

A Study on the Impact of Co-branding of Japanese and Korean Fast Moving Consumer Goods on Consumer Purchase Decisions

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Abstract: In the Fast Moving Consumer Goods (FMCG) markets of Japan and Korea, the unique consumer culture and high level of market competition make co-branding a key tool to increase brand visibility and consumer purchase intent. This study aims to explore the impact of co-branding of Japanese and Korean FMCG on consumers' purchasing decisions through a quantitative analysis method. The study begins by collecting and organizing successful co-branding cases over the past three years, especially in the food and beverage sectors, as well as collaboration projects between traditional Korean beverages and local pop culture, among others. Through a systematic analysis of these cases, using consumer surveys and market data, this study assesses the impact of co-branding strategies on consumer behavioral attitudes and compares the differences in consumer behavior between the two countries. In addition, the data collected are analyzed through regression analysis using statistical software tools to quantitatively reveal the specific impact of different types of co-branding strategies on consumers' purchasing decisions. Looking at the data of the top ten consumers, most of them rated the loyalty of the co-branded products above 80 points, while half of the regular products were rated below 80 points. This paper not only reveals the current consumer dynamics of the co-branded FMCG market in Japan and Korea, but also provides data-based strategic recommendations for companies in other countries to help them design future co-branded marketing campaigns that can better meet the needs of their target markets, thereby increasing market competitiveness and consumer loyalty.

1. Introduction

In the context of a globalized market, co-branding between brands has become a popular marketing strategy, especially in the field of FMCG. As leaders in the Asian FMCG market, Japan and Korea have successfully implemented a joint branding strategy, which not only enhances brand influence but also greatly influences consumer purchasing decisions. This strategy can create new brand images,

expand the target consumer group, and is an important window for studying market behavior. Although existing studies have explored the multiple effects of co-branding, there is little literature that provides an in-depth comparative analysis of the Japanese and Korean markets from the perspective of consumer behavior. This paper aims to fill this research gap by quantitatively examining how co-branding influences the purchasing decisions of Japanese and Korean consumers.

The main components of this study include a case study of co-branding of Japanese and Korean FMCG over the past three years, data collection through consumer surveys, and data analysis using statistical software so as to assess the specific impact of co-branding strategies on consumer behavioral attitudes and purchasing decisions. The study will also compare the similarities and differences in the application of this strategy between Japan and Korea to inform future corporate marketing strategies.

The structure of this paper is organized as follows: first, this paper provides a detailed review of the theoretical foundations and historical background of co-branding, and comprehensively analyzes the current state of research and literature in the Japanese and Korean markets. Then, the paper describes the research methodology in detail, including case selection criteria, data collection process and analysis techniques. Finally, the paper discusses the research results, summarizes the impact of co-branding on consumers' purchasing decisions, puts forward suggestions for strategy adjustments, as well as an outlook on future research directions.

2. Related Work

In current research, co-branding marketing strategies are widely recognized as an effective means to enhance brand value and market competitiveness. Especially in the FMCG industry, through co-branding partnerships, brands are able to attract more consumer attention and increase the motivation to purchase their products. Miao Qingxian believed that the current consumer market was polarized, and we felt that consumer demand was weak, corporate profits were generally declining, and the wave of store closures was unprecedentedly fierce. In order to gain market share, all companies were focusing on one "cost-effectiveness", there was no "cheapest", only "cheaper", in one word[1]. Xiao Youwei believed that the new track of FMCG, the Eight Immortals Crossing the Sea, was gaining momentum. Nowadays, the new track has become a hot topic among buzzwords. The new track should be different from the past track, with new gameplay and competition system running through it[2]. Liu Lei believed that in the new era of consumer products, the speed of updating and iterating was accelerating, and the development of new products that can satisfy the needs of consumers and bring income and profit for the enterprise was an important matter that determined whether the enterprise can win in the competition or not [3]. Shahmohammadi S explored the GHG footprint of online shopping for fast moving consumer goods compared to traditional shopping through a stochastic approach [4]. Isohanni J argued that currently, FMCG mainly used paper self-adhesive labels with traditional barcodes. These labels are inexpensive and technically easy to produce and deploy, and more research is needed to bring functional inks into the FMCG operating environment [5]. However, most of the existing research focuses on the brand effect and market performance of brand co-branding, and less on the influencing mechanism specific to individual consumers' purchasing decisions, especially the subtle differences in different cultural contexts.

