

Consumer Preferences for New Product Upgrading Methods: Based on Regulatory Focus Theory

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ABSTRACT

With the development of technology, the speed of product upgrades and replacements is getting faster and faster. Currently, there is not much research and discussion on which product upgrade methods are more favored by consumers. This article is based on the theory of regulatory focus and studies the attitudes of consumers with different regulatory focus types towards various product upgrade methods. Through a series of experimental studies, it has been found that prevention focused consumers prefer non-alignment upgrading and utilitarian benefit upgrade, while promotion focused consumers prefer alignment upgrading and hedonic benefit upgrades.

KEYWORDS

Regulatory focus; Product upgrading; New product marketing; New product

1. INTRODUCTION

Innovation serves as the most powerful competitive tool. Enterprises can expand market share and profits by successfully introducing new products, yet new product development faces significant risks. Approximately 40% of consumer and industrial product innovations (Hultink, 2000) [1] and 60% of high-tech products fail (Goldenberg, 2001) [2]. To reduce the failure rate of new products, enterprises need to pay closer attention to consumers' new product adoption behavior. Existing research on new product adoption mainly focuses on entirely new products, exploring the impact of new product quality evaluations (Rahmayani, 2024) [3], usage barriers of innovative products (Kuisma, 2007) [4], consumer innovativeness (Cai, 2020) [5], perceived risk (Savas, 2021) [6]. But with the shortening of the technology research and development cycle, the speed of launching new products for enterprises is getting faster and faster. To maintain market leadership, enterprises must continuously improve products, and many new products manifest as continuous upgrades. For example, after the success of the iPhone smartphone, Apple has launched an upgraded product almost every year. When upgrading products, enterprises can either enhance existing functions or add new features—that is, pursue utilitarian benefit upgrade or hedonic benefit upgrades. Which upgrading method is more favored by consumers? The lack of exploration in existing research has become the focus of this study.

People often exhibit a tendency towards pleasure and avoidance of loss in their behavioral motivations, which can lead to differences in their goal orientation and behavior due to different motivations. Higgins (1997) [7] proposed the regulatory focus theory, which states that there are two motivational tendencies—promotion focus and prevention focus—when people move from the current state to pursuing goals. Studies have found that regulatory focus types influence consumers' impulsive buying behavior (Krishna, 2021) [8], satisfaction evaluation (Trudel, 2012) [9], brand evaluation (Chatterjee, 2010) [10]. This article explores the relationship between consumer regulatory focus types and product upgrade methods based on regulatory focus theory, which is of great significance for guiding enterprise product innovation management.

Overall, this study will investigate consumers' preferences for different forms of product upgrades, making up for the deficiency in existing research on the adoption behavior of upgraded products. The paper first reviews relevant theories such as the regulatory focus theory and proposes theoretical hypotheses, then verifies the hypotheses through three experiments. Study 1 explores the relationship between alignment/nonalignment upgrading and regulatory focus; Study 2 discusses the mechanism of action; Study 3 investigates the relationship between functional or hedonic upgrades of new products and consumers' regulatory focus types. Finally, the paper discusses the research findings.

