

Consumer Brand Loyalty towards Laptop Brands: Investigating the Roles of Satisfaction, Trust, Inertia, and Commitment

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Abstract—Consumer loyalty is an essential factor in determining a company's long-term success, especially for Information and Communication Technological (ICT) brand products because consumers are confronted with a widespread competitive market of ICT items as a result of the booming and flourishing technology development. This paper aims to find out how status quo bias affects customer brand loyalty in terms of four factors: satisfaction, trust, inertia, and commitment. We examine the structural model and hypothetical relationship using data on consumers' laptop usage experiences and ideas by an online questionnaire. Our results show that customer satisfaction, trust, inertia, and commitment to a particular brand item all have significantly positive impacts on consumer brand loyalty.

Index Terms—Brand loyalty, status quo bias, satisfaction, trust, inertia, commitment.

I. INTRODUCTION

The development of the Information and Communication Technological (ICT), such as laptops, has been fueled by high-speed communications networks and virtual internet services [1]. With such technological advances, people have changed their shopping behaviors. The emerging of new brands and promotion of existing ones give consumers more choices, which in turn, affect their loyalty to brands and consumer loyalty is one of the most important factors in the long-term growth of ICT product brands [2]-[4].

One of the most significant marketing concerns for organizations is the creation of long-term customer brand loyalty, referring to a long-term and invariable engagement with a specific brand or firm. In the complex and changing world of business, companies must construct a pleasant and trustworthy brand image to win current consumers away from rival businesses. A brand is an image or personality of a company's product and service offerings, according to Hidayanti & Nuryakin's work [5]. Referring to ICT products, consumers are easily attached to a certain brand because they must invest time and effort to understand how to utilize an ICT product thoroughly and expertly via prior experience, as well as to develop personal brand-specific knowledge and talents in order to actualize and personalize the product, according to Shi *et al.* [6]. Consequently, consumers may get psychologically attached to certain ICT brand items since abilities associated with one brand may not be transferable to other brand systems [7]. Even though conventional

microeconomic theory assumes that national consumers only spend at their maximum utility, status quo bias argues that customers are 'biased' by their preference for established brand products [8].

This study aims to investigate how status quo bias influences consumers' brand loyalty from the perspectives of satisfaction, trust, inertia, and commitment. Hidayanti & Nuryakin [5] pointed out that, due to the increased competition among ICT products, a great number of companies put their orientation on customer satisfaction as the main objective. Manufacturers attempt to meet consumers' needs and wants by providing them with a wide range of choices, such as offering various colors, sizes, specifications and price ranges. In addition, brand trust is also a key factor in determining consumer brand loyalty towards ICT products. A positive emotional relationship could be derived if consumers hold trust in a specific brand [9]. Moreover, consumers' inertia is described as a habitual attachment to a brand product, which is unemotional and non-conscious driven [10]. In other words, inert consumers show a predilection towards the status quo brands and are more likely to develop brand loyalty [11]. As a result, consumers establish commitments towards a certain brand and the developed routine behaviors strengthen their brand loyalty [12]. Based on previous studies on how satisfaction, trust, inertia and commitment to influence consumer loyalty, we test the structural model and hypotheses by collecting data from a survey questionnaire on laptop consumers from the Chinese laptop market.

This paper is organized as follows. First, we lay out the theoretical basis and previous literatures that are related to our conceptual models and ideas. Second, we describe the study's methodology and data collection approach. Third, we present the structural modeling analysis and test the hypotheses using survey data from laptop users. Finally, we discuss our results as well as future work.

II. LITERATURE REVIEW

A. Consumer Loyalty

For a variety of products, consumers demonstrate brand loyalty. Indeed, one of the major objectives of marketing and promotion for business is to build and retain brand loyalty, especially for brands of information and communication technology products like laptops. Brand loyalty refers to the bonded relationship between consumers' deep commitment to reuse or repurchase the preferred brand products consistently in the future despite the situational influence or

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marketing efforts of competitive brands to entice consumers for brand switching [13]. The topic of brand loyalty has been extensively studied in traditional marketing literature, with an emphasis on two separate branches: attitudinal loyalty and behavioral loyalty [14]. Attitudinal-based loyalty refers to the action of continuing to use the incumbent brand product without much review, whereas behavioral-based loyalty refers to the action of continuing to use the incumbent brand product without much thoughts [15]. Oliver [16] proposed a brand loyalty conceptual framework based on a hierarchy of effects model with four components, including cognitive, affective, conative, and action, that encompass the entire spectrum of brand loyalty. The first three phases of loyalty (cognitive, affective and conative loyalty), according to the framework of Oliver [16], are within the attitudinal phase, whereas in the ultimate step (action loyalty), the intentions are converted to action inertia. This transform between cognitive to action is also referred to as 'action control' by Kuhl & Beckmann [17], where the motivating purpose in prior loyalty states was regarded as the readiness to act. According to the action control paradigm [17], action control sequences are accompanied by a motivation to overcome any impediments that prohibit the act. Action is seen as a necessary outcome when both states are engaged. If the interaction is repeated, action inertia builds, therefore naturally facilitating repurchases behaviors. In this research, brand loyalty to ICT brand is defined as an action loyalty where customers show an intensive commitment to the status quo brand products and continue to use the brand even if the incumbent ICT product is updated or replaced in the competitive market.

