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Subhani, Muhammad Imtiaz; Osman, Amber

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Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
Düsternbrooker Weg 120
24105 Kiel (Germany)
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)
<https://www.zbw.eu/>

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Do Firms post Prices after Seeing the Cost Pricing Programs of Competitors?

Muhammad Imtiaz Subhani¹, Amber Osman²

Abstract: The price tag on any product has always been enticing to customers irrespective of the era and is a key factor in the purchase intention decision. Pricing behavior incorporates strategies to position the brand in the market. This paper explored whether the pricing strategy (setting market price) of a firm is determined by its own production cost for a product or by the cost pricing programs of other firms (competitors). It found that the pricing strategy for a product varies among firms. The findings confirmed that for high involvement substitutes, the pricing behavior of a firm mainly depends on its own production cost, in contrast to low involvement substitutes. The AR (1) process is present in the series of market prices for both of the HI substitutes, which reflects that pricing programs for HI substitutes for current and future periods also rely on their pricing history. The AR1-process was reversed for LI substitutes.

Keywords: Market price; cost price; high involvement products; low involvement products; substitute brands; pricing behavior model; ARDL Model

JEL Classifications: D4; L1; R3; R4

1. One Sentence Summary

The proposed derivative model of pricing behavior based on a firm's own cost and on other firms' costs was analyzed and tested; high involvement products/brands post prices based on their own costs, while low involvement products/brands post prices after seeing the cost pricing programs of their competitors (other firms' costs).

2. Do Firms post Prices after seeing the cost Pricing Programs of Competitors?

Pricing demands concentration when placing a product in the market. Pricing is taken as the monetary value to buy a certain product or brand. Cost is incurred while producing and packaging the product, and firms generally want to keep manufacturing costs low to gain turnover. The principle of a pricing strategy generally is that as the costs increase, so do the potential profits. This entails aggressive competition and requires proper planning when assigning a price to a product.

The cost and price of a product decide many things a firm should lead and process in its work flow. For instance, the cost decides whether the product should be assembled in-house or outsourced. For

¹ ILMA University, Department: Office of Research, Innovation & Commercialization, Pakistan, Corresponding author: drsubhani73@gmail.com.

² Law Offices of Osman & Co., Department: Research & Development / IP, E-mail: amber.osman@yahoo.com.

example, Nike and many other shoe brands outsource their shoe making to developing countries, which controls their costs while maintaining the highest quality – as the label is targeted to the market. Another way of tagging a price to a product is by conducting an industry analysis (Dale, 1995).

Famous and commonly used strategies for a product price are skimming, economy, penetration and premium, as seen in Figure 1.

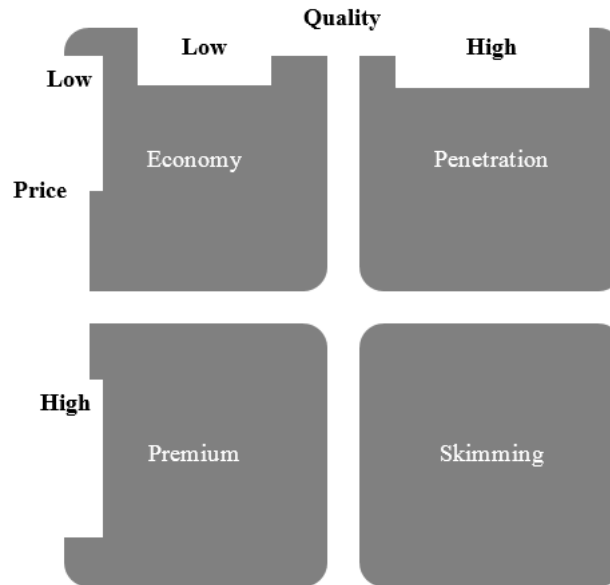


Figure 1. Pricing Strategies

Source: Marketing Teacher Ltd., 2012

Others in the price strategy league are geographical, captive, promotional, product bundle, optional product, product lining and value pricing. Any chosen pricing strategy is based on the competitor's price, current value of the product, etc. (Indounas & Avlonitis, 2011).

