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## BIBLIOMETRIC ANALYSIS BRAND SWITCHING BEHAVIOR ON SMARTPHONE

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### ABSTRACT

The emergence of new smartphone brands has led to switching behavior towards the brands. Considering the increasing interest in switching behavior as a research topic, it is essential to integrate and provide an organized summary of existing research. Therefore, this study aims to conduct a bibliometric analysis of smartphone brand-switching behavior. This research seeks to answer the following questions: (1) What is the research trend on this topic over the years and based on the co-occurrence keyword? (2) What is the productivity level of authors and journal publishers? (3) What is the future research model? The Scopus database is used as the data source for this study. Data is processed using Excel and VOSviewer. The findings of this study are as follows: (1) The research trend on this topic has been increasing, particularly since 1998. Based on co-occurrence keywords, brand switching is the first hot topic. (2) Wong K.H., Chang H.H., and Yeh C.H. are the authors with the most citations. The highest number of published journals is "Information Technology and People." (3) the future research model combines the model from Wong K.H., Chang H.H., Yeh C.H. and Isa S.M., Kelly L., Kiumarsi S.

**KEYWORDS:** brand switching behavior, bibliometric analysis, Scopus, VOSViewer

### 1. INTRODUCTION

Smartphones, as mobile or cellular devices with advanced features, offer a plethora of sophisticated functionalities highly sought after by many people. These features include phone calls, cameras, SMS, WhatsApp, music players, video players, internet access, gaming applications, and the ability to edit documents. The presence of these advanced features provides convenience not only for communication but also for various daily activities.

In Indonesia, several smartphone brands are circulating in society, but only five significant brands dominate the smartphone market. According to IDC data [1], in 2016, the five major smartphone brands in Indonesia were Samsung, OPPO, Asus, Advan, and Lenovo. However, in 2017, Lenovo's position was replaced by a new brand, Vivo, making the five major smartphone brands in Indonesia Samsung, OPPO, Advan, Asus, and Vivo.

In 2021, based on IDC data [2], Advan and Asus were replaced by Xiaomi and Realme. This change indicates that customers often switch from one brand to another over a certain period. So, what drives customers to switch from one brand to another? To understand this phenomenon, focusing on customer switching behavior towards brands is essential.

The topic of customer switching behavior has been extensively researched before. Wu [3] researched switching in personal cloud storage, while Xu [4] investigated switching behavior in cloud storage services. Lin and Wang [5] studied actual switching on social networking sites, and Mannan [6] explored switching intention in the mobile telecommunications market. Quoquab et al. [7] examined switching intention in the telecommunications industry, and Oh & Park [8] focused on switching intention in smartphone services. Additionally, four journals discuss brand switching in smartphones, namely the studies by Wong et al. [9], Isa et al. [10], Liao [11], and Guo et al. [12].

Considering the increasing attention to switching behavior as a research topic in various fields, it is crucial to integrate and provide an organized summary of existing research by identifying established and emerging areas of previous studies. This effort aims to build knowledge, gain understanding, and indicate future directions in the research field. For this purpose, this study aims to conduct a bibliometric analysis of brand switching. Using the Scopus database from 1975 to 2022, this research seeks to answer the following questions: (1) What is the research trend on this topic over the years and based on co-occurrence keywords? (2) What is the productivity level of authors and journal publishers? (3) What is the future research model?

Several bibliometric analyses on smartphones have been conducted, including studies by Y. Y. Wu & Chou [13], Suki et al. [14], Dincer & Dincer [15], and Zerbini-Simone et al. [16]. However, these studies have yet to address the topic of brand switching on smartphones specifically. Therefore, this research aims to conduct a bibliometric analysis of customer switching behavior toward brands.

## **1.2. Literature Review**

Theory about customer switching behavior, brand switching behavior and bibliometric analysis will be explained in this chapter.