B. Status Quo Bias Theory

The status quo bias is one type of cognitive bias that involves people preferring that things stay as they are or that the current state of affairs remains the same. Referring to behavioural economics, the status quo bias theory aims to explain people's preferences for maintaining the current brand products [18]. According to Samuelson & Zeckhauser [19], status quo bias is explained in three ways: rational decision making, cognitive misperception, and psychological commitment. Rational decision-making involves weighing the net costs and advantages before switching to an alternative option, which often involves transitional costs and uncertain costs. If the net cost is greater than the net benefit, status quo bias arises and people will make a rational choice to maintain for the incumbent situation. Cognitive misperception refers to the ideology of loss aversion [19], that individuals consider an actual or projected loss to be psychologically more severe than an equivalent gain [20]. Loss aversion could explain status quo bias since even little changes from altering current condition may be perceived as losses larger than they are. Psychological commitment contains three main factors: sunk cost, social norms and efforts to feel in control, which respectively explain status quo bias in aspects of previous commitment, prevailing norms and individuals' desire to determine their own choice [18].

According to Samuelson's framework [19], status quo bias could be categorized as rational and irrational behaviours. In the irrational aspect, Murray & Häubl [21] illustrated how

individuals were cognitively locked-in for skill-based habits from user experience and lead to the misperception of a loss if a switch to another brand product. On the contrary, deliberate inertia to the existing brand product might be considered a logical choice in terms of certainty and benefits over the incumbent product, even if the current band is not the greatest product among the alternatives, because the choice reflects customers' intentional decision.

According to Shi *et al.* [6] consumers' cognitive lock-in play a role in their trust, deliberate inertia and commitment to certain brand product and therefore determine their brand loyalty. In the ICT market, consumers need to invest time and effort to acquire via use experience to build certain personal brand-specific knowledge and skills to realize and customize the functioning and benefits of certain brand items in order to operate an ICT device competently and effectively. As a result, customers may get cognitively locked into certain ICT brand goods due to brand-specific knowledge and skills may not be transferable to other brands [6], [22].

C. Satisfaction, Trust, Deliberate Inertia and Commitment

1) Satisfaction

Satisfaction has been defined as a pleasurable fulfillment evaluation of the difference between the prior expectation and perceived impression [16], [23]. According to Garbarino and Johnson [24], satisfaction is classified as instant satisfaction and overall satisfaction. Instant satisfaction is the immediate post-purchase evaluation and affective response to a certain product or service experience [16]; while overall satisfaction is the cumulative judgment of encounter-specific experiences with the firm [26]. In order to affect brand loyalty, frequent and cumulative satisfactions are required for consumers to aggregate experience and make up a global evaluation [26]. An individual's perspective is fed by fresh information with each new interaction, determining the amount of satisfaction at any particular time [27]. Referring to the ICT market, satisfaction has been identified as a key construct that represents a brand's success because of the characteristic of the technical and functional functions of an ICT product. For example, Lee *et al.* [1] pointed out that usability positively influenced consumers' satisfaction and brand loyalty. Similarly, this research proposes the following hypothesis:

H1: satisfaction has a significant positive effect on brand loyalty.

2) Trust

Trust is an essential element for a successful long-term relationship in the market [28]. Trust is generally defined as the confidence in exchange partner due to the performance, reliability and intentionality [24], [28], [29]. Trust has often accumulated from previous positive experiences and the psychological benefits of confidence devel a consumer relationship with a certain brand product. Referring to ICT product, the fine experience of usability and simplicity positively influenced the level of trust toward the company associated with phones [1]. Thus, this research proposes the effects of trust on consumers' brand loyalty in the following hypothesis:

H2: Trust has a significant positive effect on brand loyalty of ICT products.

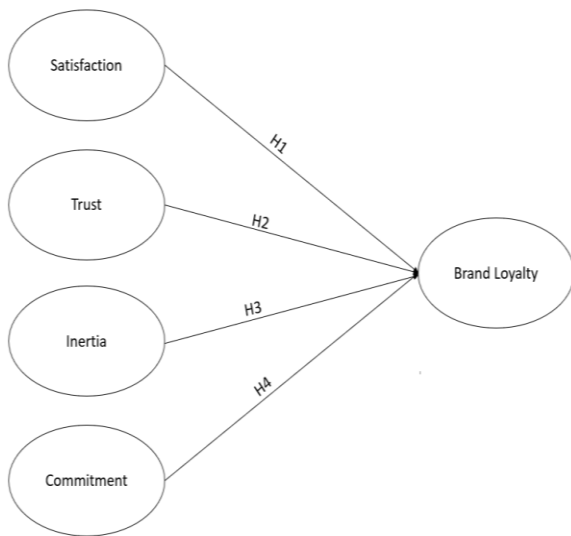


Fig. 1. Research model of consumer brand loyalty.