3. Literature Review

To set the final price of a product, the cost management approach works on analyzing all the costs incurred from planning to production and distribution. Firms are stringent with the costs of manufacturing because they must have a revenue margin. Firms need to realize and update the technology to overcome the additional costs that might be reduced due to new ways of using technology and increased productivity efficiency and effectiveness. The marketing mix includes pricing, which is always an important element in designing a product for a market and counter adjusting the product cost according to recession, and other booming factors such as technology and media (Grewal, Roggeveen, Compeau, & Levy, 2011).

Cost plus and cost estimation are the strategies that help managers internally decide the cost of the product and make decisions on the final price accordingly, because careful analysis is performed to earn as much profit as possible (Monroe, 1990; Frederiksen, 2011).



Every business sets their own budget, and, within the limited resources, businesses work on low-cost production and fairly achieved profits, executing a cost leadership strategy.

Within an industry, businesses pick a strategy that suits their revenue generation more than the competitors and that might also let them lower the product price just enough to achieve the competitive edge. This can be called a unique selling proposition in the name of price. The marketers play this game fairly to achieve higher profits at a minimum cost (Kachaner, Lindgardt, & Michael, 2011).

Consumer and Price

Shifting to consumers' attitudes towards price, it is true that price is the top-most influential indicator for a consumer, compared to product quality, quantity, brand name etc. The consumer gives a price that is sacrificing the amount paid to obtain a product. Ahtola (1984) finds the price to be a 'give' component rather than 'get' component. Other influential researchers in pricing studies believe that those price concepts are justified as a sacrificing aptitude from the consumer's perspective (Ahtola, 1984; Mazumdar, 1986). The value and quality have the most direct relationship with price, as consumers are promised by offering and improving brand positioning through market analysis, segmentation, and marketing mix, which includes price (Monroe & Krishnan, 1985).

Consumers perceive price with respect to the quality of a product and how reliable, adaptable, durable it is, with other relative advantages, compared to other products in the same product category. A high price is always considered to signal a high quality of the product (Zeithaml, 1988).

The best brands in the world set premium prices because they are famous for the type of product they offer, and their name sells (Kaplan, 1982). Every brand has set prices within an industry, ranging from A-class brands to counterfeit brands. For A-class brands, the consumer pays high prices because they are considered a sign of prestige, because of self-concept of high lifestyle and the ability to afford the living standard and because of enduring good quality.

Micro Environment and Price

Studying the price and the micro-environment for the price levels and money supply is in accordance with the Keynesian concept. Various price models and studies on costs cater to normal or actual unit cost and its effect on prices (Swani & Yoo, 2010). It is known that demand and productivity go hand in hand, i. e., when the demand is high, the productivity is also high, eventually reducing actual costs. Therefore, demand and price have a positive long-term association (Cin, 2005; Rushdy & Lund, 1967).

Some products have price elasticity and are offered at discounts to consumers as the demand for the product increases and the revenue starts rising. This discount scheme decreases the holding and ordering expenses and results in profits (Alles & Datar, 1998).

Another price study mentions the fixed retail price, which has the concept of competitive or imperfect competition. Supermarkets work on profits on a weekly basis and the fixed price has a good influence on the consumers' purchases (Lal & Staelin, 1984).



When trying to reduce costs and increase profits, which is referred to as optimization, warranty claims related to the products increase, which has always been an irony for organizations to handle. Various models for the purpose have been developed to provide fool-proof ways of estimating perfect optimization solutions (Richards & Patterson, 2005).