### **1.2.1 Brand Switching Behavior**

According to Keaveney [8], customer switching behavior has been extensively studied in information systems, management, and marketing. These studies focus on understanding why consumers switch to other products or services. Jiang [9] states that customer switching behavior does not only occur between different objects (products or services) but can also involve switching between brands or within a single brand.

In this research, the aspect changing is the brand. Brand switching, as described by Nimako and Winneba in Guo et al. [12], refers to switching within the same product but between different brands.

According to Guo et al. [12], in this advanced era, customers can easily access information to learn more about a product and compare specific brands with others. As a result, customers tend to switch from one brand to another.

### 1.2.2 Bibliometric Analysis

Bibliometric analysis is currently a trending research method. Academics use bibliometric analysis for various purposes, such as identifying the latest trends in a specific topic, examining collaboration patterns, and exploring the intellectual structure of a particular domain within existing literature [17]. According to Mokhtari et al. [18], bibliometric analysis of journals can provide guidance and references for prospective authors while revealing the status and developmental trends. This method can also serve as a foundation for improving the quality of journals on the relevant topic in the future.

## 2. METHODOLOGY

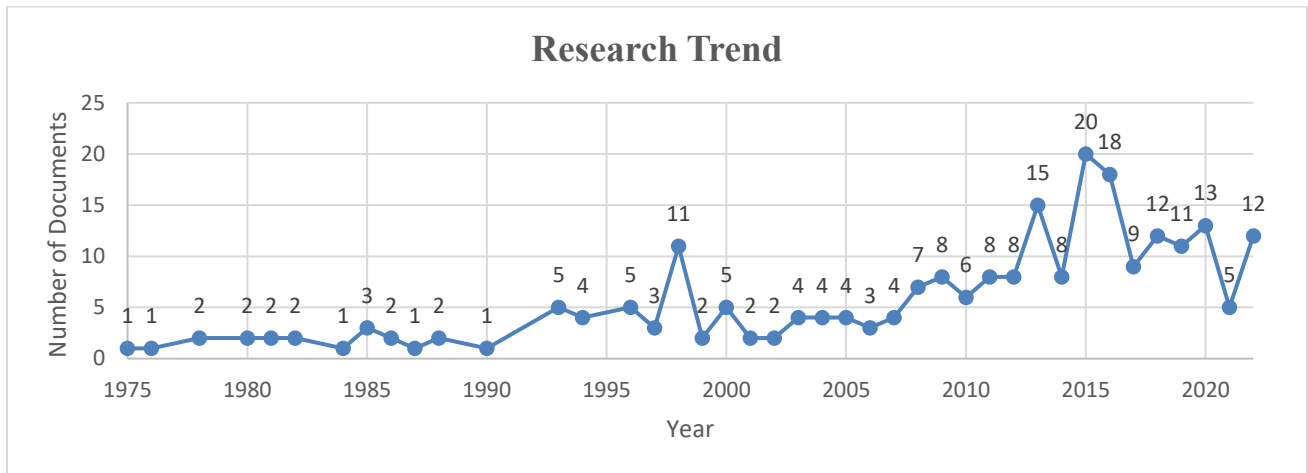
The methodology of research can be explained as follow.

- First, determine the information source:
- This research collects data from the Scopus database, which includes peer-reviewed journals and excellent conference papers. The data from Scopus, spanning over ten years, can provide a comprehensive overview of research trends. The data is retrieved from the year 1975 to 2022, covering the first studies related to the topic of customer switching behavior.
- **Second, select keywords and analyze articles based on the keywords.** Specific keywords are applied to search for research articles in the titles or abstracts to find relevant data related to this research topic. The combination of keywords used in the search is (TITLE-ABS-KEY ("brand switching") AND PUBYEAR > 1974 AND PUBYEAR < 2023. As a result, 238 studies were identified for analysis. Firstly, the documents are checked according to their publication years to examine the research trends. Second, a co-occurrence keyword analysis is conducted to determine current research trends.
- **Third, add a keyword smartphone on the combination of keywords used in the search in Scopus (TITLE-ABS-KEY ("brand switching") AND TITLE-ABS-KEY (smartphone) and then analyze the search results.** In this stage, the journals are analyzed according to authors and journal sources to assess the activity level in research publications. publications.