In addition, although literature has explored the effectiveness of co branding in enhancing brand awareness and consumer perceived value, there is still insufficient research on how it affects consumers' specific purchasing behavior and decision-making processes. Riyami M A's research found that the importance of consumer promotions had increased in the marketing mix of global FMCG categories. The results indicated that there was a moderate correlation between consumer expectations and promotions in the province of Dakhelia [6]. Karthik T T found that the FMCG

market would grow by 5% -6% in 2020. The metropolitan market of FMCG had grown by 8%. According to the assessment, the transaction volume in India's online basic food market is expected to exceed approximately 22.5 billion rupees in 2020, a 76% increase from the same period last year[7]. The purpose of Vijaya R V's research was to identify consumers' use of online shopping in FMCG. The research adopted a segmented creation method to achieve the established goals. The results showed that the exploratory factor analysis produced four factors. They were identified as brand name, product details, price awareness, and general awareness. In addition, demographic variables were also causative factors in sustaining consumer consumption of FMCG [8]. Chakraborty D S conducted a study on customer satisfaction with selected FMCG brands [9]. Adama H E explored the comparative analysis and implementation of transformative business and supply chain models in the FMCG industry in Africa and the United States [10]. Especially in the Japanese and Korean FMCG markets, empirical studies on how consumers evaluate co-branding and make purchasing decisions are still scarce, which limits the ability to comprehensively evaluate the effectiveness of the strategy.

3. Method

3.1 Research Design and Data Collection

This study adopts a quantitative research method to collect data by designing a questionnaire survey, specifically including consumer feedback on awareness, perceived value, and purchase intention of co-branded FMCG. First, it was determined that the survey respondents were consumers in the FMCG market in Japan and Korea, and the survey sample was randomly selected to ensure the representativeness and scientificity of the data. The questionnaire design is based on the theory of consumer behavior, and the data is collected through structured questions, aiming to gain a deeper understanding of consumer attitudes and behaviors towards co-branded products.

The brand awareness influence formula is as follows:

$$C = \alpha \cdot (B_1 + B_2) + \beta \cdot P \quad (1)$$

C represents the overall consumer awareness of the co-brand, B_1 and B_2 represent the independent influence of the two brands respectively, while P is the increased awareness through promotional activities. Parameters α and β are moderators to measure the weight of the respective influences.

3.2 Methods of Data Analysis

The collected data will be analyzed through statistical software. Descriptive statistical analysis was used to summarize the basic characteristics of the data set such as mean, standard deviation, etc. In addition, in order to explore the relationship between different variables, factor analysis and regression analysis will be employed, which will help to identify the main factors influencing consumers' purchasing decisions and assess the strength of each factor's influence. In particular, it will be explored how the co-branding strategy creates brand associations in the minds of consumers and further influences their purchasing behavior.

The consumer purchase intention model is as follows:

$$P = \frac{1}{1 + e^{-(k \cdot C + x)}} \quad (2)$$

Here, P denotes the consumer's willingness to buy, k is the coefficient that affects the strength of willingness to buy, and x denotes other factors that affect the buying decision such as price, availability, etc.

3.3 Case Study Analysis

In order to gain a deeper understanding of the practical application of the theoretical analysis, this study will also select specific co-branding cases of Japanese and Korean FMCG for detailed study to analyze the marketing strategies, consumer feedback, and market performance in these successful cases, so as to verify the accuracy and applicability of the aforementioned statistical analysis. Through case study, we can intuitively show the implementation effect and consumer response of co-branded strategy in the actual market, and provide empirical support for theoretical analysis.

