

RESEARCH ARTICLE

Effects of Brand- and Customer-Related Factors on Purchase Decision on Chinese Smartphone Brands in Thailand

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Abstract: In Thailand, the Chinese smartphone brands, such as Oppo, Vivo, and Huawei, seek to increase further their combined domestic market share of around 50% in the foreseeable future. Therefore, systematic data on the purchase decision among Thai customers on Chinese smartphone brands would be informative. This study discusses the effects of innovative products, marketing mix, customer preferences, and customer satisfaction on Thai customers' purchase decision of Chinese smartphone brands. Data were drawn from a survey involving a randomly-selected sample of 600 Thais who had purchased a Chinese smartphone brand. Using SPSS 22.0 and LISREL 9.2, data were analyzed to ascertain the statistical significance and the extent of the effects of the four factors. Results suggest that innovative products, marketing mix, customer preferences, and customer satisfaction had statistically significant direct, indirect, and total effects on a purchase decision. Customer satisfaction and customer preferences were the top-tiered factors, whereas marketing mix and innovative products were the lower-tiered. Overall, customer satisfaction, customer preferences, marketing mix, and innovative products explained 58.0% of the variation in the purchase decision, whereas customer preferences, marketing mix, and innovative products explained 43.0% of the variation in customer satisfaction. To further increase their local market share, the Chinese brands have to continue addressing the preferences and satisfaction of domestic customers while recalibrating their brand strategies so that these become more impactful on the customers' purchase decision. Research is needed in these areas.

Keywords: purchase decision, customer satisfaction, Chinese smartphone brands, Thai customers, Thailand

In Thailand, smartphone—defined as a cellphone with additional computing capability and Internet access (Yang & Li, 2016)—is a ubiquitous and a highly-lucrative consumer product. Throughout the country, the smartphone's penetration rate is nearing 80% (Accenture, 2017), or probably even more. In terms of size, the domestic smartphone market is huge and growing—users is estimated to be 30.2 million in

2020 and expected to be 32.4 million by 2023 (Statista, 2020)—thereby solidifying the status of Thailand as Southeast Asia's second-largest smartphone market. The innumerable ways in which the gadget has been intricately mainstreamed within the Thai culture over the decades—across societal, institutional, social, and personal levels—strongly suggest that the smartphone has become a modern life fixture, and therefore, an

essential product, for most of the 70.0 million Thai population. It can be said that the presence of a broad-based smartphone market in Thailand has been instrumental in ensuring the long-term growth and stability of the domestic industry.

Despite its vast and receptive consumer base, Thailand's smartphone industry does not automatically guarantee any of the numerous smartphone brands, such as Apple, Samsung, Oppo, or Huawei, a good share of the domestic market. To capture a high market share, these brands have to work harder to promote and market their products and accompanying services effectively. Thus, the market is a veritable festival of brands outdoing each other, for a significant slice of the market, to reach the top of the competition. Indeed, some smartphone brands had become Thailand's top products, but these market leaders are continually challenged by new, more agile brands (Setili, 2014). Apple (a U.S. brand) and Samsung (a South Korean brand) have been losing ground in Thailand to some brands from China, namely, Oppo, Vivo, and Huawei (Kotani, 2017). Specifically, Oppo's market share of 23.0% is now just a breath away from Samsung's 24.0% (Nguansuk, 2020), whereas Huawei and Vivo have continuously gnawed into Apple's domestic market dominance (Canalys, 2019). Currently, the combined Thai market share of Oppo, Huawei, and Vivo is around 50% (Nguansuk, 2019), and all are aiming to increase their respective rates. Therefore, each of these brands is seeking to increase the number of its buyers.