Technology is a prominent star in every industry and has an enormous impact every time one uses it. With respect to pricing behavior, technology and customers have a strong association because customers are tech savvy and gauge prices intensely to finalize their purchases. Similarly, organizations are also updating their technology to attract new customers, knowing that society is constantly moving and is influenced through the interactions of family, friends, and firms and, most importantly, by word-of-mouth. As firms target a selected audience for their product, they intensely evaluate the consumers' likes and dislikes and set their pricing strategy and policies with the goal of retaining customers in the long-term (Yun & Moon, 1998).

The objective of any business is wealth maximization, just as it is also the aim of the entire world and every individual. In this race to achieve as much wealth as possible, costs are kept to a minimum and the products are priced at a level that is acceptable to the targeted segment. Some consumers cannot recall previous prices, and the firms take advantage of that to charge a premium and act as monopolists because they know that they rule a particular product category, and/or the product/brand is superior to the competition, and/or the previous prices of the product are not even remembered (Damay, Guichard, & Clauzel, 2011).

Pricing is dependent on cost, forecasting of demand and planning, consumers, previous pricing data and consumers' association with the product/brand (Noble & Gruca, 1999; Banker & Hughes, 1994).

Price is an active indicator, and firms tighten their processes and operations in agreement. If a firm has monopoly in leading product category, then second-level competitors set prices according to the market leader (monopolist) because it is a competitive pricing strategy and a dictation by the market leader to others in the market to increase sales and profit (Shehryar & Hunt, 2005).

Key Insight to New Pricing Theory

This paper is an evaluation on how firms are dependent on each other when they are planning their pricing strategies. We have mentioned roughly all the pricing strategies to date comprising the approaches the firms adopt to set price standards.

This research adds to the existing knowledge on a specific product category of High involvement substitute brands (Toyota and Honda cars) and low involvement substitute brands (Tapal Tea and Brook Bond Supreme Tea) with regard to how the competitors in today's world set their pricing strategies and post their price tags in a situation/ environment that is full of extreme and aggressive competition, with a huge rush of new and old brands, low economy, and minimum cost-saving by the consumers due to heavy duty of taxes and increased prices on all products, brands and even minor aspects of living. There are also more business mergers and acquisitions, industry-oriented crimes and threats, a diverse workforce and outsourcing environment and a highly unpredictable and challenging environment filled with recession doom and no economic boom.

The car industry, in contrast to the food products industry, is an expensive and high-involvement product industry. This is a perfect time to assess and forecast the issue of price/cost dependability for future returns for both of the outlined categories of products/brands in a comparative approach. Wealthy consumers represent a small segment of the market, so what firms are doing currently in the market and how we will derive a theory to bring a new means for firms to evaluate pricing and keep the consumers' buying concerns and own profit satisfaction in line with the market price recognizes that no matter how rich a consumer is, he/she is quite reluctant to pay a premium price and demands a heavy return in the form of the brand he/she is purchasing and any guarantee, warranty, or add-ons, etc. accompanying the purchase. No one wants to pay a high price; instead, consumers want to pay a price that is just right.

4. Research Methodology

Conceptual model

Pricing behavior of firms for high involvement products/ Pricing behavior depending on own cost

This paper is an attempt to suggest that the pricing of the products / brands that are considered low involvement products / substitutes has different behavior than that of the high involvement brands. Since, the high involvement products bear more cost price than the low involvement products thus, the firms with higher cost for the product do compete in the market with the higher equilibrium prices/market prices. Therefore, the higher equilibrium market prices of high involvement products depend on their own cost prices. Hence, there is always dispersion in the prices of two homogenous high involvement products. We assume that there are two homogenous high involvement products, which are produced by firms A and B respectively and the pricing behaviors of firms A and B are expressed by the following equations.

$$MPHIP_A = +f(CPHIP_A, CPHIP_B, \text{Lagged } MPHIP_A)$$

Or

$$MPHIP_{A(t)} = \text{intercept}_t + \beta_1 CPHIP_{A(t)} + \beta_2 CPHIP_{B(t)} + \beta_3 MPHIP_{A(t-1)} + ET_t$$