2. REVIEW OF RELATED THEORIES AND LITERATURE

2.1. Regulatory Focus Theory

Past consumer behavior research has primarily focused on differences in behavioral outcomes, such as the quantity of information acquired or purchase decisions, while lacking exploration of the motivations behind these behaviors. The regulatory focus theory remedies this research gap. Based on different behavioral motivation tendencies, the theory classifies individuals into two types: promotion focus and prevention focus, noting that individuals with different regulatory focus types exhibit differences in psychological characteristics and behavioral manifestations (Higgins, 1997) [7]. In terms of psychological characteristics, promotion-focused individuals are motivated by achieving achievements and aspirations, taking hopes and desires as behavioral goals. They tend to strive to realize what they want, focus on personal needs and self-fulfillment, are sensitive to positive outcomes, and emphasize whether behavioral results can yield gains (Förster & Higgins, 1998) [11]. In contrast, prevention-focused individuals are motivated by fulfilling obligations and responsibilities, seeking to avoid punishment or humiliation. Thus, they tend to take obligations and responsibilities as behavioral goals, pay more attention to safety needs and responsibility fulfillment, are more sensitive to negative outcomes, and emphasize whether behavioral results involve losses (Parsad, 2021) [12]. In terms of behavioral manifestations, promotion-focused individuals adopt an eager strategy—they act with enthusiasm, aim to complete tasks quickly, pursue achievements, and expect positive outcomes. Prevention-focused individuals employ a vigilant strategy—they act cautiously and meticulously, at a relatively slower pace, to avoid mistakes and negative results. Notably, the difference between promotion-focused and prevention-focused individuals does not lie in pursuing different outcomes, but in their motivations and behavioral approaches when pursuing the same outcome. For example, when purchasing luxury products, promotion-focused consumers may be motivated by seeking praise from peers, while prevention-focused consumers may aim to avoid being looked down upon or ridiculed by others. Regulatory focus types can manifest as long-term personality traits or be induced through short-term priming to guide individuals toward promotion or prevention focus tendencies in specific contexts (Chang & Chou, 2008) [13]. Long-term regulatory focus is primarily influenced by an individual's ideals, upbringing needs, and reward conditions, while short-term priming induces regulatory focus types by prompting participants to consider different behavioral outcomes, ideals, or obligations (Pham, 2004) [14].

2.2. Product Upgrading

In the rapidly changing market, innovation is an important means for enterprises to gain competitive advantage. In order to seize market opportunities, enterprises use new concepts and ideas to meet consumer needs, thereby producing new products and services. New products refer to original products, improved products, revised products, and new brands developed by enterprises through their own capabilities (Kotler, 1994). The newness of new products can be reflected in various aspects such as product technology, appearance design, and packaging specifications. Booz (1982) classified new products into six types based on their novelty to the company or market: new-to-the-world products, new product lines, additions to existing product lines, improvements to existing products, repositionings, and cost reductions. Song (1998) [15] categorized new products into two types from

the perspective of technological innovation: genuine new products and improved new products. Genuine new products are those produced using technologies never before applied in the industry, while improved new products involve the modification, refinement, and enhancement of existing products. Product update, a form of product improvement, occurs when enterprises with direct experience in designing or manufacturing a product develop new products by adding or modifying product attributes, reducing production costs, or other means. Product upgrading does not involve developing entirely new products but rather innovating existing products to create new generations, enhancing their functionality or attractiveness to effectively meet consumer needs (Pae, 2003) [16]. There are differences in the ways in which enterprises upgrade their products, and Okada divides them into two types: alignment upgrading and non-alignment upgrading. Alignment upgrading improves existing product functions, while non-alignment upgrading adds new functions. For example, increasing the memory or hard drive capacity of a laptop is an alignment upgrading, whereas adding a touchscreen function constitutes non-alignment upgrading. Okada (2006) [17] applied mental accounting theory to argue that people tend to place similar products in the same mental account and calculate dissimilar products separately, meaning purchases of non-alignment upgraded products are less affected by mental accounting. In other words, consumers prefer dissimilar products and are more inclined to buy non-alignment upgraded products. However, Kuisma (2007) [4] found that consumers feel unfamiliar with products with new attributes, giving negative evaluations to new products with non-alignment upgrading and demonstrating innovation resistance. For the emergence of such opposing conclusions, we believe that it is necessary to consider the impact of differences in consumer regulatory focus types, that is, customers with different regulatory focus types have different preferences for product upgrading methods. Study 1 will conduct empirical analysis on this.