Towards achieving their goal, the Chinese brands, in general, need to understand the key factors that are influencing the decision of Thai customers to purchase the brands' smartphones. As they have the industry experience, these brands should already know what these factors are, including how to employ them to their advantage so that customers buy their products. Published studies have likewise identified these factors, including their corresponding mechanisms of influence. Either source has highlighted the effects of the brand- and customer-related factors. This report provides evidence on the effects of selected factors, namely, innovative products, marketing mix, customer preferences, and customer satisfaction, on the purchase decision of Thai customers on Chinese smartphone brands. The findings are useful for domestic research and for the market share growth goal of Chinese brands in Thailand.

Framework and Hypotheses

The present study discusses the effects of innovative products, marketing mix, customer preferences, and customer satisfaction on the purchase decision of Thai consumers on Chinese smartphone brands; and the effects of innovative products, marketing mix, and customer preferences on customer satisfaction (Figure 1).

Purchase decision is a multi-stage process that involves identifying a need, generating an option, and selecting and buying a specific brand (KWHS, 2011). The third stage has an attitudinal dimension (Papafotikas et al., 2014), where customers would first be thinking about buying a brand in the context, for example, of their orientation, need, or alternatives. The third stage would then involve a behavioral dimension (Baz et al., 2017), where customers would now be proceeding to buy the brand at an agreed price. The attitude-behavior consistency is assumed here—that is, that one's attitude to purchase would, in fact, lead to one's actual purchase. Product price, which commonly impedes the nexus (Al-Salamini & Al-Hassan, 2016), is less of a significant factor in the present case. For one, the Thai customers have the purchasing power given their minimum daily wage of US\$12; and for another, the Chinese smartphone brands are generally inexpensive.

Rather than being a coincidence, purchase decision is an anticipated consequence of the strategies utilized by the Chinese smartphone brands to influence a positive outcome. Foremost among their strategies are their physical displays of innovative smartphones. These advanced and evolving products are the foundation of the Chinese brands' movement to be at the top of the market in Thailand. Towards achieving the said goal, Oppo has now, for instance, diversified into luxury gadgets (Tortermvasana, 2019a), Huawei is offering 5G-ready smartphones (Tortermvasana, 2019b), and Vivo is zeroing-in on specific technologies, such as selfie (Singh, 2019). The sheer physical availability of the innovative products alone, especially if these are pioneering and effective and can be tried out by the would-be buyers, is a behavior-inducing stimulus. These products typically evoke elements of newness, advancement, ease, comfort, and convenience, and as they also help enhance self-image (Seng & Ping, 2016), the products alone could attract buyers. **(H1a: Innovative products have a direct effect**

on purchase decision). However, in the industry where reproductions are swiftly manufactured and made readily available by agile competitors (Cecere et al., 2015), innovative products could lose their differentiation and exclusiveness, including their power to affect the purchase decision. The Chinese brands would need to then elevate their innovative products to the next logical level—by proving to and assuring the customers about the products’ comparative edge. This process is likely to make the customers feel they are receiving help in their purchase goals (Wongsawat & Deebhijarn, 2020), which could then lead to their overall satisfaction with the brands **(H1b: Innovative products directly affect customer satisfaction)**. It is through this customer satisfaction that innovative products could also exert their indirect effects on a purchase decision.

As competitive entities, the Chinese brands are aggressively carrying out a marketing mix, to establish in consumers a set of appropriate knowledge, feelings, and identities, and an overall familiarity with the products, including prices, display, try-out, and purchase locations. For example, Oppo has, among others, hired thousands of sales staff to address the specific service-based requirements of its customers (Tao, 2019), including the latter’s issues and preferences (Deng, 2018). Huawei, on the other hand, has added more chains of physical stores into its already extensive distribution network to widen the

mass-based visibility and accessibility of its products. Moreover, Huawei has tapped more brand ambassadors to improve the attractiveness and acceptability of its products, not to mention that it has forged additional institutional partnerships to firm up its brand identity (Jiang, 2016). On its part, Vivo, in general, has intensified its nation- and sector-wide promotion and marketing strategies—in multiple and varying forms—to deepen the consumers’ identification with the brand’s affinity to music, sports, and passion, as well as to generate the much-needed public attention (“Vivo thrives in mobile market,” 2015).

