The Mediating Effects of Attitude Towards Parallel Imports in Consumer Personality - Purchase Intention Linkage

Norjaya M. Yasin
T. Ramayah
Osman Mohamad
Lim Luan Wah

ABSTRACT

With the advancement in technology, communication and transportation that blur the geographical boundaries among countries, parallel importing has rapidly becoming an important and confounding issue for international trade and management. Authorised distributors are finding ways to combat against parallel imports where gray marketers are improving their sourcing ability to arbitrage on any single opportunity for parallel importing. This study investigates the demand side of the parallel imports market to understand consumers' buying behaviour and examine the underlying factors that influence consumers attitude towards parallel imports and their subsequent to purchase. Results show that risk aversion significantly influences attitude towards parallel imported products and consumer attitudes towards products and channel of parallel imports significantly influence their purchase intention. In the consumer personality and purchase intention linkage, attitude towards parallel import goods partially mediates the relationship, while attitudes towards parallel import channel fully mediates the relationship.

ABSTRAK

Dengan peningkatan dalam teknologi, komunikasi dan pengangkutan yang mengaburi sempadan geografi di kalangan negara-negara, import selari menjadi isu yang semakin penting dan menyukarkan di dalam pengurusan dan perdagangan antarabangsa. Pengedar-pengedar yang berautoriti kini mencari jalan untuk menangani import selari di mana pemasar samar atau 'gray marketers' cuba meningkatkan keupayaan mendapatkan bekalan dan mengambil apa sahaja peluang untuk mengimport selari. Kajian ini cuba menyelidik permintaan pasaran bagi barangan impot selari untuk memahami kelakuan membeli pengguna dan meneliti faktor-faktor yang mempengaruhi sikap pengguna terhadap impot selari dan seterusnya kelakuan membeli. Hasil kajian menunjukkan faktor pengambilan risiko mempengaruhi secara signifikan sikap terhadap barangan import selari dan sikap pengguna terhadap produk dan saluran import selari mempengaruhi secara signifikan niat untuk membeli. Di dalam perhubungan di antara personaliti pengguna dan niat untuk membeli, sikap terhadap barangan import selari menjadi pengantara separuh, manakala sikap terhadap saluran import selari menjadi

pengantara penuh.

INTRODUCTION

Today most business marketing activities are global in scope. Every business must be prepared to face new challenges in an increasingly interdependent global economic environment. Besides meeting price competition between countries and products, companies need to have effective price and distribution controls to guard against competition that might come from within the company and by their own customers. The reason is when multinational companies market their undifferentiated products to different countries, different pricing policies are possible in order to be competitive in each market. This unintentionally creates other problems for the companies themselves. A low price in one country may encourage some traders to transship the products to another country with higher price, creating a new channel of distribution, so called parallel imports, that competes with the authorized channels there.
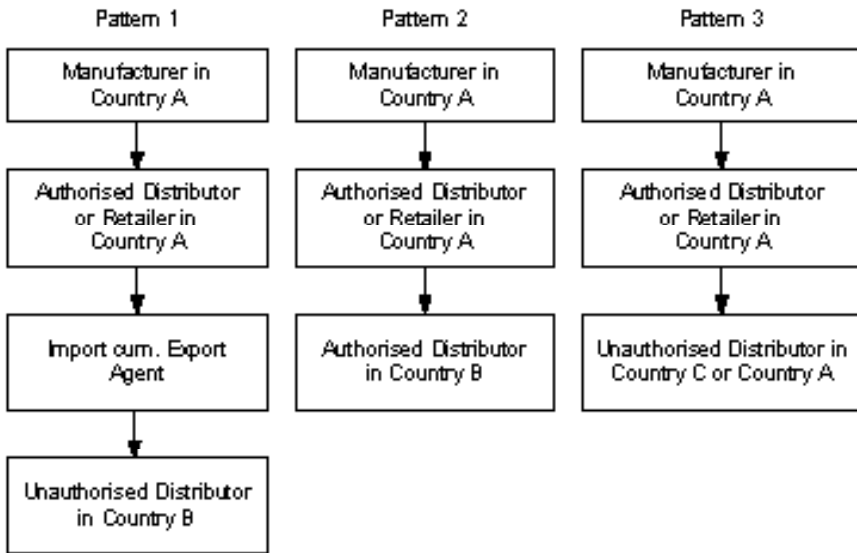
WHAT IS PARALLEL IMPORTS?

Parallel importing or gray marketing occurs when "authentic branded products come into the domestic market through marketing channels other than that of the product's authorised channels" (James 1998; Lee et al. 2000; Ang 2000; Irvine & Margaret 2000; Philip & John 2002). In other words, importers buy the product from distributors in one country and sell them to distributors in their country or in another country who are not part of the manufacturer's regular distribution system. Parallel imports should not be confused with counterfeiting because they are genuine products and do not involve unauthorised product alterations. Counterfeits are reproduced copies that are identically packaged, including trademarks and labeling, so that consumers think that they are the genuine items (Ang 2000). Parallel imports or gray markets which Duhan and Sheffet (1998) suggest as "almost black market" involves selling of trademarked goods through channels of distribution that are not authorised by trademark holders. Therefore, the legitimacy of parallel imports does not involve the legality of the products, but the legality of the means by which they are distributed (Chaudhry & Walsh 1995). The term 'parallel imports' or 'gray markets' are used interchangeably.

　　There are three common patterns of parallel distribution channels. These patterns are shown in Figure 1. Firstly, parallel importers could import from an export agent in another country, from authorised dealers in the manufacturing country or lastly, from the other countries' authorised dealers (James 1998).