3) *Deliberate inertia*

Deliberate inertia is labelled as purposely endorsing persistence on the status quo even during organizational change [30]. According to Schwarz [31], there are four types of inertia which are listed as ‘spontaneous’ inertia, ‘deliberate inertia’, ‘forced’ inertia, and ‘unobtrusive’. The typology of structural inertia was based on dimensions of motivation for change and influencing condition: spontaneous inertia and deliberate inertia were low motivated while forced inertia and unobtrusive inertia were highly motivated; on the other hand, spontaneous inertia and forced inertia were motivated externally while deliberate inertia and unobtrusive inertia were motivated internally. In this research, the main focus is on the deliberate inertia, which portrays structural results as a consciously and purposefully undertaken or endorsed endeavour with considerable evaluation [32].

To extend the factor in the ICT market, deliberate inertia is a result of an overall analysis of costs and benefits of the incumbent brand product against competitive brands. Consumers rationally choose to maintain the status quo brands and develop brand loyalty over certain ICT products [6]. Following this reasoning logic, this research proposes the following hypothesis:

H3: Deliberate inertia has a significant positive effect on brand loyalty of ICT products.

4) *Commitment*

Commitment is another essential ingredient for maintaining a long-term relationship [24]. According to Moorman, Zaltman, and Deshpande [28], holding a commitment to an exchange partner means an enduring desire to keep a valued relation. Oliver [16] defined loyalty as the combination of deep commitment and the repeat purchasing behaviour. Marketing studies typically use a three-component model of commitment: instrumental, attitudinal, and temporal [33]. Affective component refers to a psychological and emotional commitment; instrumental commitment refers to perceived economic investment and risk; normative commitment is based on consumers’ belief about his or her obligations due to relevant norms. Keiningham *et al.* [34] extended the typology of commitment into a broadened five-component: affective, normative,

economic, forced, and habitual commitment. Forced commitment occurs when no alternatives in the market and habitual commitment arises when consumers repetitively and automatically purchase the same brand products. Referring to the ICT market, this research focused on the affective commitment that is based on psychological attachment to a brand of ICT product. The effect of psychological attachment is measured in terms of compliance, identification and internalization [35]. Many studies show that commitment has a positive effect on consumers’ brand loyalty [16], [36]. and therefore, this study proposes the following hypothesis:

H4: commitment has a significant positive effect on brand loyalty of ICT products.

III. RESEARCH METHODOLOGY

A. *Research Design*

This study examined the effect of customers’ satisfaction, trust, inertia and commitment, on brand loyalty of ICT products. Therefore, this research used survey data about the perceived experience of branded laptop products. We designed the questionnaire in bilingual versions: Chinese and English. The questionnaire had 28 questions including 2 sections (see Appendix A). In the first section, there were some social demographic information such as participants’ age, gender and occupation, and other basic information about participants’ using experience of laptop including the brand of current laptop, years of using it. The second section was designed to measure 5 constructs: consumers’ satisfaction, trust, commitment, inertia and brand loyalty. Satisfaction and inertia were measured with five items respectively, which were adopted from studies by Lee *et al.* [1] and Flavián, Guinalú & Gurrea [27]. Trust, commitment and brand loyalty were measured by four items respectively regarding studies by Han *et al.* [37] and Shi *et al.* [6]. The survey questionnaire items are presented in Table II. All the items were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). In this paper, the dependent variable was brand loyalty and the independent variables were satisfaction, trust, commitment and inertia.

B. *Sample and Data Collection*

Nowadays, the laptop has already become a widely adopted productive tool for both students and working staff. This study intended was mainly focused on laptop users in China. We collected data from a wide spectrum of respondents with all age groups and occupations. Questionnaires were published on an online platform, where respondents could easily complete the questionnaire on either phones or laptops and forwarded the questionnaire to their friends, colleagues, and families. We received 164 returned questionnaires which were all valid.

Table I reveals the demographic and brand information of respondents. It shows that out of a total of 164 participants, 52 were males, 103 were females and 7 remained unknown.

Female participants were almost twice as many as male participants in the survey. Participants were divided into four age groups and over half of the respondents were aged between 20-30 years old. The occupation was categorized into five groups: students, office clerk, managerial staff, entrepreneur and others, where students and office clerk

accounted for over two-thirds of the respondents. Among the respondents, the most popular brands of laptops were Apple (28.66%) and Lenovo (25.61%), followed by Dell (11.59%), Microsoft (10.98%) and other brands (16.46%). The length of using the current laptop and current brand were also shown

in Table I. It is noticeable that almost 70% of participants use the status quo laptop and status quo brand of laptop for over three years, which illustrates that participants showed a certain degree of brand loyalty towards their laptop brand products.