Because it effectively creates a positive image and demand for the brands and the benefits of their use, marketing mix—such as the cited strategies—could readily propel customers into making a purchase decision. **(H2a: Marketing mix has a direct effect on purchase decision)**. Though, the marketing mix-purchase decision nexus is likely to be observed among customers who already have a favorable opinion on Chinese brands. However, among those who are not or are less knowledgeable, or with a poor perception (Deng, 2018) of the Chinese brands, the use of marketing mix alone may not suffice. With competing marketing mix messages from other brands in the market, product differentiation is blurred and confusing for the customers, making their purchase decision uncertain. Chinese brands have to effectively manage their customers’ product expectations to help

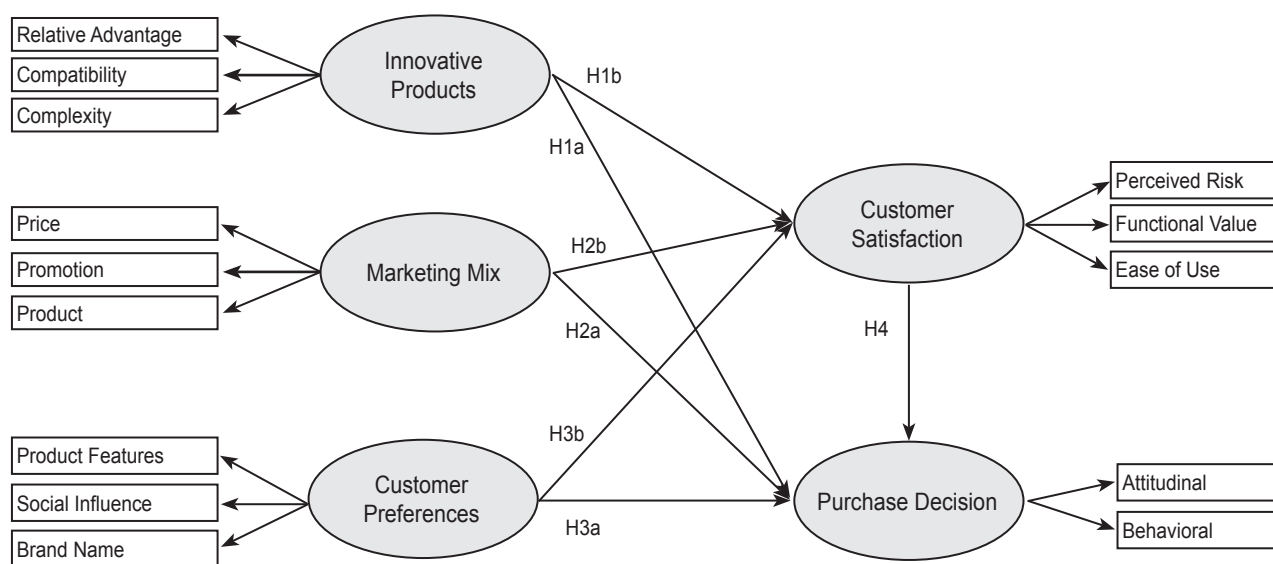


Figure 1. Study Framework

them develop an overall sense of product satisfaction. **(H2b: Marketing mix has a direct effect on customer satisfaction).** Customer satisfaction is important because it is through it that the marketing mix could also bear its indirect effects on the purchase decision.