　　The flow patterns of parallel imports in developed countries could be different from the developing countries (Chang 1993). International brand names often originate from more developed countries, such as U.S., European Community and

FIGURE 1.   Three common patterns of parallel importing channels

Pattern 1	Pattern 2	Pattern 3
Manufacturer in Country A	Manufacturer in Country A	Manufacturer in Country A
Authorised Distributor or Retailer in Country A	Authorised Distributor or Retailer in Country A	Authorised Distributor or Retailer in Country A
Import cum. Export Agent	Authorised Distributor in Country B	Unauthorised Distributor in Country C or Country A
Unauthorised Distributor in Country B		

Japan. Thus, the multinationals are often concerned with "UBoat Effect," where branded products that are exported return to the home market (James 1998). This means that parallel imports develop by moving the goods from foreign authorized channels of distribution into unauthorized channels of distribution of the original trademark owner's countries.

For instance, recession in Asia in late 1990's has caused many unused heavy equipments in abandoned construction projects re-sold back to U.S. at prices sometimes 50% off list. In another instance, Fuji film which was meant to be sold in the Korean market, packaged in Korean language, was re-imported back into the Japanese market and sold at a discount by retailers in Tokyo, while Fuji film, which is packaged with the Japanese language on the box, is sold at a more expensive price (Rachel et al. 1998). In less developed countries, however, the majority of parallel imported goods do not flow in this direction because these countries are often lack of internationally well-known brands. As a result, parallel imports often come from the original trademark owners' countries or the other countries with authorised dealers (Chang 1993).

In general, gray market exists because of three reasons, firstly, gray marketers have a source of supply, secondly, trade barriers between countries are very low such that it provides easy access from one market to another and finally price differential is large enough to appeal to the profit motives of gray marketers (Chaudhry & Walsh 1995). In addition, fluctuations in exchange rate can also make prices differ across different national markets (Lee et al. 2000), which further encourage

parallel import activities.

In terms of marketing communications, the authorised distributors are normally responsible for communicating with the market, which include advertising, promotions and other marketing actions. Although they have control over the level of advertising effort, they cannot prevent consumers from buying the product from gray marketers (Lee et al. 2000) because consumers normally choose marketers that offer them the best value for money. Gray markets do not engage in advertising, but merely choose to free ride on the advertising efforts of authorised distributors. Because of their cost advantage, gray marketers are able to sell original products at a relatively cheap price than the authorised distributors.

<div align="center">THE IMPACT OF PARALLEL IMPORTS</div>

There are different opinions on the impact of parallel imports. Trademark right owners find that parallel imports interrupt their marketing plans, strain their relationship with authorised dealers, introduce unhealthy competition between authorised and unauthorised channels of distribution, weaken their profits, cause difficulties in maintaining a consistent image, quality, and reputation of a product, affect brand equity and values, create managerial and control problems (James 1998; Matthew 1999; Irvine & Margaret 2000; Eagle et al. 2003). In all these instances, parallel importing leads to channel conflict (Palia & Keown 1991). Twenty-nine per cent of U.S. exporters to the Asia-Pacific region reported that their exclusive/sole agents were experiencing problems with parallel imports and nearly forty-one per cent of the U.S. exporters surveyed have experienced parallel distribution problems in the past (Palia & Keown 1991).

Parallel imports can do long-term damage in the market for trademarked products. This is because customers who unknowingly buy parallel imports have no assurance of the quality of the item they buy, of receiving the same "extended product" as offered by the authorised channel (like warranty support, authorised service or replacement parts). When the products fail, the consumers will blame the owner of the trademark, and the quality image of the product is sullied (Irvine & Margaret 2000; Philip & John 2002). This may affect the image of the original product that is sold through the authorised channels.

Given the opening of doors towards parallel imports in Malaysia, this study was conducted to gain more understanding of the demand of this market. It would be managerially insightful to understand consumer perceptions of parallel imports and examining the reasons behind their favourable attitude and purchase intention towards these products. We empirically examine consumers' value consciousness (Lichtenstein et al. 1990), risk-aversion (Lee et al. 2000), and ethical judgment (Chiu 2002) as significant predictors of attitude towards parallel imports which in turn, predict intention to purchase.

From numerous literature reviews, it is found that not many research regarding parallel imports were done to examine the views from a consumer perspective. Therefore, in order to combat or encourage parallel imports, it is important to first

understand the market. By understanding the influences underlying consumer demand for parallel imports would allow trademark owners to develop effective strategies to promote as well as to defend against gray markets. In the behavioural literature, attitude is one of the more important notions because it is generally thought to be related to behaviour; and an intention will first be created before any behavioural decision. Thus, in order to understand consumers' intention to buy parallel imported products, it is essential to understand their attitude towards parallel imports and the factors that would influence their attitude. In doing so, this research attempts to answer the following key questions:

1. Are consumers' value consciousness, risk-aversion and ethical judgment significant predictors of their attitude towards parallel imports?
2. Does attitude towards parallel imports a significant predictor of intention to purchase parallel imported products?

THEORETICAL FRAMEWORK

As cited by Gilbert (1992), Schreier (1963) describe the general review of the relationship between attitude and behaviour as "when an individual likes a product he will be more inclined to buy it than when he does not like it….(thus), attitudes may be said to be the forerunners of behaviour." Fishbein's theory of reasoned action further explained the relationship where consumers' purchase intention serves as the mediator between their attitude towards a product and their actual purchase behavior (Kim & Pysarchik, 2000). Thus, in order to understand the market of parallel imports, that is consumers' behavior on buying parallel imported goods, it is best to investigate their intention to purchase. Since the purchase intention could be predicted by the consumers' attitude, it is necessary to measure their attitude towards parallel imports and comprehend the underlying factors that influence the attitude.