## 3. RESULT AND DISCUSSION

### 3.1 Research Trend Over the Years

The research trend over the years since 1975 until 2020 can be seen in the Figure 1.



**Figure 1: Research Trend in Customer Brand Switching’s Topic from 1975 to 2022**

Based on Figure 1, the first research on customer brand switching started in 1975. Generally, the research trend from 1975 to 2022 shows a tendency of increasing interest, particularly since 1998. The highest number of research papers on this topic was recorded in 2015, with 20 research documents. This indicates a growing interest in studying customer brand switching and its significance among academics and the business community. The increasing trend reflects the continued relevance of this topic and the need for further investigation to understand the dynamics of consumer behavior and brand switching in an ever-changing market.

### 3.2 Research Trends based on Co-Occurrence Keyword

Keyword analysis was conducted using VOSViewer. Co-occurrence was selected as the analysis type, and all keywords were chosen as the unit of analysis. By setting a minimum occurrence of 5 times, 17 keywords frequently appearing in research related to customer brand switching were identified. Based on Table 1, it can be seen from the occurrence and total link strength. Some keywords are trending topics, such as brand switching, loyalty, and marketing. Brand switching holds the first position with a total occurrence of 58.

**Table 1: Research Trends based on Co Occurrence Keyword**

Keyword	Occurrence	Total Link Strength
Brand switching	58	46
Brand loyalty	28	30
Marketing	15	18
Consumer behaviour	11	11
Customer satisfaction	11	11
Consumer behavior	9	17
Consumption behavior	7	15
Switching	7	5

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Sales	6	20
Commerce	6	15
Market share	6	13
retailing	6	11
Brand Equity	6	9
Customer Loyalty	6	5
Competition	5	8
Loyalty	5	5
Brand-switching	5	1

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### 3.3 Research based on Author

After seeing the research trend about customer brand switching, we can now focus on customer brand switching on smartphones. Based on the Database Scopus, there are 11 documents found. The authors are listed in Table 2 below.

Based on Table 2, it can be observed that Wong K.H., Chang H.H., and Yeh C.H. are the authors with the highest number of citations, totaling 48 citations. Their research title is "The Effects of Consumption Values and Relational Benefits on Smartphone Brand Switching Behavior." This paper aims to construct a conceptual framework that explains smartphone brand-switching behavior by integrating the consumption value theory, which encompasses functional value, emotional value, social value, and epistemic value, along with the cognition affect behavior (CAB) model. The study examines two distinct pathways: one involving product consumption values and the other concerning relational benefits from retail services. These cognitive factors predict brand commitment (affect) and smartphone brand-switching behavior. Additionally, the research explores the moderating impact of switching costs on the relationship between brand commitment and the propensity to switch smartphone brands.

Meanwhile, other authors discuss brand switching intention and transitioning from luxury smartphones. Other authors mentioned in the table who have also written about brand-switching behavior are Isa S.M., Kelly L., and Kiumarsi S., with their research titled "Brand Switching through Marketing Mix: The Role of Brand Effect on Smartphone Users." This research delves into the impact of the marketing mix on brand switching within the Malaysian smartphone user context. Furthermore, it explores how brand effects mediate the relationships between the marketing mix components (specifically, product, price, place, and promotion), service, and brand switching.