Purchase decision is likewise contingent on customer preferences, which refer to comparative values and characteristics that customers like and look for in a product, such as its name, features, and social influence (Hanaysha, 2018). As experienced mobile phone users, with years of purchase and usage history, the customers have already established their brand choices. Preferences are like vessels that effectively ferry the customers towards buying the product of their choice. The more congruent the preferences are with the product characteristics, the stronger the nexus; in effect, customer preferences could lead directly to purchase decisions. **(H3a: Customer preferences have a direct effect on purchase decision).** However, among those with a divergent taste, or poor regard for the Chinese products (Deng, 2018), customer preferences would hardly predict purchase decision due to the incongruence. The Chinese smartphone brands would have to exert a great deal of effort to correct the mismatch by recalibrating the non-congruent preferences so that they become attuned to, or are replaced with, the characteristics associated with the Chinese products. This stepped-up effort can only succeed if the Chinese brands can demonstrate to the customers that the products from China are better. Only when the customers' preferences are addressed and assured that buying higher-value products would satisfy them. **(H3b: Customer preferences have a direct effect on customer satisfaction).** Customer satisfaction is not just an outcome; it also serves as the route through which customer preferences could indirectly affect purchase decisions.

The Chinese smartphone brands' strategies involving innovative products, marketing mix, and customer preferences are all geared towards cultivating customer satisfaction among Thai customers. Customer satisfaction is at the heart of purchase decision, and fulfilling the pre-purchase product-related concerns of the customers—either within or beyond their expectations (Wongsawat & Deebhijarn, 2020)—is the right step towards achieving the said satisfaction. Among the Thai customers who are not well-acquainted with the products from China, the Chinese smartphone brands would have to assure and demonstrate the sheer

excellence and reliability of their products to this sub-group. Specifically, the Chinese brands have to underscore the risk, functional value, and ease-of-use of their products against the characteristics of those offered by their closest competitors. Only when the customers are satisfied and happy about the product they are thinking of buying would they start moving towards buying it. In addition to its mediating role between innovative products, marketing mix, and customer preferences on the one hand, and purchase decision on the other, customer satisfaction has its own direct effect on the purchase decision. **(H4: Customer satisfaction has a direct effect on purchase decision).**

Methods

We surveyed 600 Thais who reported to have purchased a Chinese smartphone brand from a smartphone provider in Bangkok. The sample was randomly selected from a consolidated list of smartphone buyers who, at the time this survey was conducted, were 17 to 40 years old and residents of Bangkok. Those chosen from the list were contacted and were informed about and requested to participate in the survey. The survey questionnaire was emailed to those who consented. Of the 600 respondents, 58.3% were males, whereas 41.7% were females; and 58.0% were between 17–27 years old, whereas 42.0% were older.

The survey questionnaire covered several Likert scale statements on purchase decision, innovative products, marketing mix, customer preferences, and customer satisfaction. Each statement was a five-point item (i.e., 1–5) that asked respondents of their agreement or disagreement with perception, behavior, or an experience specified in the statement. The statements were drawn from published studies, but these were modified for the current research. The statements were subjected to a test and were found highly reliable, as the following Cronbach's alpha coefficients of the study variables show: 0.913 for purchase decision, 0.846 for innovative products, 0.971 for marketing mix, 0.915 for customer preferences, and 0.969 for customer satisfaction. The instrument was pretested and was refined, on account of the results, before it was administered to respondents.

Data processing and analysis were performed using the Statistical Package for the Social Sciences (SPSS) 22.0 and the Linear Structural Relations (LISREL) 9.2.

The analyses were designed to ascertain the statistical significance and the extent of the effects of the selected factors on purchase decision. Moreover, the constructs used in this study were examined for their validity. Based on the findings from the confirmatory factor analysis, the structural equation model in this study was found to be consistent with the set of empirical data.

Results

All of the direct effects hypothesized in this study were confirmed (Table 1 and Figure 2). Findings revealed the statistically significant direct effects, at $p < 0.05$ or $p < 0.01$, of innovative products on purchase decision (**H1a**) and customer satisfaction (**H1b**); of marketing mix on purchase decision (**H2a**) and customer satisfaction (**H2b**); of customer preferences on purchase decision (**H3a**) and customer satisfaction (**H3b**); and of customer satisfaction on purchase decision (**H4**). Moreover, in Table 1, the statistically significant indirect effects of innovative products, marketing mix, and customer preferences on purchase decision, with customer satisfaction as the intervening variable, were confirmed.