INTENTION TO PURCHASE

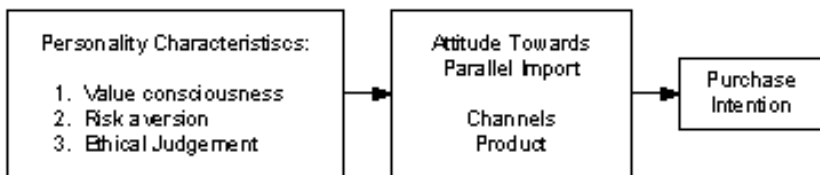A person's intentions refer to the individual's anticipated or planned future be-

FIGURE 2.   The theoretical framework

haviour (Gilbert 1992). According to theory of planned behaviour, cited by Joey (2002), "an individual's performance of a certain behavior is determined by his or her intent to perform that behavior. Intent itself is informed by attitudes toward the behaviour, subjective norms about engaging in the behaviour, and perceptions about whether the individual will be able to successfully engage in the target behaviour". Thus, this study uses consumer's intention to purchase a product as the ultimate dependent variable.

ATTITUDE TOWARDS PARALLEL IMPORTS

Attitude refers to an individual's "preference, inclination, views or feelings towards some phenomenon" (Gilbert 1992). In this study, attitude towards parallel imports refers to consumer's general evaluation of the imported products that are purchased through the unauthorised channels. The attitude is measured from two perspectives: firstly, the consumers' perception on the product attributes and secondly, on the services of parallel importers. In this study, five product attributes that are related to parallel imports are reliability, worth buying, quality, safety and genuineness. Ang (2000) has found that consumers' perception of parallel imports in terms of beneficial and image properties influenced purchase intentions. Based on this literature, it is hypothesized that:

Hypothesis 1: Consumers' attitude towards parallel imported product is positively related to the intention to purchase gray market goods.

SERVICE AND CONTRIBUTION OF PARALLEL IMPORTERS

Consumers' attitude towards services provided by parallel importers and their contribution to society might influence their intention to buy gray market goods. There are a few perspectives that were investigated in the study. They are warranty, service, store image, responsibility and trustworthiness of gray market traders. The contribution of parallel import channels are measured by their fairness to authorised dealers, utilising distribution and social benefit. Thus, it is hypothesized that:

Hypothesis 2: Consumers' attitude towards parallel import channel is positively related to the intention to purchase gray market goods.

VALUE CONSCIOUSNESS, RISK AVERSION AND ETHICAL JUDGMENT

It is generally agreed that personality traits do influence consumers' perceptions and buying behaviour. As such, this study tries to determine whether consumers' value consciousness, risk aversion, and ethical judgment, would affect consumers' attitude towards parallel imports.

VALUE CONSCIOUSNESS

According to Zeithaml (1988), value consciousness is consumer's overall assessment of the utility of a product based on what is received and what is given. It is a concern for paying low prices but subject to some quality constraint (Lichtenstein et al. 1990; Monroe & Petroshius, 1981). The lower the price, the higher is the probability of purchase. In this case, parallel imported products increase the perceived value of a purchase through gaining a branded genuine product with lower prices, as compared to prices offered by authorised retailers. Thus, a positive relationship is predicted between value consciousness and attitude towards parallel imported goods and subsequently intention to purchase the product.

Hypothesis 3: Individuals who are more value conscious have a more favourable attitude towards parallel imports.

RISK AVERSION

To the extent that a consumer cannot always be certain that all of his or her buying goals would be achieved, risk is perceived in most purchase decisions (Tan, 1999). Buying parallel imported goods would expose consumers' risk of buying counterfeits or illegally imported products. Thus, consumers might perceive that purchasing parallel imported goods as a risky attitude. Risk-averse consumers would not be willing to take the risk but to buy from authorised distributors as compared to less risk-averse consumers. Thus, we hypothesized that:

Hypothesis 4: Individuals who are less risk-averse would have a more favorable attitude towards parallel imports.

ETHICAL JUDGMENT

Parallel importing is "gray" because although it is generally legal, it is ethically uncertain. The reason is gray market violates a traditional business assumption that firms, and business people, will behave ethically, honour contracts, and deal fairly. In fact, parallel traders gets a "free-ride" by selling product that was promoted by the authorised distributor (Mathur & Lynette 1995). Parallel imports are also related to a few illegal activities. For instance, parallel importers illegally under invoice or misdeclare goods in order to get a lower import duty assessed. Another example is where parallel channel smuggle goods into the domestic market without customs' supervision (James 1998). In this study, purchasing parallel imports might be unknowingly supporting illegal activities. Since ethical judgment is an integral component of an individual's reasoning about difficult issues (Chiu 2002), consumers' whose ethical standards are high are predicted to be less likely to knowingly purchase parallel imported goods.

Hypothesis 5: Individuals with lower ethical judgment would have a more favorable attitude towards parallel imports.