TABLE I: DESCRIPTIVE STATISTICS OF RESPONDENTS' CHARACTERISTICS

| Items | Categories | N | Percent (%) | Cumulative Percent (%) |
|----------------------------------------|-------------------|-----|-------------|------------------------|
| Gender | Male | 52 | 31.71 | 31.71 |
| | Female | 105 | 64.02 | 95.73 |
| | Unwilling to tell | 7 | 4.27 | 100 |
| Age | ≤20 | 15 | 9.15 | 9.15 |
| | ≤30 | 105 | 64.02 | 73.17 |
| | ≤40 | 34 | 20.73 | 93.9 |
| | ≥41 | 10 | 6.1 | 100 |
| | | | | |
| Occupation | Student | 55 | 33.54 | 33.54 |
| | Office clerk | 58 | 35.37 | 68.9 |
| | Managerial Staff | 29 | 17.68 | 86.59 |
| | Entrepreneur | 5 | 3.05 | 89.63 |
| | Other | 17 | 10.37 | 100 |
| Brand | Apple | 47 | 28.66 | 28.66 |
| | Lenovo | 42 | 25.61 | 54.27 |
| | Microsoft | 18 | 10.98 | 65.24 |
| | Dell | 19 | 11.59 | 76.83 |
| | HP | 11 | 6.71 | 83.54 |
| | Other | 27 | 16.46 | 100 |
| | | | | |
| Years of using current laptop | ≤1 | 14 | 8.54 | 8.54 |
| | ≤2 | 43 | 26.22 | 34.76 |
| | ≤3 | 39 | 23.78 | 58.54 |
| | ≤5 | 36 | 21.95 | 80.49 |
| | >5 | 32 | 19.51 | 100 |
| Years of using current brand of laptop | ≤1 | 13 | 7.93 | 7.93 |
| | ≤2 | 33 | 20.12 | 28.05 |
| | ≤3 | 32 | 19.51 | 47.56 |
| | ≤5 | 41 | 25 | 72.56 |
| | >5 | 45 | 27.44 | 100 |
| Total | | 164 | 100 | 100 |

C. Confirmatory Factor Analysis and Reliability Test

The internal reliability of five tested items was evaluated and the results were shown in Table II. Cronbach's analysis was conducted on the construct of satisfaction, trust, commitment, inertia and brand loyalty in this survey. It was found that Cronbach's alpha levels were all greater than 0.7, which indicates that the items had an adequate level of inter-item reliabilities. Regarding the correlated item-total correlation (CITC) values of the analysis items, they are all greater than 0.4, indicating a good correlation between the

analyzing questions and a good level of reliability. We also found that deleting any of the items in each scale would not significantly increase the alpha levels in any tested scale.

Validity was examined by Confirmatory Factor Analysis (CFA) for items of questionnaires and the results are shown in Table III. As shown in Table III, the Kaiser-Meyer-Olkin (KMO) test value is 0.952 which indicates that there are high relations between measured items. Therefore, it shows the data validity is good. The Bartlett's Test also illustrates that the validity of the survey is good given the significance level of $p < 0.01$.

TABLE II: CONSTRUCT RELIABILITY TEST RESULT

| Construct | Items | Corrected Item-Total Correlation (CITC) | Cronbach Alpha if Item Deleted | Cronbach α |
|--------------|-------------------------------------------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| Satisfaction | My laptop has functions that I want, and it is not contrary to my expectation | 0.734 | 0.928 | 0.928 |
| | I can get satisfying information and service through my laptop | 0.742 | 0.924 | |
| | The experience that I have had with the laptop has been satisfactory | 0.873 | 0.899 | |

| | | | | |
|---------------|-----------------------------------------------------------------------------------------------|-------|-------|-------|
| Trust | I think that I made the correct decision to buy this laptop | 0.858 | 0.902 | 0.922 |
| | Overall, I am satisfied with my laptop | 0.861 | 0.903 | |
| | I think the brand of my laptop is constantly reliable | 0.841 | 0.892 | |
| | I trust the software and service from my laptop manufacturer | 0.79 | 0.908 | |
| | I think I can have confidence in the promises that the brand of my laptop makes | 0.801 | 0.906 | |
| Commitment | Overall, I trust my laptop brand | 0.851 | 0.888 | 0.878 |
| | I am happy to be a consumer of the brand of my laptop | 0.584 | 0.896 | |
| | I pay attention to the news and information about the brand of my laptop | 0.751 | 0.841 | |
| | I care about the long-term development of the brand of my laptop | 0.788 | 0.822 | |
| | Overall, I have a certain degree of commitment towards the brand of my laptop | 0.847 | 0.801 | |
| Inertia | I prefer using the brand of my laptop since it makes me feel comfortable | 0.801 | 0.889 | 0.913 |
| | I prefer using the brand of my laptop since it is simple for me to execute multiple functions | 0.688 | 0.911 | |
| | I prefer using the brand of my laptop since I am familiarized with the computer system | 0.82 | 0.885 | |
| | I prefer using the brand of my laptop since the brand is what I am used to | 0.792 | 0.892 | |
| | Overall, I have a certain degree of inertia towards the brand of my laptop | 0.798 | 0.89 | |
| Brand Loyalty | I prefer my current laptop brand to other laptop brands | 0.836 | 0.841 | 0.895 |
| | I intend to buy products of my current laptop brand for my next purchase | 0.827 | 0.843 | |
| | I would like to recommend my families or friends to laptops of this brand | 0.829 | 0.847 | |
| | I do not pay attention to other laptop brands even though their products may be better | 0.622 | 0.929 | |
| | | | | |