The direct effects of innovative products, marketing mix, customer preferences, and customer satisfaction on purchase decision were weak to moderate. In the

descending order of their direct effects, customer satisfaction was at the top (0.583), followed by customer preferences (0.510), marketing mix (0.434), and innovative products (0.288). In terms of the direct effects of innovative products, marketing mix, and customer preferences on customer satisfaction, data revealed that these were generally weak, with the coefficient of influence for customer preferences at 0.345, marketing mix at 0.361, and innovative products at 0.226.

The intervening or indirect effects of customer satisfaction were weak. Customer satisfaction had just contributed 0.133 for the innovative products-purchase decision nexus, 0.217 for the marketing mix-purchase decision nexus, and 0.332 for the customer preferences-purchase decision nexus. However, if these indirect effects were added into the direct effects of innovative products, customer preferences, and customer satisfaction, the resultant total effects of these factors on purchase decision had improved to either moderate or strong. Customer preferences had the strongest total effects (0.842), followed by marketing mix (0.651), and innovative products (0.421).

Overall, the coefficient of determination (R^2) reveals that customer satisfaction, customer preferences, marketing mix, and innovative products, in that order, accounted for 58.0% of the variation in purchase

Table 1
Structural Equation Model Standard Coefficients of Influence

	Purchase decision			Customer satisfaction		
	Total effects	Indirect effects	Direct effects	Total effects	Indirect effects	Direct effects
Innovative products	0.421 *	0.133 *	0.288 *	0.226 *	–	0.226 *
Marketing mix	0.651 *	0.217 *	0.434 *	0.361 *	–	0.361 *
Customer preferences	0.842 *	0.332 *	0.510 *	0.345 *	–	0.345 *
Customer satisfaction	0.583 **	–	0.583 *	–	–	–

$X^2(\text{Chi-Square})=272$, $df=202$, $p\text{-value}=0.00074$, $GFI=0.96$, $AGFI=0.97$, $IFI=0.94$, $TLI=0.97$, $CFI=0.99$, $RMR=0.029$, $RMSEA=0.024$

Structural Equation	Purchase decision	Customer satisfaction
R^2 (Coefficient of Determination)	0.58	0.43

* $p < 0.05$, ** $p < 0.01$

decision. Furthermore, the coefficient indicates that customer preferences, marketing mix, and innovative products, in that order, explained 43.0% of the variation in customer satisfaction.

Discussion

Using the data from a sample of 600 Thai customers, this study demonstrated the effects of four factors on the purchase decision on Chinese smartphone brands. The evidence is the study's contribution to understanding the problems in the context of smartphone brands from China. The cultural dynamics involved in product purchase (Shavitt & Barnes, 2020), such as that occurring between Thai customers and Chinese brands, will help define the growth of the country's smartphone industry. However, the future of such growth is contingent on improvements that are needed to influence the local customers' purchase decisions on fast-emerging Chinese products. It is in this respect that this study is significant.

Innovative products, marketing mix, customer preferences, and customer satisfaction were each observed for their statistically significant effects upon purchase decision on Chinese brands. Innovative products demonstrated the physical availability and innovativeness of the Chinese smartphone brands; marketing mix created a positive image and demand for these smartphone brands; customer preferences outlined the buyers' specific smartphone brand requirements; and customer satisfaction reflected the buyers' fulfillment with the brands. These conditions are precursors to purchase decisions (e.g., Mehmood & Shafiq, 2015; Rahim et al., 2016). However, the four factors were not on an equal footing. Customer satisfaction and customer preferences, which were roughly comparable in terms of their effects on purchase decision, were the top-tier factors, whereas marketing mix and innovative products were the lower-tiered.