Where,

$MPHIP_A$ = Market price of high involvement product produced by firm A

$CPHIP_A$ = Cost price of high involvement product produced by firm A

$CPHIP_B$ = Cost price of high involvement product produced by firm B

Lagged $MPHIP_A$ = Market price of high involvement product produced by firm A for the last year

β_1 = Possible significant coefficient when $CPHIP_A$ explains $MPHIP_A$

β_2 = Possible non-significant coefficient when $CPHIP_B$ explains $MPHIP_A$

β_3 = Possible significant coefficient when Lagged $MPHIP_A$ explains $MPHIP_A$

ET = Error term

Pricing behavior of firms for low involvement products/ Pricing behavior depending on the other firm's cost

As reported and addressed already that the low involvement products / substitutes have pricing different behavior than that of the high involvement brands. The low involvement products bear less cost price than the high involvement products thus, the firms with lesser cost for the product do compete in the market with the lower equilibrium prices/ market prices. Therefore, the lower equilibrium market prices of low involvement products depend on their own cost prices and cost pricing programs of competitors as well. We assume that there are two homogenous low involvement products, which are produced by firms C and D respectively.

$$MPLIP_C = +f(CPLIP_C, CPLIP_D, \text{Lagged } MPLIP_D)$$

Or

$$MPLIP_{C(t)} = \text{intercept}_t + \beta_1 CPLIP_{C(t)} + \beta_2 CPLIP_{D(t)} + \beta_3 MPLIP_{C(t-1)} + ET_t$$

Where,

$MPLIP_C$ = Market price of low involvement product produced by firm C

$CPLIP_C$ = Cost price of low involvement product produced by firm C

$CPLIP_D$ = Cost price of low involvement product produced by firm D

Lagged $MPLIP_C$ = Market price of low involvement product produced by firm C for the last year

β_1 = Possible significant coefficient when $CPLIP_C$ explains $MPLIP_C$

β_2 = Possible significant coefficient when $CPLIP_D$ explains $MPLIP_C$

β_3 = Possible non-significant coefficient when Lagged $MPLIP_C$ explains $MPLIP_C$

ET= Error term

Hypotheses

H1: Pricing behavior of a firm relies on a firm's own cost.

H2: Pricing behavior of a firm relies on costing programs of the firm's competitors.

Descriptions of Data and Econometrics

The price posted by a firm has been taken as the proxy of the firm's pricing behavior, whereas the production cost incurred has been considered as the proxy of costing behavior of the firms for the product. The propositions of this paper were investigated by collecting the historical data of prices and production costs of products/brands that include Toyota Corolla and Honda Civic (first competing product pair) and Tapal Tea and Brook Bond Supreme Tea (second competing product pair) operating from the Pakistani space. The products/brands in the first pair are the high involvement (HI) substitute goods, while the other pair of products/brands is low involvement (LI) substitute goods. The historical data from 1990 to 2011 for market price and production cost were collected from annual financial reports of Toyota and Honda for the Toyota Corolla and Honda Civic and of Tapal and Brook Bond for



Tapal Tea and Supreme Tea from Pakistan. Moreover, lag length regression was employed to generate the results through the amalgamation of OLS model and ARDL model.

Since, the data of the outlined variables were time series and the objective/ proposition of this study was also to investigate the impact of outlined lagged dependent variable (s) on its own dependent variable (s) for the current year, or it was propositioned to investigate the AR (1) process in all outlined series of dependent variable (s) and hence, for meeting the stated purpose (i. e. the investigation of AR (1) process in the dependent variable (s)), the ARDL model was deployed while using it with the restructured OLS as explained below in equations 1,2, 3 and 4.