**Table 2: Research based on Author**

Author	Documents	Citations
Wong K.H.; Chang H.H.; Yeh C.H.	1	48
Liao J.; Li M.; Wei H.; Tong Z.	1	33
Al-Kwafi S.O.	1	24
Msaed C.; Al-Kwafi S.O.; Ahmed Z.U.	1	22
Appiah D.; Ozuem W.; Howell K.E.; Lancaster G.	1	18
Appiah D.; Howell K.E.; Ozuem W.; Lancaster G.	1	16
Santhosh Kumar S.; Menon R.P.	1	13
Christino J.; Silva T.; Moura L.R.; Fonseca L.H.	1	11
Isa S.M.; Kelly L.; Kiumarsi S.	1	4
Ng M.; Law M.; Lin K.-F.K.	1	1
Appiah D.; Watson A.	1	0

**3.4 Research based on Journal Publisher**

Table 3 shows that the publisher with the most published journals on brand-switching behavior is "Information Technology and People," with 1 document and 48 citations. The article of this journal is an article from Wong K.H., Chang H.H., and Yeh C.H., described in subheading 3.3.

Analyzing the publisher is crucial for researchers to understand the publications and access various research papers on customer switching behavior. This helps researchers stay updated with the latest research, gain exposure to various perspectives, and identify reputable sources to cite and reference. Access to reliable and relevant journals can significantly contribute to the quality and credibility of researchers' work in this field.

**Table 3: Research based on Journal Publisher**

Source	Documents	Citations
Information Technology and People	1	48
Journal of Product and Brand Management	2	46
Asia Pacific Journal of Marketing and Logistics	1	33
Journal of Consumer Behaviour	1	18
Journal of Retailing and Consumer Services	1	16
Indian Journal of Marketing	1	13
Journal of Promotion Management	1	11
International Journal of Process Management and Benchmarking	1	4
Journal of Marketing Analytics	1	1
The Art of Digital Marketing for Fashion and Luxury Brands: Marketplaces and Marketplaces	1	0

### 3.5 Future Research Model

The literature review discussion above shows that brand switching is a hot topic. Furthermore, the variables from two authors, which discusses the brand-switching behavior regarding smartphones, can be seen in Table 4.

**Table 4: Previous Research on Brand Switching Topics**

Author	Variable	
	Dependent	Independent
Wong <i>et al.</i> [9]	Band Switching Behavior	Independent Variable 1. Product consumption value: Social Value, Functional Value, Epistemic Value, and Emotional value 2. Retail service relational benefit: Confidence Benefit, Social Benefit, Special Treatment Benefit, and Functional benefit Intervening Variable: Brand Commitment Moderating Variable: Switching Cost
Isa <i>et al.</i> [10]	Brand Switching Behavior	Independent Variable: Product, Promotion, Service, Price, Place Moderating Variable: Brand Effect