TABLE III: KMO AND BARTLETT'S TEST OF ITEMS IN THE QUESTIONNAIRE

| | | |
|-------------------------------|------------|----------|
| KMO | | 0.952 |
| Bartlett's Test of Sphericity | Chi-Square | 3711.828 |
| | df | 231 |
| | p | 0.00 |

IV. RESULT AND DISCUSSION

A. Test of Hypothesis

Table IV provides the correlations of the five constructs from the sample. The correlations between the five constructs are all positive and are significant at the level of $p < 0.01$. It is

worth noticing that some relations were at a very high level over 0.8, such as correlations between satisfaction and trust, between commitment and inertia, and between inertia and brand loyalty, while the remaining correlations were also high at a level over 0.6. Therefore, we can conclude that satisfaction, trust, commitment, inertia and brand loyalty are highly intercorrelated.

Table V summaries the analytical results of the four hypotheses, which includes the standardized path coefficient coefficients, t-value, R-square (R^2) and significance level in each model. Fig. 2 shows a mapping of the four models, with the significances and regression coefficients between constructs shown on the arrow lines and R^2 in the circle.

TABLE IV: CONSTRUCT CORRELATION MATRIX

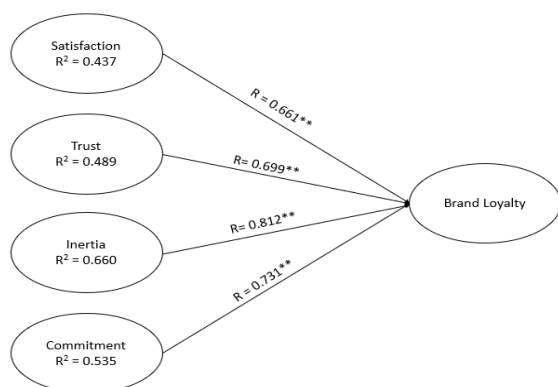
| | | Satisfaction | Trust | Commitment | Inertia | Brand loyalty |
|--------------|---------------------|--------------|--------|------------|---------|---------------|
| Satisfaction | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| | N | 164 | | | | |
| Trust | Pearson Correlation | .847** | 1 | | | |
| | Sig. (2-tailed) | .000 | | | | |
| | N | 164 | 164 | | | |
| Commitment | Pearson Correlation | .681** | .736** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | | | |
| | N | 164 | 164 | 164 | | |

| | | | | | | |
|---------------|---------------------|--------|--------|--------|--------|-----|
| Inertia | Pearson Correlation | .761** | .793** | .808** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .000 | | |
| | N | 164 | 164 | 164 | 164 | |
| Brand loyalty | Pearson Correlation | .661** | .699** | .731** | .812** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | |
| | N | 164 | 164 | 164 | 164 | 164 |

** : correlation is significant at the 0.01 level (2-tailed).

TABLE V: LINE TEST RESULTS COEFFICIENT: SATISFACTION, TRUST, INERTIA, COMMITMENT AND BRAND LOYALTY

| Hypothesis | | Standardized path coefficient | t value | Sig. | R ² | Result |
|------------|------------------------------|-------------------------------|---------|------|----------------|-------------|
| H1 | Satisfaction → Brand loyalty | 0.661 | 11.211 | 0.00 | 0.437 | Significant |
| H2 | Trust → Brand loyalty | 0.699 | 12.449 | 0.00 | 0.489 | Significant |
| H3 | Inertia → Brand loyalty | 0.812 | 17.727 | 0.00 | 0.660 | Significant |
| H4 | Commitment → Brand loyalty | 0.731 | 13.655 | 0.00 | 0.535 | parent |



Note: ** $p < 0.01$

Fig. 2. The analytical results of the full analysis model.

Hypothesis 1: satisfaction has a significant positive effect on brand loyalty.

In this model, the dependent variable is brand loyalty and the predictor is satisfaction. $R^2 = 0.437$ indicates that 43.7% of the variance for brand loyalty can be explained by satisfaction in the regression model. As shown in Table V that there is a significant relationship between customer satisfaction and consumer loyalty towards brand at level of $p < 0.01$. Correlation indicator $r = 0.661$ implies that a 1% increase in customer satisfaction will cause an amount of 66.1% increase in consumer loyalty. Therefore, our results showed that higher satisfaction of consumers towards a laptop brand product will induce higher brand loyalty of the brand.