The market share calculation formula is as follows:

$$M = \frac{S_{cb}}{S_{cb} + S_r} \quad (3)$$

Where M represents the market share of the co-branded product, S_{cb} is the volume of sales of the co-branded product and S_r is the volume of sales of other competing products in the market. This formula helps us to evaluate the performance of the co-branded product in the market relative to its competitors.

3.4 Discussion and Strategy Recommendations

Finally, based on the results of data analysis and case study, this study will discuss the actual impact of co-brand strategy on consumers' purchase decision, and put forward targeted market strategy suggestions. These suggestions will help enterprises to make more effective use of joint brand strategy, design more attractive products and marketing activities for specific markets and consumer groups, and ultimately enhance the market performance of products and brand competitiveness. In addition, the discussion will also point out the limitations in the research and the possible direction of future research, in order to provide reference for subsequent academic research and practical application.

The consumer loyalty of FMCG is calculated [11-12] as follows:

$$L = \gamma \cdot f(R, T) \quad (4)$$

In this formula, L represents consumer loyalty, R is the repeat purchase rate, T is the overall consumer satisfaction with the brand, function f is a computational model that combines these two variables, while γ is an adjustment factor that reflects the relative importance of repeat purchase and satisfaction to loyalty.

4. Results and Discussion

4.1 Experimental Setup

(1) Experimental design and environment setup

The experimental design was based on the selection of successful co-branding cases of Japanese and Korean FMCG within the last three years. Selected cases include co-branded food and beverage brands, such as co-branded snacks limited to specific festivals and culturally-themed beverages. The experimental environment is set up to involve both online and offline consumption scenarios, simulating the actual purchasing environment, in order to collect data that more accurately reflects consumer purchasing behavior.

(2) Assessment indicators and their calculation

Brand awareness enhancement: it is measured by comparing the brand search volume and social media mention frequency before and after the co-branding campaign.

Consumer purchase intention change: it compares the difference in consumers' purchase intention before and after seeing the co-branded product through a questionnaire.

Consumer satisfaction: it collects consumers' satisfaction evaluation of the co-branded products through post-purchase surveys.

Change in market share: it analyzes the change in market share before and after the launch of the co-branded product through sales data.

Consumer loyalty: it evaluates consumers' repeat purchase behavior and brand recommendation rate.

4.2 Analysis of Results

(1) Market response of holiday-specific co-branded products

Purpose: To assess the impact of specific holiday co-branded products on consumer purchasing behavior.

The market response of holiday limited co-branded products is shown in Figure 1.

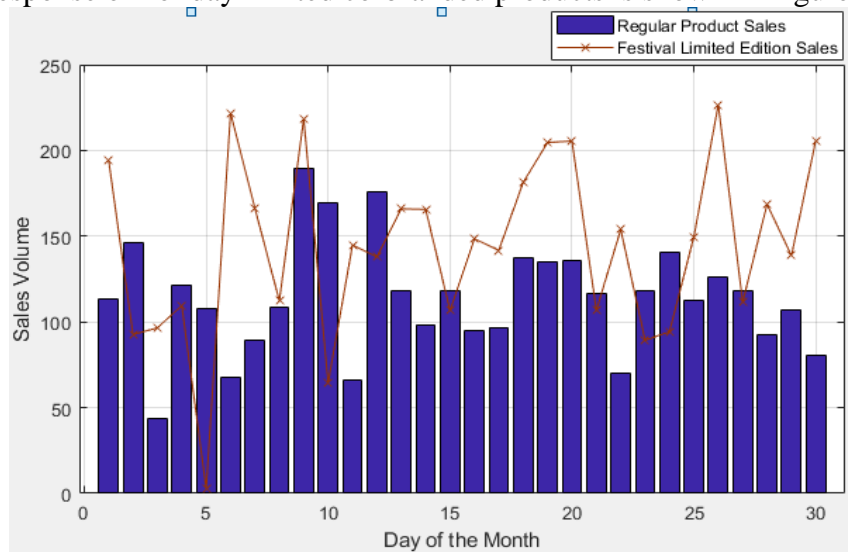


Figure 1: Market Response to Holiday-Limited Co-branded Products

From this figure, we can observe the sales trend of holiday limited co-branded products compared to regular products over the course of a month. The horizontal axis represents the date in the month and the vertical axis represents the sales volume.