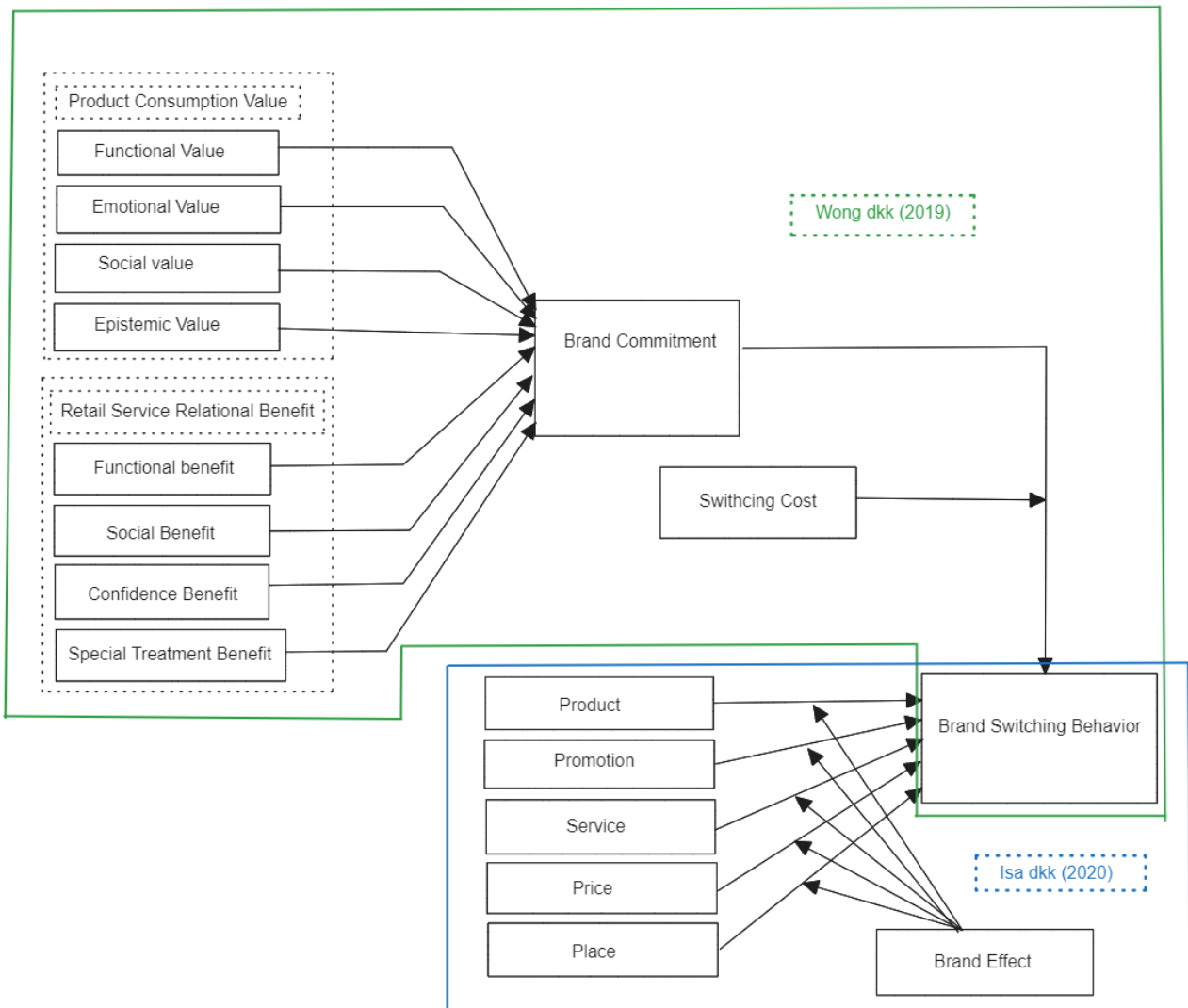
Based on the previous research on brand switching and switching behavior described in Table 4 two studies on brand switching behavior can be selected and combined. These studies are the research conducted by Wong *et al.* [9] and Isa *et al.* [10], as they share the same dependent variable; and also, both of these models still have limitations. Wong's model only examines products and stores, while Isa's research focuses solely on marketing mix and services. By merging these two studies, we can expand our knowledge of the influence of several independent variables on brand switching behavior. Research on brand switching behavior can provide insights to companies regarding the factors that influence customer switching behavior. By understanding these factors, companies can develop appropriate strategies to maintain competitiveness in the smartphone market [9].

### 4. CONCLUSION

Based on the results and discussion, it is evident that the topic of brand switching has been extensively researched. This is demonstrated by the increasing number of studies on this topic since 1998, with the highest number of research papers recorded in 2015, totaling 20 documents. Based on co-occurrence keywords, brand switching holds the first position with a total occurrence 58.

From the author's study, it can be observed that Wong K.H., Chang H.H.; Yeh C.H are the authors with the highest number of citations, totaling 48. The research is about brand-switching behavior. The other authors researching brand switching behavior are Isa S.M., Kelly L., and Kiumarsi S. From both

researchers, we can combine their research models as they share the same dependent variable. By merging these two models, we can broaden our understanding of the independent variables influencing brand-switching behavior, including product, store, marketing, and seller-provided services.



**Figure 2: The research model for Brand Switching Behavior**

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