3. STUDY 1: ALIGNMENT UPGRADING AND REGULATORY FOCUS

3.1. Theoretical Hypotheses

Product upgrading refers to the improvement of existing products. Alignment upgrades feature low innovation, with high similarity between old and new products. Since consumers have accumulated product knowledge and experience from using the original product, alignment upgrading products are easier for consumers to understand and evaluate. Nonalignment upgrading, by contrast, adds new functions with high innovation, reducing similarity between new and original products. The degree of similarity between two things leads to evaluation differences among consumers with different regulatory focus types. Yeo (2006) [18] found in brand extension research that promotion-focused consumers prefer brand extensions between dissimilar products, while prevention-focused consumers favor extensions between similar products. When products undergo nonalignment upgrading, new functions increase product differentiation, creating more novel experiences and value for customers. Promotion-focused consumers, driven by aspirations and success pursuit, are more inclined to seek gains and thus prefer non-alignment upgrading products with high differentiation. From the perspective of product innovation adoption, after evaluating various attributes of innovative products, consumers judge their innovative attractiveness, which positively influences attitudes and purchase intention. Innovative things often arouse better expectations, and promotion-focused consumers, who pursue ideals and are eager for benefits, give the innovativeness of upgraded products higher evaluations. In other words, promotion-focused consumers evaluate the innovativeness of nonalignment upgrading more positively than prevention-focused consumers, while the latter prefer nonalignment upgrading, thereby affecting their attitudes toward upgraded products. Therefore, nonalignment upgrading products are more attractive to promotion-focused consumers pursuing benefits, leading to the following hypotheses:

H1: When products undergo nonalignment upgrading, promotion-focused consumers exhibit higher preference than prevention-focused consumers.

H2: Promotion-focused consumers prefer nonalignment upgrading over alignment upgrading.

Perceived risk refers to consumers' cognitive state of uncertainty about outcomes during purchase decisions. Jacoby & Kaplan (1972) classified perceived risk into functional, financial, physical, psychological, and social risks. Higher perceived risk correlates with lower purchase intention. For new products, high prices, complex technologies, unpredictable usage outcomes, and disruption of established consumption habits all impose significant perceived risks, reducing innovation adoption intention. Consumers with different regulatory focuses exhibit varying perceived risks toward upgraded products: prevention-focused consumers, motivated by responsibility, prioritize loss avoidance, are risk-sensitive, and tend to adopt risk-averse behaviors; promotion-focused consumers, conversely, focus on gains, are less risk-sensitive, and demonstrate lower perceived risk during shopping. Alignment upgrading maintains high similarity between new and original products, making consumers more familiar with upgraded products and reducing perceived risk (Okada, 2006) [17]. Nonalignment upgrading, however, introduces significant product differences, making consumers feel unfamiliar. The unfamiliarity with new functions under nonalignment upgrading complicates product evaluation, increases the risk of purchase failure, and aligns with prevention-focused consumers' tendency to avoid failure and focus on loss (Higgins, 2019) [19]. These consumers demonstrate strong risk awareness in decision-making, hence a lower preference for non-alignment upgrading products. They perceive alignment upgrading products as more reliable and conducive to successful decisions.

Additionally, alignment upgrading primarily strengthens or supplement existing functions, with fewer new features. For prevention-focused consumers, such upgrades evidently address the original product's shortcomings, creating a sense of safety and superiority. Thus, they are more inclined to adopt alignment upgrading products, leading to the following hypotheses:

H3: When the product is alignment upgraded, prevention focused consumers have a higher preference for upgrading products than promotion focused consumers.

H4: Prevention-focused consumers prefer alignment upgrading over nonalignment upgrading.

3.2. Experimental Methods

This study uses experiments to verify Hypotheses H1 and H2. Study 1 is designed as a 2 (product upgrading method: alignment upgrading, nonalignment upgrading) \times 2 (regulatory focus type: promotion focus, prevention focus) factorial experiment. The experiment introduces a new-generation upgraded laptop from a certain brand, asking participants to evaluate their attitudes toward the upgraded product. Laptops are chosen because experimental subjects are generally familiar with them and can make purchase decisions. The experimental factors include product upgrading methods and regulatory focus types. The manipulation of alignment upgrading involves enhancing existing laptop functions, with product descriptions focusing on improvements in memory, battery life, graphics cards, etc. Nonalignment upgrading is exemplified by ultrabooks, introducing new processor technologies, touchscreens, fast boot from hibernation, hibernation connectivity, and other features.