METHODOLOGY

This is a cross-sectional study focusing on consumers who are aware of the parallel importation, whether he or she has not purchase or have knowingly or unknowingly purchase parallel imported goods. The population in this study consists of consumers who are aware of the availability of parallel imported goods in Penang, a small state in the northern part of Malaysia. The sampling technique is purposive judgmental sampling because this research intends to understand consumer inclination towards parallel imported products and only consumers who are aware of the activities are in better position to provide their perceptions on the parallel imported products and the channel. For the purpose of data collection, only shopping products are focused, that is, the respondents must have knowledge or have had experience purchasing goods such as T-shirts, shoes, handbags and jeans through the unauthorised dealers. These products can be obtained from authorised distributor and the gray marketers which offer the same brands and are sourced directly or indirectly from the same manufacturer. The products are therefore identical in terms of quality and features. The study uses a self-administered questionnaire which were distributed to students (undergraduates and MBA students), and employees of organisations who were willing to participate in the study. The sample size for this study was determined using the table for determining the sample size from a given population with the desired accuracy as suggested by Reaves (1992). The samples in this study are restricted to adults of age 18 and above irrespective of whether they are students or employed. A total of 230 questionnaires were distributed, 215 were collected back. 31 respondents that stated their unawareness of parallel imports were excluded from the study. Hence only 184 questionnaires are usable which represents an 80% return rate.

VARIABLE MEASURES

Measurement of the independent variables is based on 20 items representing value consciousness, risk aversion, and ethical judgment. All the variables except 'ethical judgment' were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Value consciousness, measured by 4 items which were adopted from Lichtenstein et al. (1990) and 6 items measuring risk aversion were adapted from Griffin et al. (1996) and Keng et al. (1995). Ethical judgment was measured by 10 items on a 5-point scale ranging from "Not at All Unethical" to "Highly Unethical," was adopted from Subhash & Kau (1984). 12 items were used to measure attitude towards product and gray market channel. These items were self constructed for the purpose of this study. Examples of these items are: *Parallel-imported products are usually not reliable, Parallel-imported products usually are not backed up by warranties from the manufacturer and I don't trust stores that sell parallel-imported products and Parallel-importers are not fair to the authorised distributors because they rob their exclusivity".* Intention to purchase was measured using 4 items which include the likeliness of respondents to

purchase parallel imported products and to continue support stores that sell parallel imported products. The measurements were adapted from Kim and Pysarchik, (2000). Finally, data on demographics, such as gender, age, educational level, occupation and personal monthly income were also gathered.

RESULTS

RESPONDENTS' PROFILE

A total of 184 usable questionnaires were gathered in this study. Appendix 1 presents the complete demographic profile of the sampled respondents.

EXPLORATORY FACTOR ANALYSIS

Factor analyses were performed for each category of variables (independent, mediating and dependent variables), using principal component analysis with varimax rotation. The items were selected if their factor loadings were greater than or equal to .50 and cross-loadings with less than 0.35. This is consistent with the works of past researchers such as Igbaria, Livari and Maragahh (1995). The factor analysis for the independent variables produced four factors with eigen values greater than 1 contributing 70.01% to item variance. The factors and their corresponding items selected were then grouped and renamed accordingly. The names value consciousness and risk aversion were retained. The items measuring 'ethical judgment' appeared in two components and thus named 'ethical standard 1' and ethical standard 2'.

RELIABILITY ANALYSIS

After components of variables were extracted from factor analysis using varimax rotation, reliability test was conducted to assess the "goodness" of a measure. Table 1 shows the reliability coefficients (Cronbach's alpha) of the variables which ranges from 0.55 to 0.86. Basically, all the variables in the study show acceptable Cronbach's alpha values, which are more than 0.6 except for 'Attitude towards channel" (0.55). The weak alpha value indicates that there may be additional elements that have not been included in the study. However, a variable will be dropped if its alpha value is less than 0.5. Therefore, the variable 'Attitude towards channel" is still included in the subsequent analyses.

CORRELATION AND REGRESSION ANALYSIS

A correlation analysis between the variables and purchase intention appeared to be significant and positively correlated for attitude towards parallel imported products with $r = 0.345$, attitude towards parallel imports channel with $r = 0.310$, and risk aversion with $r = 0.262$. The results indicated positive relationship of the variables

TABLE 1.   Reliability assessment of variables

Variables	No. of Items	Cronbach's Alpha
Intervening Variables		
Attitude towards Product	5	0.82
Attitude towards Channel	3	0.56
Independent Variables		
Value Consciousness	4	0.82
Risk Aversion	5	0.74
Ethical Standard Component 1	3	0.85
Ethical Standard Component 2	4	0.66
Dependent Variable		
Intention to Purchase	4	0.87

with intention to purchase as suggested in the hypotheses. However, the relationship between value consciousness, ethical judgment and intention to purchase appeared to be not significant.

In testing the hypotheses, multiple regression analyses were conducted to further examine the relationships between independent variables, intervening variables and the dependent variable.

RELATIONSHIP BETWEEN PERSONALITY CHARACTERISTICS AND ATTITUDE TO-
WARDS PARALLEL IMPORTS

Table 3 shows the relationship between value consciousness, risk aversion, ethical judgment and attitude towards parallel imported products. The result indicated

TABLE 2.   Correlation analysis

Dependent Variables	Intention to Purchase	
	Pearson Correlation (r)	Sig. (2-tailed)
Intervening Variables		
Product	0.345	P = 0.000**
Channel	0.310	P = 0.000**
Independent Variables		
Value Consciousness	0.059	P = 0.426
Risk Taking	0.262	P = 0.000**
Ethical Standard Component 1	0.061	P = 0.408
Ethical Standard Component 2	0.010	P = 0.898

that the *F* value of 4.18 is significant at a confidence level of 0.05, and R^2 of 0.14 indicated that the independent variables could only explained about 14% of the variance in attitude towards parallel imported products. However, the model has an acceptable fit. The result shows that there is no serious multicollinearity problem in the model, which is indicated by the small values of the VIF (Variance Inflation Factor) ranging from 1.09 to 1.12 which is well below 10.0; where as the tolerances are higher than 0.10 ranging from 0.89 to 0.92. The Durbin-Watson value of 2.07 still falls within the acceptable range of 1.5 to 2.5, implying that there was no serious auto-correlation problem in the error terms. From Table 3, risk-taking attitude is found to have a significant positive relationship with the attitude towards parallel imported products, at the significance level of less than 5%. Thus, the findings supported Hypothesis 4 that less risk-averse individuals would have a more favorable attitude towards parallel imported products.