The primacy of customer-related factors would suggest that Thai customers were their own persons when they concluded their purchase decision. Rather than snapping and hastily purchasing the innovative smartphones demonstrated to them, the Thai customers appeared more circumspect, or discerning and demanding (Kongprasert & Virutamasen, 2015). That is, they had only decided on the purchase after they were made satisfied with the products, and when their

product preferences were met. Some studies suggested that the customers are not passive, let alone blank slates, but are rather active when making purchase decisions (e.g., Rishi & Bandyopadhyay, 2017). In addition, with their know-how, they are assertive about what they want, or their "we-first" demands. Their active engagement and assertiveness are to be expected, given that these smartphone customers are digital natives. They hold much knowledge about smartphone brands because the smartphone industry is their social habitat. Within that habitat, they continually exchange information with other digital natives and learn more about smartphone brands (Kurkovsky & Syta, 2010), including those from China. With their intimate knowledge of smartphones—along with their knowledge of their purchasing power, their heightened value as clients due to industry-wide competition, and their rights as consumers—these customers expect no less than their satisfaction and having their preferences met as their precondition to purchase decision.

The brand-related factors likewise had a role in the purchase decision of Thai customers, but such a role was limited and only secondary to that taken by customer-related factors. These brand-based factors could have been sidestepped by the Chinese brands' prioritization of the customer-related factors, where these brands had needed to respond, and had effectively responded, because of the Thais' "we-first" or demanding orientation (Kongprasert & Virutamasen, 2015). The Chinese brands' generic design of their marketing mix and innovative products, which meant that these strategies were undifferentiated from others in the market (Cecere, Corrocher, & Battaglia, 2015) could have likewise prevented them from standing out in the crowd, and therefore, from heightening their impact. However, as normative and proven strategies geared at influencing the critical mass of customers—the main source of significant margins for major brands (Kim, 2014)—marketing mix and innovative products would just have to employ very strategic approaches so that they can accentuate their market presence and optimize their effects. For instance, marketing mix can be carefully designed and used in far creative ways to keep the customers always satisfied. As this study showed, when customer satisfaction was considered into the equation, marketing mix increased its explanatory power on purchase decision from 43.4% to 65.1%, a growth of 21.7%. As the penultimate predictor of purchase decision and as a co-factor of customer

preferences, which is in itself a strong predictor of purchase decision, customer satisfaction is indeed the pathway.

Although customer satisfaction, customer preferences, marketing mix, and innovative products were confirmed for their statistically significant effects, their combined explanatory power on purchase decision was moderate (58.0%). In addition, the combined power of customer preferences, marketing mix, and innovative products to explain customer satisfaction was modest (43.0%). Clearly, the factors that are the necessary conditions to influence the outcome variables could only do that much and could only go that far. The tempered effects of customer-related factors could have been that the Thai customers, because they were experienced and demanding smartphone users, had deeper needs and higher expectations. Being immersed in the industry as digital natives, they are very much acquainted with smartphone brands. As the market is swamped with so many of these brands, the customers' needs and expectations are likely to be continually shifting, tentative, and fleeting; thus, these are less likely to further intensify to any higher level. On the other hand, the tempered effects of the brand-related factors could have been that the strategies of the Chinese brands, like those of the non-Chinese brands, were generic and non-dominant, whose effects are easily either blurred or diluted by competing market forces. The non-differentiation between and among strategies suggests that the Chinese brands could have had a hard time fully imprinting their mark on the minds of the customers. The effects of the brand-related factors could have also been watered down by the unfavorable perception the Thai customers' hold against Chinese brands (Deng, 2018).