The manipulation of consumers' regulatory focus types adopts a scenario priming method, referencing the design of Pham and Avnet (2004). Promotion focus is primed by asking participants to reflect on their past and current ideals, while prevention focus is primed by asking them to consider past and current obligations. A total of 120 students (73 males, 47 females; mean age = 22.6 years) are randomly assigned to four groups. The experimental procedure first requires participants to think about their ideals (or obligations), then read the experimental materials and complete a questionnaire.

3.3. Experimental Results

Product upgrading method manipulation check: Two items measure whether the upgrade "enhances existing functions" or "adds new functions not present in the original product" (1 = strongly disagree,

5 = strongly agree). Results show that alignment upgrading participants ($M = 3.92$) rated function enhancement significantly higher than nonalignment upgrading participants ($M = 1.62$, $t = 9.64$, $p < 0.001$). For new functions, alignment upgrading participants ($M = 2.69$) rated significantly lower than nonalignment upgrading participants ($M = 3.34$, $t = 5.24$, $p < 0.01$), confirming successful manipulation of upgrading methods.

Referencing Pham (2004), three item pairs measure focus: "do what I want to do VS do what is right," "go where I yearn for VS fulfill commitments," and "global travel VS repay debt" (1 = ideal, 7 = obligation). Prevention focus participants prioritized obligations ($M = 4.76$), while promotion focus participants prioritized ideals ($M = 3.08$, $t = 9.37$, $p < 0.001$), confirming successful manipulation of regulatory focus.

Consumer preference for upgraded products is measured using a 7-point Likert scale with four items (bad/good, dislike/like, unideal/ideal, useless/useful), adapted from Peracchio and Tybout (1996) [20] (Cronbach's $\alpha = 0.88$). A two-way ANOVA reveals a significant interaction effect between product upgrading method and regulatory focus on attitudes toward upgraded products ($F(1, 116) = 15.43$, $p < 0.001$). Simple effects analysis shows: For prevention-focused consumers, attitudes toward alignment upgrading products ($M = 4.86$) were significantly higher than those toward non-alignment upgrading products ($M = 4.13$, $F(1, 58) = 8.27$, $p < 0.01$), supporting H1. For promotion-focused consumers, attitudes toward those nonalignment upgrading products ($M = 5.24$) were significantly higher than toward alignment upgrading products ($M = 4.56$, $F(1, 58) = 7.02$, $p < 0.05$), supporting H2.

3.4. Discussion

Study 1 confirms that regulatory focus types influence consumers' evaluation of product upgrading methods: prevention-focused consumers prefer alignment upgrading, while promotion-focused consumers prefer nonalignment upgrading. However, what is the mechanism behind this influence? Study 2 will explore this question.

4. STUDY 2: THE MECHANISM OF REGULATORY FOCUS ON EVALUATIONS OF UPGRADED PRODUCTS

4.1. Exploration of Mechanisms

Study 2 further investigates the mechanism through which regulatory focus influences evaluations of different upgraded products, analyzing the impact of mediating variables. We propose two potential competitive mechanisms: perceived newness and perceived risk. Perceived newness refers to consumers' perception of a new product's innovativeness (Rogers, 1995), a critical factor affecting consumer adoption of innovations. Thus, we hypothesize:

H3: Perceived newness mediates the effect of regulatory focus on evaluations of upgraded products.

4.2. Research Methods

Study 2 replicates Study 1 with two key differences: first, perceived risk and perceived newness are selected as mediating variables; second, to enhance reliability, long-term regulatory focus types are used for manipulation.

Perceived newness: Measured across three dimensions—uniqueness, product novelty, and product differentiation—referencing Venkatraman (1990) [22] study.

Perceived risk: Measured across five dimensions—financial, functional, psychological, etc.—based on Jacoby (1972) study.

Long-term regulatory focus: Assessed using Higgins' (2001) [23] scale, including 6 promotion-focus items and 5 prevention-focus items. Participants are categorized as promotion-focused if their promotion scale score exceeds the prevention score, and vice versa.