RELATIONSHIP BETWEEN PERSONALITY CHARACTERISTICS AND ATTITUDE TOWARDS PARALLEL IMPORTS CHANNEL

Table 4 shows the relationship between value consciousness, risk aversion, ethical

TABLE 3. Relationship between personality characteristics and attitude towards parallel imports

Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
Value Consciousness	2.06	0.08	-0.06	-0.73	0.46	0.89	1.12
Risk Aversion	-0.06	0.07	0.22	2.95	0.00	0.90	1.11
Ethical Standard 1	0.20	0.07	0.06	0.76	0.45	0.86	1.17
Ethical Standard 2	0.06	0.06	0.08	1.06	0.29	0.92	1.09

Significant at $p < 0.05$
$R^2 = 0.14$, $F = 4.18$, Significance $F = 0.00$, Durbin-Watson = 2.07

judgment and attitude towards parallel imports channel. The *F* value for this model is 3.93 and is significant at $p < 0.05$. The R^2 of 0.14 indicated that there is 86.% of variance in attitude towards parallel imports channel leaving unexplained by the independent variables. Nevertheless, the model still has an acceptable fit. The results of VIF that are less than 10.0 and tolerances that are more than 0.10 revealed that there is no serious multicollinearity problem in the model. There was no serious auto-correlation problem in the error terms since the Durbin-Watson value of 2.10 still falls in the acceptable range of 1.5 to 2.5. From Table 4, it is found that only variable Ethical Standard component 2, has a significant relationship with the attitude towards parallel imports channel. All the other variables including Ethical Standard component 1 are insignificant. Therefore, from the results shown

TABLE 4. Relationship between independent variables and attitude towards channel of parallel imports

Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
Value Consciousness	-0.15	0.09	-0.13	-1.68	0.09	0.89	1.12
Risk Aversion	0.04	0.07	0.04	0.54	0.59	0.92	1.09
Ethical Standard 1	-0.14	0.08	-0.14	-1.80	0.07	0.86	1.16
Ethical Standard 2	0.13	0.067	0.47	1.96	0.05	0.92	1.09

Significant at $p < 0.05$

$R^2 = 0.14$, $F = 3.93$, Significance $F = 0.00$, Durbin-Watson = 2.10

on Table 4, Hypothesis 3 and Hypothesis 4 are not supported. The hypothesis that individuals with lower ethical judgment would have a more favorable attitude toward parallel imports channel is only partially supported.

RELATIONSHIP BETWEEN ATTITUDE TOWARDS PARALLEL IMPORTS AND INTENTION TO PURCHASE

With an F value of 25.83 that is significant at 95% confidence level, the result shows the predictive strength of attitude towards parallel imports on intention to purchase. The R^2 value of 0.23 indicates that 23% of the variance in the dependent variable is explained by the attitude of consumer towards parallel imports. Furthermore, this model has no serious multicollinearity problem with the VIF of less than 10.0 and tolerance value of more than 0.10. There is also no serious auto-correlation problem in the error terms since the Durbin-Watson value of 1.73 falls in the acceptable range of 1.5 to 2.5.

The findings also show that attitude towards product and channel has a positive significant relationship with intention to purchase parallel imported products. These

TABLE 6. Relationship between attitude towards parallel imported products and channel with intention to purchase

| Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
Attitude towards Channel	0.25	0.07	0.23	3.40	0.00	0.94	1.06
Attitude towards Product	0.43	0.08	0.36	5.33	0.00	0.94	1.06

Significant at $p < 0.05$

$R^2 = 0.23$, $F = 25.83$, Significance $F = 0.00$, Durbin-Watson = 1.73

results supported Hypotheses 1 and 2 where consumers' attitude towards parallel imported products and channel are positively related to intention to purchase gray market goods. The results further revealed that attitude towards product has the most influence on purchase intention of parallel imported products, with the beta value of 0.36 as compared to attitude towards channel with beta value of 0.23.

MEDIATING EFFECTS OF ATTITUDE TOWARDS PARALLEL IMPORTS ON THE LINKAGE BETWEEN CONSUMER PERSONALITY AND PURCHASE INTENTION

Four sets of multiple regression models and two sets of 2-stage hierarchical regression models are employed in the investigation of mediating effects. To demonstrate mediating effects, the following conditions must exist as suggested by Baron & Kenny (1986):

1. The independent variables (personality characteristics) must be significantly related to the mediating variables (attitude towards parallel import products and channel).
2. The independent variable (personality characteristics) must be significantly

Independent Variable   Dependent Variable

X Z

Y

Intervening Variable
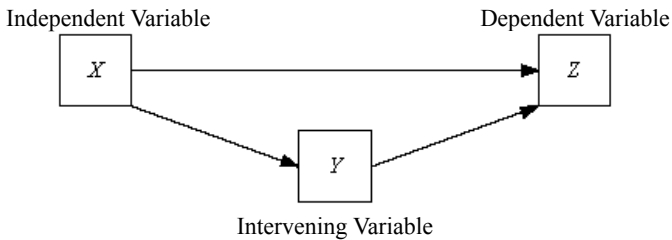
Steps in testing:

$$Z = f(X) \qquad = a + bX$$
$$Y = f(X) \qquad = c + dX$$
$$Z = f(Y) \qquad = e + fY$$
$$Z = f(X, Y) \qquad = g + hX + jY$$