ARDL Model for High Involvement Substitutes (Automobiles):

$$MPCR_t = \alpha_t + \beta_1 CPCR_t + \beta_2 CPCV_t + \beta_3 MPCR_{t-1} + ET1_t \text{----- Eq 1}$$

$$MPCV_t = \alpha_t + \beta_4 CPCV_t + \beta_5 CPCR_t + \beta_6 MPCV_{t-1} + ET2_t \text{----- Eq 2}$$

where:

$MPCR_t$ = Market price of Corolla (high involvement product) produced by firm Toyota for the current year

$CPCR_t$ = Cost price of Corolla (high involvement product) produced by firm Toyota for the current year

$CPCV_t$ = Cost price of Civic (high involvement product) produced by firm Honda for the current year

$MPCR_{t-1}$ = Lagged $MPCR_t$ = Market price of Corolla (high involvement product) produced by firm Toyota for the last year

β_1 = Coefficient when $CPCR_t$ explains $MPCR_t$

β_2 = Coefficient when $CPCV_t$ explains $MPCR_t$

β_3 = Coefficient when $MPCR_{t-1}$ explains $MPCR_t$

$ET1_t$ = Error term for equation 1

$MPCV_t$ = Market price of Civic (high involvement product) produced by firm Honda for the current year

$CPCV_t$ = Cost price of Civic (high involvement product) produced by firm Honda for the current year

$CPCR_t$ = Cost price of Corolla (high involvement product) produced by firm Toyota for the current year

$MPCV_{t-1}$ = Lagged $MPCV_t$ = Market price of Civic (high involvement product) produced by firm Honda for the last year

β_4 = Coefficient when $CPCV_t$ explains $MPCV_t$

β_5 = Coefficient when $CPCR_t$ explains $MPCV_t$

β_6 = Coefficient when $MPCV_{t-1}$ explains $MPCV_t$

$ET2_t$ = Error term for equation 2

ARDL Model for Low Involvement Substitutes (Teas):

$$MPTT_t = \alpha_t + \beta_7 CPTT_t + \beta_8 CPBT_t + \beta_9 MPTT_{t-1} + ET3_t \text{----- Eq 3}$$

$$MPBT_t = \alpha_t + \beta_{10} CPBT_t + \beta_{11} CPTT_t + \beta_{12} MPBT_{t-1} + ET4_t \text{----- Eq 4}$$

where:

$MPTT_t$ = Market Price of Tapal tea (low involvement product) produced by firm Tapal for the current year

$CPTT_t$ = Cost price of Tapal tea (low involvement product) produced by firm Tapal for the current year

$CPBT_t$ = Cost Price of Brook bond supreme Tea (low involvement product) produced by firm Brook bond for the current year

$MPTT_{t-1}$ = Lagged $MPTT_t$ = Market Price of Tapal tea (low involvement product) produced by firm Tapal for the last year

$Beta_7$ = Coefficient when $CPTT_t$ explains $MPTT_t$

$Beta_8$ = Coefficient when $CPBT_t$ explains $MPTT_t$

$Beta_9$ = Coefficient when $MPTT_{t-1}$ explains $MPTT_t$

$ET3_t$ = Error term for equation 3

$MPBT_t$ = Market Price of Brook bond supreme Tea (low involvement product) produced by firm Brook bond for the current year

$CPBT_t$ = Cost Price of Brook bond supreme Tea (low involvement product) produced by firm Brook bond for the current year

$CPTT_t$ = Cost price of Tapal tea (low involvement product) produced by firm Tapal for the current year

$MPBT_{t-1}$ = Lagged $MPBT_t$ = Market Price of Brook bond supreme Tea (low involvement product) produced by firm Brook bond for the last year

$Beta_{10}$ = Coefficient when $CPBT_t$ explains $MPBT_t$

$Beta_{11}$ = Coefficient when $CPTT_t$ explains $MPBT_t$

$Beta_{12}$ = Coefficient when $MPBT_{t-1}$ explains $MPBT_t$

$ET4_t$ = Error term for equation 4

Findings and Results

The findings for HI substitute goods (i.e., Corolla and Civic), shown in Table 1, reveal that the market price of the Toyota Corolla (a car) is well predicted by the Corolla's own cost price as β_1 is significant at $t > 1.5$, but not by the costing behavior of Honda Civic since β_2 is NOT significant. While the significant beta (β_3) of AR 1- process (i. e. Lagged (lag1) market price of Corolla), reveals that there is a positive autocorrelation or autoregressive process in the market price series of the Toyota Corolla, i.e., the current market price of the Toyota Corolla is affected and explained by the last year market price of Toyota Corolla.