Other variables are measured as in Study 1, all using 7-point Likert scales (1 = strongly disagree, 7 = strongly agree). The sample consists of 100 students (42 females, 58 males; mean age = 27 years), randomly assigned to experimental groups by upgrading method.

4.3. Results and Analysis

All scales show Cronbach's $\alpha > 0.7$, indicating high reliability. Sample composition 69 promotion-focused and 31 prevention-focused individuals. Evaluation results are shown in Table 1.

Table 1. Evaluation Results of Each Experimental Group

	Promotion Focus (n=69)	Prevention Focus (n=31)	Total
alignment upgrading (n=50)	4.82 (0.93)	5.31 (1.02)	4.98
Nonalignment upgrading (n=50)	5.45 (0.86)	4.46 (0.93)	5.03
Total	5.11	4.90	

A two-way ANOVA reveals a significant interaction between upgrading method and regulatory focus on product evaluations ($F(1, 96) = 13.86, p < 0.001$). Specifically, for alignment upgrading, prevention-focused consumers gave higher evaluations ($M = 5.31$) than promotion-focused consumers ($M = 4.82, F(1, 48) = 4.88, p < 0.05$). For nonalignment upgrading, promotion-focused consumers gave higher evaluations ($M = 5.45$) than prevention-focused consumers ($M = 4.46, F(1, 48) = 4.76, p < 0.05$), thus reconfirming H1 and H2."

Mediation analysis using hierarchical regression method: Step 1: Independent variable \rightarrow dependent variable. Step 2: Independent variable \rightarrow mediating variable. Step 3: Independent variable + mediating variable \rightarrow dependent variable.

Table 2. Mediation Test for Perceived Risk

	Mod 1 (New Product Evaluation)	Mod 2 (Perceived Risk)	Mod 3 (New Product Evaluation)
Regulatory Focus	0.28* (2.14)	0.31** (4.43)	0.24* (1.51)
Perceived Risk	–	–	-0.27 (-2.62)
R ² , F	R ² =0.037, F=4.57*	R ² =0.13, F=16.35***	R ² =0.056, F=3.11*

Perceived risk (Table 2): Sobel test shows significant mediation ($Z=2.46, p < 0.05$), supporting H3. Perceived newness (Table 3): Mediation effect is non-significant, rejecting H4.

Table 3. Mediation Test for Perceived Newness

	Mod 1 (New Product Evaluation)	Mod 2 (Perceived Newness)	Mod 3 (New Product Evaluation)
Regulatory Focus	0.19* (2.38)	0.05 (0.25)	0.20* (2.15)
Perceived Newness	–	–	0.011 (0.13)
R ² , F	R ² =0.22, F=21.37***	R ² =0.02, F=0.65	R ² =0.04, F=2.3

4.4. Discussion

Consumers' preference differences for upgrading methods are driven by perceived risk biases across regulatory focus types: prevention-focused consumers exhibit higher perceived risk toward nonalignment upgrading, leading to lower evaluations. Perceived newness is not a primary influence,

as promotion- and prevention-focused consumers show minimal differences in evaluating product newness.

5. STUDY 3: UPGRADING BENEFITS AND REGULATORY FOCUS

5.1. Theoretical Hypotheses

The classification of product upgrading methods into alignment and nonalignment is technology-based, but enterprise product innovation strategies should also be customer-oriented beyond technology, as the purpose of innovation is to provide better benefits for consumers. Product benefits can be divided into utilitarian benefits and hedonic benefits (Chitturi, 2008) [24]. Study 3 explores the preferences of different regulatory focus consumers for utilitarian and hedonic benefit upgrades during product upgrading.