Full mediator effect:

$b \neq 0$
$d \neq 0$
$f \neq 0$ also $j \neq 0$
$h = 0$

Partial mediator effect:

$b \neq 0$
$d \neq 0$
$f \neq 0$ also $j \neq 0$
$h \neq 0$ but $h < b$

Source: Baron & Kenny (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations. *Journal of Personality and Social Psychology*, Vol. 51, March, pp. 473-481

FIGURE 3.   Testing mediating effect

related to the dependent variable (intention to purchase).
3. When the effect of the mediating variables (attitude towards parallel imports) is added in the relationship between the independent (personality characteristics) and dependent variable (intention to purchase), the beta coefficients must be significantly decreased.
4. The relationship between the mediating variable (attitude towards parallel imports) and the dependent variable (intention to purchase) must be significant.

MEDIATING EFFECTS OF PARALLEL IMPORT PRODUCTS

From Table 3 and 4, the independent variables studied have significant relationships with both variables attitude towards parallel imported goods as well as channel. In the relationship between the independent and dependent variables, only risk aversion is found to have a significant relationship with purchase intention as shown in Table 7 below.

Hierarchical regression analysis were carried out to ascertain whether there are any mediating effects of attitude towards parallel imported products on the relationship between risk aversion and purchase intention. Table 8 shows the result of hierarchical regression. Model 1 indicates the regression without the mediating

TABLE 7.   Relationship between independent variables and intention to purchase

Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
Value Consciousness	0.145	0.102	0.104	1.420	0.157	0.889	1.124
Risk Aversion	0.250	0.082	0.220	3.036	0.003	0.915	1.093
Ethical Standard 1	0.024	0.091	0.020	0.265	0.791	0.856	1.168
Ethical Standard 2	0.039	0.075	0.038	0.522	0.602	0.919	1.088

Significant at $p < 0.05$
$R^2 = 0.16$, $F = 4.868$, Significance $F = 0.000$, Durbin-Watson = 1.86

imported products does mediate the relationship between risk aversion and purchase intention. However, in order to identify the extent of the mediating effect of attitude towards parallel imports on each significant independent variable in the model, Baron and Kenny's steps in assessing mediator effects of an intervening variable are followed. For mediating effects to exist, the beta coefficients in Model 2 should be less than in Model 1 as indicated in Table 9 below.

MEDIATING EFFECTS OF ATTITUDE TOWARDS PARALLEL IMPORTED CHANNEL

The hierarchical regression was also carried out to ascertain whether there are any

TABLE 8. Hierarchical regression of independent variables, attitude towards parallel imported products and intention to purchase

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	F	Sig. F	Change Statistics		
							R^2 Change	F Change	Sig. F Change
1[a]	0.391	0.153	0.119	0.76324	4.441	0.000	0.153	4.441	0.000
2[b]	0.707	0.245	0.209	0.72294	6.920	0.000	0.092	20.714	0.000

[a]predictors: (Constant), value consciousness, risk taking attitudes, ethical standard 1, ethical standard 2,
[b]predictors: (Constant), value consciousness, risk taking attitudes, ethical standard 1, ethical standard 2,
Durbin-Watson - 1.774

variable while Model 2 indicates the regression with the inclusion of the mediating variable.

From Table 8 above, the value of R^2 for both models 1 and 2 with intention to purchase, as dependent variable is 0.153 and 0.245 respectively, with F values that are statistically significant. This means that the independent variables explain 15.3% of the variation of purchase intention while the mediator explains additional of 9.2% of the variation. Hence, the results indicate that attitude towards parallel

TABLE 9. Coefficient of hierarchical regression of independent variables, attitude towards parallel imported products and dependent variable (Intention to purchase)

Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
Value Consciousness	0.135	0.100	0.100	1.352	0.178	0.892	1.122
Risk Aversion	0.262	0.081	0.239	3.251	0.001	0.911	1.098
Ethical Standard 1	0.023	0.090	0.020	0.260	0.795	0.853	1.173
Ethical Standard 2	-0.000	0.074	-0.001	-0.012	0.991	0.916	1.091
Value Consciousness	0.144	0.095	0.107	1.521	0.130	0.891	1.122
Risk Aversion	0.212	0.077	0.193	2.746	0.007	0.892	1.121
Ethical Standard 1	0.011	0.085	0.009	0.130	0.896	0.852	1.174
Ethical Standard 2	-0.051	0.071	-0.050	-0.714	0.476	0.895	1.118

* Significant at $p < 0.05$

mediator effects of attitude towards parallel imports channel on the relationship between risk aversion and intention to purchase.

From Table 10 below, both models have a significant F value and the R^2 is 0.168 and 0.236 respectively. The additional explanatory power of the dependent variable due to attitude towards parallel imported channel is 6.7%, indicating ex-

istence of mediating effect. Baron and Kenny's mediator assessing steps was also carried out to provide more insight information on the mediating effect on each significant independent variable in the model. From Table 11, the beta coefficients in Model 2 is less than in Model 1, which fulfill the requirements of mediation.