Hypothesis 2: trust has a positive effect on brand loyalty of ICT products.

In this model, the dependent variable is brand loyalty and the predictor is trust and they are significantly positive correlated with each other at a significance level of $p < 0.01$.

0.01. As shown in Table V, R^2 shows that 48.9% of the variance for brand loyalty can be explained by trust in the regression model. The implication of $r = 0.699$ is that one unit increase in customer satisfaction will cause an increment of 69.9% in consumer loyalty. Therefore, the results illustrated that a higher trust of consumers towards laptop brand products leads to higher brand loyalty of the brand.

Hypothesis 3: inertia has a positive effect on brand loyalty of ICT products.

In this model, the dependent variable is brand loyalty and the predictor is inertia. There are 66.0% of the variance for brand loyalty can be explained by inertia in the regression model ($R^2 = 0.660$). It is shown in Table V that there is a significant relationship between inertia and consumer brand loyalty at the significance level of $p < 0.01$. According to $r = 0.812$, every unit rise in inertia to a laptop brand product will cause an amount of 81.2% increase in consumer loyalty. Therefore, the results showed that consumer brand loyalty can be enhanced due to higher level of inertia towards a laptop brand.

Hypothesis 4: commitment has a positive effect on brand loyalty of ICT products.

In this model, the dependent variable is brand loyalty and the predictor is commitment and 53.5% of the variance for brand loyalty is explained by trust ($R^2 = 0.535$). There is a significant relation between commitment and consumer brand loyalty at a significance level of $p < 0.01$. The standardized coefficient is 0.731 which demonstrates that the consumer loyalty of laptops will increase by 73.1% with a unit increase in consumer commitment. Therefore, the results illustrated a positive relation between commitment and brand loyalty in the laptop brand market.

TABLE VI: MODEL SUMMARY OF SATISFACTION, TRUST, COMMITMENT, INERTIA AND BRAND LOYALTY

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|-------|----------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .824 | .680 | .672 | .79364 | .680 | 84.302 | 4 | 159 | .000 |
| ANOVA | | | | | | | | | |
| Model | Sum of Squares | | df | Mean Square | F | Sig. | | | |
| 1 | Regression | 212.397 | 4 | 53.099 | 84.302 | .000 | | | |
| | Residual | 100.150 | 159 | .630 | | | | | |
| | Total | 312.547 | 163 | | | | | | |

Table VI provides the analytic outcomes of the research model. In this regression model, the dependent variable is brand loyalty and the predictors are satisfaction, trust, commitment and inertia. It shows that 68.0% of the variance for brand loyalty can be explained by satisfaction, trust, commitment and inertia ($R^2 = 0.680$). There is a significant relationship between dependent variable and predictors at the significance level of $p < 0.01$. Therefore, this model shows that these four predictors have significant impacts on the consumers' loyalty to brand when purchasing a laptop.

V. CONCLUSION

This study investigated the influence of satisfaction, trust, inertia and commitment factors on consumers' brand loyalty towards ICT products, and these essential elements were developed from the standpoint of consumers' status quo bias. We conducted hypotheses tests using survey data from laptop market customers, which is a typical ICT market product in this empirical study.

Customer retention has become increasingly important for numerous defused choices because of the competitive market for ICT solutions. First, our findings show that customer satisfaction has a substantial positive impact on brand loyalty, implying that the functions and services offered by an ICT product play an important influence on a customer's opinion of the brand [1], [27]. Second, we find that trust is another important positive element influencing consumer loyalty. It consists of the findings of previous research [38], [39], suggesting that businesses may build brand loyalty through brand trust. Third, we discover that intentional inertia is the most important predictor of brand loyalty among consumers in our work, which is the same as the results in Shi *et al.* [6]. Customers may actively seek reasons to resist the marketing appeal of competing companies [31]. Finally, brand loyalty and commitment have a substantial positive relationship, which is similar to the work of Jang *et al.* [40]. They discovered that the correlations between commitment and customer brand loyalty are positive in the laptop market, and concluded that commitment plays a substantial role in moderating this link. In conclusion, constructing a model considering these four factors customers' satisfaction, trust, inertia, and commitment, we obtain a strong structural model for understanding brand loyalty as shown in Fig. 2.

The findings provide management insight to ICT product suppliers, and particularly the laptop managers. Consumer brand loyalty to ICT products is primarily determined by satisfaction, trust, inertia, and commitment. Therefore, managers may need to comprehend their current customers' using experiences towards different laptop brands, and then they should not only improve product quality and professional characteristics but also adjust marketing approaches to increase customers' level of satisfaction and psychological attachment. The high level of status quo bias toward the incumbent brand of laptop products does not mean that managers should neglect their existing consumers. However, consumer loyalty is not always constant. Instead, if brand items fail to improve customers' satisfaction, trust, inertia, and commitment, ICT brand providers should manage consumer loyalty programs to keep their current consumers interested and increase their brand loyalty to

certain brands.