$$MPCR_t = \alpha_t + \beta_1 CPCR_t + \beta_2 CPCV_t + \beta_3 MPCR_{t-1}$$

20482. 56 0. 309 0. 770 0. 331

(1. 723) (12. 539) (0. 894) (1. 790)

The findings further confirm that the market price of the Honda Civic is significantly affected by its own cost price and that the cost price of the Corolla does not necessarily affect the market price of the Honda Civic. An autocorrelation or autoregressive process exists in the market price series of the Civic, which implies that the market price of the Civic, like that of the Corolla, is affected and explained by its market price for the preceding period as shown by the significant value of the beta (β_6) of AR 1-process (i. e. Lagged (lag1) market price of Civic).

$$MPCV_t = \alpha_t + \beta_4 CPCV_t + \beta_5 CPCR_t + \beta_6 MPCV_{t-1}$$

20926. 527 1. 144 -0. 077 0. 129

(1. 995) (10. 649) (-0. 667) (1. 638)

The findings for LI substitute goods (i. e., Tapal Tea and Brook bond supreme Tea), as shown in Table 2, reveal that the market price of Tapal Tea is well predicted by its cost price and the costing behavior of Brook bond supreme Tea, the significant beta (β_9) of AR 1- process (i. e. Lagged (lag1) market price of Tapal Tea), reveals that there is a positive autocorrelation or autoregressive process in the market price series of Tapal Tea, i. e., the current market price of Tapal Tea is not affected or explained by its market price of the last year.

$$MPTT_t = \alpha_t + \beta_7 CPTT_t + \beta_8 CPBT_t + \beta_9 MPTT_{t-1}$$

531. 002 0. 321 0. 523 0. 002

(1. 920) (2. 005) (3. 075) (0. 937)

The findings further confirm that the market price of Supreme Tea is significantly affected by both its own cost price and that of Tapal Tea. There is no autocorrelation in the market price series of Brook bond supreme Tea, implying that the current year market price of Brook bond supreme Tea is also not affected or explained by its market price of the past year as shown by the significant value of the beta (β_{12}) of AR 1-process (i. e. Lagged (lag1) market price of Brook bond supreme Tea).

$$MPBT_t = \alpha_t + \beta_{10} CPBT_t + \beta_{11} CPTT_t + \beta_{12} MPBT_{t-1}$$

444. 034 1. 007 0. 720 0. 039

(1. 589) (7. 564) (2. 841) (0. 078)



5. Discussions

This paper demonstrated how firms set their product's market price in the economic space of high involvement and low involvement substitute products/brands.

The findings revealed that for low involvement types of products, the price setters, whether are informed about their own cost price or the manufacturing cost of the rival's substitute goods, are greatly involved when posting the market prices of low involvement Low involvement products because the competitors here compete aggressively as also suggested and reported by (Grewal, Roggeveen, Campeau & Levy, 2011). For high involvement products, the market prices are set and posted normally only on the basis of the products' own manufacturing costs, as explained in the findings. Cin (2005) confirmed that the high involvement products such as cars, in contrast to food products, are expensive, and the manufacturers of such products always avoid risks and want to recover their costs first. Furthermore, the AR1 process is found to be present in the series of market prices of both the Corolla and Civic, which reflects that pricing programs for high involvement automobiles for the current and future period also rely on their pricing history. The non-significant AR1 process confirmed that for the low involvement products, current and future pricing programs are not connected to their pricing history.