From the results shown above, risk aversion is found to be significant in the regressions mediated by attitude towards parallel imported products, with a decrease in the beta coefficients. This indicates that attitudes towards parallel imported goods have partial mediating effects on the linkage between risk aver-

TABLE 10. Hierarchical regression of independent variables, attitude towards parallel imports channel and intention to purchase

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	F	Sig. F	R^2 Change	F Change	Sig. F Change
							Change Statistics		
1[a]	0.410	0.168	0.135	0.77063	5.006	0.000	0.168	5.006	0.000
2[b]	0.486	0.236	0.200	0.74089	6.634	0.000	0.067	15.166	0.000

[a]predictors: (Constant), value consciousness, risk taking attitudes, ethical standard 1, ethical standard 2,
[b]predictors: (Constant), value consciousness, risk taking attitudes, ethical standard 1, ethical standard 2, Durbin-Watson - 1.852

TABLE 11. Coefficient of hierarchical regression of independent variables, attitude towards parallel imports channel and intention to purchase

Independent ity Variables	Unstandardised Coefficients		Standardised Coefficients			Collinear- Statistic	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Value Consciousness	0.119	0.101	0.087	1.177	0.241	0.888	0.127
Risk taking Attitudes	0.260	0.081	0.232	3.199	0.002*	0.914	1.094
Ethical Standard 1	0.024	0.090	0.020	0.271	0.787	0.858	1.165
Ethical Standard 2	0.015	0.075	0.015	0.212	0.833	0.919	1.089
Value Consciousness	0.145	0.098	0.105	1.486	0.139	0.884	1.132
Risk taking Attitudes	0.252	0.078	0.225	3.223	0.002*	0.914	1.094
Ethical Standard 1	0.065	0.087	0.055	0.753	0.452	0.846	1.182
Ethical Standard 2	-0.035	0.073	-0.034	-0.487	0.627	0.889	1.125

towards parallel imports is a significant predictor of intention to purchase. This implies that marketers of parallel import goods should carefully plan their marketing communications so as to instill the right attitude among consumers towards their

TABLE 12. Relationship between risk aversion and purchase intention mediated by attitudes towards parallel import products and channel

Independent variable	Mediating Variable (Attitudes Towards Paralle l Imports)	Model 1 (IV & DV)	Model 2 (IV & DV with MV)	Result
		Std. Beta	Std. Beta	
Risk Aversion	Attitude Towards Parallel Imported products	0.220*	0.193*	Partial mediation
Risk Aversion	Attitude Towards Parallel Imported Channel	0.220*	0.039	Full mediation

* *p* < 0.001

sion and purchase intentions. On the other hand, risk aversion is not found to be significant in the regressions mediated by parallel import channel which indicates full mediation of parallel import channel on the relationship between risk aversion and purchase intention.

DISCUSSION AND IMPLICATIONS

This study investigates whether personality traits such as value consciousness, risk aversion and ethical judgment influence attitude towards parallel imports which in turn influences consumers' intention to purchase. The findings show that consumers who are less risk averse seem to have a more favourable attitude towards parallel imports while personality traits such as value consciousness and ethical judgment do not seem to influence consumer attitudes towards goods that are parallel imported. This indicates that consumers who buy parallel imported products are risk-takers. They are willing to take the risk and buy from unauthorised distributors as compared to risk-averse consumers. This finding therefore answers the first research question. It also implies that marketers of parallel imports should focus on less risk averse consumers exclusively as their main target markets. Value consciousness surprisingly does not seem to influence consumers' attitude towards parallel imports, although it is known that parallel imported goods are sold much cheaper than products sold through authorised distributors.

In terms of parallel imports channel, the results indicate that to a certain extent, individuals with lower ethical judgment would have a more favourable attitude towards parallel imports channel. This means that people with lower ethical values are not very particular about the place where they purchase their goods. Conversely, people whose ethical values are high would not simply buy goods from parallel import channels but instead would purchase the goods from the authorised channels.

The findings also indicate that consumers' attitude towards parallel imports in terms of its products and marketing channel do influence their intention to purchase goods in the gray market. Thus, it answers the research question that attitude

products. This could be done through proper communication between sellers and buyers emphasizing on the authenticity of the products and the value for money that they are offering.

On the other hand, marketers of trademarked products in the authorised distribution system should emphasized their augmented products such as warranty support, authorised service or replacement parts in order to encourage consumers to buy imported goods from the proper channels rather than from the unauthorized distribution system. For example, an advertising campaign could caution prospective buyers about the importance of warranty and after-sales service provided that could only be obtained through authorised dealers. Marketers of trademarked products could also provide special trade or promotional allowances to the sole agents to help them compete with unauthorised dealers so that they could offer their products at competitive prices with not much price differentials with that of the unauthorised dealers. If it is possible to have a one-price-for-all or an aggressive price-cutting strategy, it would be much easier to control the marketing channels and minimise channel conflicts. In fact, fair and equitable pricing policies to all sole agents can reduce the opportunities for parallel importers (Palia & Keown 1991).

On the whole, although parallel importers or gray marketers pose marketing problems and create channel conflicts, their existence do generate greater demands for the manufacturer's products and bring in more tax revenues for the firm. The presence of gray marketers also forces the authorised distributor to lower prices or offer price discounts which will benefit all consumers. However, this would reduced the expected profits of authorised dealers and manufacturers which would, in turn, reduced the incentives of original manufacturers to invest in research and development (Li & Maskus 2005).

SUGGESTIONS FOR FUTURE RESEARCH

This study only focuses on three personality traits as factors influencing consumer attitude. Many other personality traits and other factors exist such as demographic factors that could affect consumer attitude. Future research should attempt to examine the influence of such factors on attitude and intention to purchase. In addition, the present study does not specify product categories. A replication of the study with different product categories in different industries would be beneficial in understanding the extent of the model's usefulness. Whether the theories of the present study hold for different product categories should be examined.