Figure 1 shows that sales of holiday-only co-branded products are generally higher than sales of regular products, reflecting higher market interest in holiday-only products and increased consumer purchasing behavior during the holiday season. Peak sales of holiday-only products indicate a significant uptick in sales on certain specific days, possibly due to the impact of promotional activities or the psychology of consumer expectations.

In addition, fluctuations in sales data suggest that consumers' purchasing decisions may be influenced by a variety of factors, such as the effectiveness of marketing, product availability, and socio-cultural factors associated with the holiday season. For example, we see two sales highs at the beginning and middle of the month, which may be related to specific holiday promotions or advertising campaigns.

Overall, this data simulation provides us with a window into the dynamics of the holiday market, confirming that holiday limited joint products can effectively attract consumers and increase sales. This has important reference value for enterprises when formulating holiday marketing strategies.

(2) Consumer acceptance of cross-cultural co-branded products

Purpose: To analyze the consumer acceptance of co-branded products in different cultures.

Consumer acceptance of cross-cultural co-branded products is shown in Figure 2.

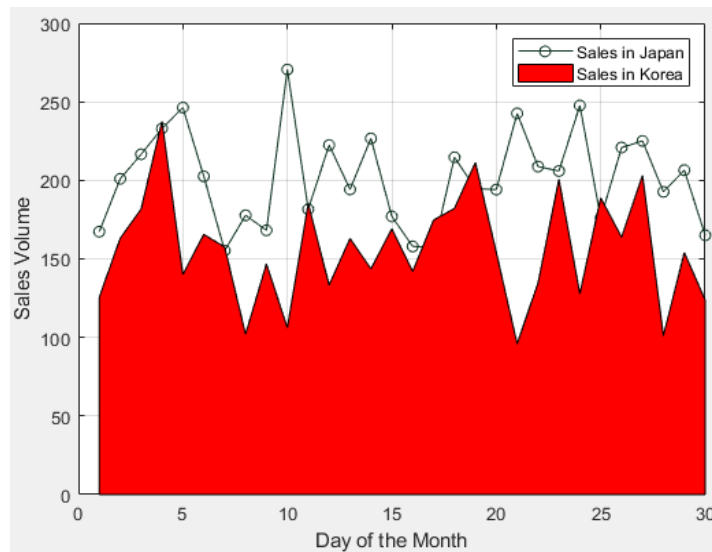


Figure 2: Consumer acceptance of cross-cultural co-branded products

In Figure 2, we can clearly see the consumer acceptance of cross-cultural co-branded products in both the Japanese and Korean markets. The blue line in the graph represents sales in the Japanese market, while the area indicates sales in the Korean market. The horizontal axis is the date in the month and the vertical axis is the sales volume.

Through analysis, it can be observed that the Japanese market is generally more receptive to the co-branded product than Korean. Throughout the month's sales figures, the sales volume in Japan remained consistently high, which may reflect that Japanese consumers are more open to new products or brand co-branding, or that the co-brand's promotion strategy is more effective in the Japanese market.

Although the Korean market also showed interest in the joint product, the sales volume was relatively low. This difference may be related to cultural preference, differences in marketing or brand awareness. In addition, the sales fluctuation patterns of the two markets are similar, which indicates that market activities and consumers' buying behavior may be affected by similar seasonality and promotion activities.

Generally speaking, this diagram provides intuitive information about how cross-cultural co-branded products are accepted in different markets, and provides valuable data support for future market strategy and product positioning. Through in-depth analysis of these data, enterprises can better adjust their marketing strategies in various markets to meet the needs and preferences of consumers in different cultural backgrounds.

(3) Uniqueness evaluation of limited edition joint products

Objective: To test the influence of limited edition co-branded products on brand awareness and consumers' purchase intention.

The uniqueness evaluation results of the limited edition co-branded products are shown in Figure 3.

From Figure 3, we can clearly observe the comparison between ordinary products and limited-edition co-branded products in terms of consumer interest. The horizontal axis of the chart represents every day of the month, while the vertical axis represents consumers' interest level, which is measured by online search and social media mentions.