6. Conclusion

This paper reports that that the pricing strategy for products varies among firms. The findings confirmed that for high involvement substitutes, the pricing behavior of a firm mainly depends on its own production cost, in contrast to low involvement substitutes. The AR (1) process is significant and present in the series of market prices for both of the high involvement substitutes, which reflects that pricing programs for high involvement substitutes for current and future periods also significantly rely on their pricing history. The AR1-processes were non-significant for low involvement confirmed and reported by this study for the outlined products under the low involvement substitute products category.

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Annexes

Table 1. Findings for High involvement Substitute Brands

	Main Coefficients	Market Price of Corolla (IV1)	Empirical Conclusion
Cost Price of Corolla (DV1)	Beta or β_1 (T-Statistics)	0.309 (12.539)	Corolla market price is predicted by its cost price as T-Stats>1.5
Cost Price of Civic (DV2)	Beta or β_2 (T-Statistics)	0.779 (0.894)	Corolla market price is NOT predicted by cost price of Civic as T-Stats<1.5
Lagged (lag1) market price of Corolla (lagged DV)	Beta or β_3 (T-Statistics)	0.331 (1.790)	Corolla market price is predicted by its Lagged (lag1) price as T-Stats>1.5
Intercept = 20482.56 T-Statistics = 1.723 Adj R Squared = 0.986 F-Statistics = 2943.647			
	Main Coefficients	Market Price of Civic (IV2)	Empirical Conclusion
Cost Price of Civic (DV3)	Beta or β_4 (T-Statistics)	1.144 (10.649)	Civic market price is predicted by its cost price as T-Stats>1.5
Cost Price of Corolla (DV4)	Beta or β_5 (T-Statistics)	-0.077 (-0.667)	Civic market price is NOT predicted by cost price of Corolla as T-Stats<1.5
Lagged (lag1) market price of Civic (lagged DV)	Beta or β_6 (T-Statistics)	0.129 (1.638)	Civic market price is predicted by its Lagged (lag1) price as T-Stats>1.5
Intercept = 20926.527 T-Statistics = 1.995 Adj R Squared = 0.987 F-Statistics = 4138.061			



Table 2. Findings for Low Involvement Substitute Brands

	Main Coefficients	Market Price of Tapal Tea (IV3)	Empirical Conclusion
Cost Price of Tapal Tea (DV5)	Beta or β_7 (T-Statistics)	0.321 (2.005)	Tapal Tea market price is predicted by its cost price as T-Stats>1.5
Cost Price of Brook bond supreme Tea (DV6)	Beta or β_8 (T-Statistics)	0.523 (3.075)	Tapal Tea market price is predicted by cost price of Supreme Tea as T-Stats>1.5
Lagged (lag1) Market price of Tapal Tea (lagged DV)	Beta or β_9 (T-Statistics)	0.002 (0.937)	Tapal Tea market price is NOT predicted by its Lagged (lag1) price as T-Stats<1.5
Intercept = 531.002 T-Statistics = 1.920 Adj. R Squared = 0.901 F-Statistics = 2107.008			
	Main Coefficients	Market Price of Brook bond supreme Tea (IV4)	Empirical Conclusion
Cost Price of Brook bond supreme Tea (DV7)	Beta or β_{10} (T-Statistics)	1.007 (7.564)	Supreme Tea market price is predicted by its cost as T-Stats>1.5
Cost Price of Tapal Tea (DV8)	Beta or β_{11} (T-Statistics)	0.720 (2.841)	Supreme Tea market price is predicted by cost of Tapal Tea as T-Stats>1.5
Lagged (lag1) Market price of Brook bond supreme Tea (lagged DV)	Beta or β_{12} (T-Statistics)	0.039 (0.078)	Brook bond supreme Tea market price is NOT predicted by its Lagged (lag1) price as T-Stats<1.5
Intercept = 444.034 T-Statistics = 1.589 Adj. R Squared = 0.905 F-Statistics = 2941.100			