It's crucial to keep some of the study's limitations in mind. First, although the study was not restricted to a certain age range, more than 60% of the participants were in the group of 20-30. Moreover, there were about twice as many female participants as there were male participants. Therefore, the conclusions of this study are primarily focused on a young female adult sample. The data may not represent the entire population since the sample was not uniformly distributed. Second, the data were mainly obtained from laptop users in China marketplaces, thus further research may be conducted in other markets to compare customer brand loyalty to local and global companies, to uncover the reasons behind the discrepancies. Third, while this study focused on laptop brand items as an example of ICT products, future research may investigate other ICT products such as mobile phones, tablets, desktop computers, and so on. Fourth, this study only included 164 participants, which may be insufficient to provide results that are typical of the general public. Larger samples and demographic groupings from longitudinal research are required for more persuasion. Finally, future research might study additional psychological and marketing elements that influence brand loyalty. For instance, study the underlying cognitive mechanisms that lead to the development of trust, inertia, and commitment, as well as how advertising ideas may help with improving satisfaction and modelling brand trust, inertia, and commitment.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Ying Cheng designed research, performed research, analyzed data, and wrote the paper.

REFERENCES

- [1] D. Lee, J. Moon, Y. J. Kim, and Y. Y. Mun, "Antecedents and consequences of mobile phone usability: Linking simplicity and interactivity to satisfaction, trust, and brand loyalty," *Information & Management*, vol. 52, no. 3, pp. 295-304, 2014.
- [2] P. H. Wu and C. P. Lin, "Learning to foresee the effects of social identity complexity and need for social approval on technology brand loyalty," *Technological Forecasting and Social Change*, vol. 111, pp. 188-197, 2016.
- [3] X. Xu, J. Y. Thong, and V. Venkatesh, "Effects of ICT service innovation and complementary strategies on brand equity and customer loyalty in a consumer technology market," *Information Systems Research*, vol. 25, no. 4, pp. 710-729, 2014.
- [4] S. Rahi, M. A. Ghani, and F. M. Alnaser, "The influence of e-customer services and perceived value on brand loyalty of banks and internet banking adoption: A structural equation model (SEM)," *Journal of Internet Banking and Commerce*, vol. 22, no. 1, 2017.
- [5] I. Hidayanti and N. F. Nuryakin, "A study on brand commitment and brand trust towards brand loyalty of branded laptop in Indonesia," *Journal of Business and Retail Management Research*, vol. 12, no. 3, 2018.
- [6] X. Shi, Z. Lin, J. Liu, and Y. K. Hui, "Consumer loyalty toward smartphone brands: The determining roles of deliberate inertia and cognitive lock-in," *Information & Management*, vol. 55, no. 7, pp. 866-876, 2018.
- [7] T. C. Lin, S. L. Huang, and C. J. Hsu, "A dual-factor model of loyalty to IT product—The case of smartphones," *International Journal of Information Management*, vol. 35, no. 2, pp. 215-228, 2015.
- [8] R. S. Hartman, M. J. Doane, and C. K. Woo, "Consumer rationality and the status quo," *The Quarterly Journal of Economics*, vol. 106, no. 1, pp. 141-162, 1991.

