Sarstedt, M., Ringle, C.M., Hair and Joseph, F. (2014), "PLS-SEM: looking back and moving forward", *Long Range Planning*, Vol. 47 No. 3, pp. 132-137.

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