REFERENCES

Ang, S.H. 2000. The influence of physical, beneficial and image properties on responses to parallel imports. *International Marketing Review* 17(6): 509-524.
Chaudhry, P.E. & Walsh, M.G. 1995. Gray marketing of pharmaceuticals. *Journal of Health Care Marketing* Fall 15(3): 18-22.

Chiu, R.K. 2002. Ethical judgment, locus control, and whistle blowing intention: a case study of mainland Chinese MBA students. *Managerial Auditing Journal* 17(9): 581-587.

Corliss, L.G. 1996. Ethnic response to couponing: a motivational perspective. *Journal of Consumer Marketing* 13 (2): 14-25.

Duhan, D.F. & Sheffert, M.J. 1998. Gray markets and the legal status of parallel importing. *Journal of Marketing* 52 (Jualy): 75-83.

Eagle, L., Kitchen, P.J., Rose, L. & Moyle, B. 2003. Brand equity and brand vulnerability: The impact of gray marketing/parallel importing on brand equity and values. *European Journal of Marketing* 37(10): 1332-1349.

Gilbert, A. C. Jr. 1992. *Basic Marketing Research*. U.S.A. The Dryden Press.

Griffin, M., Babin, B. J. & Attaway, J.S. 1996. Anticipation of injurious consumption outcomes and its impact on consumer attributions of blame. *Academy of Marketing Science Journal*. 24(4): 314-327.

Irvine, C. III, & Margaret, O. 2000. Trademark rights in gray markets. *International Marketing Review*. 17(2/3): 272-286.

Igbaria, M., Livari, J., & Maragahh, H. 1995. Why do individuals use computer technology? a Finnish case study. *Information and Management* 29: 227-238.

James, M. A supplemental distribution channel? The case of U.S. parallel export channels. *Multinational Business Review*. Spring 1998. <http://findarticles.com/p/articles/mi-qa3674/is_199804/ai_n88009900/?tag=content;col1>

Joey, F.G. 2002. Influences on the intent to make Internet purchase. *Internet Research: Electronic Networking Applications and Policy* 12(2): 165-180.

Keng, K.A., Richmond, D. & Han, S. 1995. Determinants of consumer complaint behavior: A study of Singapore consumers. *Journal of International Consumer Marketing* 8(2): 59-76.

Kim, S. & Pysarchik, D.T. 2000. Predicting purchase intentions for uni-national and bi-national products. *International Journal of Retail & Distribution Management* 28(6): 280-291.

Lee, K.S., Lim, G.H. & Tan, S.J. 2000. Strategic management of gray marketing. *Journal of Strategic Marketing* 8: 67-88.

Li, Changying & Maskus, K.E. 2006 The impact of parallel im[orts on investments in cost-reducing research and development. *Journal of International Economics* 443-455.

Lichtenstein, D., Netemever, R. & Burton, S. 1990. Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective. *Journal of Marketing* 54: 54-87.

Mathur, L.M. 1995. The impact of international gray marketing on consumers and firms. *Journal of Euro – Marketing* 4(2): 39-59.

Matthew, B.M. 1999. Incidents of gray market activity among U.S. exporters: Occurrences, characteristics, and consequences. *Journal of International Business Studies* 30(1): 1-25.

Monroe, K.B. & Petroshius, S.M. 1981. Buyers perception of price: An update of the evidence. In *Perspectives of Consumer behavior,* edited by H. Kassarjian & T.S. Robertson. Glenview, H: Scott, Foresman and Company 43-55.

Palia, A.P. & Keown, C.F. 1991. Combating parallel importing: Views of US exporters to the Asia-Pacific region. *International Marketing Review* 8(1): 47-56.

Philip, R.C. & John, L.G. 2002. *International Marketing*. New York: McGraw-Hill.

Tan, S.J. 1999. Strategies for reducing consumers' risk aversion in Internet shopping. *Journal of Consumer Marketing* 16(2): 163-180.

Zeithalm, V.A. 1988. Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing* 52: 2-22.

Norjaya M. Yasin
School of Business Management
Faculty of Economics and Business
Universiti Kebangsaan Malaysia
43600 UKM, Bangi
Malaysia
Email: norjaya@ukm.my

Appendix 1.   Demographic Profiles

	Frequency *n* = 184	Percent
Genders:		
Female	78	42.4
Male	106	57.6
Age:		
Below 20	0	0
20 – 29	93	50.5
30 – 39	70	38.0
40 – 49	18	9.8
50 & above	3	1.6
Race:		
Malay	29	15.8
Chinese	135	73.4
Indian	18	9.8
Others	2	1.1
Educational Level:		
PMR or below	0	0
SPM	12	6.5
STPM	5	2.7
Diploma	22	12.0
Bachelor Degree	109	59.2
Postgraduate	36	19.6
Occupation:		

Professional/Manager	73	39.7
Executive/Supervisory/Technical	37	20.1
Clerical	9	4.9
Sales/Service	19	10.3
Production	3	1.6
Self employed	3	1.6
Housewife	0	0
Student	39	21.2
Retired	1	0.5
Others	0	0
Personal Monthly Income:		
Not working	40	21.7
RM2000 or less	11	6.0
RM2001 – RM3499	64	34.8
RM3500 – RM4499	35	19.0
RM4500 – RM5999	21	11.4
RM6000 & above	13	7.1