Utilitarian benefits refer to the functional, instrumental, or practical advantages of consuming a product, while hedonic benefits involve aesthetic, experiential, and enjoyable aspects (Akel, 2021) [25]. For example, a car's fuel efficiency and safety are utilitarian benefits, whereas sunroofs and luxury interiors are hedonic benefits. Based on the benefits that upgraded products bring to consumers, we categorize product upgrading methods into utilitarian benefit and hedonic benefit types of upgrades. Utilitarian benefit upgrades enhance a product's practical functions, such as adding an anti-theft feature to a mobile phone. Hedonic benefit upgrades improve a product's hedonic attributes, such as changing the appearance and color of a mobile phone to enhance its taste.

Generally, utilitarian product benefits ensure the product functions normally and meet consumers' basic needs, which are considered essential attributes in product evaluation (Klein, 2016) [26]. When a new product is launched, it often has flaws or functional defects, which manufacturers improve in subsequent upgrades. Thus, utilitarian benefit upgrades can enhance product safety, ensure smooth operation, and prevent malfunctions. Prevention-focused consumers, inclined to pursue safety and avoid negative outcomes, should value utilitarian benefit upgrades more in product evaluation.

Hedonic functions, however, enhance a product's luxury and provide higher sensory enjoyment. Promotion-focused consumers, motivated by pursuing expectations and pleasure, prioritize hedonic product functions (Caracciolo, 2020) [27]. Hedonic function upgrades bring greater psychological pleasure to promotion-focused consumers, who thus give higher evaluations. Hassenzahla (2008) [28] found that utilitarian benefits trigger prevention-focused emotions, while hedonic benefits more strongly arouse promotion-focused emotions. Considering these findings, the following hypotheses are proposed:"

H5: Promotion-focused consumers are more inclined to adopt products with hedonic benefit upgrades.

H6: Prevention-focused consumers are more inclined to adopt products with utilitarian benefit upgrade

5.2. Research Methods

Study 3 employs a 2 (upgrading method: utilitarian benefit upgrade, hedonic benefit upgrade) \times 2 (regulatory focus: promotion focus, prevention focus) experimental design. Participants are informed that a certain brand of smartphone has recently undergone an upgrade, and they are presented with descriptions and corresponding images of the original product's performance and the upgraded product's features, then asked to evaluate the upgraded product. The utilitarian benefit upgrade of the mobile phone involves improving the camera function, increasing the pixel count from 50 million to 80 million pixels, and adding a high-speed continuous shooting function for photography. The processor performance has also been improved, and the display screen resolution has been increased. The introduction of upgrading the hedonic attributes of smartphones does not alter the

original utilitarian benefits but changes the hedonic ones. The display screen of the product has been increased from 6.0 inches to 6.5 inches, and the thickness of the body has been reduced from 10.2 millimeters to 8.6 millimeters. The whole machine has become thinner and more stylish. The manipulation of regulatory focus follows the scenario priming method used in Study 1. Referring to Pham's (2004) study, the regulatory focus scale was used. According to Voss (2003) [29], the benefits of different upgrading methods were measured using the semantic difference method. The measurement items for utilitarian benefit upgrading include 5 items such as "functional/non functional, necessary/unnecessary, and practical/impractical", while the measurement items for hedonic benefit upgrading include 5 items such as "pleasant/unpleasant, exciting/non exciting, and enjoying/not enjoying", 7-point Likert scales are used (1 = strongly disagree, 7 = strongly agree). 100 students (56 females, 44 males; mean age = 30.84 years), all with smartphone usage experience, participated in the experiment. After understanding the experiment's purpose, participants first undergo regulatory focus priming, then view the upgraded product introduction, and finally complete the questionnaire.