In further increasing their market share in Thailand, the Chinese smartphone brands need to continue their focus on Thai customers. These brands must work harder to ensure that their products, including the attendant services, will stand out in the preferences and satisfaction chart of domestic customers. To achieve this customer-related goal, the Chinese brands must recalibrate their strategies to differentiate them from the rest and be more impactful. Research is needed to explore how to further mainstream the Chinese smartphone brands into the digital lives of Thai customers, especially into the latter's preferences

and level of satisfaction. Knowing their culture and identifying the elements where Chinese brands can be integrated into is key. Although research would have to focus on Chinese brands, their non-Chinese counterparts should receive a good deal of research attention as well. These non-Chinese brands, such as Samsung and Apple, are keeping local customers from out-migrating to other products. Thus, they are also influencing the dynamics between Thai customers and Chinese brands. The customers and the strategies of the non-Chinese brands have to be fully understood by the Chinese brands so that the latter can learn how to win the purchase decision of their competitors' customers. It is safe to say that, although the continued growth of Thailand's smartphone industry will rest on the relational dynamics between the large base of Thai customers and the agile brands from China, the processes and outcomes will also be defined by the roles and movements of the non-Chinese brands. In this respect, Samsung and Apple would have to be included in the foregoing research agenda. Future research into the Thai customers' purchase decision vis-à-vis Chinese smartphone brands (as well as the non-Chinese) would have to involve a nationally-representative sample to arrive at a more definitive conclusion on the problem.

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None.

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The study was approved by the institution.