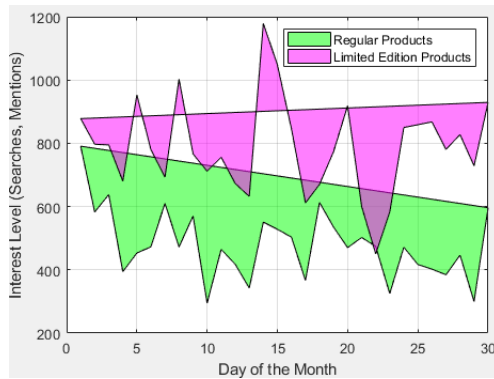


Figure 3: Uniqueness assessment results of limited edition co-branded products

The green area in the picture represents the consumer interest of ordinary products, while the purple area represents the interest of limited-edition joint-name products. It can be seen that the interest area of limited edition products is generally higher than that of ordinary products, which shows that the uniqueness and scarcity of limited edition can really attract more consumers' attention. Especially on some days, the peak value of purple area far exceeds that of green area, which may be due to the influence of specific marketing activities or product release events.

In addition, the filling effect of the area map also helps us to visually see the overall difference in interest levels between the two. With the passage of time, although both of them show volatility, the limited edition products generally maintain a high level of interest, which reflects the continuous high demand for limited edition products in the market.

Through this visualization, we can better understand how limited-edition co-branded products attract consumers through their uniqueness and how this strategy can effectively improve the market performance of products. This provides valuable market insight and strategic guidance for brands when considering launching new co-branded or limited-edition products.

(4) Market comparison between joint-name drinks and traditional drinks.

Objective: To compare the market performance of co-branded drinks and non-branded traditional drinks.

The market comparison between co-branded drinks and traditional drinks is shown in Figure 4.

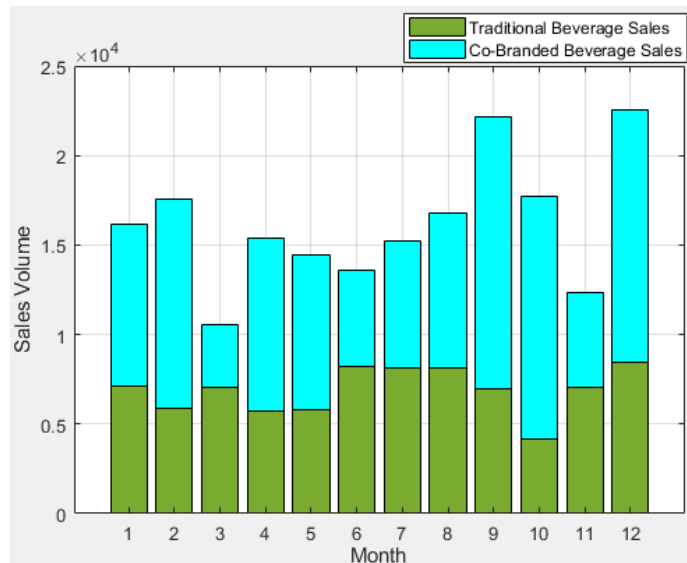


Figure 4: Market comparison of co-branded and traditional beverages

From Figure 4, we can intuitively see the monthly sales performance of co-branded drinks and

traditional drinks. The brown part in the chart represents the sales volume of traditional drinks, while the cyan part represents the sales volume of co-branded drinks.

By observing every month of the year, it can be found that the sales of co-branded drinks have significantly increased the sales of traditional drinks in any month. This shows that co-branded drinks are very attractive in the market and can effectively expand the overall sales scale. Especially in some peak sales periods, such as holidays or special promotion months, the sales growth of co-branded beverages is more prominent.

In addition, this sales model shows that co-branded drinks not only attract new consumer groups, but also may enhance the interest of existing consumers in brand product portfolio. This strategy effectively utilizes the market influence of two or more brands, and increases the market coverage of products and consumers' purchasing motivation through cooperation.