5.3. Results Analysis

Summarizing the evaluation of upgrading benefits across groups: Participants in the utilitarian upgrade group rated utilitarian benefit upgrades ($M = 5.73$) significantly higher than hedonic upgrades ($M = 4.65$, $t = 4.22$, $p < 0.05$). Participants in the hedonic upgrade group rated hedonic benefit upgrades ($M = 5.64$) significantly higher than utilitarian upgrades ($M = 3.81$, $t = 6.24$, $p < 0.05$). These results indicate successful manipulation of benefit upgrading methods. A two-way ANOVA reveals a significant interaction effect between product upgrading benefits and regulatory focus on attitudes toward upgraded products ($F(1, 96) = 13.86$, $p < 0.001$). Simple effects analysis shows: For utilitarian benefit upgrades, prevention-focused consumers exhibited significantly more positive attitudes than promotion-focused consumers ($M_{\text{prevention}} = 5.80$ vs. $M_{\text{promotion}} = 5.24$, $F(1, 58) = 5.14$, $p < 0.05$), supporting Hypothesis H5. For hedonic benefit upgrades, promotion-focused consumers showed significantly more positive attitudes than prevention-focused consumers ($M_{\text{promotion}} = 5.72$ vs. $M_{\text{prevention}} = 5.03$, $F(1, 48) = 9.24$, $p < 0.01$), supporting Hypothesis H6.

5.4. Discussion

Consumers with different regulatory focus types have distinct behavioral motivations and pursued benefits, leading to an interaction effect between product benefit upgrades and regulatory focus. The study finds that prevention-focused consumers prefer new products with utilitarian benefit upgrades, while promotion-focused consumers favor those with hedonic benefit upgrades. This conclusion aligns with the theoretical framework, highlighting the critical role of regulatory focus in shaping consumer preferences for product upgrading strategies.

6. GENERAL DISCUSSION

6.1. Theoretical Implications

The theoretical contributions of this study are as follows:

- (1) Existing research primarily examines consumer adoption of entirely new products, while this study investigates upgraded products. It reveals an interaction effect between upgrading methods and consumer regulatory focus types: prevention-focused consumers prefer nonalignment upgrading and utilitarian benefit upgrades, whereas promotion-focused consumers favor alignment upgrading and hedonic benefit upgrades.
- (2) Previous studies highlight the importance of product innovativeness but overlook consumer heterogeneity. This study finds that promotion-focused consumers rate highly innovative

(nonalignment) upgrades more favorably, while prevention-focused consumers prefer low-innovation (alignment) upgrades.

(3) Midgley (1978) [30] first proposed that consumer innovativeness (a personality trait) drives new product adoption, but this applies mainly to entirely new products. For upgraded products, regulatory focus is a key influencer. Unlike consumer innovativeness—rooted in thrill-seeking or novelty-seeking (Roehrich, 2004) [31]—regulatory focus differences stem from motivational orientations. The study shows that perceived risk (not perceived newness) mediates regulatory focus effects, challenging the assumption that promotion-focused consumers are "high innovators" and prevention-focused consumers are "low innovators". Young (2008) [32] also noted that consumer innovativeness cannot predict upgrade decisions, supporting regulatory focus as a stronger predictor.

(4) By classifying upgrades into utilitarian and hedonic benefits, the study finds that utilitarian upgrades primarily influence prevention-focused consumers, while hedonic upgrades appeal more to promotion-focused consumers.

6.2. Managerial Implications

This study offers new decision-making insights for upgraded product marketing:

(1) Balance innovation and risk in upgrading: Nonalignment upgrading offer high innovativeness but also raise perceived risk, potentially triggering innovation resistance. Enterprises should balance these factors.

(2) Segment markets by regulatory focus: Promotion-focused consumers: Deploy nonalignment upgrading or hedonic benefit upgrades (e.g., emphasizing "novel experiences" or "prestige").

Prevention-focused consumers: Adopt alignment upgrading or utilitarian benefit upgrades (e.g., highlighting "reliability" or "practical improvements").

(3) Align promotion strategies with upgrading methods: Nonalignment/hedonic upgrades: Use promotion-focused messaging (e.g., "Upgraded to exude nobility—own it to stand out").

alignment/utilitarian upgrades: Employ prevention-focused messaging (e.g., "Upgraded to eliminate slowdowns—no more frustration").

6.3. Conclusion

This research bridges gaps in upgraded product adoption literature by integrating regulatory focus theory, demonstrating that consumer motivational orientations shape preferences for upgrading methods. The findings provide a theoretical foundation and practical guidance for enterprises to optimize product upgrading strategies and marketing communications.

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