- [9] E. Ferrinadewi, "Pengaruh threat emotion konsumen dan brand trust pada keputusan pembelian produk susu Anlene di Surabaya," *Jurnal Kewirausahaan*, vol. 1, no. 2, p. 1, 2008.
- [10] L. W. Wu, "Satisfaction, inertia, and customer loyalty in the varying levels of the zone of tolerance and alternative attractiveness," *Journal of Services Marketing*, vol. 25, no. 5, pp. 310-322, 2011.
- [11] G. Ye, "The locus effect on inertia equity," *Journal of Product & Brand Management*, vol. 14, no. 3, pp. 206-210, 2005.
- [12] A. Amine, "Consumers' true brand loyalty: the central role of commitment," *Journal of Strategic Marketing*, vol. 6, no. 4, pp. 305-319, 1998.
- [13] G. J. Tellis, "Advertising exposure, loyalty, and brand purchase: A two-stage model of choice," *Journal of Marketing Research*, vol. 25, no. 2, pp. 134-144, 1988.
- [14] M. Gommans, K. S. Krishnan, and K. B. Scheffold, "From brand loyalty to e-loyalty: A conceptual framework," *Journal of Economic & Social Research*, vol. 3, no. 1, 2001.
- [15] G. L. Polites and E. Karahanna, "Shackled to the status quo: The inhibiting effects of incumbent system habit, switching costs, and inertia on new system acceptance," *MIS Quarterly*, pp. 21-42, 2012.
- [16] R. L. Oliver, "Whence consumer loyalty?" *Journal of Marketing*, vol. 63, pp. 33-44, 1999.
- [17] J. Kuhl and J. Beckmann, "Historical perspectives in the study of action control," in *Action Control*, 1985, pp. 89-100, Springer, Berlin, Heidelberg.
- [18] H. W. Kim and A. Kankanhalli, "Investigating user resistance to information systems implementation: A status quo bias perspective," *MIS Quarterly*, pp. 567-582, 2009.
- [19] W. Samuelson and R. Zeckhauser, "Status quo bias in decision making," *Journal of Risk and Uncertainty*, vol. 1, no. 1, pp. 7-59, 1988.
- [20] L. Brenner, Y. Rottenstreich, S. Sood, and B. Bilgin, "On the psychology of loss aversion: Possession, valence, and reversals of the endowment effect," *Journal of Consumer Research*, vol. 34, no. 3, pp. 369-376, 2007.
- [21] K. B. Murray and G. Häubl, "Explaining cognitive lock-in: The role of skill-based habits of use in consumer choice," *Journal of Consumer Research*, vol. 34, no. 1, pp. 77-88, 2007.
- [22] C. H. Yeh, Y. S. Wang, and K. Yieh, "Predicting smartphone brand loyalty: Consumer value and consumer-brand identification perspectives," *International Journal of Information Management*, vol. 36, no. 3, pp. 245-257, 2016.
- [23] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," *Journal of Marketing Research*, vol. 17, no. 4, pp. 460-469, 1980.
- [24] E. Garbarino and M. S. Johnson, "The different roles of satisfaction, trust, and commitment in customer relationships," *Journal of Marketing*, vol. 63, no. 2, pp. 70-87, 1999.
- [25] E. W. Anderson, C. Fornell, and D. R. Lehmann, "Customer satisfaction, market share, and profitability: Findings from Sweden," *Journal of Marketing*, vol. 58, no. 3, pp. 53-66, 1994.
- [26] E. W. Anderson and M. W. Sullivan, "The antecedents and consequences of customer satisfaction for firms," *Marketing Science*, vol. 12, no. 2, pp. 125-143, 1993.
- [27] C. Flavián, M. Guinalú, and R. Gurrea, "The role played by perceived usability, satisfaction and consumer trust on website loyalty," *Information & Management*, vol. 43, no. 1, pp. 1-14, 2006.
- [28] C. Moorman, G. Zaltman, and R. Deshpande, "Relationships between providers and users of market research: The dynamics of trust within and between organizations," *Journal of Marketing Research*, vol. 29, no. 3, pp. 314-328, 1992.
- [29] R. M. Morgan and S. D. Hunt, "The commitment-trust theory of relationship marketing," *Journal of Marketing*, vol. 58, no. 3, pp. 20-38, 1994.
- [30] M. L. Tushman and C. A. O'Reilly, "Ambidextrous organizations: Managing evolutionary and revolutionary change," *California Management Review*, vol. 38, no. 4, pp. 8-30, 1996.
- [31] G. M. Schwarz, "The logic of deliberate structural inertia," *Journal of Management*, vol. 38, no. 2, pp. 547-572, 2012.
- [32] J. A. Baum and A. V. Shipilov, "Ecological approaches to organizations," in *Handbook of Organization Studies*, 2nd ed. S. Clegg, C. Hardy, T. B. Lawrence, and W. Nord, Eds. London: Sage, 2006, pp. 55-110.
- [33] G. T. Gundlach, R. S. Achrol, and J. T. Mentzer, "The structure of commitment in exchange," *Journal of Marketing*, vol. 59, no. 1, pp. 78-92, 1995.
- [34] T. L. Keiningham, C. M. Frennea, L. Aksoy, A. Buoye, and V. Mittal, "A five-component customer commitment model: implications for repurchase intentions in goods and services industries," *Journal of Service Research*, vol. 18, no. 4, pp. 433-450, 2015.
- [35] C. A. O'Reilly and J. Chatman, "Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior," *Journal of Applied Psychology*, vol. 71, no. 3, p. 492, 1986.
- [36] J. Kim, J. D. Morris, and J. Swait, "Antecedents of true brand loyalty," *Journal of Advertising*, vol. 37, no. 2, pp. 99-117, 2008.
- [37] H. Han, Y. Kim, and E. K. Kim, "Cognitive, affective, conative, and action loyalty: Testing the impact of inertia," *International Journal of Hospitality Management*, vol. 30, no. 4, pp. 1008-1019, 2011.
- [38] A. Chaudhuri and M. B. Holbrook, "The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty," *Journal of Marketing*, vol. 65, no. 2, pp. 81-93, 2001.
- [39] C. Zehir, A. Şahin, H. Kitapçı, and M. Özşahin, "The effects of brand communication and service quality in building brand loyalty through brand trust; the empirical research on global brands," *Procedia-Social and Behavioral Sciences*, vol. 24, pp. 1218-1231, 2011.
- [40] H. Jang, L. Olfman, I. Ko, J. Koh, and K. Kim, "The influence of on-line brand community characteristics on community commitment and brand loyalty," *International Journal of Electronic Commerce*, vol. 12, no. 3, pp. 57-80, 2008.

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