References

- Accenture. (2017). *Thailand: A land of digital possibilities*. https://www.accenture.com/_acnmedia/pdf-68/accenture-insights-digital-commerce-thailand.pdf
- Al-Salamin, H., & Al-Hassan, E. (2016). The impact of pricing on consumer buying behavior in Saudi Arabia: Al-Hassa case study. *European Journal of Business Management*, 8(12), 62–73. <https://tinyurl.com/y9g8jgfd>
- Baz, M. H., Partal, M. M., & Benito, O. G. (2017). Attitudes vs. purchase behaviors as experienced dissonance: The roles of knowledge and consumer orientations in organic market. *Frontiers in Psychology*, 8, 1–8. <https://doi.org/10.3389/fpsyg.2017.00248>
- Canalys. (2019, February 13). Smartphone market in Thailand falls in Q4 2018. <https://www.canalys.com/newsroom/smartphone-market-in-thailand-falls-in-q4-2018->
- Cecere, G., Corrocher, N., & Battaglia, R. D. (2015). Innovation and competition in the smartphone industry: Is there a dominant design? *Telecommunications Policy*, 39(3-4), 162–175. <http://dx.doi.org/10.1016/j.telpol.2014.07.002>
- Deng, Y. (2018). *Thai consumers' perception and evaluation of Chinese products* (Unpublished master's thesis). Siam University, Thailand. <https://e-research.siam.edu/wp-content/uploads/2019/05/IMBA-2018-IS-Thai-consumers%E2%80%99-perception-and-evaluation-of-Chinese-products.pdf>
- Vivo thrives in mobile market. (2015, March 2). *Global Times*. <http://www.globaltimes.cn/content/909779.shtml>
- Hanaysha, J.R. (2018). An examination of the factors affecting consumer's purchase decision in the Malaysian retail market. *PSU Research Review*, 2(1), 7–23. <https://tinyurl.com/ycmyjjwn>
- Jiang, Y. (2016). *The global marketing strategy for high-tech companies: Case study of Huawei technologies*. University of Twente. https://essay.utwente.nl/70768/1/Jiang_BA_BMS.pdf
- Kim, M. (2014, April 4). In smartphone mass-market, Samsung, Apple have margins on their minds. *Reuters Technology News*. <https://tinyurl.com/y8kr7hb6>
- Kongprasert, N., & Virutamasen, P. (2015). Tourist perceptions to cultural identity: The case of Thai experience. *Procedia – Social and Behavioral Sciences*, 195, 167–174. <https://doi.org/10.1016/j.sbspro.2015.06.428>
- Kotani, H. (2017, September 25). Chinese smartphone makers undercut Apple in Asia. <https://tinyurl.com/ydbbwud>
- Kurkovsky, S., & Syta, E. (2010). *Digital natives and mobile phones: A survey of practices and attitudes about privacy and security*. doi: 10.1109/istas.2010.5514610
- KWHS. (2011). Purchase decision. <https://kwhs.wharton.upenn.edu/term/purchase-decision/>
- Mehmood, W., & Shafiq, O. (2015). Impact of customer satisfaction, service quality, brand image on purchase intention. *Journal of Marketing and Consumer Research*, 15, 174–186. <https://www.iiste.org/Journals/index.php/JMCR/article/view/25897/26380>
- Nguansuk, S. L. (2019, April 10). Smartphone market seesaws. *Bangkok Post*. <https://www.bangkokpost.com/business/1659296/smartphone-market-see-saws>
- Nguansuk, S. L. (2020, April 14). Pandemic sees shift to notebook demand. *Bangkok Post*. <https://www.bangkokpost.com/business/1899135/idc-sales-shrink-for-smartphones>
- Papafotikas, I., Chatzoudes, D., & Kamenidou, I. (2014). Purchase decisions of Greek consumers: An empirical study. *Procedia Economics and Finance*, 9, 456–465. <https://tinyurl.com/yczmgmfn>
- Rahim, A., Safin, S.Z., Kheng, L.K., Abas, N., & Ali, S.T. (2016). Factors influencing purchasing intention of smartphone among university students. *Procedia Economics and Finance*, 37, 245–253. <https://www.sciencedirect.com/science/article/pii/S2212567116301216>
- Rishi, B., & Bandyopadhyay, S. (2017). *Contemporary issues in social media marketing*. Routledge.
- Setili, A. (2014). *The agility advantage: How to identify and act on opportunities in a fast-changing world*. Jossey-Bass.
- Seng, L. C., & Ping, N.S. (2016). The influence of product innovation toward consumer purchase intention. *International Journal of Economics, Commerce and Management*, 4(4), 773–782.
- Shavitt, S., & Barnes, A. J. (2020). Culture and the consumer journey. *Journal of Retailing*, 96(1), 40–54. <https://www.sciencedirect.com/science/article/pii/S0022435919300867>
- Singh, J. (2019, November 18). Vivo Y19 with triple rear cameras, waterdrop-style display launched in India: Price, specifications. *Gadgets360*. <https://gadgets.ndtv.com/mobiles/news/vivo-y19-price-in-india-rs-13990-specifications-features-2134261>
- Statista. (2020). *Number of mobile phone internet users in Thailand from 2017 to 2023*. <https://www.statista.com/statistics/558884/number-of-mobile-internet-user-in-thailand/>
- Tao, L. (2019, October 19). Oppo steps up retail expansion in Southeast Asia to close sales gap on rival Samsung. *South China Morning Post*. <https://www.scmp.com/tech/gear/article/3033616/oppo-steps-retail-expansion-southeast-asia-close-sales-gap-rival-samsung>
- Tortermvasana, K. (2019a, February 19). Oppo plans luxury facelift while leading market. *Bangkok Post*. <https://>

www.bangkokpost.com/tech/1631130/oppo-plans-luxury-facelift-while-leading-market

Tortermvasana, K. (2019b, July 5). Huawei: Thai market share rises to 20%. *Bangkok Post*. <https://www.bangkokpost.com/business/1707182/huawei-thai-market-share-rises-to-20->

Wongsawat, C., & Deebhijarn, S. (2020). Factors influencing repurchase intention among foreign medical tourists in Bangkok, Thailand: A structural equation model. *Asia-Pacific Social Science Review*, 20(1), 109–116. <https://tinyurl.com/y9ny9hgl>

Yang, S. Q., & Li, L. (2016). *Emerging technologies for librarians: A practical approach to innovation*. Chandos Publishing.