In a word, the market comparison chart of co-branded drinks and traditional drinks provides us with an important perspective on the diversification of product strategies. This kind of data analysis will not only help brands understand the market performance of their products, but also guide future product development and market strategy adjustment to achieve better market performance and brand growth.

(5) The relationship between consumer loyalty and joint strategy

This test observed a group of survey data involving 1000 consumers, which recorded in detail the loyalty performance of consumers to co-branded products and conventional products. Table 1 contains consumers' age, gender, repeated purchases of joint-name products and conventional products, and corresponding loyalty scores. Selecting the data of the top ten consumers, the relationship data between consumer loyalty and joint-name strategy is shown in Table 1.

By analyzing the data, we note that co-branded products are generally higher than regular products in terms of repeat purchases and loyalty scores. For example, looking at the data for the top ten consumers, the majority of consumers rated co-branded products with loyalty scores above 80, while half of the scores for conventional products were below 80. This difference suggests that the co-branding strategy may have played a positive role in increasing product appeal and enhancing consumer satisfaction.

In addition, the data also shows some special cases, for example, consumer No. 5 made 8 repeat purchases of the co-branded product, compared to 0 purchases of the regular product, with loyalty scores of 89.54 and 86.99, respectively. Such extreme cases may indicate that when the co-branded product particularly matches the consumer's preference, the loyalty and frequency of purchases will be significantly increased.

Table 1: Data on the relationship between consumer loyalty and co-branding strategy

Consumer number	Age	Gender	Repeat Purchases Co-Branded	Repeat Purchases Regular	Loyalty Score Co-Branded	Loyalty Score Regular
1	50	Female	4	1	88.44	81.27
2	40	Female	3	0	93.71	75.3
3	30	Male	3	1	87.5	73.92
4	30	Female	3	1	83.2	87.82
5	50	Male	8	0	89.54	86.99
6	40	Male	4	0	71.33	81.47
7	30	Male	1	2	98.52	63.92
8	40	Female	3	2	80.05	88.8
9	20	Male	7	1	99.99	65.62
10	20	Male	3	0	91.23	68.78

Summarizing these data, we can conclude that the co-branded product strategy not only enhances the market competitiveness of the product, but also effectively boosts consumer loyalty. For brands, these insights help to better utilize the potential of co-branding collaborations in future marketing strategies to attract and maintain consumer interest.

5. Conclusion

This paper examines the impact of this marketing strategy on consumers' purchasing decisions through a study of co-branding strategies in the Japanese and Korean FMCG markets. By analyzing several cases of co-branding in food and beverage FMCG in Japan and Korea, this study evaluates the role of co-branding strategies on consumers' behavioral attitudes, purchase intentions, and brand loyalty. It was found that the co-branding strategy significantly increased consumers' product awareness and purchase intention. Through quantitative data analysis and consumer surveys, we have confirmed that co-branded products usually attract more consumer attention and increase their purchase frequency. This effect is especially pronounced in festival-limited and cultural crossover co-branded products. In addition, consumers are generally more loyal to co-branded FMCG than to regular products, suggesting that through well-designed co-branding collaborations, brands are able to effectively enhance consumers' brand loyalty.

The main limitations of this study are sample selection and geographical restrictions. Despite our efforts to select representative cases, the sample is mainly limited to urban consumers in Japan and Korea and may not fully reflect the behavioral patterns of consumers in other regions or countries. In addition, due to the rapid changes in the FMCG market, the data in this study may not capture the latest market dynamics. Given the success of the co-branding strategy in the current market, future research could be extended to more countries and regions to further explore the generalized effects of the co-branding strategy with a global perspective. In addition, with the rise of digital marketing and social media, exploring the performance of co-branding on digital platforms and its impact on consumer behavior would be a valuable research direction. Finally, it is recommended that a more diversified approach, such as combining quantitative and qualitative research, be used in future studies to gain insights into consumers' emotional responses to co-branding and psychological mechanisms. Through the above research, we expect to provide strategic guidance to brand managers to help them utilize co-branding strategies more effectively in order to increase market competitiveness and consumer satisfaction.

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